I hereby certify that the following agenda
was posted at least 72 hours prior to the time
of the meeting so noticed below at
24251 Los Alisos Boulevard, Lake Forest, California.

DENNIS P. CAFFERTY, Secretary of the
El Toro Water District and the Board of
Directors thereof

# AGENDA

# EL TORO WATER DISTRICT

## REGULAR MEETING OF THE BOARD OF DIRECTORS AND PUBLIC HEARING

## May 27, 2021

## 7:30 a.m.

This Meeting is being conducted in accordance with Governor Newsom's Executive Order N-29-20 (Paragraph 3) and the conditions specified therein which waive certain provisions of the Brown Act.

In an effort to protect public health and prevent the spread of COVID-19 (Coronavirus), and in accordance with the Governor's Executive Order N-29-20, **there will be no public location for attending in person.**

The Order allows all Board Members to participate telephonically in the Meeting from remote locations. As such, Directors Gaskins, Freshley, Havens, Monin, and Vergara will be participating telephonically.

Members of the public who wish to comment on any item within the jurisdiction of the District or on any item on the agenda, may observe and address the Meeting by joining at this link: https://us02web.zoom.us/j/87396033640. (Meeting ID: 873 9603 3640). Members of the public who wish only to listen to the telephonic meeting may dial in at the following numbers (669) 900-6833 or (346) 248-7799 with the same Meeting ID noted above. Please be advised the Meeting is being recorded.

**CALL MEETING TO ORDER –** President Gaskins

**PLEDGE OF ALLEGIANCE –** Vice President Freshley

**ORAL COMMUNICATIONS/PUBLIC COMMENTS**

Members of the public may address the Board at this time or they may reserve this opportunity with regard to an item on the agenda, until said item is discussed by the Board. Comments on other items will be heard at the time set aside for "COMMENTS REGARDING NON-AGENDA ITEMS." The public may identify themselves when called on and limit their comments to three minutes.

**ITEMS RECEIVED TOO LATE TO BE AGENDIZED**

Determine need and take action to agendize items which arose subsequent to the posting of the Agenda. (ROLL CALL VOTE: Adoption of this recommendation requires a two-thirds vote of the Board members present, or, if less than two-thirds of the Board members are present, a unanimous vote of those members present.)

**PRESENTATION OF AWARDS, RECOGNITIONS AND INTRODUCTIONS**

a. Service Awards

1. Mr. Cafferty will recognize and congratulate Vincent Coppola, Maintenance Worker III, for 5 years of service with the District.

2. Mr. Cafferty will recognize and congratulate Polly Welsch, Executive Assistant/Board Recording Secretary, for 15 years of service with the District.

3. Mr. Cafferty will recognize and congratulate Steve Sanchez, Wastewater Operator III, for 15 years of service with the District.

**1. CONSENT CALENDAR**

(All matters under the Consent Calendar will be approved by one motion unless a Board member or a member of the public requests separate action or discussion on a specific item)

a. Consider approving the minutes of the April 15, 2021 Special Board Budget workshop.

b. Consider approving the minutes of the April 22, 2021 Board meeting.

**Recommended Action**: The Board will be requested to approve the subject minutes.

## APPROVAL OF ITEMS REMOVED FROM TODAY'S CONSENT CALENDAR

The Board will discuss items removed from today's Consent Calendar requiring further discussion.

**Recommended Action**: The Board will be requested to approve the items removed from today's Consent Calendar.

## 2. ADOPTION OF ETWD'S UPDATED 2020 URBAN WATER MANAGEMENT PLAN (Oral Report)

Prior to opening the Public Hearing, Staff and Consultant will review and comment on the District's updated 2020 Urban Water Management Plan which has been prepared in accordance with Section 10642 of the California Water Code (Urban Water Management Planning Act of 1983). Public notice of the Public Hearing was distributed in compliance with applicable legal noticing requirements.

## PUBLIC HEARING

## 3. REGARDING ADOPTION OF ETWD'S UPDATED 2020 URBAN WATER MANAGEMENT PLAN (Reference Material Included)

At this time the Board will conduct a Public Hearing to receive and consider public input prior to adoption of the ETWD updated 2020 Urban Water Management Plan.

## CLOSE PUBLIC HEARING

## REGULAR SESSION - Action Item

## 4. RESOLUTION NO. 21-5-3 ADOPTING THE ETWD UPDATED 2020 URBAN WATER MANAGEMENT PLAN (Reference Material Included)

Following the close of the Public Hearing, the Board will consider adopting the following Resolutions

Resolution No. 21-5-3 which adopts the El Toro Water District's updated 2020 Urban Water Management Plan;

Resolution No. 21-5-4 which adopts the El Toro Water District's revised Water Shortage Contingency Plan; and

Resolution No. 21-5-5 which adopts the El Toro Water District's Addendum to the 2015 Urban Water Management Plan to add Appendix C – Reduced Delta Reliance Reporting.

**RECOMMENDED ACTION:** Staff recommends that the Board of Directors approve the following Resolutions associated with the El Toro Water District Urban Water Management Plan.

RESOLUTION NO. 21-5-3

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING THE DISTRICT'S UPDATED 2020
URBAN WATER MANAGEMENT PLAN

RESOLUTION NO. 21-5-4

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING THE DISTRICT'S
REVISED WATER SHORTAGE CONTINGENCY PLAN

RESOLUTION NO. 21-5-5

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING THE DISTRICT'S
ADDENDUM TO THE 2015
URBAN WATER MANAGEMENT PLAN
TO ADD APPENDIX C –
REDUCED DELTA RELIANCE REPORTING

**5.** **Director Reports for Meetings Attended** (Oral Report)

## GENERAL MANAGER ACTION ITEMS

**6.** **COVID-19 Update** (Reference Material Included)

Staff will provide an update on the status of the Districts response to the COVID-19 pandemic.

**Recommended Action:** Staff recommends that the Board of Directors grant the General Manager discretion to extend the use of Emergency Administrative Leave, as necessary up to 160 hours per employee per month, until the August 26, 2021 meeting of the Board of Directors.

**7.** **Revisions to Employee Handbook** (Reference Material Included)

Staff will review and discuss proposed revisions to the ETWD Employee Handbook for consideration by the Board.

**Recommended Action:** Staff recommends that the Board of Directors approve the updates to the existing ETWD Employee Handbook dated September 2020.

## GENERAL MANAGER INFORMATION ITEMS

**8.** **General Manager's Monthly Report** (Report Included)

Staff will review and comment on the General Manager's Monthly Report.

**9.** **Legislative Reports** (Reference Materials Included)

Staff and General Counsel will review and comment on the Legislative reports.

**10.** **Public Education and Outreach & Water Conservation Reports**
(Reference Material Included)

Staff will review and comment on the Public Education and Outreach & Water Conservation Reports.

**11.** **SOCWA Reports** (Reference Material Included)

a. SOCWA Board Meeting – May 6, 2021
b. SOCWA Engineering Committee Meeting – May 13, 2021
c. SOCWA Board Budget Meeting – May 20, 2021

**12.** **Municipal Water District Of Orange County (MWDOC) Report**
(Reference Material Included)

a. MWDOC Planning/Operations Meeting – May 3, 2021
b. MWDOC/MET Directors Workshop – May 5, 2021
c. MWDOC Administration & Finance Committee – May 12, 2021
d. MWDOC Board Meeting – May 19, 2021

**13.** **Local Agency Formation Commission (LAFCO) Report**

a. Report on the May 12, 2021 meeting

**14.** **South Orange County Watershed Management Area (SOCWMA) Management and/or Executive Committee Report** (Reference Material Included)

a. Report on the May 3, 2021 Management Committee meeting
b. Report on the May 6, 2021 Executive Committee meeting

**15.** **ISDOC Meetings** (Reference Material Included)

a. Report on the April 29, 2021 ISDOC Quarterly meeting.
b. Report on the May 4, 2021 ISDOC Executive Committee meeting.

**16. <u>WACO Meetings</u>** (Reference Material Included)

a. Report on the May 7, 2021 WACO meeting

b. Report on the May 18, 2021 WACO Planning Committee meeting

**17. <u>City Coordination Meetings</u>** (Reference Material Included)

a. Report on the May 26, 2021 Lake Forest Quarterly Utility Coordination Meeting

## COMMITTEE AND GENERAL INFORMATION

**18. <u>Dates to Remember for May/June 2021</u>** (Reference Material Included)

## COMMENTS REGARDING NON-AGENDA ITEMS

## ATTORNEY REPORT

## CLOSED SESSION

At this time the Board will go into Closed Session as follows:

1. At this time the Board will go into Closed Session pursuant to Government Code Section 54956.9 (d) (1) to consult with legal counsel and staff on a matter of pending litigation. [Class Action] *Kessner et al. v. City of Santa Clara, et al. (Santa Clara County Superior Court - Case No. 20 CV 364054*).

## REGULAR SESSION

**REPORT ON CLOSED SESSION** (Legal Counsel)

Mr. Granito will provide an oral report on the Closed Session.

## ADJOURNMENT

***The agenda material for this meeting is available to the public at the District's Administrative Office, which is located at 24251 Los Alisos Blvd., Lake Forest, Ca. 92630. If any additional material related to an open session agenda item is distributed to all or a majority of the board of directors after this agenda is posted, such material will be made available for immediate public inspection at the same location.***

***<u>Request for Disability-Related Modifications or Accommodations</u>***

***If you require any disability-related accommodation, including auxiliary aids or services, in order to participate in this public meeting, please telephone the District's Recording Secretary, Polly Welsch at (949) 837-7050, extension 225 at least forty-eight (48) hours prior to said meeting. If you prefer, your request may be submitted in writing to El Toro Water District, P.O. Box 4000, Laguna Hills, California 92654, Attention: Polly Welsch.***

MINUTES OF THE SPECIAL BOARD BUDGET WORKSHOP MEETING
OF THE
EL TORO WATER DISTRICT

April 15, 2021

President Gaskins called the meeting of the Board of Directors of the EL TORO WATER DISTRICT to order via Zoom at 7:30 o'clock a.m. on April 15, 2021 at the El Toro Water District Administrative Offices, 24251 Los Alisos Boulevard, Lake Forest, California.

Director Monin led the Pledge of Allegiance to the flag.

Directors MIKE GASKINS, KATHRYN FRESHLEY, JOSE VERGARA, MARK MONIN, and KAY HAVENS were present.

Also present were DENNIS P. CAFFERTY, General Manager, JUDY CIMORELL, Human Resources Manager, JASON HAYDEN, CFO, SCOTT HOPKINS, Operations Superintendent, GIL GRANITO, General Counsel, and POLLY WELSCH, Recording Secretary.

ORAL COMMUNICATIONS - PUBLIC COMMENT

President Gaskins stated that at this time members of the public may address the Board or they may reserve this opportunity with regard to an item on the agenda, until said item is discussed by the Board later in the meeting.

There was no public in attendance.

APPROVAL OF MINUTES

The Committee reviewed and approved the minutes of the April 5, 2021 Budget Committee #2 meeting.

President Gaskins asked for a Motion.

Motion: Director Monin made a Motion, seconded by Vice President Freshley and unanimously carried across the Board to approve the April 5, 2021 Budget Committee #2 meeting minutes.

Roll Call Vote:

| | |
|---|---|
| Director Havens | aye |
| Director Vergara | aye |
| Director Monin | aye |
| Vice President Freshley | aye |
| President Gaskins | aye |

ETWD's Draft 2021/22 Budget

Mr. Cafferty stated that he and Mr. Hayden prepared a cover memo which is a detailed summary of the draft Budget package. He further stated that staff is contemplating a rate increase.

Mr. Hayden stated that a major goal of the proposed budget was to balance revenues and expenses for the Maintenance and Operations budgets. He further stated that staff will also need to determine how to handle the OPEB liability which represents future expenses which will be incurred.

Mr. Hayden stated that the overall rate increase will be an average of 4.6% for a single family residence and the HOA's. He further stated that it is comprised of several components which include purchased water cost, an increase in water meter fixed rates, and an increase in sewer meter fixed rates.

Purchased Water Cost Analysis

Mr. Hayden stated that on page 11, Purchased Water Cost Analysis, staff has estimated that the total annual demand would be 7,000 acre feet with anticipated sales of 6,700 acre. He further stated the estimate incorporated approximately 300 acre feet of unbilled water usage.

Mr. Hayden stated that the blue section is the water we would be purchasing from MET, the green section is the Baker Water Treatment Plant Costs, and the purple section at the bottom of the page is an analysis of total purchased water costs. He further stated that at the bottom of the page is the Fiscal Year rate per CCF sold and this section shows what the rate increase needs to be, which amounts to a 7 cent increase across all 4 Tiers.

Mr. Hayden stated that the Baker Debt Service costs have been removed from the analysis for the 2021/22 fiscal year. He further stated that the Baker Debt Service costs will be included in the Capital Fixed Charges.

Director Vergara asked of the 7,000 acre feet of purchased water from MET, is this total demand or just potable water. Mr. Cafferty replied that it is just potable water, as we are also budgeting to sell 1,485 acre feet of recycled water.

Vice President Freshley stated that the 300 acre feet of unbilled potable water equates to about a 4% loss, and asked if this is normal. Mr. Cafferty replied that this is actually low, and some of the water loss is due to water line flushing, fire hydrant usage, and metering inaccuracies.

Personnel Analysis

Mr. Hayden stated that Personnel costs are a significant cost to the District. He further stated that the District has received the Certificate of Achievement for Financial Reporting from the Government Finance Officer's Association and the revisions to the budget document could provide the District with the opportunity to apply for the Distinguished Budget Presentation Award in the future.

Mr. Hayden stated that the Labor Budget Breakdown shows the Personnel expenses increased by 5% in the proposed budget. He further stated that part of the merit increases approved in 2021 are included in the 2021/22 budget.

Vice President Freshley asked why the Vacation Payout is higher. Mr. Hayden replied that analysis showed we were not budgeting enough in the past few years.

Vice President Freshley asked why the Overtime & Standby Pay is increasing if we are fully staffed. Mr. Cafferty replied that the overtime budget has been under budgeted for a few years, and so we are reconciling to be more in line with the budget.

Director Vergara asked when we replace a retiree's position with a lower salary person, is this salary change reflected in the budget. Mr. Cafferty replied yes.

Vice President Freshley asked why the Merit Increase is blank for the 2020/21 budget. Mr. Hayden replied that the information reflects the impact the 2021 merit increases will have on the 2021/22 Budget and therefore this is not reflected in the 2020/21 budget column.

Mr. Hayden reviewed charts reflecting the Total Cost of Salaries, Health Insurance, and Deferred Compensation.

Mr. Cafferty stated that we include the CPI component when preparing our merit increase and salary ranges for each job grade.

Director Vergara asked where we stand in the salary ranges compared to neighboring agencies. Mr. Cafferty stated that it has always been the District's goal to make salary adjustments based on the average of neighboring agencies salary ranges and therefore the District's salary ranges were close to the average, although when comparing to particular agencies the District's salaries would be lower.

Vice President Freshley asked if all of the neighboring agencies are in PERS. Mr. Cafferty replied yes, except for ETWD and OCWD.

Medical Insurance Premium Analysis

Mr. Hayden stated that staff is anticipating a 5% increase in Medical premiums. He further stated that the District pays 90% of the cost of the HMO and PPO and 95% for the couple and family Kaiser Plan and 100% for the single Kaiser Plan.

Mr. Cafferty stated that we are evaluating adding an alternative plan which would be a high deductible Health Savings Account (HSA) that JPIA offers for Kaiser and Anthem PPO plans.

O&M Cost Center Budget Comparison & Analysis

Mr. Hayden stated that these charts show what the Operations and Maintenance Costs have been for the past several years and what was budgeted for this year. He further stated that the charts also show projected costs, and what is driving the cost increases.

Mr. Hayden stated that electrical costs are increasing, but Administrative costs are decreasing.

Vice President Freshley asked how we got so far off on what depreciation should be. Mr. Hayden replied that it was an estimate based on past projects.

Multi-Year Revenues, Expenses, and Changes in Net Position - Budget to Actual Comparison

Mr. Hayden stated that this sheet brings in the Revenues and Expenses, and staff anticipates a positive outcome for this budget. He further stated that this budget does not include any OPEB expenses because it is impossible to estimate what those expenses would be since they are based on actuarial estimates that incorporate mortality tables and interest rates.

Mr. Cafferty added that the OPEB costs are the liability and expense that shows up on the balance sheet.

2021/22 Budget Summary

Mr. Hayden stated that this section summarizes all components of the budget. He further stated that it shows changes in net position, and balance sheet expenses.

Mr. Hayden stated that Table 1 includes the acquisition of Capital Assets, and repayment of long Term Debt. He further stated that Table 2 is a complete overview of Revenues by category.

Mr. Hayden stated that Table 3 shows Operating Expenses by the cost centers and the overall summary and the allocation of expenses by various parts of the system. He further stated that Table 4 shows Operating Expenses by Type of Expense.

Mr. Hayden stated that Table 5 shows Statements of Revenues, Expenses, and Changes in Net Position. He further stated that it is basically the income statement for the District.

Mr. Hayden stated that Table 6 is a summary of authorized positions by department.

Ten-Year Projected Cash Flow & Reserve Analysis

Mr. Hayden stated that this chart is the 10-year projected cash flow and reserve analysis. He further stated that rows 3-9 show anticipated Operations and Maintenance sources of cash.

Mr. Hayden stated that rows 10-42 show additional required sources of cash. He further stated that rows 43-60 are other sources of cash and non-operating revenues.

Mr. Hayden stated that rows 63-69 are O&M uses of cash requirements for total operations and maintenance expense and debt service. He further stated that row 71 shows the annual O&M net change in cash.

Mr. Hayden stated that the O&M change in cash shows the Capital Replacement & Refurbishment program and Capital Sources of cash. Mr. Cafferty stated that the increases on rows 76-80 are intended to get us to a point where the capital revenue completely funds the Baker debt service.

Proposed Water, Sewer, and Recycled Water Rates & Charges

Mr. Hayden stated that these are the proposed water, sewer, and recycled water rates and charges. He further stated that the proposed 21/22 commodity rates

highlighted in green reflect the 7 cent increase, and a 6 cent increase in recycled water, which is tied to the increase in potable water.

Mr. Hayden stated that we are increasing the conservation rate from $100,000 to $200,000. He further stated that the proposed 21/22 Water Fixed Meter Rates are increasing between 9.2% and 9.9%.

Vice President Freshley asked where staff is spending the extra conservation funds. Mr. Cafferty replied that our conservation rate program costs include the water use efficiency programs, our share of rebates, a portion of staff member salaries for the implementation of the conservation program, and some of the outreach budget tied directly to water use efficiency.

Mr. Hayden stated that the proposed sewer rates are proposed to increase by 6% for residential and commercial classes.

Customer Sensitivity Analysis

Mr. Hayden stated that the impact of the proposed rate increases on a single family residence is estimated to be approximately 4.6%. He further stated that the estimated utility bills for the Laguna Woods Village community are increasing 4.4%, and the cities estimated bills are projected to increase 4.1%.

ETWD Five-Year Capital Improvement Plan

Mr. Hayden stated that the big projects are the R-2 Reservoir interior coating, an emergency generator, and the installation of a press system at the head works.

Mr. Cafferty stated that although this is a 5-year plan, we are also looking at an Asset Management Plan, and in future years SOCWA will be consuming a vast amount of our Capital revenue.

10-Year Capital Expenses, Revenues, and Impact on Single Family Residence Utility Bills

Mr. Hayden reviewed the rows of financial data on the Capital Replacement & Refurbishment Program, Capital Expenditures, Capital Program Revenue, Annual Capital Surplus (Deficit), and Analysis Data.

Mr. Hayden stated that future rate increases needed to support the debt and capital investment program will not exceed the Board guidelines of keeping future bill increases under 5%. He also stated that the increases needed for capital increases could be accomplished while actually keeping the impact on future bills under 4% in most years.

Mr. Cafferty stated that the Recycled Capital Charge is the same as the Capital Charge to the meter size of potable meters.

Director Monin asked if there are ways to communicate to customers the District's upcoming costs for capital projects. Mr. Cafferty replied that the budget will be discussed at the next CAG meeting, and the newsletters will also provide information on capital projects the District will be considering.

Mr. Hayden stated that the Bill Impact Analysis is reflected at the bottom of page 58, and also shows the total rate increase impact on a single family residence bill with the percent change.

Draft 2021/22 Budget

Mr. Hayden stated that the transmittal letter shows accomplishments made this year, as well as goals and objectives. He further stated that staff provided a profile of the District which includes population data of the service area.

Mr. Hayden stated that an Outstanding Debt Analysis and Financial Summary are included in the draft budget.

Attorney Report

Mr. Granito reported that there is a need for a Closed Session today with respect to the matter set forth in today's Closed Session agenda.

Closed Session

At approximately 9:32 a.m. the Board went into Closed Session for the purpose noted in today's Closed Session agenda. Also at this time, Mr. Hopkins, Ms. Cimorell, and Ms. Welsch left the meeting.

Open Session Report

At approximately 9:58 a.m. the Board returned to Open Session. Also at this time, Ms. Welsch returned to the meeting.

Mr. Granito reported that the Board did go into Closed Session with respect to the matter set forth in today's Closed Session agenda. During the Closed Session General Counsel and General Manager led a discussion and no reportable action was taken.

Draft 2021/22 Budget

President Gaskins asked for a Motion to approve the draft 2021/22 budget.

Motion: Director Vergara made a Motion, seconded by President Gaskins, which was subsequently withdrawn by Director Vergara due to the request for more discussion before placing a Motion to approve the draft 2021/22 budget.

Vice President Freshley asked for clarification between voting for a rate increase and voting to adopt the draft 2021/22 budget.

Mr. Granito reported that this is a two-step process, in which the draft budget needs to be adopted before we can consider funding the budget.

Mr. Cafferty stated that approval of the draft 2021/22 budget does not include approval of a rate increase; it only contemplates approving a rate increase. He further stated that the draft 2021/22 budget could be approved at the Thursday Board meeting when staff is seeking approval of the Proposition 218 Notice and the rates required to support this budget.

The Board concurred to defer voting on adopting the draft 2021/22 ETWD budget to Thursday's meeting.

ADJOURNMENT

There being no further business to come before the Board the meeting was adjourned at 10:10 a.m.

Respectfully submitted,

_____
Polly Welsch
Recording Secretary

APPROVED:

_____
MIKE GASKINS, President of
the El Toro Water District and
the Board of Directors thereof

_____
DENNIS P. CAFFERTY, Secretary
of the El Toro Water District and
the Board of Directors thereof

MINUTES OF THE REGULAR MEETING
OF THE
BOARD OF DIRECTORS
OF THE
EL TORO WATER DISTRICT
April 22, 2021

President Gaskins called the meeting of the Board of Directors of the ELTORO WATER DISTRICT to order via Zoom at 7:30 a.m. on April 22, 2021.

President Gaskins led in the Pledge of Allegiance to the flag.

Committee Members MIKE GASKINS, KATHRYN FRESHLEY, MARK MONIN, JOSE VERGARA, and KAY HAVENS participated.

Also present were DENNIS P. CAFFERTY, General Manager, JUDY CIMORELL, Human Resources Manager, JASON HAYDEN, CFO, SCOTT HOPKINS, Operations Superintendent, SHERRI SEITZ, Public Relations/Emergency Preparedness Administrator, GILBERT J. GRANITO, General Counsel, SANJAY GAUR, Raftelis, CAROL MOORE, Laguna Woods Council Member, and POLLY WELSCH, Recording Secretary.

<u>General Manager Action Items</u>

<u>ETWD 2021/22 Budget, Water, Sewer & Recycled Water Cost of Service (COS) Study Report, and Proposition 218 Notice</u>

Mr. Cafferty stated that the recommended action today is to a) approve the 2021-2022 Operating Budget, b) approve the Water, Recycled Water, and Wastewater Cost of Service Study Report, c) approve the Proposition 218 Notice

and authorize distribution of same, and d) authorize noticing of a Rate Public Hearing for June 24, 2021.

Mr. Cafferty stated that the biggest change to the Cost of Service Study is the specific discussion of the calculation of the current private fire rate and the need to calculate the impact on rates of providing public fire services.

Mr. Gaur reviewed the Cost of Service Study with management staff and the Board. He further highlighted the Tables in the report, including the Fire Demand Table which indicates the District needs to construct storage and pipes in sizes that are sufficient to provide 4,000 gallons per minute of water for 2 hours in order to be able to respond appropriately to fires.

Mr. Gaur stated that the construction cost associated with the additional capacity that is needed to provide fire service is then allocated between private and public uses. He further stated that this is allocated by the number of fire hydrants, with the public service including 1,899 hydrants in the District's service area and therefore 90% of the cost is allocated to public fire service and 10% is allocated to private fire services.

Vice President Freshley asked if the 2-hour increment is a judgement call based on the environment in which we are located. Mr. Gaur replied yes, it is a judgement call based on the kind of development in our service area.

Director Vergara asked what the total amount of acre feet of water would the 4,000 gallons per minute in 2 hours amount to. Mr. Cafferty replied approximately 1.5 acre feet. He further stated that the District does not charge for this water.

Mr. Gaur discussed the logic for the Tiered rates and water rate components.

Mr. Cafferty stated that all of the individual charges are line items on the customer's bill. He further stated that each Tier within the Commodity Rate is also listed.

Director Havens asked if there is a way to make understanding the customer's water bill more transparent, since the Laguna Woods Village residents don't receive a water bill. Mr. Cafferty stated that staff will look into ways to get the word out.

Mr. Cafferty reviewed the Proposition 218 Notice showing changes in individual rates. He further stated that Private Fire Operations and Maintenance Charge was added.

Director Monin expressed concern for raising rates during the pandemic but noted that the District really held down expenses and the corresponding rate increase in 2020-2021. He further stated that the District needs to continue updating infrastructure to ensure safe and reliable water for its customers.

Director Havens and Director Vergara agreed with Director Monin's concern. Director Freshley stated that District staff and Raftelis did a good job with the Cost of Service Study, the Prop 218 Notice, and the Operating Budget.

President Gaskins asked for a Motion.

Motion: Vice President Freshley made a Motion, seconded by Director Vergara and unanimously carried across the Board to approve the ETWD a) 2021/22 Operating budget, b) 2021/22 Water, Recycled Water, and Wastewater

Rate Study, c) 2021/22 Prop 218 Notice and authorize distribution of same in accordance with applicable public noticing requirements, and d) authorize noticing of a Rate Public Hearing to be scheduled for June 24, 2021.

Roll Call Vote:

| | |
|---|---|
| Director Havens | aye |
| Director Vergara | aye |
| Director Monin | aye |
| Vice President Freshley | aye |
| President Gaskins | aye |

At approximately 8:20 a.m. Mr. Gaur left the meeting.

Oral Communications/Public Comments

Ms. Moore suggested emailing residents of Laguna Woods Village so they can understand the upkeep, cost of water, and sewer charges. Mr. Cafferty replied that staff will check on ways to simplify reaching out to customers.

Ms. Moore also suggested quick facts that customers don't know about ETWD, it's Reservoirs, and what it takes to conduct business.

Items Received Too Late to be Agendized

President Gaskins asked if there were any items received too late to be agendized. Mr. Cafferty replied no.

Presentation of Awards, Recognitions and Introductions

Service Awards

Mr. Cafferty stated that staff will defer the service award until next month's meeting.

Consent Calendar

President Gaskins asked for a Motion.

Motion: Vice President Freshley made a Motion, seconded by Director Monin, and unanimously carried across the Board to approve the Consent Calendar.

Roll Call Vote:

| | |
|---|---|
| Director Havens | aye |
| Director Vergara | aye |
| Director Monin | aye |
| Vice President Freshley | aye |
| President Gaskins | aye |

Director Reports for Meetings Attended

Director Havens stated that she attended the MWDOC Elected Officials Forum, WACO, the ISDOC Executive Committee meeting, the MWDOC/MET Directors workshop, the MWDOC Board meeting, the SDLA Module 2 training, the Board Budget workshop, the WateReuse meeting, the OCWA meeting, the regular ETWD Board meetings, and she will be attending the South County Economic Coalition meeting, the ISDOC Quarterly meeting, and the Laguna Woods Third Water Committee meeting.

Director Vergara stated that he attended the MWDOC Elected Officials Forum, WACO, the MWDOC Planning/Operations meeting, the MWDOC/MET Directors workshop, the SDLA Module 2 training, the Board Budget workshop, the WACO Planning Committee meeting, the MWDOC Board meeting, and the regular ETWD Board meetings.

Director Monin stated that he attended WACO, the MWDOC Elected Officials Forum, the Laguna Woods City Council meeting, the ISDOC Quarterly meeting, the South County Economic Coalition meeting, the ACWA

Investment Committee meeting, OCCOG, the ISDOC Executive Committee meeting, a website sub-committee meeting, OCWA, MWDOC Admin/Finance meeting, the Board Budget workshop, the MWDOC/MET Directors workshop, and the District's regular Board meetings.

Vice President Freshley stated that she attended WACO, the MWDOC/MET Directors workshop, the MWDOC Planning/Operations meeting, the Budget Committee meetings, the Board Budget workshop, 3 President/VP/GM meetings, the Agenda Review meeting, the SOCWA Finance Committee meeting, the SOCWA Board meeting, the RRC meeting, the OCWA meeting, the Laguna Woods City Council meeting, SDLF's Module 2 training, the MWDOC Elected Officials Forum, and the District's Board meetings.

President Gaskins stated that he attended the MWDOC Elected Officials Forum, the 3 President/VP/GM meetings, the MWDOC Planning/Operations meeting, the MWDOC/MET Directors workshop, the Agenda Review meeting, the Board Budget workshop, the MWDOC Board meeting, the OCWA meeting, and the regular District Board meetings. He further stated that he plans to attend the ISDOC Quarterly meeting next week.

General Manager Action Items

Annual Review of the District's Identity Theft Prevention Policy Statement (2008-23 (IV)

Mr. Cafferty stated that the Board is required to review this policy annually. He further stated that staff is not recommending any changes, so

there is no need to take a Motion on this item. The Board concurred.

General Manager Information Items

COVID-19 Update

Mr. Cafferty stated that Orange County continues to improve with more people being vaccinated, and fewer COVID-19 cases, and is now in the Orange Tier. He further stated that staff continues to self-check and provide daily certification on-line.

The Board discussed the idea of returning to live meetings, keeping the social distancing and PPE requirements.

General Manager's Monthly Report

Director Monin commented on the Customer Service report.

Director Vergara asked if the TDS has changed in the water that we served during the last few months. Mr. Cafferty stated that the TDS levels fluctuate based on the amount of Colorado River water we are getting.

Vice President Freshley commented on the Unauthorized Discharge Summary, that there were 4 spills in March, with 3 of them being Private.

Legislative Reports

Mr. Cafferty stated that AB 1296 makes a change in the South Coast Air Quality Management's Board to 15 members and their Board structure. He further stated that MWDOC is preparing a coalition letter and asking it's member agencies to join in as oppose unless amended.

Public Education and Outreach & Water Conservation Reports

Ms. Seitz stated that the Toilet Leak Detection Strip Letter being sent by MNWD and SMWD to their customer's talks about testing toilets for leaks and it has two strips of blue dye that can be removed from the letter and dropped in the toilet tanks. She further stated that this has been very popular at both agencies.

Ms. Seitz stated that one option would be to include as a bill stuffer, or to mail to all of our customers, including Laguna Woods Village residents.

Director Monin stated that the dye tablets were handed out at ETWD events in the past. He further stated that he has concerns if a child gets ahold of the dye tablets.

Vice President Freshley stated that the HOA Boards at Laguna Woods Village are careful to pay attention to possible leaks, so they would not need to receive the dye tablets.

Ms. Seitz stated that the dye strips are costly at approximately $1 a piece.

Director Havens stated that it could be a good public relations experience. Director Monin concurred with Director Havens.

Ms. Seitz stated that the CAG invitation sign up instructions were sent out through a bill stuffer, posted on social media, and a Laguna Woods Village e-blast and HOA's. She further stated that 13 people signed up to attend, out of 171 emails we invited.

Mr. Cafferty stated that the May 13th CAG meeting is also the ACWA Spring conference and SDLA's Module 3, so we may need to move the CAG date and/or time.

Ms. Seitz stated that the Prop 218 notices will be mailed out the first week of May.

Director Havens stated that she is interested in hearing how much response we get to the Landscape classes being offered.

At approximately 9:15 a.m. Ms. Seitz left the meeting.

SOCWA Reports

Vice President Freshley stated that they discussed the potential of IRWD withdrawing from SOCWA. She further stated they also discussed an issue between SMWD and San Juan Capistrano

SOCWA's budget proposed a 9.8% increase, which she opposed, and is now coming in at 4.8%.

Vice President Freshley stated that they discussed the Post Employment costs. Mr. Cafferty stated that they discussed how to deal with the Ocean Outfall whether they use permitting capacity and cost increases.

Mr. Cafferty stated that at the SOCWA Finance meeting they discussed staff's recommendations on their audit. He further stated that they have completed 5 years with the PUN Group, and decided to continue 1 more year with the PUN Group and then solicit new auditors.

Mr. Cafferty stated that a proposed meeting with SOCWA Board members, Managers, and Attorneys to further the JPA amendment process

has been discussed, and is driven by SOCWA's legal counsel. He further stated that they sent out a redline of the JPA agreement

MWDOC

President Gaskins stated that MWDOC had a lot of discussion about ETWD's filtration plant and whether or not WEROC has a reason to exist at all. He further stated that some people feel that ETWD is getting something out of a deal with WEROC.

Mr. Cafferty stated that MWDOC's Board is supportive of the project, and the need for WEROC to exist. He further stated that an agreement will be developed between MWDOC and ETWD to define the relationship of this project and cost sharing for a preliminary design.

Director Vergara stated that he would like to discuss the filtration plant plans for demolition and possible rebuilding and relocation of WEROC at the MWDOC meetings.

Vice President Freshley stated that she has no objection in Director Vergara speaking at the MWDOC meetings, on behalf of ETWD's Board views on this topic.

Director Monin stated that he feels our General Manager could also discuss ETWD's opinion to the MWDOC Board.

Director Havens stated that she feels the mission and purpose were completely lost at the MWDOC meetings, and she is comfortable with Director Vergara representing our Board views.

Mr. Cafferty stated that he has intentionally declined to comment in the MWDOC meetings on this topic, but has spoken with the WEROC representative. He further stated that he is sensitive to the idea that ETWD is getting something out of the arrangement with WEROC and has made it clear at the MWDOC Managers meeting that ETWD has nothing to gain in the WEROC EOC decision.

Mr. Cafferty stated that we have to demolish the existing building and the time to act is now.

Director Monin stated that he is disappointed in the lack of progress on this project.

LAFCO

There was no meeting.

SOCWMA

There was no meeting.

ISDOC

Director Monin stated that the ISDOC Committee voted in Director McVicker to the vacant seat. He further stated that the web Committee met and considered working with Streamline, and will have their own website.

WACO

Director Vergara stated that the next meeting will feature the new General Manager from the San Diego County Water Authority.

Director Monin stated that South Coast will be featured in the future meetings, along with MET discussions.

Committee and General Information

Dates to Remember for April/May 2021

There were no comments.

Comments Regarding Non-Agenda Items

Director Monin stated that he enjoyed the OCWA meeting on Design Build.

Vice President Freshley stated that at the ACWA Engineering Committee they discussed working with the California Energy Commission, and the South Coast Air Quality Management District to change and reset some of the rules so that when there's a need for additional power, to allow the agencies with emergency generators to drop their load for the State and provide their own energy sources to keep the water district functioning. She further stated that this would require the AQMD to change their rules to allow our emergency generators to run more than 20 hours a year.

President Gaskins commented that the budget package and history was very well done. Director Havens and Vice President Freshly concurred.

Attorney Report

Mr. Granito reported that there is no need for a Closed Session today, so Regular Session continued.

Adjournment

There being no further business to come before the Board, the meeting was adjourned at 10:20 a.m.

Respectfully submitted,

POLLY WELSCH
Recording Secretary

APPROVED:

MIKE GASKINS, President of
the El Toro Water District and the
Board of Directors thereof

DENNIS P. CAFFERTY, Secretary
of the El Toro Water District and
the Board of Directors thereof

Arthur H. Lampel, Esq.
2440 SOUTH HACIENDA
BOULEVARD, STE 212
HACIENDA HEIGHTS, CA 91745
(626) 961-8957
Publish: OC Register
May 13, 20, 27, 2021 11462252

**NOTICE OF PETITION TO ADMINISTER ESTATE OF: Gabriel Hernandez**
**CASE NO. 30-2021-01198194-PR-LA-CJC**

To all heirs, beneficiaries, creditors, contingent creditors, and persons who may otherwise be interested in the will or estate, or both, of: **Gabriel Hernandez**

**A PETITION FOR PROBATE** has been filed by **Celia Sanchez** in the Superior Court of California, County of **ORANGE**.

**THE PETITION FOR PROBATE** requests that **Celia Sanchez** be appointed as personal representative to administer the estate of the decedent.

**THE PETITION** requests authority to administer the estate under the Independent Administration of Estates Act. (This Authority will allow the personal representative to take many actions without obtaining court approval. Before taking certain very important actions, however, the personal representative will be required to give notice to interested persons unless they have waived notice or consented to the proposed action.) The independent administration authority will be granted unless an interested person files an objection to the petition and shows good cause why the court should not grant the authority

**A HEARING** on the petition will be held in this court as follows: 06/17/2021 at 2:00 p.m. in Dept. C08 located at 700 Civic Center Drive West, Santa Ana, CA 92701.

(1) If you plan to appear, you must attend the hearing by video remote using the court's designated video platform; (2) Go to the Court's website at http://www.occourts.org/media-relations/probate-mental-health.html to appear for probate hearings and for remote hearing instructions; (3) If you have difficulty connecting to your remote hearing, call 657-622-8278 for assistance.

**IF YOU OBJECT** to the granting of the petition, you should appear at the hearing and state your objections or file written objections with the court before the hearing. Your appearance may be in person or by your attorney.

**IF YOU ARE A CREDITOR** or contingent creditor of the decedent, you must file your claim with the court and mail a copy to the personal representative appointed by the court within the later of either (1) four months from the date of first issuance of letters to a general personal representative, as defined in section 58(b) of the California Probate Code, or (2) 60 days from the date of mailing or personal delivery to you of a notice under section 9052 of the California Probate Code.

Other California statutes and legal authority may affect your rights as a creditor. You may want to consult with an attorney knowledgeable in California law.

**YOU MAY EXAMINE** the file kept by the court. If you are a person interested in the estate, you may file with the court a Request for Special Notice (form DE-154) of the filing of an inventory and appraisal of estate assets or of any petition or account as provided in Probate Code section 1250. A Request for Special Notice form is available from the court clerk.

Attorney for Petitioner:
**Grace Greer St. Clair, Esq.**
**2312 Artesia Blvd.**
**Redondo Beach, CA 90278**
**310.374.5479**
Publish: OC Register
May 13, 20, 27, 2021 11462063

Publish: Orange County Register 11462404

**EL TORO WATER DISTRICT**

**NOTICE OF PUBLIC HEARING**

**2020 URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN**

NOTICE IS HEREBY GIVEN that the El Toro Water District ("ETWD") will hold a public hearing on (May 27, 2021), or as soon thereafter as the Agenda permits to consider (ETWD)'s proposed 2020 Urban Water Management Plan ("UWMP"), 2020 Water Shortage Contingency Plan ("WSCP"), and Appendix C as an Addendum to its 2015 UWMP in advance of their proposed adoption.

The public hearing is being held in accordance with the Urban Water Management Planning Act (California Water Code Sections 10610 through 10656; herein referred to as the "Act"). The Act requires "every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually" to prepare, adopt, and file a UWMP with the California Department of Water Resources and review and update its UWMP every five years. The purpose of the public hearing will be to solicit public comment prior to adoption of the proposed updated UWMP and WSCP.

Copies of the proposed 2020 UWMP, 2020 WSCP, and Appendix C as an Addendum to its 2015 UWMP are available for public inspection on ETWD's website, https://etwd.com/.

ETWD's public hearing is scheduled for (May 27, 2021) at (7:30 a.m.) and as a result of the COVID-19 emergency and the Governor's Executive Orders to protect public health by limiting public gatherings and requiring social distancing, at this time, the meeting is scheduled to occur via the Zoom virtual meeting application. Instructions for joining the meeting are as follows:

COMPUTER AUDIO: https://us02web.zoom.us/j/87396033640

TELEPHONE AUDIO: +1 669 900 6833

WEBINAR ID: 873 9603 3640

For more information, or if you would like assistance in presenting your comments to the Board of Directors at the public hearing, please contact (Polly Welsch, Executive Assistant to Board and GM) at (949) 837-7050, ext. 225 or via email at pwelsch@etwd.com.

Publish: Orange County Register May 13, 20, 2021 11460876

**ORANGE COUNTY SANITATION DISTRICT**
**PUBLIC NOTICE**
**PROJECT NO. FE18-12**
**EROSION CONTROL AT SANTA ANA RIVER AND HAMILTON AVENUE**

The Orange County Sanitation District (OCSD) invites qualified Bidders to submit Bids for the EROSION CONTROL AT SANTA ANA RIVER AND HAMILTON AVENUE Project.

The complete Bid shall be scanned and submitted as one PDF file via OCSD's Vendor Portal in PlanetBids at http://www.planetbids.com/portal/portal.cfm?CompanyID=14058# before 11:00 A.M. (Pacifc Time Zone), Thursday, July 1, 2021. Bids must comply with the requirements of the bidding documents.

A virtual bid opening will be conducted through Microsoft Teams on Thursday, July 1, 2021 at 11:30 a.m. (Pacific Time Zone). Bidder may attend the bid opening using the link to the meeting in the Notice Inviting Bids.

The Project is located at Brookhurst and Hamilton along Santa Ana River, City of Huntington Beach. The Work consists of soil remediation due to erosion of a slope near OCSD assets. The area to be remediated is approximately 2,000 square feet. The Work involves the removal and replacement of soil between a small existing retaining wall, an existing concrete vault and other OCSD assets. The Work also includes the placement of grouted rip-rap over the top of the soil and installation of gravel by the retaining wall.

The Engineer's Estimate for this Project is $102,000.

A mandatory virtual Pre-Bid Conference will be held on May 18, 2021 at 1:00 p.m. (Pacific Time Zone). This conference will include an overview of the Project. Bidder must attend the mandatory Pre-Bid Conference using the link to the meeting in the Notice Inviting Bids.

Pre-bid attendees may use either a computer, iOS or Android device to join the meeting.

Prospective Bidders are required to attend the mandatory Pre-Bid Conference to be eligible to submit Bids for this Project. OCSD will not accept Bids from Bidders who did not attend the mandatory Pre-Bid Conference.

This Project requires the following classification of Contractor's License: "A".

The Invitation For Bid Documents may be viewed and downloaded through OCSD's Vendor Portal at: http://www.planetbids.com/portal/portal.cfm?CompanyID=14058#.

Pursuant to Public Contract Code section 22300, Bidders may substitute approved securities to ensure performance under the Contract.

The Project is subject to prevailing wage laws and requirements. Copies of the prevailing rate of per diem wages, as determined by the Director of Industrial Relations, applicable to the locality in which the Work is to be performed are on file at OCSD's principal office and are available upon request or can be obtained online at http://www.dir.ca.gov/Public-Works/Prevailing-Wage.html.

All contractors and subcontractors must be registered and qualified to perform public work under Labor Code section 1725.5 to bid on, be listed in a bid proposal for, or perform work on the Project.

The Project shall be subject to compliance monitoring and enforcement by the California Department of Industrial Relations pursuant to Labor Code section 1771.4.

Published OC Register May 6, 13, 2021 Orange County Register 11459864

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**Public Notice**

## Garage Sales

**Anaheim Multi family garage sale 5/22 & 5/23 7-3pm at 900 N Lenz Drive. Furniture, appliances, toys, clothing, bedding, kitchen and pet items**

Life Fitness T3 Treadmill: rarely used. Reduced to $1250. (949)487-5050

## Wanted to Buy

**Sterling Flatware, Toys, Baseball, Basketball, Football Cards & Comics 714.244.9553**



**Proposals are due by no later than 2:00 p.m., on June 8, 2021.**

OCRegister May 20, 24, 2021

### FICTITIOUS BUSINESS NAME STATEMENT 20216603115

The following person(s) is (are) doing business as:
**ORANGE COMPOST**
**1801 E. KATELLA AVE. #4080**
**ANAHEIM, CA 92805**
Full Name of Registrant(s)
1.)GINA VAN STRATTEN
1801 E. KATELLA AVE. #4080
ANAHEIM, CA 92805
Have you started doing business yet? No.
This business is conducted by an Individual.
/s/GINA VAN STRATTEN
This statement was filed with the County Clerk of Orange County on 04/21/21.
Publish: Orange County Register May 20, 27, June 3, 10, 2021 11463849



you require assistance accessing the website, please contact Terri Walker at twalker@cypsd.org. Publish: OC Register May 20, 2021 11460380

### ORDER TO SHOW CAUSE FOR CHANGE OF NAME

**CASE NO: 30-2021-01190814**
**TO ALL INTERESTED PERSONS:**
Petitioner Bichchi Ngoc Phan, filed a petition with this court for a decree changing names as follows:
**PRESENT NAME:**
Bichchi Ngoc Phan
**PROPOSED NAME:**
Becky Ngoc Phan
**THE COURT ORDERS** that all persons interested in this matter appear before this court at the hearing indicated below to show cause, if any, why the petition for change of name should not be granted. Any person objecting to the name changes described above must file a written objection that includes the reasons for the objection at least two court days before the matter is scheduled to be heard and must appear at the hearing to show cause why the petition should not be granted. If no written objection is timely filed, the court may grant the petition without a hearing.
**NOTICE OF HEARING**
Date: 07/06/2021
Time: 8:30 am
Dept. D100
The address of the court is
700 Civic Center Drive West
Santa Ana, Ca 92701
A copy of this Order to Show Cause shall be published at least once each week for four successive weeks prior to the date set for hearing on the petition in the following newspaper of general circulation, printed in this county: Orange
Date: 05/10/2021
Judge Layne H. Melzer
Judge of the Superior Court
Publish: Orange County Register May 20, 27, June 3, 10, 2021 11463326

### EL TORO WATER DISTRICT

### NOTICE OF PUBLIC HEARING

### 2020 URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN

NOTICE IS HEREBY GIVEN that the El Toro Water District ("ETWD") will hold a public hearing on (May 27, 2021), or as soon thereafter as the Agenda permits to consider (ETWD)'s proposed 2020 Urban Water Management Plan ("UWMP"), 2020 Water Shortage Contingency Plan ("WSCP"), and Appendix C as an Addendum to its 2015 UWMP in advance of their proposed adoption.

The public hearing is being held in accordance with the Urban Water Management Planning Act (California Water Code Sections 10610 through 10656; herein referred to as the "Act"). The Act requires "every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually" to prepare, adopt, and file a UWMP with the California Department of Water Resources and review and update its UWMP every five years. The purpose of the public hearing will be to solicit public comment prior to adoption of the proposed updated UWMP and WSCP.

Copies of the proposed 2020 UWMP, 2020 WSCP, and Appendix C as an Addendum to its 2015 UWMP are available for public inspection on ETWD's website, https://etwd.com/.

ETWD's public hearing is scheduled for (May 27, 2021) at (7:30 a.m.) and as a result of the COVID-19 emergency and the Governor's Executive Orders to protect public health by limiting public gatherings and requiring social distancing, at this time, the meeting is scheduled to occur via the Zoom virtual meeting application. Instructions for joining the meeting are as follows:

COMPUTER AUDIO: https://us02web.zoom.us/j/87396033640

TELEPHONE AUDIO: +1 669 900 6833

WEBINAR ID: 873 9603 3640

For more information, or if you would like assistance in presenting your comments to the Board of Directors at the public hearing, please contact (Polly Welsch, Executive Assistant to Board and GM) at (949) 837-7050, ext. 225 or via email at pwelsch@etwd.com.

Publish: Orange County Register May 13, 20, 2021 11460876

**HVAC MAINTENANCE, SER**
**(AS NEEDED) DI**

The OCEAN VIEW SCHOOL DIST (District) is pleased to request a p Maintenance, Service, and Repairs ( in the Statement of Work. All servic applicable requirements including c policies and regulations, and all State

Firms are strongly encouraged to sul the Request for Proposal (RFP) m basis of the agreement. It is antic commence in July 2021, and will be addition, four (4) one-year renewal agreement, exercisable at the discret

Please submit one (1) original and fou

**Receipt of proposals is r Monday, June 7, 2021 At the Purchasing Office, Buildin Huntington Bea**

**The proposal must be valid for D July 30,**

A District evaluation committee, uti RFP, will evaluate proposals.

Please direct any written inquiries attention of Jody Johancsik, Purchas . General information regarding the at www.ovsd.org or via the telephon for the RFP is located at www.ov RFP/RFQ/Bid Opportunities.

We appreciate your consideration r forward to receiving an excellent c firm.

First Publication: May 20,
Second Publication: May 27,
RFP Due: June 7, 2

Publish: Orange County Register 114

**NOTICE OF PU**

NOTICE IS HEREBY GIVEN that i il Code Section 798.56a and Californi 7210, the mobilehome described as:

TRADE NAME: INFINITY II
YEAR: 1999
H.C.D. DECAL NO: LBA2959
SERIAL NO.: 09986439611A/B
HD Label/Insignia: TRA410540/1

will be sold at a public auction on, M following location

5700 CARBON
BREA,

The parties believed to claim an in Leah Ramirez have been given notic in the notice has expired.

The undersigned is entitled to a war to satisfy the lien, storage, and othe reasonable charges of notice, adverti

Edward James Ramirez and Leah Owners, Interested Parties, please prevent the mobilehome from being amount must be paid to HOLLYDA prior to the sale: total claim to date curred shall be added to this amo Code).

Bidders are required to show proof in an amount equal to the claim to do

Said sale is to be held without cove nancing, encumbrances, or otherwi sale, the mobile home must be remo

The current location of the subject 157, Santa Ana, CA 92703.

The public auction will also be mad above-described property that was and Leah Ramirez to Hollydale Mob

The total amount due on this proper es, and advances as of the date of t tion will be made for the purpose of gether with the cost of the sale.

Date: April 22, 2021

Published OC Register May 20, 27, 2

**Agenda Item No. 4**

# STAFF REPORT

| | | |
|---|---|---|
| **To:** | **Board of Directors** | **Meeting Date: May 27, 2021** |
| **From:** | **Dennis Cafferty, General Manager** | |
| **Subject:** | **Urban Water Management Plan / Water Shortage Contingency Plan Update** | |

Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act (Act) require every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (AF) of water annually to prepare, adopt, and file an Urban Water Management Plan (UWMP) with the California Department of Water Resources (DWR) every five years in the years ending in zero and five. The 2020 UWMP updates are due to DWR by July 1, 2021.

This UWMP provides DWR with a detailed summary of present and future water resources and demands within the El Toro Water District's service area and assesses the District's water resource needs.

The District is participating in a joint contract through MWDOC with Arcadis to prepare the 2020 Urban Water Management Plan. Included in the Urban Water Management Plan as an appendix but which also exists as a standalone document is the updated Water Shortage Contingency Plan. Also included is a required addendum to the 2015 Urban Water Management Plan to add and appendix regarding Reduced Delta Reliance Reporting.

Staff has worked interactively with Arcadis to develop the attached Urban Water Management Plan document. The attached document represents the final document which, with the Board's approval, is ready for submittal to DWR. Arcadis will be present at the Board meeting to provide a brief presentation as well as address any questions about the Urban Water Management Plan or the associated appendices.

**RESOLUTION NO. 21-5-5**

**RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING THE DISTRICT'S ADDENDUM TO THE 2015
URBAN WATER MANAGEMENT PLAN
TO ADD APPENDIX C –
REDUCED DELTA RELIANCE REPORTING**

**WHEREAS,** Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act (Act) require every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet (AF) of water annually to prepare, adopt, and file with the Department of Water Resources (DWR) every five years in the years ending in zero and five;

**WHEREAS,** the District submitted the 2015 Urban Water Management Plan to DWR by July 1, 2015;

**WHEREAS,** Delta Plan Policy WR P1 is one of fourteen regulatory policies in the Delta Plan;

**WHEREAS,** The Delta Plan was adopted in 2013 by the Delta Stewardship Council;

**WHEREAS,** Delta Plan Policy WR P1 identifies UWMPs as the tool to demonstrate consistency with state policy to reduce reliance on the Delta for a Supplier that anticipates receiving water supply benefits from the Delta;

**WHEREAS,** WR P1 states that commencing in 2015, Suppliers that have (A) completed an UWMP, (B) implemented the efficiency measures in that plan, and (C) shown a measurable reduction in Delta reliance and improvement in regional self-reliance in the plan, are contributing to reduced reliance on the Delta and consistent with WR P1;

**WHEREAS,** There was no mentioning of the Delta Plan Policy in the 2015 UWMP Guidebook;

**WHEREAS,** DWR 2020 UWMP Guidebook (Appendix C) recommends that Suppliers prepare and submit this information as an appendix to their UWMP.

**NOW, THEREFORE, BE IT RESOLVED,** that the El Toro Water District hereby adopts its Addendum to the 2015 Urban Water Management Plan to add Appendix C – Reduced Delta Reliance Reporting which is attached hereto, marked Exhibit "A", and by this reference is incorporated herein as though set forth in full.

**ADOPTED, SIGNED AND APPROVED** this 27th day of May, 2021.

_____

MIKE GASKINS, President
El Toro Water District and of the
Board of Directors thereof

ATTEST

_____

DENNIS P. CAFFERTY, Secretary
El Toro Water District and of the
Board of Directors thereof

**RESOLUTION NO. 21-5-4**

**RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING THE DISTRICT'S
REVISED WATER SHORTAGE CONTINGENCY PLAN**

**WHEREAS**, the general welfare of the people in the El Toro Water District ("District") requires that the water available to the District be utilized in a manner which maximizes beneficial use and that the waste and unreasonable use, or unreasonable method of use of water be prevented;

**WHEREAS**, pursuant to Section 34000 *et seq.* of the Water Code of the State of California, the District has the authority to adopt rules and regulations for the provision of water service and facilities;

**WHEREAS**, Section 375 *et seq.* of the Water Code of the State of California permits public entities which supply water at retail or wholesale to adopt and enforce a water conservation program to reduce the quantity of water used by the people therein for the purpose of conserving the water supplies of such public entity;

**WHEREAS**, Section 350 *et seq.* of the Water Code of the State of California permits the governing body of a distributor of a public water supply to declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent there would be insufficient water for human consumption, sanitation, and fire protection;

**NOW, THEREFORE, BE IT RESOLVED,** that the El Toro Water District hereby adopts the Revised Water Shortage Contingency Plan which is attached hereto, marked Exhibit "A", and by this reference is incorporated herein as though set forth in full.

**ADOPTED, SIGNED AND APPROVED** this 27th day of May, 2021.

_____
MIKE GASKINS, President
El Toro Water District and of the
Board of Directors thereof

ATTEST

_____
DENNIS P. CAFFERTY, Secretary
El Toro Water District and of the
Board of Directors thereof

**RESOLUTION NO. 21-5-3**

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE EL TORO WATER DISTRICT ADOPTING THE DISTRICT'S UPDATED 2020 URBAN WATER MANAGEMENT PLAN**

**WHEREAS,** Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act (Act) require every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet (AF) of water annually to prepare, adopt, and file with the Department of Water Resources (DWR) every five years in the years ending in zero and five;

**WHEREAS,** the updated 2020 Urban Water Management Plan is due to DWR by July 1, 2021;

**WHEREAS,** the District's 2020 Urban Water Management Plan updates the 2015 Urban Water Management Plan in compliance with the requirements of the Act as amended in 2020

**WHEREAS,** the El Toro Water District has prepared and made available for public review, its 2020 Urban Water Management Plan. In furtherance of its adoption, a properly noticed public hearing regarding said Plan was held by the Board of Directors on May 27, 2021;

**NOW, THEREFORE, BE IT RESOLVED,** that the El Toro Water District hereby adopts its 2020 Urban Water Management Plan which is attached hereto, marked Exhibit "A", and by this reference is incorporated herein as though set forth in full.

**ADOPTED, SIGNED AND APPROVED** this 27th day of May, 2021.

_____
MIKE GASKINS, President
El Toro Water District and of the
Board of Directors thereof

ATTEST

_____
DENNIS P. CAFFERTY, Secretary
El Toro Water District and of the
Board of Directors thereof

**RECOMMENDATION**

**Recommended Action for the May 27, 2021 Board Meeting:**

**RECOMMENDED ACTION:** Staff recommends that the Board of Directors approve the following Resolutions associated with the El Toro Water District Urban Water Management Plan.

**RESOLUTION NO. 21-5-3**

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING THE DISTRICT'S UPDATED 2020
URBAN WATER MANAGEMENT PLAN

**RESOLUTION NO. 21-5-4**

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING THE DISTRICT'S
REVISED WATER SHORTAGE CONTINGENCY PLAN

**RESOLUTION NO. 21-5-5**

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING THE DISTRICT'S
ADDENDUM TO THE 2015
URBAN WATER MANAGEMENT PLAN
TO ADD APPENDIX C –
REDUCED DELTA RELIANCE REPORTING

# Public Hearing

**for the El Toro Water District's**

**2020 Urban Water Management Plan**

**2020 Water Shortage Contingency Plan**

**Appendix J Addendum to the 2015 Urban Water Management Plan**

May 27, 2021

# Public Hearing Items

## 2020 Urban Water Management Plan (UWMP)

- Represents the District's planning elements to satisfy the UWMP Act

## 2020 Water Shortage Contingency Plan

- Provides the District's planned actions to respond to water shortage conditions

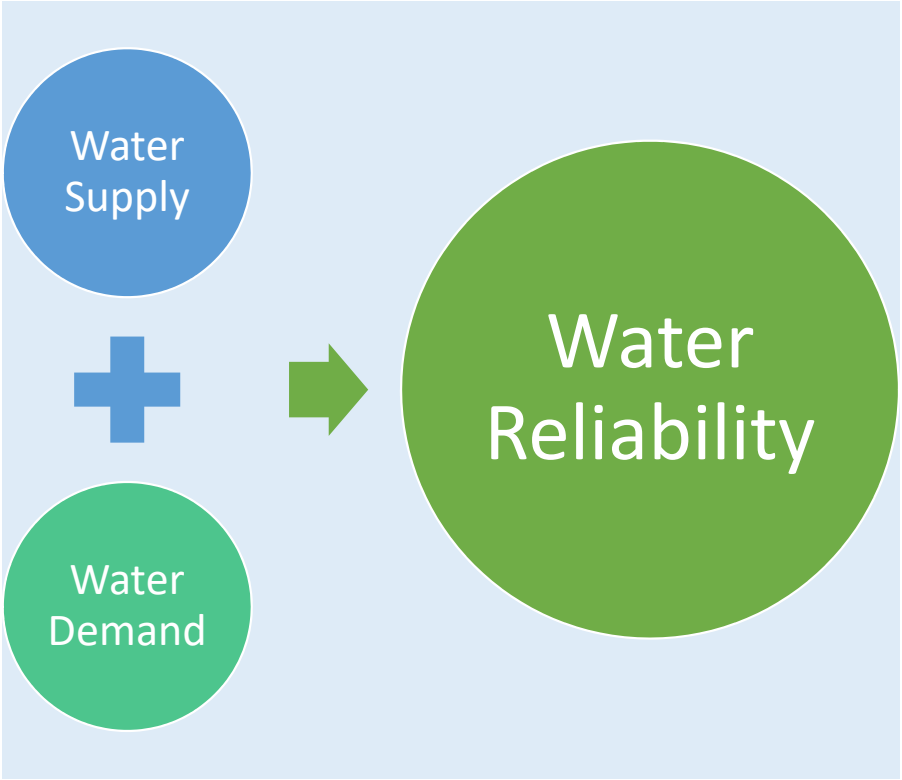
## Appendix J Addendum to the 2015 Urban Water Management Plan

- Provides Reduced Delta Reliance reporting to satisfy Delta Plan Policy WR P1

# 2020 Urban Water Management Plan

# 2020 UWMP Background

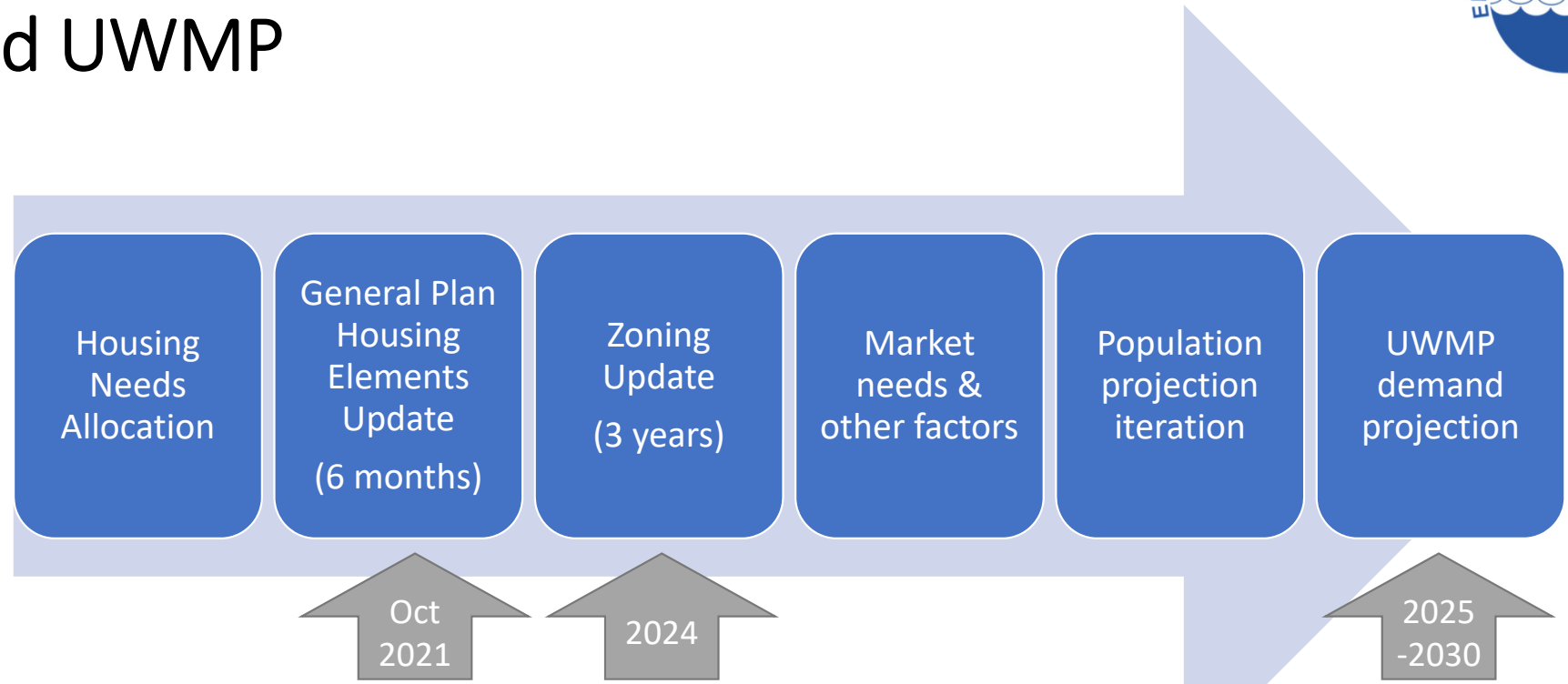
- Urban Water Management Planning Act of 1983
- To demonstrate to the State that there are adequate water supplies for existing and future demands
- Every urban water supplier providing >**3,000 customers** or **3,000 acre-feet of water annually**
- To be filed to DWR every 5 years



# New Items in the District's 2020 UWMP

- Long-term drought assessment for 2025-2045
- Near-term drought risk assessment for 2021-2025
- Water Shortage Contingency Plan
  - Annual Supply and Demand procedures
  - Six Shortage Stages, Shortage Response Actions
  - Seismic Risk Assessment and Mitigation Plan
- Energy Intensity reporting
- Reduced Delta Reliance reporting

# Regional Housing Needs Assessment (RHNA) and UWMP




- 6th cycle RHNA approved in March 2021
- No requirement for any housing units to actually be built
- Rezoning may even decrease demand (e.g. commercial replaced by multifamily)

# ETWD's Water Use and Supply Overview

## Water Use

Decreased since 2013/14 to below 10-yr avg.

Projecting to increase slightly in 25 yrs

- ~1% increase now to 2025
- ~7% increase between 2025 – 2045

Back to 2014/15 level of total use in 2030

## Water Supply

Treated Imported Water (Metropolitan)

- In 2020 ~ 48.5% of District's supply
- In 2045 ~ 45% of District's supply

Untreated Imported + Surface (Baker WTP)

- In 2020 ~36.5% of District's supply
- In 2045 ~39% of District's supply

Recycled Water

- In 2020 ~15% of District's supply
- In 2045 ~16% of District's supply

# Key Findings of ETWD's 2020 UWMP

The District has **long-term** (25 yrs) water service reliability under average year, single dry year, five consecutive drought years

The District has **near-term** (5 yrs) supply capabilities sufficient for a drought period lasting five consecutive years

The District has plans for supply implementation and water use efficiency investments to meet its projected water demands

# Water Shortage Contingency Plan

# WSCP Overview

| | |
|---|---|
| New requirement of 2018 Water Conservation Legislation | • Included in 2020 UWMP but also a **standalone document** |
| Key Elements of WSCP : | • Annual Water Supply and Demand Assessment<br>• Six Standard Water Shortage Levels<br>• Shortage Response Actions<br>• Communication Protocols |

# Appendix J
# Addendum to 2015 UWMP
# Reduced Delta Reliance Reporting

# DWR Issued Guidance on Delta Plan Policy

Delta Plan Policy (Delta Reform Act 2009) requires Supplier to demonstrate consistency with reduced reliance on the Delta and improved regional self-reliance.

2020 UWMP Guidebook Appendix C helps Suppliers provide reporting described in Delta Plan Policy WR P1

District's reporting is consistent with approach detailed in UWMP Guidebook and MET's and MWDOC's 2020 UWMP

- Set a **water use baseline** (2010)
- Calculate **water use efficiency** since baseline (out to 2045)
- Calculate **change in per capita** use since baseline (GPCD)
- Calculate supplies contributing to **regional self-reliance** (i.e. water use efficiency programs and water recycling) (out to 2045)

# Presentation Summary

- ✓Draft 2020 UWMP and draft WSCP satisfy all UWMP Act requirements
- ✓Draft Appendix J Reduced Delta Reliance report consistent with guidance
- ✓Draft plans prepared in coordination with appropriate agencies
- ✓Draft plans posted for public review
- ✓Notification requirements completed for the Public Hearing
- ✓Submission on track to meet July 1 deadline

# Recommended Actions

- ✓Board of Directors to adopt the District's
  - ✓2020 Urban Water Management Plan
  - ✓2020 Water Shortage Contingency Plan
  - ✓Appendix J Addendum to 2015 Urban Water Management Plan


EL TORO WATER DISTRICT

**RESOLUTION NO. 21-5-3**

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE EL TORO WATER DISTRICT ADOPTING THE DISTRICT'S UPDATED 2020 URBAN WATER MANAGEMENT PLAN**

**WHEREAS,** Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act (Act) require every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet (AF) of water annually to prepare, adopt, and file with the Department of Water Resources (DWR) every five years in the years ending in zero and five;

**WHEREAS,** the updated 2020 Urban Water Management Plan is due to DWR by July 1, 2021;

**WHEREAS,** the District's 2020 Urban Water Management Plan updates the 2015 Urban Water Management Plan in compliance with the requirements of the Act as amended in 2020

**WHEREAS,** the El Toro Water District has prepared and made available for public review, its 2020 Urban Water Management Plan. In furtherance of its adoption, a properly noticed public hearing regarding said Plan was held by the Board of Directors on May 27, 2021;

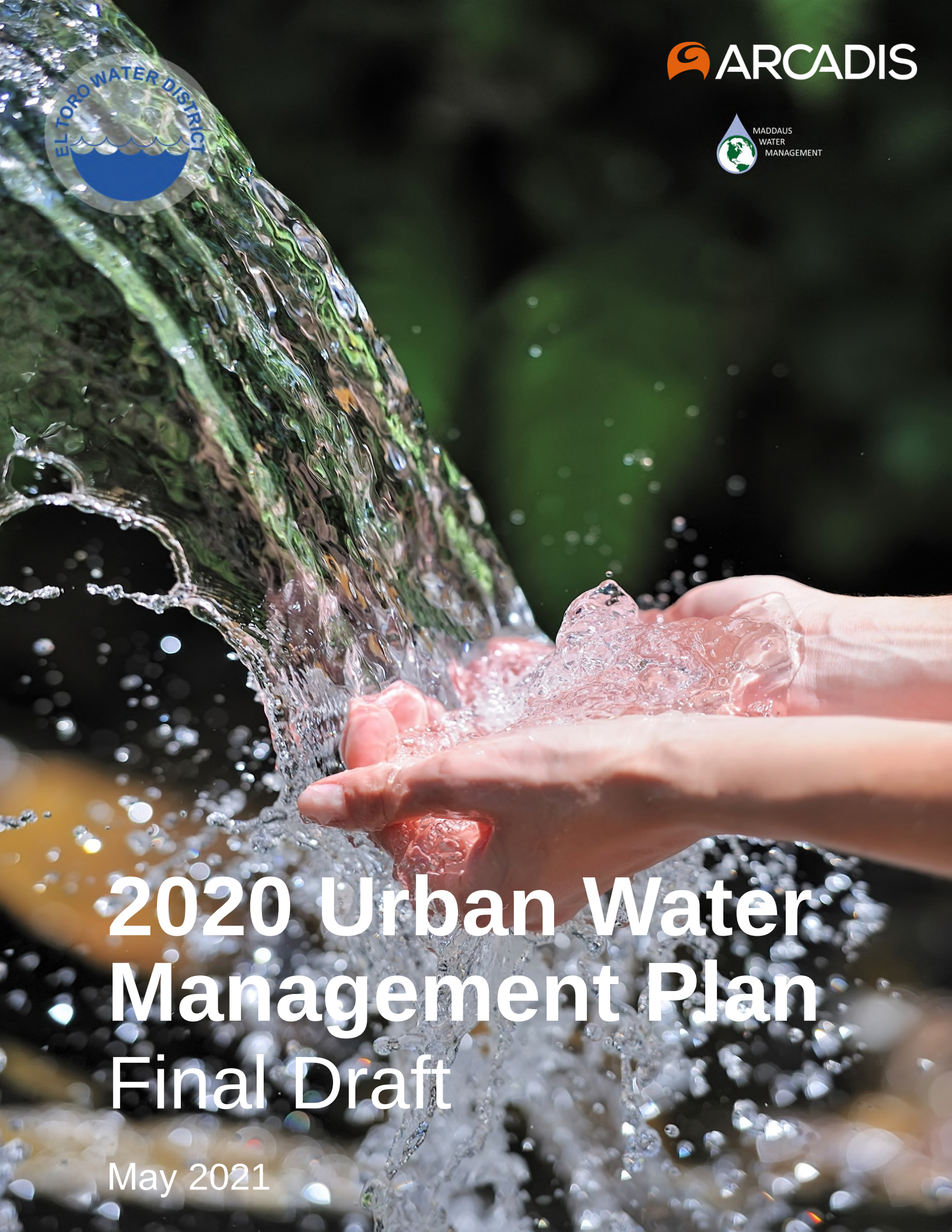
**NOW, THEREFORE, BE IT RESOLVED,** that the El Toro Water District hereby adopts its 2020 Urban Water Management Plan which is attached hereto, marked Exhibit "A", and by this reference is incorporated herein as though set forth in full.

**ADOPTED, SIGNED AND APPROVED** this 27th day of May, 2021.

_____
MIKE GASKINS, President
El Toro Water District and of the
Board of Directors thereof

ATTEST

_____
DENNIS P. CAFFERTY, Secretary
El Toro Water District and of the
Board of Directors thereof



# 2020 Urban Water Management Plan

## Final Draft

May 2021

# 2020 URBAN WATER MANAGEMENT PLAN

Prepared for:

El Toro Water District

24251 Aliso Boulevard

Lake Forest, California 92630

Sarina Sriboonlue, P.E.
Project Manager

Prepared by:

Arcadis U.S., Inc.

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Irvine

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Our Ref:

30055240

Date:

May 2021

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# FIGURES

# APPENDICES

# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| % | Percent |
| 20x2020 | 20% water use reduction in GPCD by year 2020 |
| ADU | Accessory Dwelling Unit |
| Act | Urban Water Management Planning Act of 1983 |
| AF | Acre-Feet |
| AFY | Acre-Feet per Year |
| AWWA | American Water Works Association |
| Biops | Biological Opinions |
| BMP | Best Management Practice |
| CDR | Center for Demographic Research at California State University Fullerton |
| CEE | Consortium for Energy Efficiency |
| CII | Commercial/Industrial/Institutional |
| CRA | Colorado River Aqueduct |
| CVP | Central Valley Project |
| CY | Calendar Year |
| DAC | Disadvantaged Communities |
| DCP | Delta Conveyance Project |
| Delta | Sacramento-San Joaquin River Delta |
| District | El Toro Water District |
| DMM | Demand Management Measure |
| DOF | Department of Finance |
| DRA | Drought Risk Assessment |
| DVL | Diamond Valley Lake |
| DWR | Department of Water Resources |
| ETWD | El Toro Water District |
| ESA | Endangered Species Act |
| FY | Fiscal Year |
| GAP | Green Acres Project |
| GHG | Greenhouse Gas |
| GPCD | Gallons per Capita per Day |
| gpf | Gallons per Flush |
| GWRS | Groundwater Replenishment System |
| HECW | High Efficiency Clothes Washer |
| HEN | High Efficiency Nozzle |
| HET | High Efficiency Toilet |
| IPR | Indirect Potable Reuse |
| IRP | Integrated Water Resources Plan |
| JADU | Junior Accessory Dwelling Unit |

| | |
|---|---|
| kWh | Kilowatt-Hour |
| LRP | Local Resources Program |
| MAF | Million Acre-Feet |
| MAFY | Million Acre-Feet per Year |
| MET | Metropolitan Water District of Southern California |
| MG | Million Gallon |
| MGD | Million Gallons per Day |
| MHI | Median Household Income |
| MWDOC | Municipal Water District of Orange County |
| MWELO | Model Water Use Efficiency Landscape Ordinance |
| NDMA | N-nitrosodimethylamine |
| NRW | Non-Revenue Water |
| OC | Orange County |
| OC Basin | Orange County Groundwater Basin |
| OCWD | Orange County Water District |
| ORP | On-Site Retrofit Program |
| PFAS | Per- and polyfluoroalkyl substances |
| PFOA | perfluorooctanoic acid |
| PFOS | perfluorooctane sulfanate |
| Poseidon | Poseidon Resources LLC |
| PPCP | Pharmaceuticals and Personal Care Product |
| PSA | Public Service Announcement |
| QWEL | Qualified Water Efficient Landscaper |
| RA | Replenishment Assessment |
| RHNA | Regional Housing Needs Assessment |
| RO | Reverse Osmosis |
| RUWMP | Regional Urban Water Management Plan |
| SARCCUP | Santa Ana River Conservation and Conjunctive Use Program |
| SBx7-7 | Senate Bill 7 as part of the Seventh Extraordinary Session |
| SCAB | South Coast Air Basin |
| SCAG | Southern California Association of Governments |
| SCWD | South Coast Water District |
| SDP | Seawater Desalination Program |
| sf | Square Feet |
| SMWD | Santa Margarita Water District |
| SOC | South Orange County |
| SOCWA | South Orange County Waste Authority |
| STEAM | Science Technology Engineering Arts and Mathematics |
| SWP | State Water Project |
| SWRCB | California State Water Resources Control Board |

| | |
|---|---|
| TAF | Thousand Acre-Feet |
| TDS | Total Dissolved Solids |
| USBR | United States Bureau of Reclamation |
| UWMP | Urban Water Management Plan |
| UWMP Act | Urban Water Management Planning Act of 1983 |
| Water Code | California Water Code |
| WBIC | Weather-Based Irrigation Controller |
| WSAP | Water Supply Allocation Plan |
| WSCP | Water Shortage Contingency Plan |
| WSIP | Water Savings Incentive Program |
| WUO | Water Use Objective |

# EXECUTIVE SUMMARY

## INTRODUCTION AND UWMP OVERVIEW

El Toro Water District (District or ETWD) prepared this 2020 Urban Water Management Plan (UWMP or Plan) to submit to the California Department of Water Resources (DWR) to satisfy the UWMP Act of 1983 (Act or UWMP Act) and subsequent California Water Code (Water Code) requirements. The District is a retail water supplier that provides water to its residents and other customers using the raw and potable imported water supply obtained from its regional wholesaler, Municipal Water District of Orange County (MWDOC), local surface water from the Irvine Lake, and recycled water from the District's Water Recycling Plant (WRP). The District, as one of MWDOC's 28 member agencies, prepared this 2020 UWMP in collaboration with MWDOC, Metropolitan Water District of Southern California (MET), South Orange County Wastewater Authority (SOCWA), and other key agencies.

UWMPs are comprehensive documents that present an evaluation of a water supplier's reliability over a long-term (20-25 year) horizon. This 2020 UWMP provides an assessment of the present and future water supply sources and demands within the District's service area. It presents an update to the 2015 UWMP on the District's water resource needs, water use efficiency programs, water reliability assessment and strategies to mitigate water shortage conditions. It also presents a new 2020 Water Shortage Contingency Plan (WSCP) designed to prepare for and respond to water shortages. This 2020 UWMP contains all elements to meet compliance of the new requirements of the Act as amended since 2015.

## UWMP PREPARATION

The District coordinated the preparation of this 2020 UWMP with other key entities, including Municipal Water District of Orange County's (MWDOC) (regional wholesaler of imported water for Orange County), MET (regional wholesaler for Southern California and the direct supplier of imported water to MWDOC), and SOCWA (a Joint Powers Authority with ten member agencies, working to facilitate and manage the collection, transmission, treatment and disposal of wastewater and production of recycled water). The District developed this UWMP in conjunction with other MWDOC-led efforts such as population projection from the Center for Demographic Research at California State University Fullerton (CDR).

## SYSTEM DESCRIPTION

Currently governed by a five-member Board of Directors, the District was formed in 1960 under provisions of California Water District Law, Division 13 of the Water Code of the State of California, commencing with Section 34000 for the purpose of providing water supply for the service area.

The District encompasses approximately 5,430 acres and is almost entirely developed and encompasses all of the City of Laguna Woods and portions of four other cities: Lake Forest, Aliso Viejo, Laguna Hills, and Mission Viejo. The District operates 12 different pressure zones, 6 reservoirs, 8 pump stations, 19 pressure reducing stations and manages 180 miles of water mains with approximately 9,500 service connections.

Lying in the South Coast Air Basin (SCAB), its climate is characterized by Southern California's "Mediterranean" climate with mild winters, warm summers, and moderate rainfall. In terms of land use, the District is almost entirely developed with predominantly single and multi-family residential units with areas of commercial, industrial, and institutional uses along with open space and parks. Major developments

include a development project that will add 1,500 multi-family dwelling units and will redevelop an existing mall. Moving forward, the cities lying in the service area of the District will continue planning for their Regional Housing Needs Assessment (RHNA) allocation and the District may potentially observe a rise in the construction of accessory dwelling units (ADUs) as a means of affordable housing. The current population of 47,911 is projected to increase by 5.7% over the next 25 years.

## WATER USE CHARACTERIZATION

Water use within the District's service area has been relatively stable in the past decade with an annual average of 8,972 AF. The potable and non-potable water use accounts for an average of 91% and 9% of total District water use, respectively. In FY 2019-20, the District's water use was 7,167 AF of potable water and 1,270 AF of direct recycled water for landscape irrigation. In FY 2019-20, the District's potable water use profile was comprised of 65.3% residential use, 11.6% commercial, industrial, and institutional (CII), and 17.6% large landscape/irrigation, with non-revenue water (NRW) and other uses comprising about 5.4%.

## WATER USE PROJECTIONS: 5-YEAR AND 25-YEAR

The District's service area is almost completely built-out and is projected to add minimum land use and small population increase. Potable water demand is likely to increase 1.1% over the next 5 years. In the longer term (over the next 25 years), potable water demand is projected to increase 7.0% from 2020 actuals. The projected water use for 2045 is 7,671 AF for potable water and 1,485 AF for recycled water.

This demand projection considers such factors as current and future demographics, future water use efficiency measures, and long-term weather variability.

## CONSERVATION TARGET COMPLIANCE

Retail water suppliers are required to comply with the requirements of Water Conservation Act of 2009, also known as SBx7-7 (Senate Bill 7 as part of the Seventh Extraordinary Session), which was signed into law in 2010 and requires the State of California to reduce urban water use by 20% by 2020 from a 2013 baseline.

The retail water suppliers can comply individually or as a region in collaboration with other retail water suppliers, in order to be eligible for water related state grants and loans. The District is part of the Orange County 20x2020 Regional Alliance created in collaboration with MWDOC, its retail member agencies as well as the Cities of Anaheim, Fullerton and Santa Ana. The Alliance was created to assist OC retail agencies in complying with SBx7-7.

The District met its 2020 water use target and is in compliance with SBx7-7; the actual 2020 consumption was 134 gallons per capita per day (GPCD), which is below its 2020 target of 163 GPCD.

## WATER SUPPLY CHARACTERIZATION

The District meets its demands with a combination of imported water, recycled water, and surface water. The District works together with two primary agencies, MET and MWDOC, to ensure a safe and reliable water supply that will continue to serve the community in periods of drought and shortage. The sources of imported water supplies include water from the Colorado River and the State Water Project provided by MET and delivered through MWDOC.

In FY 2019-20, the District relied on 48.5% treated imported water, 32.5% untreated imported water, 15% recycled water, and 4% surface water.

It is projected that by 2045, the water supply portfolio will shift to 45% treated imported water, 39% untreated imported water, and 16% recycled water. Note that these representations of supply match the projected demand. However, the District can purchase more MET water through MWDOC, should the need arise.

The District owns and operates the collection system and the wastewater treatment facilities in its service area. Almost all the wastewater generated within the District's service area is conveyed to its Water Recycling Plant (WRP) where it is treated and recycled or treated and disposed of in collaboration with SOCWA. A small portion of flow on the southeast side of the District is conveyed directly to the Moulton Niguel Water District collection system. The WRP produces recycled water for irrigation and commercial uses. The District benefits from these direct uses of recycled water.

## WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

Every urban water supplier is required to assess the reliability of their water service to its customers under a normal year, a single dry year, and a drought period lasting five consecutive years. The water service reliability assessment compares projected supply to projected demand for the three hydrological conditions between 2025 and 2045. Factors affecting reliability, such as climate change and regulatory impacts, are accounted for as part of the assessment.

The District depends on a combination of imported and local supplies to meet its water demands and has taken numerous steps to ensure it has adequate supplies. MET's and MWDOC's 2020 UWMP conclude that they can meet full-service demands of their member agencies through 2045 during normal years, single-dry years, and multiple-dry years. Consequently, the District is projected to meet full-service demands through 2045 for the same scenarios, due to diversified supply and conservation measures.

The Drought Risk Assessment (DRA) evaluates the District's near-term ability to supply water assuming the District is experiencing a drought over the next five years. Even under the assumption of a drought over the next five years, MET's 2020 UWMP concludes a surplus of water supplies would be available to all of its Member Agencies, including MWDOC and in effect, the District, should the need for additional supplies arise to close any local supply gap. Additionally, the District partakes in various efforts to reduce its reliance on imported water supplies such as increasing the use of local groundwater and indirect recycled water.

## WATER SHORTAGE CONTINGENCY PLANNING

Water shortage contingency planning (WSCP) is a strategic planning process that the District engages in to prepare for and respond to water shortages. A water shortage, when water supply available is insufficient to meet the normally expected customer water use at a given point in time, may occur due to a number of reasons, such as water supply quality changes, climate change, drought, and catastrophic events (e.g., earthquake). The District's WSCP provides real-time water supply availability assessment and structured steps designed to respond to actual conditions. This level of detailed planning and preparation will help maintain reliable supplies and reduce the impacts of supply interruptions.

The WSCP serves as the operating manual that the District will use to prevent catastrophic service disruptions through proactive, rather than reactive, mitigation of water shortages. The WSCP contains the processes and procedures that will be deployed when shortage conditions arise so that the District's governing body, its staff, and its retail agencies can easily identify and efficiently implement pre-determined steps to mitigate a water shortage to the level appropriate to the degree of water shortfall anticipated.

## DEMAND MANAGEMENT MEASURES

The District, along with other Retail water agencies throughout Orange County, recognizes the need to use existing water supplies efficiently. This ethic of efficient use of water has evolved as a result of the development and implementation of water use efficiency programs that make good economic sense and reflect responsible stewardship of the region's water resources. The District works closely with MWDOC to promote regional efficiency by participating in the regional water savings programs, leveraging MWDOC local program assistance, and applying the findings of MWDOCs research and evaluation efforts.

## PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

The Water Code requires the UWMP to be adopted by the Supplier's governing body. Before the adoption of the UWMP, the District notified the public and the cities and counties within its service area per the Water Code and held a public hearing to receive input from the public on the UWMP. Post adoption, the District submitted the UWMP to DWR and other key agencies and made the document available for public review no later than 30 days after filing with DWR.

# 1 INTRODUCTION AND UWMP OVERVIEW

El Toro Water District (District or ETWD) prepared this 2020 Urban Water Management Plan (UWMP or Plan) to submit to the California Department of Water Resources (DWR) to satisfy the UWMP Act of 1983 (Act or UWMP Act) and subsequent California Water Code (Water Code) requirements. The District is a retail water supplier that provides water to its residents and other customers using the raw and potable imported water supply obtained from its regional wholesaler, Municipal Water District of Orange County (MWDOC), local surface water from the Irvine Lake, and recycled water from the District's Water Recycling Plant (WRP). The District, as one of MWDOC's 28 member agencies, prepared this 2020 UWMP in collaboration with MWDOC, Metropolitan Water District of Southern California (MET), South Orange County Wastewater Authority (SOCWA), and other key agencies.

UWMPs are comprehensive documents that present an evaluation of a water supplier's reliability over a long-term (20-25 year) horizon. In response to the changing climatic conditions and regulatory updates since the 2015 UWMP, the District has been proactively managing its water supply and demand. The water loss audit program, water conservation measures and efforts for increased self-reliance in order to reduce dependency on imported water from the Sacramento-San Joaquin Delta (the Delta) are some of the water management efforts that the District is a part of to maintain the reliability of water supply for its service area.

This 2020 UWMP provides an assessment of the present and future water supply sources and demands within the District's service area. It presents an update to the 2015 UWMP on District's water resource needs, water use efficiency programs, water reliability assessment and strategies to mitigate water shortage conditions. It presents a new 2020 Water Shortage Contingency Plan (WSCP) designed to prepare for and respond to water shortages. This 2020 UWMP contains all elements to meet compliance of the new requirements of the Act as amended since 2015.

## 1.1 Overview of Urban Water Management Plan Requirements

The UWMP Act enacted by California legislature requires every urban water supplier (Supplier) providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (AF) of water annually to prepare, adopt, and file an UWMP with the California Department of Water Resources (DWR) every five years in the years ending in zero and five.

For this 2020 UWMP cycle, DWR placed emphasis on achieving improvements for long term reliability and resilience to drought and climate change in California. Legislation related to water supply planning in California has evolved to address these issues, namely Making Conservation a Way of Life [Assembly Bill (AB) 1668 and Senate Bill (SB) 606] and Water Loss Performance Standard SB555. New UWMP requirements in 2020 are a direct result of these new water regulations. Two complementary components were added to the 2020 UWMP. First is the WSCP to assess the Supplier's near term 5-year drought risk assessment (DRA) and provide a structured guide for the Supplier to deal with water shortages. Second is the Annual Water Supply Demand Assessment (WSDA) to assess the current year plus one dry year i.e., short-term demand/supply outlook. Analyses over near- and long-term horizons together will provide a more complete picture of Supplier's reliability and will serve to inform appropriate actions it needs to take to build up capacity over the long term.

The various key new additions in the 2020 UWMP included as a result of the most recent water regulations are:

- **Water Shortage Contingency Plan (WSCP) –** WSCP helps a Supplier to better prepare for drought conditions and provides the steps and water use efficiency measures to be taken in times of water shortage conditions. WSCP now has more prescriptive elements, including an analysis of water supply reliability; the water use efficiency measures for each of the six standard water shortage levels, that correspond to water shortage percentages ranging from 0-10% to greater than 50%; an estimate of potential to close supply gap for each measure; protocols and procedures to communicate identified actions for any current or predicted water shortage conditions; procedures for an annual water supply and demand assessment; monitoring and reporting requirements to determine customer compliance; reevaluation and improvement procedures for evaluating the WSCP.
- **Drought Risk Assessment –** The Suppliers are now required to compare their total water use and supply projections and conduct a reliability assessment of all their sources for a consecutive five-year drought period beginning 2021.
- **Five Consecutive Dry-Year Water Reliability Assessment** - The three-year multiple dry year reliability assessment in previous UWMPs has now been extended from three to five consecutive dry years to include a more comprehensive assessment of the reliability of the water sources to improve preparedness of Suppliers for extended drought conditions.
- **Seismic Risk –** The UWMP now includes a seismic risk assessment of the water supply infrastructure and a plan to mitigate any seismic risks on the water supply assets.
- **Groundwater Supplies Coordination –** The UWMP should be in accordance with the Sustainable Groundwater Management Act of 2014 and consistent with the Groundwater Sustainability Plans, wherever applicable.
- **Lay Description** – To provide a better understanding of the UWMP to the general public, a lay description of the UWMP is included, especially summarizing the Supplier's detailed water service reliability assessment and the planned management steps and actions to mitigate any possible shortage scenarios.

## 1.2 UWMP Organization

This UWMP is organized into 10 main sections aligned with the DWR Guidebook recommendations. The subsections are customized to tell the District's story of water supply reliability and ways to overcome any water shortages over a planning horizon of the next 25 years.

**Section 1 Introduction and UWMP Overview** gives an overview of the UWMP fundamentals and briefly describes the new additional requirements passed by the Legislature for 2020 UWMP.

**Section 2 UWMP Preparation** identifies this UWMP as an individual planning effort of the District, lists the type of year and units of measure used and introduces the coordination and outreach activities conducted by the District to develop this UWMP.

**Section 3 System Description** gives a background on the District's water system and its climate characteristics, population projection, demographics, socioeconomics, and predominant current and projected land uses of its service area.

**Section 4 Water Use Characterization** provides historical, current, and projected water use by customer category for the next 25 years within the District's service area and the projection methodology used by MWDOC to develop the 25-year projections**.**

**Section 5 Conservation Target Compliance** reports the SB X7-7 water use conservation target compliance of the District (individually and as a member of the OC 20x2020 Regional Alliance).

**Section 6 Water Supply Characterization** describes the current water supply portfolio of the District as well as the planned and potential water supply projects and water exchange and transfer opportunities.

**Section 7 Water Service Reliability and Drought Risk Assessment** assesses the reliability of the District's water supply service to its customers for a normal year, single dry year, and five consecutive dry years scenarios. This section also includes a DRA of all the supply sources for a consecutive five-year drought period beginning 2021.

**Section 8 Water Shortage Contingency Planning** is a brief summary of the standalone WSCP document (Appendix H) which provides a structured guide for the District to deal with water shortages, incorporating prescriptive information and standardized action levels, lists the appropriate actions and water use efficiency measures to be taken to ensure water supply reliability in times of water shortage conditions, along with implementation actions in the event of a catastrophic supply interruption.

**Section 9 Demand Management Measures** provides a comprehensive description of the water conservation programs that the District has implemented, is currently implementing, and plans to implement in order to meet its urban water use reduction targets.

**Section 10 Plan Adoption, Submittal, and Implementation** provides a record of the process the District followed to adopt and implement its UWMP.

# 2 UWMP PREPARATION

The District's 2020 UWMP is an individual UWMP for the District to meet the Water Code compliance as a retail water supplier. While the District opted to prepare its own UWMP and meet Water Code compliance individually, the development of this UWMP involved close coordination with its whole supplier, MWDOC along with other key entities within the region.

## 2.1 Individual Planning and Compliance

The District opted to prepare its own UWMP (Table 2-1) and comply with the Water Code individually, while closely coordinating with MWDOC and various key entities as discussed in Section 2.2 to ensure regional integration. The UWMP Checklist was completed to confirm the compliance of this UWMP with the Water Code (Appendix A).

One consistency with MWDOC and the majority of its other retail member agencies is that the District selected to report demands and supplies using fiscal year (FY) basis (Table 2-2).

**Table 2-1: Plan Identification**

| DWR Submittal Table 2-2: Plan Identification | | | |
|---|---|---|---|
| **Select Only One** | **Type of Plan** | | **Name of RUWMP or Regional Alliance** |
| ☑ | **Individual UWMP** | | |
| | ☐ | Water Supplier is also a member of a RUWMP | |
| | ☑ | Water Supplier is also a member of a Regional Alliance | Orange County 20x2020 Regional Alliance |
| ☐ | **Regional Urban Water Management Plan (RUWMP)** | | |
| NOTES: | | | |

Table 2-2: Supplier Identification

| DWR Submittal Table 2-3: Supplier Identification | |
|---|---|
| Type of Supplier (select one or both) | |
| ☐ | Supplier is a wholesaler |
| ☑ | Supplier is a retailer |
| Fiscal or Calendar Year (select one) | |
| ☐ | UWMP Tables are in calendar years |
| ☑ | UWMP Tables are in fiscal years |
| If using fiscal years provide month and date that the fiscal year begins (mm/dd) | |
| *7/1* | |
| Units of measure used in UWMP (select from drop down) | |
| Unit | AF |
| NOTES: | |

## 2.2 Coordination and Outreach

### 2.2.1 Integration with Other Planning Efforts

The District, as a retail water supplier, coordinated this UWMP preparation effort with other key entities, including MWDOC (regional wholesale supplier for OC), MET (regional wholesaler for Southern California and the direct supplier of imported water to MWDOC), and SOCWA (agency that assists in the disposal of the District's wastewater). The District also developed this Plan in conjunction with other MWDOC-led efforts such as population projection from the Center for Demographic Research at California State University Fullerton (CDR).

Some of the key planning and reporting documents that were used to develop this UWMP are:

- **MWDOC's 2020 UWMP** provides the basis for the projections of the imported supply availability over the next 25 years for the District's service area.
- **MWDOC's 2020 WSCP** provides a water supply availability assessment and structured steps designed to respond to actual conditions that will help maintain reliable supplies and reduce the impacts of supply interruptions.

- **2021 OC Water Demand Forecast for MWDOC and OCWD Technical Memorandum (Demand Forecast TM)** provides the basis for water demand projections for MWDOC's member agencies as well as Anaheim, Fullerton, and Santa Ana.
- **MET's 2020 Draft Integrated Water Resources Plan (IRP)** is a long-term planning document to ensure water supply availability in Southern California and provides a basis for water supply reliability in Orange County.
- **MET's 2020 UWMP** was developed as a part of the 2020 IRP planning process and was used by MWDOC as another basis for the projections of supply capability of the imported water received from MET.
- **MET's 2020 WSCP** provides a water supply assessment and guide for MET's intended actions during water shortage conditions.
- **Local Hazard Mitigation Plan** provides the basis for the seismic risk analysis of the water system facilities.
- **Orange County Local Agency Formation Commission's 2020 Municipal Service Review for MWDOC Report** provides comprehensive review of the municipal services provided by MWDOC.
- **Water and Sewer Master Plan** of the District provides information on water infrastructure planning projects and plans to address any required water system improvements.

**Statewide Water Planning**

In addition to regional coordination with various agencies described above, the District as a MWDOC member agency is currently a part of MET's statewide planning effort to reduce reliance on the water imported from the Delta.

It is the policy of the State of California to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. This policy is codified through the Delta Stewardship Council's Delta Plan Policy WR P1 and is measured through Supplier reporting in each Urban Water Management Planning cycle. WR P1 is relevant to water suppliers that plan to participate in multi-year water transfers, conveyance facilities, or new diversions in the Delta.

Through significant local and regional investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts, the District has demonstrated a reduction in Delta reliance and a subsequent improvement in regional self-reliance. For a detailed description and documentation of the District's consistency with Delta Plan Policy WR P1 see Section 7.4 and Appendix C.

### 2.2.2 Wholesale and Retail Coordination

The District developed its UWMP in conjunction with MWDOC's 2020 UWMP. The District provided its historical water use and initial water use projections data to MWDOC (Table 2-3). MWDOC facilitated in refining the projections of the District's water demand and the imported supply from MWDOC over the next 25 years.

The District also has been taking part in many regional programs administered by MWDOC to assist retail agencies meet various State compliance, such as the OC Regional Alliance for SB x7-7 compliance, regional water loss program for SB555 compliance, and regional water use efficiency programs. Sections 5 and 9 provide detailed information on these programs.

**Table 2-3: Retail: Water Supplier Information Exchange**

| DWR Submittal Table 2-4 Retail: Water Supplier Information Exchange |
|---|
| The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631. |
| Wholesale Water Supplier Name |
| Municipal Water District of Orange County |
| NOTES: |

### 2.2.3 Public Participation

For further coordination with other key agencies and to encourage public participation in the review and update of this Plan, the District held a public hearing and notified key entities and the public per the Water Code requirements. Sections 10.2 and 10.3 describe these efforts in detail.

# 3 SYSTEM DESCRIPTION

Currently governed by a five-member Board of Directors, the District was formed in 1960 under provisions of California Water District Law, Division 13 of the Water Code of the State of California, commencing with Section 34000 for the purpose of providing water supply for the service area.

The District encompasses approximately 5,430 acres and is almost entirely developed and encompasses all of the City of Laguna Woods and portions of four other cities: Lake Forest, Aliso Viejo, Laguna Hills, and Mission Viejo. The District operates 12 different pressure zones, 6 reservoirs, 8 pump stations, 19 pressure reducing stations and manages 180 miles of water mains with approximately 9,500 service connections.

Lying in the South Coast Air Basin (SCAB), its climate is characterized by Southern California's "Mediterranean" climate with mild winters, warm summers, and moderate rainfall. In terms of land use, the District is almost entirely developed with predominantly single and multi-family residential units with areas of commercial, industrial, and institutional uses along with open space and parks. Major developments include a development project that will add 1,500 multi-family dwelling units and will redevelop an existing mall. Moving forward, the cities lying in the service area of the District will continue planning for their Regional Housing Needs Assessment (RHNA) allocation and the District may potentially observe a rise in the construction of accessory dwelling units (ADUs) as a means of affordable housing. The current population of 47,911 is projected to increase by only 5.7% over the next 25 years.

## 3.1 Agency Overview

This section provides information on the formation of the District, its organizational structure, roles, and relationship to MWDOC.

### 3.1.1 Formation and Purpose

The District, located within the southern portion of the County of Orange, was formed in 1960 under provisions of California Water District Law, Division 13 of the Water Code of the State of California, commencing with Section 34000 for the purpose of providing water supply for the service area.

### 3.1.2 Board of Directors

The District is governed by a publicly elected five-member Board of Directors. The current board members are:

- Mike Gaskins, President
- Kathryn Freshley, Vice President
- Mark Monin, Director
- Jose Vergara, Director
- Kay Havens, Treasurer

### 3.1.3 Relationship to MWDOC

The District is one of MWDOC's 28 member agencies purchasing imported water from MWDOC, Orange County's wholesale water supplier and a member agency of MET. The District's location within MWDOC's service is shown on Figure 3-1.

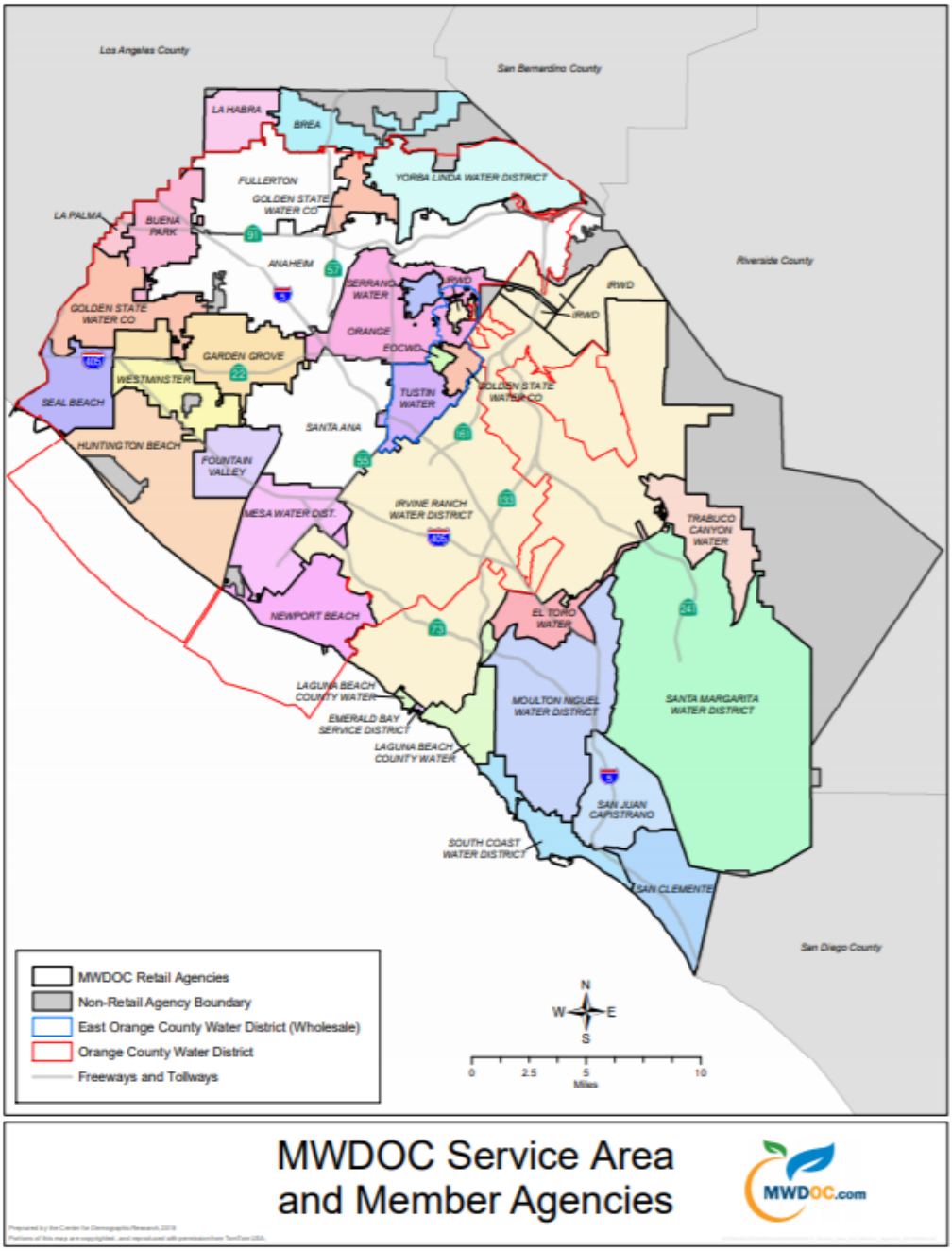


**Figure 3-1: Regional Location of El Toro Water District and Other MWDOC Member Agencies**

## 3.2 Water Service Area and Facilities

### 3.2.1 Water Service Area

The District encompasses approximately 5,430 acres and is almost entirely developed and encompasses all of the City of Laguna Woods and portions of four other cities: Lake Forest, Aliso Viejo, Laguna Hills, and Mission Viejo.

The District service area ranges in elevation between 230 feet above sea level at its lowest point to 904 feet at its highest. In general, elevations increase from west to east. Interstate 5 bisects the District from north to south, with the higher elevations located on the east side. The District is bordered by the Irvine Ranch Water District (IRWD) to the north, the Laguna Beach County Water District (LBCWD) to the west, the Moulton Niguel Water District (MNWD) to the west and south, and the Santa Margarita Water District (SMWD) to the south and east. The District also shares a small border with the Trabuco Canyon Water District (TCWD) in the north.

A map of the District 's water service area is shown as Figure 3-2.

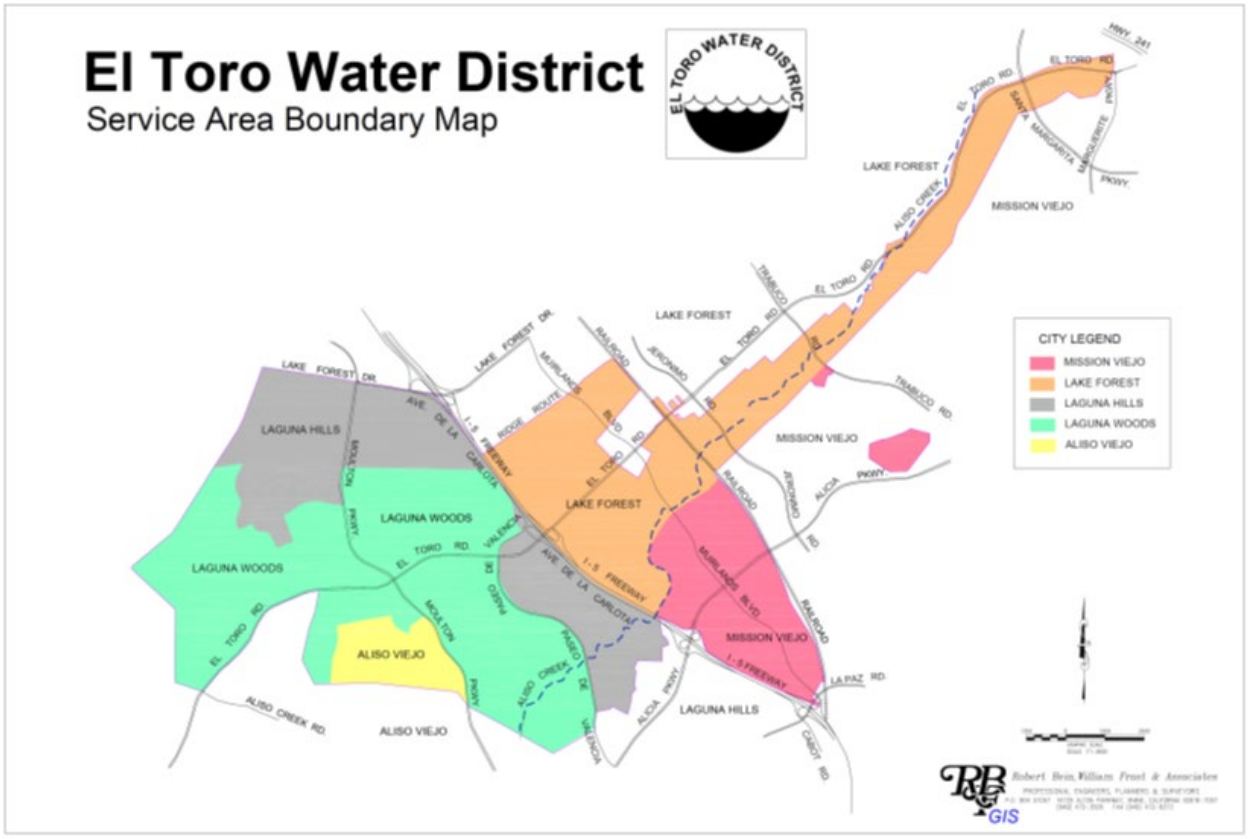


**Figure 3-2: El Toro Water District Water Service Area**

### 3.2.2 Water Facilities

The District operates and maintains a system that has approximately 9,500 service connections, 12 different pressure zones, 6 reservoirs, 8 pump stations, 19 pressure reducing stations and approximately 180 miles of transmission and distribution pipelines of varying diameters between four inches and 24 inches.

The imported water from MET fills the District's 275 million gallon (MG) R-6 reservoir or directly feeds the distribution system. Water from MET and/or the R-6 reservoir is fed by gravity, through pressure reducing valves or via pumping stations to provide adequate system pressures at the District's service connections.

The system connections and water volume supplied are summarized in Table 3-1.

**Table 3-1: Retail Only: Public Water Systems**

| DWR Submittal Table 2-1 Retail Only: Public Water Systems | | | |
|---|---|---|---|
| Public Water System Number | Public Water System Name | Number of Municipal Connections 2020 | Volume of Water Supplied 2020 |
| CA3010079 | El Toro Water District | 9,536 | 8,437 |
| | **TOTAL** | 9,536 | 8,437 |
| NOTES:<br>The number of municipal connections corresponds to the active connections.<br>The volume of water supplied includes both potable and non-potable. | | | |

## 3.3 Climate

The District is located within the SCAB that encompasses all of OC, and the urban areas of Los Angeles, San Bernardino, and Riverside counties. The SCAB climate is characterized by Southern California's "Mediterranean" climate: a semi-arid environment with mild winters, warm summers, and moderate rainfall.

Local rainfall has limited impacts on reducing water demand in the District, except for landscape irrigation demand. Water that infiltrates into the soil may enter groundwater supplies depending on the local geography. However, due to the large extent of impervious cover in Southern California, rainfall runoff quickly flows to a system of concrete storm drains and channels that lead directly to the ocean.

MET's water supplies come from the State Water Project (SWP) and the Colorado River Aqueduct (CRA), influenced by climate conditions in northern California and the Colorado River Basin, respectively. The years 2000-2018 have been the driest 19-year period in the history and both regions have been receiving record low precipitation which directly impact water supplies to Southern California. Due to the prolonged drought conditions since 2000, storage within the Colorado River system has declined to half of its reservoir capacity and has been fluctuating at that level (DWR, January 2020).

## 3.4 Population, Demographics, and Socioeconomics

### 3.4.1 Service Area Population

According to CDR, the District's service area has a 2020 population of 47,911, a decrease from the 2015 population of 48,579. The District is almost completely built-out and overall, its population is projected to increase with a growth of 5.7% over the 25-year period from 2020 to 2045. Table 3-2 shows the population projections in five-year increments out to 2045 within the District's service area.

**Table 3-2: Retail: Population - Current and Projected**

| DWR Submittal Table 3-1 Retail: Population - Current and Projected | | | | | | |
|---|---|---|---|---|---|---|
| Population Served | 2020 | 2025 | 2030 | 2035 | 2040 | 2045*(opt)* |
| | 47,911 | 48,808 | 51,093 | 51,100 | 51,074 | 50,649 |
| NOTES:<br>Source - Center for Demographic Research at California State University, Fullerton, 2020 | | | | | | |

### 3.4.2 Demographics and Socioeconomics

As shown in Table 3-3 below, the total number of dwelling units in the District is expected to increase by 4.9% in the next 25 years from 23,864 in 2020 to 25,052 in 2045. Table 3-3 also shows a breakdown of the total dwelling units by type for the 25-year period from 2020 to 2045.

**Table 3-3: El Toro Water District Service Area Dwelling Units by Type**

| El Toro Water District Service Area Dwelling Units by Type | | | | | | |
|---|---|---|---|---|---|---|
| Dwelling Units | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
| Total | **23,864** | **24,064** | **25,052** | **25,052** | **25,052** | **25,052** |
| Single Family | 5,456 | 5,456 | 5,456 | 5,456 | 5,456 | 5,456 |
| All Other* | 18,408 | 18,608 | 19,596 | 19,596 | 19,596 | 19,596 |
| Source: Center for Demographic Research at California State University, Fullerton, 2020<br>*Includes duplex, triplex, apartment, condo, townhouse, mobile home, etc. Yachts, houseboats, recreational vehicles, vans, etc. are included if is primary place of residence. Does not include group quartered units, cars, railroad box cars, etc. | | | | | | |

In addition to the types and proportions of dwelling units, various socio-economic factors such as age distribution, education levels, general health status, income and poverty levels affect ETWD's water

management and planning. Based on the U.S. Census Bureau's QuickFacts, OC has about 15.3% of population of 65 years and over, 21.7% under the age of 18 years and 5.8% under the age of 5 years. 85.5% of the OC's population with an age of more than 25 years has a minimum of high school graduate and 40.6% of this age group has at least a bachelor's degree.

### 3.4.3 CDR Projection Methodology

The District obtains its services area population and dwelling unit data from MWDOC via CDR. MWDOC contracts with CDR to update the historic population estimates for 2010 to the current year and provide an annual estimate of population served by each of its retail water suppliers within its service area. CDR uses GIS and data from the 2000 and 2010 U.S. Decennial Censuses, State Department of Finance (DOF) population estimates, and the CDR annual population estimates. These annual estimates incorporate annual revisions to the DOF annual population estimates, often for every year back to the most recent Decennial Census. As a result, all previous estimates were set aside and replaced with the most current set of annual estimates. Annexations and boundary changes for water suppliers are incorporated into these annual estimates.

In the summer of 2020, projections by water supplier for population and dwelling units by type were estimated using the 2018 Orange County Projections dataset. Growth for each of the five-year increments was allocated using GIS and a review of the traffic analysis zones (TAZ) with a 2019 aerial photo. The growth was added to the 2020 estimates by water supplier.

## 3.5 Land Uses

### 3.5.1 Current Land Uses

The District's service area can best be described as a predominantly single and multi-family residential community located along the coast in southern Orange County. There are areas of commercial, industrial, and institutional uses along with open space and parks.

Based on the zoning designation collected and aggregated by Southern California Association of Governments (SCAG) around 2018, the current land use within the District's service area can be categorized as follows:

- Single family residential – 20.6%
- Multi-family residential – 36.5%
- Commercial – 12.0%
- Industrial – 1.6%
- Institutional/Governmental – 8.6%
- Agriculture – 0.1%
- Open space and parks – 16.9%
- Other – 1.4% (e.g., Undevelopable or Protected Land, Water, and Vacant)
- No land use designations – 2.1%

In terms of current developments in the District's service area, the City of Laguna Hills has approved the 'Village at Laguna Hills" project which proposes to add 1,500 multi-family residential units and to

redevelop Laguna Hills Mall. It will result in a net increase in water demand from ETWD's residential, commercial, and landscape irrigation customer sectors. These residential units will generate approximately 195,340 gpd of potable water demand. Commercial potable water demand is estimated to increase by 68,120 gpd, mainly as a result of the addition of general office space, hotels and restaurants and the project will result in a net increase of approximately 335,700 sf in landscaped areas to the mall and residential areas, with an associated irrigation demand of approximately 23,080 gpd.

### 3.5.2 Projected Land Uses

Moving forward, the cities lying in the service area of the District - Cities of Aliso Viejo, Laguna Hills, Laguna Woods, Lake Forest, and Mission Viejo will continue planning for their RHNA allocation requirements; Section 4.3.2.3 describes the RHNA allocation associated with the District's service area and the corresponding water demand in detail.

As the need for affordable housing rises, the District may potentially observe a rise in the construction of ADUs, which are separate small dwellings embedded within residential properties. There has been an increase in the construction of ADUs in California in response to the rise in interest to provide affordable housing supply. The Legislature updated the ADU law effective January 1, 2020 to clarify and improve various provisions to promote the development of ADUs. (AB-881, "Accessory dwelling units," and AB-68, "Land use: accessory dwelling units") These include:

- allowing ADUs and Junior Accessory Dwelling Units (JADUs) to be built concurrently with a single-family dwelling. JADUs max size is 500 sf.
- opening areas where ADUs can be created to include all zoning districts that allow single-family and multi-family uses
- maximum size cannot be less than 850 sf for a one-bedroom ADU or 1,000 sf for more than one bedroom (California Department of Housing and Community Development, 2020).

About 92% of the ADUs in California are being built in the single family zoned parcels (University of California Berkeley, 2020). The increase in ADUs implies an increase in number of people per dwelling unit which potentially translates to higher water demand.

# 4 WATER USE CHARACTERIZATION

## 4.1 Water Use Overview

Water use within the District's service area has been relatively stable in the past decade with an annual average of 8,972 AF. The potable and non-potable water use accounts for an average of 91% and 9% of total District water use, respectively. In FY2019-20, the District's water use was 7,167 AF of potable water and 1,270 AF of direct recycled water for landscape irrigation. In FY 2019-20, the District's potable water use profile was comprised of 65.3% residential use, 11.6% commercial, industrial, and institutional (CII), and 17.6% large landscape/irrigation, with non-revenue water (NRW) and other uses comprising about 5.4%. As described in Section 3, the District's service area is almost completely built-out and is projected to add minimum land use and small population increase. Potable water demand is likely to increase 1.1% over the next 5 years. In the longer term (over the next 25 years), potable water demand is projected to increase 7.0% from 2020 actuals. The projected water use for 2045 is 7,671 AF for potable water and 1,485 AF for recycled water. The passive savings are anticipated to continue for the next 25 years and are considered in the water use projections. Permanent water conservation requirements and water conservation strategies are discussed in Section 8 and 9 of this document.

## 4.2 Past and Current Water Use

Water use within the District's service area has been relatively stable in the past decade with an annual average of 8,972 AF. A stable trend is expected because the district is essentially built-out and the rate of population growth is small (about 0.23% per year). Water conservation efforts also kept per capita water use down.

As a result of Governor Jerry Brown's mandatory water conservation order in 2014, the District's water use in the last five years decreased below the 10-year average. Between FY2015/16 and FY2019/20, water use within the District's service area ranged from 7,830 to 9,239 acre-feet per year (AFY) (potable and non-potable combined). In the past decade, between FY2010/11 and FY 2019/20, potable and non-potable water use accounts for an average of 91% and 9% of total District water use, respectively. Potable water uses include demands from residential, commercial, industrial, and institutional (CII), and large landscape irrigation. Non-potable use includes the use of recycled water for large landscape and golf course irrigation.

As of FY2019/20 there are 9,969 active service connections in the District's water distribution system. Of these, 229 are recycled water accounts. Table 4-1 summarizes the District's total potable water demand for FY2019-20. The District has a mix of commercial uses (markets, restaurants, etc.), public entities (schools, fire stations and government offices), and office complexes. Single and multi- family residential water demand combined accounts for 65.3% of the total potable water demand. Commercial use accounts for 10.9% of total potable demand, while institutional/governmental use accounts for 0.7% of total potable demand. Large landscape (irrigation) accounts for 17.6%, while NRW comprises about 5.3% of total potable demand.

Table 4-1: Retail: Demands for Potable and Non-Potable Water – Actual

| DWR Submittal Table 4-1 Retail: Demands for Potable and Non-Potable Water - Actual | | | |
|---|---|---|---|
| Use Type | 2020 Actual | | |
| | Additional Description | Level of Treatment When Delivered | Volume |
| Single Family | | Drinking Water | 1,943 |
| Multi-Family | | Drinking Water | 2,738 |
| Commercial | | Drinking Water | 782 |
| Institutional/Governmental | | Drinking Water | 53 |
| Landscape | Represents large landscape (with irrigation meters) served by potable water and not recycled water | Drinking Water | 1,263 |
| Losses | Non-Revenue Water | Drinking Water | 385 |
| Other | Flooding Meters and Private Fire Systems | Drinking Water | 3 |
| | | **TOTAL** | 7,167 |
| NOTES: Volumes reported in AF. This table only represents potable water; recycled water projections are shown in Table 4-4 (DWR Submittal Tables 4-3) and Table 6-8 (DWR Submittal Tables 6-4). | | | |

## 4.3 Water Use Projections

A key component of this 2020 UWMP is to provide an insight into the District's future water demand outlook. This section discusses the considerations and methodology used to estimate the 25-year water use projection. Overall, total water demand is projected to increase 8.5% between 2020 (8,437 AF) and 2045 (9,156 AF). While single family residential use is projected to decrease, multifamily residential use and CII usage are projected to increase. Demands for large landscape applications and recycled water are projected to increase as compared to 2020 actuals. While NRW volume is projected to slightly increase over time, it remains steady as a percentage of total potable demand.

### 4.3.1 Water Use Projection Methodology

In 2021, MWDOC and OCWD, in collaboration with their member agencies, led the effort to update water demand projections originally done as part of the 2021 OC Water Demand Forecast for MWDOC and OCWD. The updated demand projections, prepared by CDM Smith, were for the Orange County region as a whole, and provided retail agency specific demands. The projections span the years of 2025-2050 and are based upon information surveyed from each Orange County water agency.

The forecast methodology began with a retail water agency survey that asked for FY 2017-18, FY 2018-19 and FY 2019-20 water use by major sector, including number of accounts. If a member agency provided recycled water to customers that information was also requested. Given that FY 2017-18 was a slightly above-normal demand year (warmer/drier than average) and FY 2018-19 was a slightly below-normal demand year (cooler/wetter than average), water use from these two years were averaged to represent an average-year base water demand.

For the residential sectors (single-family and multifamily) the base year water demand was divided by households in order to get a total per unit water use (gallons per home per day). In order to split household water use into indoor and outdoor uses, three sources of information were used, along with CDM Smith's expertise. The sources of information included: (1) *the Residential End Uses of Water* (Water Research Foundation, 2016); (2) California's plumbing codes and landscape ordinances; and (3) CA DWR's Model Water Efficient Landscape Ordinance (MWELO) calculator.

Three different periods of residential end uses of water were analyzed as follows:

- **Pre-2010 efficiency levels** – Has an average indoor water use that is considered to be moderately efficient, also does not include the most recent requirements for MWELO.
- **High-efficiency levels** – Includes the most recent plumbing codes that are considered to be highly efficient, and also includes the most recent requirements for MWELO.
- **Current average efficiency levels** – Represents the weighted average between pre-2010 efficiency and high efficiency levels, based on average age of homes for each retail water agency.

For outdoor residential water use, the indoor per capita total was multiplied by each member agency-specific persons per household in order to get an indoor residential household water use (gallons per day per home), and then was subtracted from the base year total household water use for single-family and multifamily for each agency based on actual water use as reported by the agency surveys.

For existing residential homes, the current average indoor and outdoor water use for each member agency were used for the year 2020. It was assumed that indoor water uses would reach the high efficiency level by 2040. Based on current age of homes, replacement/remodeling rates, and water utility rebate programs it is believed this assumption is very achievable. It was also assumed that current outdoor water use would be reduced by 5% by 2050.

For new homes, the indoor high efficiency level was assumed for the years 2025 through 2050. Outdoor uses for new homes were assumed to be 25% and 30% lower than current household water use for single-family and multifamily homes, respectively. This methodology is illustrated in Figure 4-1 below.

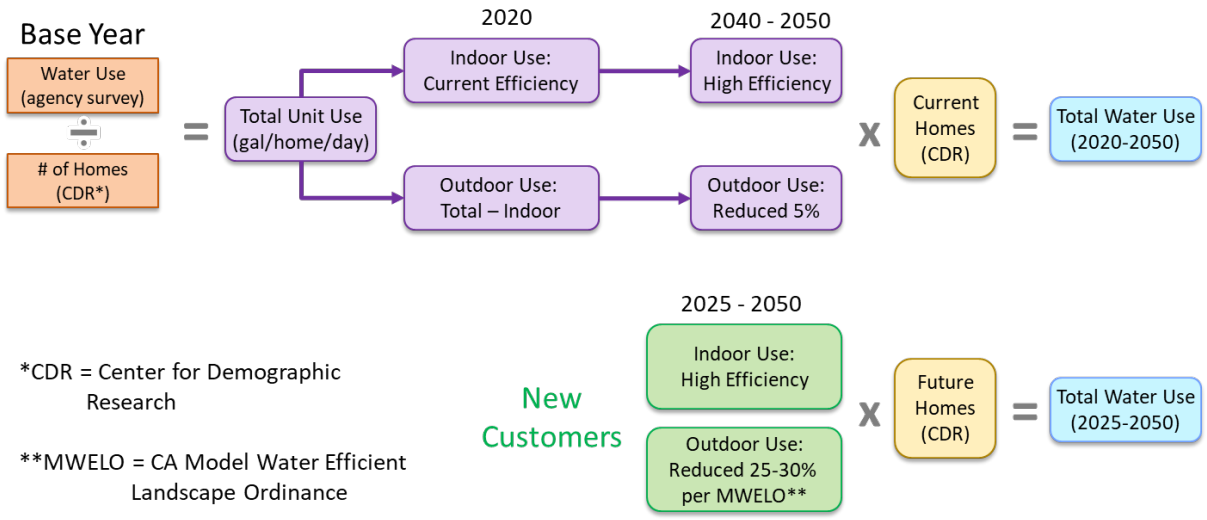


**Figure 4-1: Water Use Projection Methodology Diagram**

Existing and projected population, single-family and multifamily households for each retail water agency were provided by CDR under contract by MWDOC and OCWD. CDR provides historical and future demographics by census tracts for all of Orange County (Section 3.4). Census tract data is then clipped to retail water agency service boundaries in order to produce historical and projected demographic data by agency.

For the CII water demands, which have been fairly stable from a unit use perspective (gallons/account/day), it was assumed that the unit demand in FY 2019-20 would remain the same from 2020-2025 to represent COVID-19 impacts. Reviewing agency water use data from FY 2017-18 through FY2019-20 revealed that residential water use increased slightly in FY 2019-20 while CII demands decreased slightly as a result of COVID-19. From 2030 to 2050, the average CII unit use from FY 2017-18 and 2018-19 was used. These unit use factors were then multiplied by an assumed growth of CII accounts under three broad scenarios:

- Low Scenario – assuming no growth in CII accounts
- Mid Scenario – assuming 0.5% annual growth in CII accounts
- High Scenario – assuming 1.5% annual growth in CII accounts

For most retail agencies, the Mid Scenario of CII account growth was used, but for those retail agencies that have had faster historical growth the High Scenario was used. For those retail agencies that have had relatively stable CII water demand, the Low Scenario was used. For ETWD, the high-scenario was applied.

For those agencies that supply recycled water for non-potable demands, MWDOC used agency-specified growth assumptions. Most agencies have already maximized their recycled water and thus are not expecting for this category of demand to grow. However, a few agencies in South Orange County do expect moderate growth in recycled water customers.

For large landscape customers served currently by potable water use, MWDOC assumed these demands to be constant through 2050, except for agencies that have growing recycled water demands. For the agencies that have growing recycled water demands, large landscape demands served by potable water reduced accordingly. For non-revenue water, which represents the difference in total water production less all water billed to customers, this percentage was held constant through 2050. Note that 2050 data was not presented in the UWMP.

A member agency's water use demand projection is the summation of their residential water demand, CII demands, large landscape and recycled water demands, and water losses all projected over the 25-year time horizon. These demands were provided to each of the Orange County water agencies for their review, feedback, and revision before being finalized.

The MWDOC regional water demand projection was collaboratively developed between MWDOC and its member agencies. MWDOC's projections were built upon the same model developed by CDM Smith, and took into consideration specific assumptions and projections provided to MWDOC by its member agencies.

#### 4.3.1.1 Weather Variability and Long-Term Climate Change Impacts

In any given year water demands can vary substantially due to weather. In addition, long-term climate change can have an impact on water demands into the future. For the 2014 OC Water Reliability Study, CDM Smith developed a statistical model of total water monthly production from 1990 to 2014 from a sample of retail water agencies. This model removed impacts from population growth, the economy and drought restrictions in order to estimate the impact on water use from temperature and precipitation.

The results of this statistical analysis are:

- Hot/dry weather demands will be 5.5% greater than current average weather demands
- Cooler/wet weather demands will be 6% lower than current average weather demands
- Climate change impacts will increase current average weather demands by:
    - 2% in 2030
    - 4% in 2040
    - 6% in 2050

### 4.3.2 **25-Year Water Use Projection**

The projected demand values were provided by MWDOC and reviewed by the District as part of the UWMP effort. As the regional wholesale supplier for much of Orange County, MWDOC works in collaboration with each of its retail agencies as well as MET, its wholesaler, to develop demand projections for imported water. The District has been proactively decreasing its reliance on imported water by pursuing a variety of water conservation strategies and increasing recycled water availability and use within the service area. Future water savings and low-income water use are included in these projected values.

#### 4.3.2.1 Water Use Projections for 2021-2025

The water use projection without drought conditions for 2021-2025 is presented in Table 4-2. This table will be adjusted to estimate the five-years' cumulative drought effects as described in the five-year DRA in Section 7. A linear increase in total water demand is expected over the next 5 years.

**Table 4-2: Water Use Projections for 2021 to 2025**

| Retail: Total Water Demand | | | | | |
|---|---|---|---|---|---|
| Fiscal Year Ending | 2021 | 2022 | 2023 | 2024 | 2025 |
| Total Water Demand (AF) | 8,497 | 8,557 | 8,617 | 8,677 | 8,737 |
| NOTES: | | | | | |

#### 4.3.2.2 Water Use Projections for 2025-2045

Table 4-3 is a projection of the District's water demand for 2025-2045. Single family residential use is projected to decrease, while multifamily residential use is projected to increase. Usage by CII is projected to increase. CII projections for 2025 through 2045 were broken down into commercial, industrial, and institutional/governmental using proportions reported for each billing sector in FY 2019-20. Demands for large landscape applications are projected to stay consistent, as are projections for non-potable recycled water usage. NRW remains stead as a percentage of total demand.

The demand data presented in this section accounts for passive savings in the future. Passive savings are water savings as a result of codes, standards, ordinances and public outreach on water conservation and higher efficiency fixtures. Passive savings are anticipated to continue through 2045 and will result in continued water saving and reduced consumption levels. Permanent water conservation requirements and water conservation strategies are discussed in Section 8 and 9 of this document.

**Table 4-3: Retail: Use for Potable and Non-Potable Water - Projected**

| DWR Submittal Table 4-2 Retail: Use for Potable and Non-Potable Water - Projected | | | | | | |
|---|---|---|---|---|---|---|
| Use Type | Additional Description *(as needed)* | Projected Water Use *Report to the Extent that Records are Available* | | | | |
| | | 2025 | 2030 | 2035 | 2040 | 2045 (opt) |
| Single Family | | 1,905 | 1,913 | 1,885 | 1,858 | 1,847 |
| Multi-Family | | 2,746 | 2,894 | 2,856 | 2,817 | 2,813 |
| Institutional/Governmental | | 55 | 68 | 73 | 78 | 78 |
| Commercial | | 822 | 1,004 | 1,080 | 1,160 | 1,160 |
| Landscape | | 1,314 | 1,339 | 1,339 | 1,339 | 1,339 |
| Losses | Non-revenue water | 410 | 432 | 433 | 434 | 433 |
| **TOTAL** | | 7,252 | 7,651 | 7,666 | 7,687 | 7,671 |

| DWR Submittal Table 4-2 Retail: Use for Potable and Non-Potable Water - Projected |
|---|
| NOTES: Volumes reported in AF. This table only represents potable water; recycled water projections are shown in Table 4-4 (DWR Submittal Tables 4-3) and Table 6-8 (DWR Submittal Tables 6-4). |

Based on the information provided above, the total demand for potable water is listed below in Table. The District currently provides recycled water in its service area and is projected to grow its use.

**Table 4-4: Retail: Total Water Use (Potable and Non-Potable)**

| DWR Submittal Table 4-3 Retail: Total Gross Water Use (Potable and Non-Potable) | | | | | | |
|---|---|---|---|---|---|---|
| | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
| Potable Water, Raw, Other Non-potable | 7,167 | 7,252 | 7,651 | 7,666 | 7,687 | 7,671 |
| Recycled Water Demand | 1,270 | 1,485 | 1,485 | 1,485 | 1,485 | 1,485 |
| **TOTAL WATER USE** | 8,437 | 8,737 | 9,136 | 9,151 | 9,172 | 9,156 |
| | | | | | | |
| NOTES: Volumes in AF.<br><br>This includes volume that goes into the RW distribution system (250 connections), the golf course, and ETWD's own use for irrigation at the treatment plant. Source: Production Report, FY2019-20. | | | | | | |

**Table 4-5: Retail Only: Inclusion in Water Use Projections**

| DWR Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections | |
|---|---|
| Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) | Yes |
| If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found. | Section 8 and 9 |
| Are Lower Income Residential Demands Included in Projections? | Yes |
| NOTES: | |

### 4.3.2.3 Water Use Projections for Lower Income Households

Since 2010, the UWMP Act has required retail water suppliers to include water use projections for single-family and multi-family residential housing for lower income and affordable households. This will assist the District in complying with the requirement under Government Code Section 65589.7 granting priority for

providing water service to lower income households. A lower income household is defined as a household earning below 80% of the Median Household Income (MHI).

DWR recommends retail suppliers rely on the housing elements of city or county general plans to quantify planned lower income housing with the District 's service area (DWR, 2020). RHNA assists jurisdictions in updating general plan's housing elements section. The RHNA identifies additional housing needs and assesses households by income level for the District through 2010 decennial Census and 2005-2009 American Community Survey data. The sixth cycle of the RHNA covers the planning period of October 2021 to October 2029. The SCAG adopted the RHNA Allocation Plan for this cycle on March 4, 2021. The California Department of Housing and Community Development reviewed the housing elements data submitted by jurisdictions in the SCAG region and concluded the data meets statutory requirements for the assessment of current housing needs.

Under the assumption that the RHNA household allocations adequately represent ratios of the District's overall future income categories (not the exact ratio of all household by income but a conservative one for low-income household estimates), the RHNA low-income percentage can be used to estimate future low income demands. One objective of RHNA is to increase affordable housing, therefore RHNA has been allocating additional low-income households to various regions. Because relying on the RHNA distribution of households by income category is likely to produce an overestimate of low-income water demands, this approach represents a conservative projection of future low-income water use.

Table 4-6 presents the District's RHNA housing allocation. RHNA classifies low income housing into two categories: very low income (<30% - 50% MHI), and low income (51% - 80% MHI). Given that the District's service area covers portions of the Cities of Aliso Viejo, Laguna Hills, Laguna Woods, Lake Forest, and Mission Viejo, a weighted average of the RHNA projection for each city served by the District was calculated based on the proportion of each city within the water District. For example, as summarized in Table 4-6, approximately 35.0% of the District's service area lies within Laguna Woods. Based on RHNA, 26.4% of the allocated households are designated for low-income. Therefore, the weighted projected allocation for low-income households for Laguna Woods is 9.2% (35.0% times 26.4%). The same procedure is repeated for all cities within the District's service area. Altogether, 39.7% of the District's allocated housing need for the planning period of October 2021 to October 2029 are considered low-income housing (SCAG, 2021).

**Table 4-6: Weighted Average of SCAG 6th Cycle Household Allocation Based on Median Household Income**

| City | % Area Served | % Low-income of Total Allocated Households from RHNA | Weighted % Low-income Households |
|---|---|---|---|
| Aliso Viejo | 2% | 50.54% | 1.01% |
| Laguna Hills | 18% | 46.40% | 8.35% |
| Laguna Woods | 35% | 26.38% | 9.23% |
| Lake Forest | 32% | 46.32% | 14.82% |

| City | % Area Served | % Low-income of Total Allocated Households from RHNA | Weighted % Low-income Households |
|---|---|---|---|
| Mission Viejo | 13% | 48.49% | 6.30% |
| Total | 100% | **Weighted Average** | **39.72%** |

By applying the percentage of low-income housing from the SCAG report to the total projected SF/MF residential demand calculated in Table 4-3 above, low-income demand can be conservatively estimated for both SF and MF through 2045. For example, the total low-income single family residential demand is projected to be 757 AF in 2025 and 734 AF in 2045 (Table 4-7).

**Table 4-7: Projected Water Use for Low Income Households (AF)**

| Water Use Sector | FY Ending | | | | |
|---|---|---|---|---|---|
| | 2025 | 2030 | 2035 | 2040 | 2045 |
| Total Residential Demand (AF) | 4,651 | 4,807 | 4,741 | 4,675 | 4,660 |
| Single-Family Residential Demand - Low Income Households (AF) | 757 | 760 | 749 | 738 | 734 |
| Multi-Family Residential Demand - Low Income Households (AF) | 1091 | 1150 | 1134 | 1119 | 1117 |
| ***Total Low Income Households Demand (AF)*** | 1,847 | 1,910 | 1,883 | 1,857 | 1,851 |

## 4.4 Water Loss

The District has conducted annual water loss audit since 2015 per the American Water Works Association (AWWA) methodology per SB 555 to understand the relationship between water loss, operating costs, and revenue losses. NRW for CY2015– CY2019 (Figure 4-2) consists of three components: real losses (e.g., leakage in mains and service lines, and storage tank overflows), apparent losses (unauthorized consumption, customer metering inaccuracies and systematic data handling errors), and unbilled water (e.g., hydrant flushing, firefighting, and blow-off water from well start-ups). The District's real losses ranged from 243 AFY to 302 AFY and apparent losses ranged from 68 AFY to 74 AFY in the last five years. The unbilled water ranged from 12 AFY to 93 AFY in the last five years.

In the latest water loss audit (CY2019), the District's total water loss was 350 AFY (Table 4-8), compared to the total water use of 8,033 AF in the same timeframe (roughly 4.4% water loss). The total water loss consists of real loss of 282 AFY and apparent loss of 68 AFY in CY2019. The NRW was 385 AFY. The active and inactive service connections were consistent in the last five years with 10,049 connections in CY2019. The real loss performance indicator was 25 gals/connection/day in CY2019. Figure **4**-3 presents the performance indicators of gallons of real and apparent loss per connection per day. Understanding and controlling water loss from a distribution system is an effective way for the District to achieve regulatory standards and manage their existing resources. The California State Water Resources Control

Board (SWRCB) is still developing water loss performance standards; these standards have not yet been adopted.

**Table 4-8: Retail: 5 Year Water Loss Audit Reporting**

| DWR Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting | |
|---|---|
| Reporting Period Start Date (mm/yyyy) | Volume of Water Loss [1,2] (AF) |
| 01/2015 | 376 |
| 01/2016 | 311 |
| 01/2017 | 359 |
| 01/2018 | 363 |
| 01/2019 | 350 |
| *[1] Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.*<br>***[2] Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.* | |
| NOTES: Water loss in AFY. | |

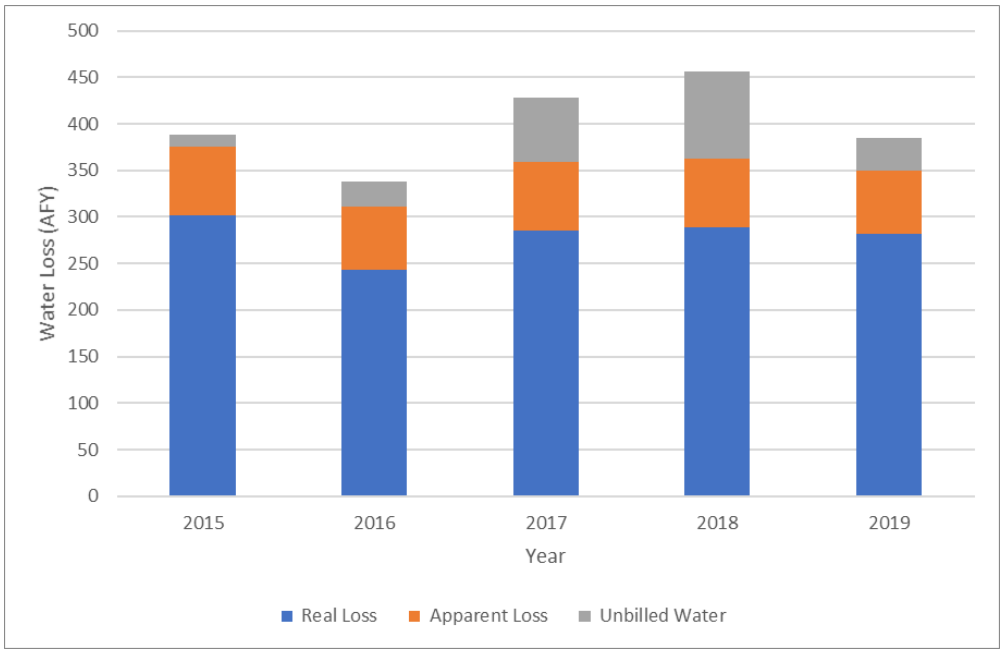


**Figure 4-2: Water Loss Audit for CY 2015 to CY 2019**

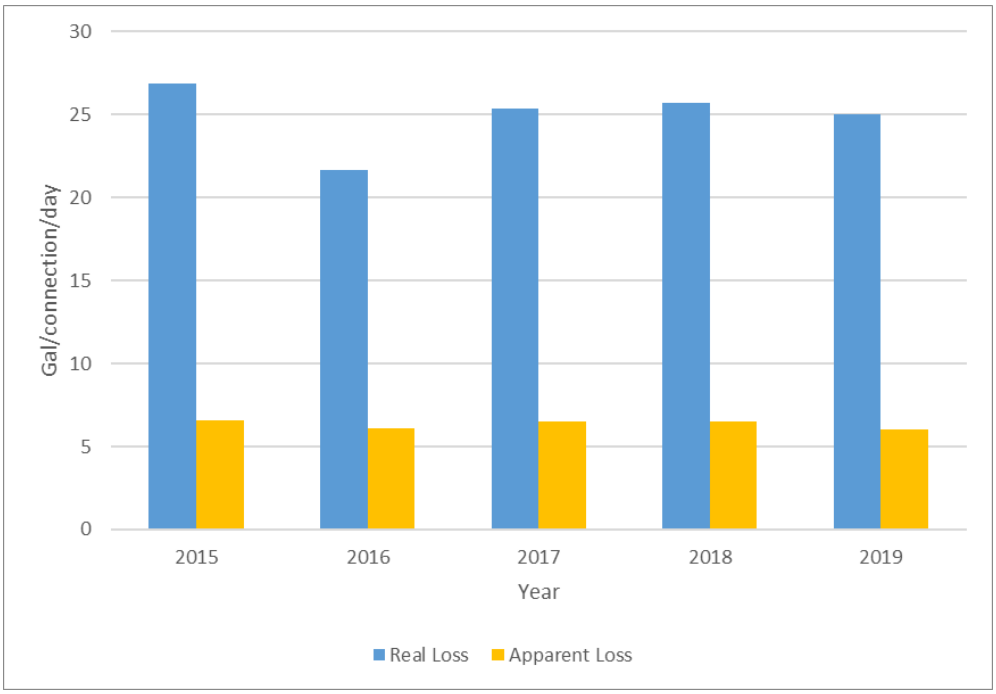


**Figure 4-3: Water Loss Performance Indicators for CY 2015 to CY 2019**

# 5 CONSERVATION TARGET COMPLIANCE

The Water Conservation Act of 2009, also known as SBx7-7 (Senate Bill 7 as part of the Seventh Extraordinary Session), signed into law on February 3, 2010, requires the State of California to reduce urban water use by 20% by the year 2020 (20x2020). To achieve this each retail urban water supplier must determine baseline water use during their baseline period and target water use for the years 2015 and 2020 to meet the state's water reduction goal. Retail water suppliers are required to comply with SBx7-7 individually or as a region in collaboration with other retail water suppliers, or demonstrate they have a plan or have secured funding to be in compliance, in order to be eligible for water related state grants and loans on or after July 16, 2016.

The District's actual 2020 water use is lower than its 2020 water use target, therefore, demonstrating compliance with SBx7-7. In its 2015 UWMP, the District revised its baseline per capita water use calculations using 2010 U.S. Census data. Changes in the baseline calculations resulted in updated per capita water use targets.

The following sections describe the efforts by the District to comply with the requirements of SBx7-7 and efforts by MWDOC to assist retail agencies, including the formation of a Regional Alliance to provide additional flexibility to all water suppliers in Orange County. A discussion of programs implemented to support retail agencies in achieving their per capita water reduction goals is covered in Section 9 – Demand Management Measures of this UWMP.

Complimentary to information presented in this section are SBx7-7 Verification and Compliance Forms, a set of standardized tables required by DWR to demonstrate compliance with the Water Conservation Act in this 2020 UWMP (Appendix D) including calculations of recycled water used for groundwater recharge (indirect reuse) to offset a portion of the agency's potable demand when meeting the regional as well as individual water use targets.

## 5.1 Baseline Water Use

The baseline water use is the District's gross water use divided by its service area population, reported in GPCD. Gross water use is a measure of water that enters the distribution system of the supplier over a 12-month period with certain allowable exclusions. These exclusions are:

- Recycled water delivered within the service area
- Indirect recycled water
- Water placed in long term storage
- Water conveyed to another urban supplier
- Water delivered for agricultural use
- Process water

Water suppliers must report baseline water use for two baseline periods, the 10- to 15-year baseline (baseline GPCD) and the five-year baseline (target confirmation) as described below.

### 5.1.1 Ten to 15-Year Baseline Period (Baseline GPCD)

The first step to calculating the District's water use targets is to determine its base daily per capita water use (baseline water use). The baseline water use is calculated as a continuous (rolling) 10-year average during a period, which ends no earlier than December 31, 2004 and no later than December 31, 2010. Water suppliers whose recycled water made up 10% or more of their 2008 retail water delivery can use up to a 15-year average for the calculation. Recycled water use was 3.4% of the District's retail delivery in 2008; therefore, a 10-year baseline period is used.

The District's baseline water use is 204 GPCD, obtained from the 10-year period July 1, 1996 to June 30, 2005.

### 5.1.2 Five-Year Baseline Period (Target Confirmation)

Water suppliers are required to calculate water use, in GPCD, for a five-year baseline period. This number is used to confirm that the selected 2020 target meets the minimum water use reduction requirements. Regardless of the compliance option adopted by the District, it will need to meet a minimum water use target of 5% reduction from the five-year baseline water use. This five-year baseline water use is calculated as a continuous five-year average during a period, which ends no earlier than December 31, 2007 and no later than December 31, 2010. The District's five-year baseline water use is 202 GPCD, obtained from the five-year period July 1, 2003 to June 30, 2008.

### 5.1.3 Service Area Population

The District's service area boundaries correspond with the boundaries for a city or census designated place. This allows the District to use service area population estimates prepared by the DOF. CDR is the entity which compiles population data for Orange County based on DOF data. The calculation of the District's baseline water use and water use targets in the 2010 UWMP was based on the 2000 U.S. Census population numbers obtained from CDR. The baseline water use and water use targets in the 2015 UWMP were revised based on the 2010 U.S. Census population obtained from CDR in 2012. That baseline remained in use in the 2020 calculations.

## 5.2 SBx7-7 Water Use Targets

In the 2020 UWMP, the District may update its 2020 water use target by selecting a different target method than what was used previously. The target methods and determination of the 2015 and 2020 targets are described below. The District selected Option 1 consistent with 2015 and maintained the same 2020 target water uses as reported in its 2015 UWMP.

### 5.2.1 SBx7-7 Target Methods

DWR has established four target calculation methods for urban retail water suppliers to choose from. The District is required to adopt one of the four options to comply with SBx7-7 requirements.

The four options include:

- *Option 1* requires a simple 20% reduction from the baseline by 2020 and 10% by 2015.

- *Option 2* employs a budget-based approach by requiring an agency to achieve a performance standard based on three metrics
  - Residential indoor water use of 55 GPCD
  - Landscape water use commensurate with the Model Landscape Ordinance
  - 10% reduction in baseline commercial/industrial/institutional (CII) water use
- *Option 3* is to achieve 95% of the applicable state hydrologic region target as set forth in the State's 202020 Water Conservation Plan.
- *Option 4* requires the subtraction of Total Savings from the baseline GPCD:
  - Total savings includes indoor residential savings, meter savings, CII savings, and landscape and water loss savings.

With MWDOC's assistance in the calculation of the District's base daily per capita use and water use targets, the District selected to comply with Option 1 consistent with the option selected in 2010 and 2015.

### 5.2.2 2020 Targets and Compliance

Under Compliance Option 1, the simple 20% reduction, the District's 2020 target is 163 GPCD as summarized in Table 5-1. In addition, the confirmed 2020 target needs to meet a minimum of 5% reduction from the five-year baseline water use.

**Table 5-1: Baselines and Targets Summary**

| **DWR Submittal Table 5-1 Baselines and Targets Summary From SB X7-7 Verification Form** *Retail Supplier or Regional Alliance Only* | | | | |
|---|---|---|---|---|
| Baseline Period | Start Year * | End Year * | Average Baseline GPCD* | Confirmed 2020 Target* |
| 10-15 year | *1996* | *2005* | *204* | *163* |
| 5 Year | *2004* | *2008* | *202* | |
| **All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)* | | | | |
| NOTES: | | | | |

The District did not make any adjustments in its actual 2020 consumption using weather normalization, economic adjustment, or extraordinary events. The District's actual 2020 consumption is 134 GPCD

which is below its 2020 target of 163 GPCD (Table 5-2). The District met its 2020 water use target and is in compliance with SBx7-7.

**Table 5-2: 2020 Compliance**

| **DWR Submittal Table 5-2: 2020 Compliance From SB X7-7 2020 Compliance Form**<br>*Retail Supplier or Regional Alliance Only* | | | | |
|---|---|---|---|---|
| **2020 GPCD** | | | 2020 Confirmed Target GPCD* | Did Supplier Achieve Targeted Reduction for 2020? Y/N |
| Actual 2020 GPCD* | 2020 TOTAL Adjustments* | Adjusted 2020 GPCD* *(Adjusted if applicable)* | | |
| 134 | 0 | 134 | 163 | Y |
| **All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)* | | | | |
| NOTES: | | | | |

## 5.3 Orange County 20x2020 Regional Alliance

A retail supplier may choose to meet the SBx7-7 targets on its own or it may form a regional alliance with other retail suppliers to meet the water use target as a region. Within a Regional Alliance, each retail water supplier will have an additional opportunity to achieve compliance under both an individual target and a regional target.

- If the Regional Alliance meets its water use target on a regional basis, all agencies in the alliance are deemed compliant.
- If the Regional Alliance fails to meet its water use target, each individual supplier will have an opportunity to meet their water use targets individually.

The District is a member of the Orange County 20x2020 Regional Alliance formed by MWDOC, its wholesaler. This regional alliance consists of 29 retail agencies in Orange County as described in MWDOC's 2020 UWMP. MWDOC provides assistance in the calculation of each retail agency's baseline water use and water use targets.

In 2015, the regional baseline and targets were revised to account for any revisions made by the retail agencies to their individual 2015 and 2020 targets. The regional water use target is the weighted average of the individual retail agencies' targets (by population). The Orange County 20x2020 Regional Alliance weighted 2020 target is 159 GPCD. The actual 2020 water use in the region is 109 GPCD, i.e., the region met its 2020 GPCD goal.

# 6 WATER SUPPLY CHARACTERIZATION

As a counterpart to Section 4's Water Use Characterization, this section characterizes the District's water supply. This section includes identification and quantification of water supply sources through 2045, descriptions of each water supply source and their management, opportunities for exchanges and transfers, and discussion regarding any planned future water supply projects. This section also includes the energy intensity of the water service, a new UWMP requirement.

## 6.1 Water Supply Overview

The District meets its demands with a combination of imported water, recycled water, and surface water. The District works together with two primary agencies, MET and MWDOC, to ensure a safe and reliable water supply that will continue to serve the community in periods of drought and shortage. The sources of imported water supplies include water from the Colorado River and the SWP provided by MET and delivered through MWDOC.

In FY 2019-20, the District relied on 48.5% treated imported water, 32.5% untreated imported water, 15% recycled water, and 4% surface water (Table 6-1).

It is projected that by 2045, the water supply portfolio will change to approximately 45% treated imported water, 39% untreated imported water, and 16% recycled water (Table 6-2 and Figure 6-1). Note that these representations of supply match the projected demand. However, the District can purchase more MET water through MWDOC, should the need arise.

The following subsections provide a detailed discussion of the District's water sources as well as the future water supply portfolio for the next 25 years.

**Table 6-1: Retail: Water Supplies – Actual**

| DWR Submittal Table 6-8 Retail: Water Supplies — Actual | | | |
|---|---|---|---|
| Water Supply | Additional Detail on Water Supply | 2020 | |
| | | Actual Volume (AF) | Water Quality |
| Purchased or Imported Water | MWDOC (Treated) | 4,079 | Drinking Water |
| Purchased or Imported Water | MWDOC (Untreated) | 2,736 | Drinking Water |
| Recycled Water | Treated at District's WRP | 1,270 | Recycled Water |
| Surface water (not desalinated) | Irvine Lake | 352 | Drinking Water |
| | **Total** | 8,437 | |

NOTES:
Sources - MWDOC FY 2019-20 Water Use Report, 2020; ETWD Production Report (recycled water); and discussions with ETWD Staff

Recycled water volumes do not include internal reuse.

**Table 6-2: Retail: Water Supplies – Projected**

| DWR Submittal Table 6-9 Retail: Water Supplies — Projected | | | | | | |
|---|---|---|---|---|---|---|
| Water Supply | Additional Detail on Water Supply | Projected Water Supply (AF) | | | | |
| | | 2025 | 2030 | 2035 | 2040 | 2045 |
| | | Reasonably Available Volume | Reasonably Available Volume | Reasonably Available Volume | Reasonably Available Volume | Reasonably Available Volume |
| Purchased or Imported Water | MWDOC (Treated) | 3,652 | 4,051 | 4,066 | 4,087 | 4,071 |
| Purchased or Imported Water | MWDOC (Untreated)* | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 |
| Recycled Water | Treated at District's WRP | 1,485 | 1,485 | 1,485 | 1,485 | 1,485 |
| **Total** | | 8,737 | 9,136 | 9,151 | 9,172 | 9,156 |

NOTES:
Source – Based on discussions with ETWD staff

Recycled water volumes do not include internal reuse. Untreated water supplies from MWDOC are treated at the Baker Water Treatment Plant. The water produced at Baker Water Treatment Plant offsets and reduces purchased treated MET water from MWDOC.
*May include Irvine Lake water

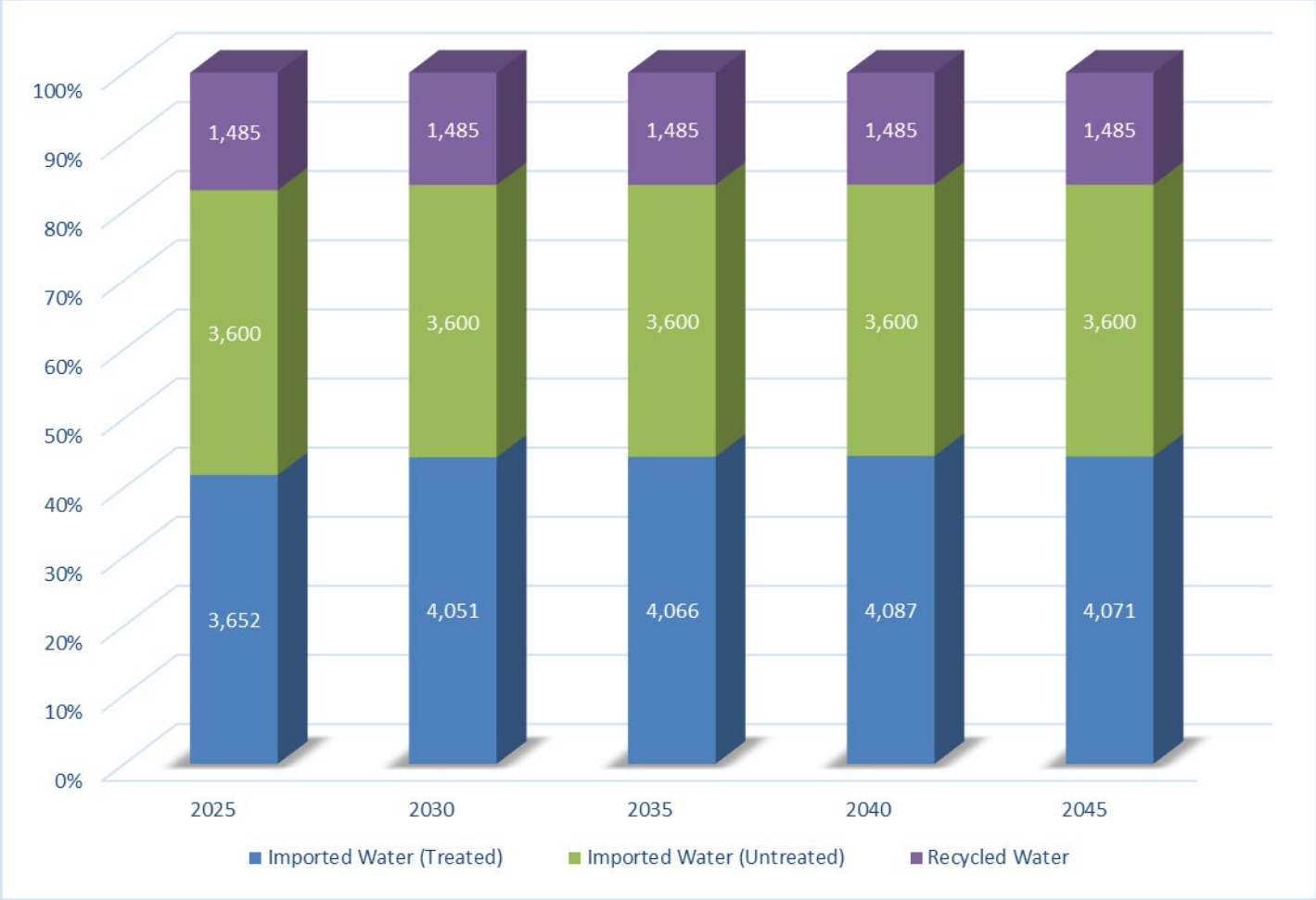


**Figure 6-1: District's Projected Water Supply Sources (AF)**

## 6.2 Imported Water

The District supplements it local water supply with imported water purchased from MET through MWDOC. In FY 2019-20, the District relied on approximately 4,079 AFY of treated imported water and 2,736 AFY of untreated imported water, making up 48.5% and 32.5%, respectively, of the District's water supply portfolio for FY 2019-20.

MET's principal sources of water are the Colorado River via the CRA and the Lake Oroville watershed in Northern California through the SWP. For Orange County, the water obtained from these sources is treated at the Robert B. Diemer Filtration Plant located in Yorba Linda. Typically, the Diemer Filtration Plant receives a blend of Colorado River water from Lake Mathews through the MET Lower Feeder and SWP water through the Yorba Linda Feeder.

Untreated water that is purchased is treated at the Baker Water Treatment Plant. Baker Water Treatment Plan supply offsets and reduces purchased treated water from Diemer Filtration Plant.

The main supply pipeline to the District is the Allen-McColloch Pipeline (AMP), where the District owns the rights to 26.3 cubic feet per second (cfs) of capacity. The District has three major turnouts off the AMP: OC-76, OC-77, and OC-80 with each turnout being capable of providing a flowrate of 20 cfs. The OC-80 turnout supplies water directly into the R-6 reservoir, and the two other turnouts provide water to the R-6 pressure zone, the upstream side of the Main Pressure Reducing Station, the suction side of the Cherry booster station, and the R-6 reservoir, which provides the majority of the District's water storage.

The District also owns 2 cfs capacity in the Joint Regional Water Supply System (JRWSS). The JRWSS is a take-off from MET's East Orange County Feeder No. 2. It is managed, operated, and maintained by the South Coast Water District (SCWD).

The Aufdenkamp Connection Transmission Main (ACTM) provides an additional emergency supply source for the District. The ACTM is owned and operated by Santa Margarita Water District (SMWD). While the District does not own any capacity within the ACTM, it has taken water from the pipeline in previous emergency situations. However, the District cannot rely on this connection for instantaneous supply as it must rent a pump to use water from the ACTM (RBF Consulting, 2004).

### 6.2.1 Colorado River Supplies

**Background**

The Colorado River was MET's original source of water after MET's establishment in 1928. The CRA, which is owned and operated by MET, transports water from the Colorado River to its terminus Lake Mathews, in Riverside County. The actual amount of water per year that may be conveyed through the CRA to MET's member agencies is subject to the availability of Colorado River water. Approximately 40 million people rely on the Colorado River and its tributaries for water with 5.5 million acres of land using Colorado River water for irrigation. The CRA includes supplies from the implementation of the Quantification Settlement Agreement and its related agreements to transfer water from agricultural agencies to urban uses. The 2003 Quantification Settlement Agreement enabled California to implement major Colorado River water conservation and transfer programs, in order to stabilize water supplies and reduce the state's demand on the river to its 4.4 million acre-feet (MAF) entitlement. Colorado River transactions are potentially available to supply additional water up to the CRA capacity of 1.25 MAF on an as-needed basis. Water from the Colorado River or its tributaries is available to users in California, Arizona, Colorado, Nevada, New Mexico, Utah, Wyoming, and Mexico. California is apportioned the use of 4.4 MAF of water from the Colorado River each year plus one-half of any surplus that may be available for use collectively in Arizona, California, and Nevada. In addition, California has historically been allowed to use Colorado River water apportioned to, but not used by, Arizona or Nevada. MET has a basic entitlement of 550,000 AFY of Colorado River water, plus surplus water up to an additional 662,000 AFY when the following conditions exists (MET, 2021):

- Water is unused by the California holders of priorities 1 through 3
- Water is saved by the Palo Verde land management, crop rotation, and water supply program
- When the U.S. Secretary of the Interior makes available either one or both of the following:
    - Surplus water

- Colorado River water that is apportioned to but unused by Arizona and/or Nevada.

MET has not received surplus water for a number of years. The Colorado River supply faces current and future imbalances between water supply and demand in the Colorado River Basin due to long-term drought conditions. Analysis of historical records suggests a potential change in the relationship between precipitation and runoff in the Colorado River Basin. The past 21 years (1999-2020) have seen an overall drying trend, even though the period included several wet or average years. The river basin has substantial storage capacity, but the significant reduction in system reservoir storage in the last two decades is great enough to consider the period a drought (DWR, 2020a). At the close of 2020, system storage was at or near its lowest since 2000, so there is very little buffer to avoid a shortage from any future period of reduced precipitation and runoff (MET, 2021). Looking ahead, the long-term imbalance in the Colorado River Basin's future supply and demand is projected to be approximately 3.2 MAF by the year 2060 (USBR, 2012).

Over the years, MET has helped fund and implement various programs to improve Colorado River supply reliability and help resolve the imbalance between supply and demand. Implementation of such programs have contributed to achievements like achieving a record low diversion of the Colorado River in 2019, a level not seen since the 1950s. Colorado River water management programs include:

- **Imperial Irrigation District / MET Conservation Program** – Under agreements executed in 1988 and 1989, this program allows MET to fund water efficiency improvements within Imperial Irrigation District's service area in return for the right to divert the water conserved by those investments. An average of 105,000 AFY of water has been conserved since the program's implementation.
- **Palo Verde Land Management, Crop Rotation, and Water Supply Program** – Authorized in 2004, this 35-year program allows MET to pay participating farmers to reduce their water use, and for MET to receive the saved water. Over the life of the program, an average of 84,500 AFY has been saved and made available to MET.
- **Bard Seasonal Fallowing Program** – Authorized in 2019, this program allows MET to pay participating farmers in Bard to reduce their water use between the late spring and summer months of selected years, which provides up to 6,000 AF of water to be available to MET in certain years.
- **Management of MET-Owned Land in Palo Verde** – Since 2001, MET has acquired approximately 21,000 acres of irrigable farmland that are leased to growers, with incentives to grow low water-using crops and experiment with low water-consumption practices. If long-term water savings are realized, MET may explore ways to formally account them for Colorado River supplies.
- **Southern Nevada Water Authority (SNWA) and MET Storage and Interstate Release Agreement** – Entered in 2004, this agreement allows SNWA to store its unused, conserved water with MET, in exchange for MET to receive additional Colorado River water supply. MET has relied on the additional water during dry years, especially during the 2011-2016 California drought, and SNWA is not expected to call upon MET to return water until after 2026.

- **Lower Colorado Water Supply Projects** – Authorized in 1980s, this project provides up to 10,000 AFY of water to certain entities that do not have or have insufficient rights to use Colorado River water. A contract executed in 2007 allowed MET to receive project water left unused by the project contractors along the River – nearly 10,000 AF was received by MET in 2019 and is estimated for 2020.
- **Exchange Programs** – MET is involved in separate exchange programs with the United States Bureau of Reclamation, which takes place at the Colorado River Intake and with San Diego County Water Authority (SDCWA), which exchanges conserved Colorado River water.
- **Lake Mead Storage Program** – Executed in 2006, this program allows MET to leave excessively conserved water in Lake Mead, for exclusive use by MET in later years.
- **Quagga Mussel Control Program** – Developed in 2007, this program introduced surveillance activities and control measures to combat quagga mussels, an invasive species that impact the Colorado River's water quality.
- **Lower Basin Drought Contingency Plan** – Signed in 2019, this agreement incentivizes storage in Lake Mead through 2026 and overall, it increases MET's flexibility to fill the CRA as needed (MET, 2021).

**Future Programs / Plans**

The Colorado River faces long-term challenges of water demands exceeding available supply with additional uncertainties due to climate change. Climate change impacts expected in the Colorado River Basin include the following:

- More frequent, more intense, and longer lasting droughts, which will result in water deficits
- Continued dryness in the Colorado River Basin, which will increase the likelihood of triggering a first-ever shortage in the Lower Basin
- Increased temperatures, which will affect the percentage of precipitation that falls as rain or snow, as well as the amount and timing of mountain snowpack (DWR, 2020b)

Acknowledging the various uncertainties regarding reliability, MET plans to continue ongoing programs, such as those listed earlier in this section. Additionally, MET supports increasing water recycling in the Colorado River Basin and is in the process of developing additional transfer programs for the future (MET, 2021).

### 6.2.2 State Water Project Supplies

**Background**

The SWP consists of a series of pump stations, reservoirs, aqueducts, tunnels, and power plants operated by DWR and is an integral part of the effort to ensure that business and industry, urban and suburban residents, and farmers throughout much of California have sufficient water. Water from the SWP originates at Lake Oroville, which is located on the Feather River in Northern California. Much of the SWP water supply passes through the Delta. The SWP is the largest state-built, multipurpose, user-financed water project in the United States. Nearly two-thirds of residents in California receive at

least part of their water from the SWP, with approximately 70% of SWP's contracted water supply going to urban users and 30% to agricultural users. The primary purpose of the SWP is to divert and store water during wet periods in Northern and Central California and distribute it to areas of need in Northern California, the San Francisco Bay area, the San Joaquin Valley, the Central Coast, and Southern California (MET, 2021).

The Delta is key to the SWP's ability to deliver water to its agricultural and urban contractors. All but five of the 29 SWP contractors receive water deliveries below the Delta (pumped via the Harvey O. Banks or Barker Slough pumping plants). However, the Delta faces many challenges concerning its long-term sustainability such as climate change posing a threat of increased variability in floods and droughts. Sea level rise complicates efforts in managing salinity levels and preserving water quality in the Delta to ensure a suitable water supply for urban and agricultural use. Furthermore, other challenges include continued subsidence of Delta islands, many of which are below sea level, and the related threat of a catastrophic levee failure as the water pressure increases, or as a result of a major seismic event.

**Current Conditions and Supply**

"Table A" water is the maximum entitlement of SWP water for each water contracting agency. Currently, the combined maximum Table A amount is 4.17 million AFY. Of this amount, 4.13 million AFY is the maximum Table A water available for delivery from the Delta. On average, deliveries are approximately 60% of the maximum Table A amount (DWR, 2020b).

SWP contractors may receive Article 21 water on a short-term basis in addition to Table A water if requested. Article 21 of SWP contracts allows contractors to receive additional water deliveries only under specific conditions, generally during wet months of the year (December through March). Because a SWP contractor must have an immediate use for Article 21 supply or a place to store it outside of the SWP, there are few contractors like MET that can access such supplies.

Carryover water is SWP water allocated to an SWP contractor and approved for delivery to the contractor in a given year, but not used by the end of the year. The unused water is stored in the SWP's share of San Luis Reservoir, when space is available, for the contractor to use in the following year.

Turnback pool water is Table A water that has been allocated to SWP contractors that has exceeded their demands. This water can then be purchased by another contractor depending on its availability.

SWP Delta exports are the water supplies that are transferred directly to SWP contractors or to San Luis Reservoir storage south of the Delta via the Harvey O. Banks pumping plant. Estimated average annual Delta exports and SWP Table A water deliveries have generally decreased since 2005, when Delta export regulations affecting SWP pumping operations became more restrictive due to federal biological opinions (Biops). The Biops protect species listed as threatened or endangered under the federal and state Endangered Species Acts (ESAs) and affect the SWP's water delivery capability because they restrict SWP exports in the Delta and include Delta outflow requirements during certain times of the year, thus reducing the available supply for export or storage.

Before being updated by the 2019 Long-Term Operations Plan, the prior 2008 and 2009 Biops resulted in an estimated reduction in SWP deliveries of 0.3 MAF during critically dry years to 1.3 MAF in above normal water years as compared to the previous baseline. However, the 2019 Long-Term Operations Plan and Biops are expected to increase SWP deliveries by an annual average of 20,00AF as compared to the previous Biops (MET, 2021). Average Table A deliveries decreased in the 2019 SWP Final Delivery

Capability Report compared to 2017, mainly due to the 2018 Coordinated Operation Agreement (COA) Addendum and the increase in the end of September storage target for Lake Oroville. Other factors that also affected deliveries included changes in regulations associated with the Incidental Take Permit (ITP) and the Reinitiation of Consultation for Long-Term Operations (RoC on LTO), a shift in Table A to Article 21 deliveries which occurred due to higher storage in SWP San Luis, and other operational updates to the SWP and federal Central Valley Project (CVP) (DWR, 2020b). Since 2005, there are similar decreasing trends for both the average annual Delta exports and the average annual Table A deliveries (Table 6-3).

**Table 6-3: MET SWP Program Capabilities**

| Year | Average Annual Delta Exports (MAF) | Average Annual Table A Deliveries (MAF) |
|---|---|---|
| 2005 | 2.96 | 2.82 |
| 2013 | 2.61 | 2.55 |
| 2019 | 2.52 | 2.41 |
| **Percent Change*** | -14.8% | -14.3% |

*Percent change is between the years 2019 and 2005.

Ongoing regulatory restrictions, such as those imposed by the Biops on the effects of SWP and the CVP operations on certain marine life, also contribute to the challenge of determining the SWP's water delivery reliability. In dry, below-normal conditions, MET has increased the supplies delivered through the California Aqueduct by developing flexible CVP/SWP storage and transfer programs. The goal of the storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the available Harvey O. Banks pumping plant capacity to maximize deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions. In addition, the SWRCB has set water quality objectives that must be met by the SWP including minimum Delta outflows, limits on SWP and CVP Delta exports, and maximum allowable salinity level.

The following factors affect the ability to estimate existing and future water delivery reliability:

- **Water availability at the source:** Availability can be highly variable and depends on the amount and timing of rain and snow that fall in any given year. Generally, during a single-dry year or two, surface and groundwater storage can supply most water deliveries, but multiple-dry years can result in critically low water reserves. Fisheries issues can also restrict the operations of the export pumps even when water supplies are available.
- **Water rights with priority over the SWP:** Water users with prior water rights are assigned higher priority in DWR's modeling of the SWP's water delivery reliability, even ahead of SWP Table A water.
- **Climate change:** Mean temperatures are predicted to vary more significantly than previously expected. This change in climate is anticipated to bring warmer winter storms that result in less snowfall at lower elevations, reducing total snowpack. From historical data, DWR projects

that by 2050, the Sierra snowpack will be reduced from its historical average by 25 to 40%. Increased precipitation as rain could result in a larger number of “rain-on-snow” events, causing snow to melt earlier in the year and over fewer days than historically, affecting the availability of water for pumping by the SWP during summer. Furthermore, water quality may be adversely affected due to the anticipated increase in wildfires. Rising sea levels may result in potential pumping cutbacks on the SWP and CVP.

- **Regulatory restrictions on SWP Delta exports:** The Biops protect special-status species such as delta smelt and spring- and winter-run Chinook salmon and imposed substantial constraints on Delta water supply operations through requirements for Delta inflow and outflow and export pumping restrictions. Restrictions on SWP operations imposed by state and federal agencies contribute substantially to the challenge of accurately determining the SWP’s water delivery reliability in any given year (DWR, 2020b).
- **Ongoing environmental and policy planning efforts:** Governor Gavin Newsom ended California WaterFix in May 2019 and announced a new approach to modernize Delta Conveyance through a single tunnel alternative. The EcoRestore Program aims to restore at least 30,000 acres of Delta habitat, with the near-term goal of making significant strides toward that objective by 2020 (DWR, 2020b).
- **Delta levee failure:** The levees are vulnerable to failure because most original levees were simply built with soils dredged from nearby channels and were not engineered. A breach of one or more levees and island flooding could affect Delta water quality and SWP operations for several months. When islands are flooded, DWR may need to drastically decrease or even cease SWP Delta exports to evaluate damage caused by salinity in the Delta.

Operational constraints likely will continue until a long-term solution to the problems in the Bay-Delta is identified and implemented. New Biops for listed species under the Federal ESA or by the California Department of Fish and Game’s issuance of incidental take authorizations under the Federal ESA and California ESA might further adversely affect SWP and CVP operations. Additionally, new litigation, listings of additional species or new regulatory requirements could further adversely affect SWP operations in the future by requiring additional export reductions, releases of additional water from storage or other operational changes impacting water supply operations.

**Future Programs / Plans**

MET’s Board approved a Delta Action Plan in June 2007 that provides a framework for staff to pursue actions with other agencies and stakeholders to build a sustainable Delta and reduce conflicts between water supply conveyance and the environment. The Delta Action Plan aims to prioritize immediate short-term actions to stabilize the Delta while an ultimate solution is selected, and mid-term steps to maintain the Delta while a long-term solution is implemented. Currently, MET is working towards addressing four elements: Delta ecosystem restoration, water supply conveyance, flood control protection, and storage development.

In May 2019, Governor Newsom ended California WaterFix, announced a new approach to modernize Delta Conveyance through a single tunnel alternative, and released Executive Order 10-19 that directed state agencies to inventory and assess new planning for the project. DWR then withdrew all project approvals and permit applications for California WaterFix, effectively ending the project. The purpose of

the Delta Conveyance Project (DCP) gives rise to several project objectives (MET, 2021). In proposing to make physical improvements to the SWP Delta conveyance system, the project objectives are:

- To address anticipated rising sea levels and other reasonably foreseeable consequences of climate change and extreme weather events.
- To minimize the potential for public health and safety impacts from reduced quantity and quality of SWP water deliveries, and potentially CVP water deliveries, south of the Delta resulting from a major earthquake that causes breaching of Delta levees and the inundation of brackish water into the areas in which existing pumping plants operate.
- To protect the ability of the SWP, and potentially the CVP, to deliver water when hydrologic conditions result in the availability of sufficient amounts, consistent with the requirements of state and federal law.
- To provide operational flexibility to improve aquatic conditions in the Delta and better manage risks of further regulatory constraints on project operations.

### 6.2.3 Untreated Imported Water – Baker Treatment Plant

The Baker Treatment Plant is a 28.1 million gallons per day (MGD) drinking water treatment plant at the site of the former Baker Filtration Plant in Lake Forest. The facility is operated by Irvine Ranch Water District (IRWD) and is a joint regional project by five South Orange County water districts: the District, IRWD, Moulton Niguel Water District (MNWD), SMWD, and Trabuco Canyon Water District (TCWD), who have capacity rights of 3.2 MGD, 6.8 MGD, 8.4 MGD, 8.4 MGD, and 1.3 MGD, respectively.

The plant has multiple water supply sources that increase water supply reliability, including imported untreated water from MET through the Santiago Lateral and local surface water from Irvine Lake. It provides a reliable local drinking water supply during emergencies or extended facility shutdowns on the MET delivery system and increases operational flexibility by creating redundancy within the water conveyance system. The facility has supplied South Orange County with high quality water since it was placed into operation in January 2017. A location map of the Baker Treatment Plant and surrounding agencies is provided on Figure 6-2.


**Figure 6-2: Baker Treatment Plant Location Map**

### 6.2.4 Storage

Storage is a major component of MET's dry year resource management strategy. MET's likelihood of having adequate supply capability to meet projected demands, without implementing its Water Supply Allocation Plan (WSAP), is dependent on its storage resources. Due to the pattern of generally drier hydrology, the groundwater basins and local reservoirs have dropped to low operating levels and remain below healthy storage levels. For example, the Colorado River Basin's system storage at the close of 2020, was at or near its lowest since 2000, so there is very little buffer to avoid a shortage from any future period of reduced precipitation and runoff (MET, 2021).

MET stores water in both DWR and MET surface water reservoirs. MET's surface water reservoirs are Lake Mathews, Lake Skinner, and Diamond Valley Lake (DVL), which have a combined storage capacity of over 1 MAF. Approximately 650,000 AF are stored for seasonal, regulatory, and drought use, while approximately 370,000 AF are stored for emergency use.

MET also has contractual rights to DWR surface Reservoirs, such as 65 thousand acre-feet (TAF) of flexible storage at Lake Perris (East Branch terminal reservoir) and 154 TAF of flexible storage at Castaic Lake (West Branch terminal reservoir) that provides MET with additional options for managing SWP deliveries to maximize the yield from the project. This storage can provide MET with up to 44 TAF of additional supply over multiple dry years, or up to 219 TAF to Southern California in a single dry year (MET, 2021).

MET endeavors to increase the reliability of water supplies through the development of flexible storage and transfer programs including groundwater storage (MET, 2021). These include:

- **Lake Mead Storage Program:** Executed in 2006, this program allows MET to leave excessively conserved water in Lake Mead, for exclusive use by MET in later years. MET created "Intentionally Created Surplus" (ICS) water in 2006-2007, 2009-2012, and 2016-2019, and withdrew ICS water in 2008 and 2013-2015. As of January 1, 2021, MET had a total of 1.3 MAF of Extraordinary Conservation ICS water.
- **Semitropic Storage Program:** The maximum storage capacity of the program is 350 TAF, and the minimum and maximum annual yields available to MET are 34.7 TAF and 236.2 TAF, respectively. The specific amount of water MET can expect to store in and subsequently receive from the program depends on hydrologic conditions, any regulatory requirements restricting MET's ability to export water for storage and demands placed by other program participants. During wet years, MET has the discretion to use the program to store portions of its SWP supplies which are in excess, and during dry years, the Semitropic Water Storage District returns MET's previously stored water to MET by direct groundwater pump-in or by exchange of surface water supplies.
- **Arvin-Edison Storage Program:** The storage program is estimated to deliver 75 TAF, and the specific amount of water MET can expect to store in and subsequently receive from the program depends on hydrologic conditions and any regulatory requirements restricting MET's ability to export water for storage. During wet years, MET has the discretion to use to program to store portions of its SWP supplies which are in excess, and during dry years, the Arvin-Edison Water Storage District returns MET's previously stored water to MET by direct groundwater pump-in or by exchange of surface water supplies.

- **Antelope Valley-East Kern (AVEK) Water Agency Exchange and Storage Program:** Under the exchange program, for every two AF MET receives, MET returns 1 AF back to AVEK, and MET will also be able to store up to 30 TAF in the AVEK's groundwater basin, with a dry-year return capability of 10 TAF.
- **High Desert Water Bank Program:** Under this program, MET will have the ability to store up to 280 TAF of its SWP Table A or other supplies in the Antelope Valley groundwater basin, and in exchange will provide funding for the construction of monitoring and production wells, turnouts from the California Aqueduct, pipelines, recharge basins, water storage, and booster pump facilities. The project is anticipated to be in operation by 2025.
- **Kern-Delta Water District Storage Program:** This groundwater storage program has 250 TAF of storage capacity, and water for storage can either be directly recharged into the groundwater basin or delivered to Kern-Delta Water District farmers in lieu of pumping groundwater. During dry years, the Kern-Delta Water District returns MET's previously stored water to MET by direct groundwater pump-in return or by exchange of surface water supplies.
- **Mojave Storage Program:** MET entered into a groundwater banking and exchange transfer agreement with Mojave Water Agency that allows for the cumulative storage of up to 390 TAF. The agreement allows for MET to store water in an exchange account for later return..

### 6.2.5 Planned Future Sources

Beyond the programs highlighted in Sections 6.2.1 through 6.2.3, MET continues to invest in efforts to meet its goal of long-term regional water supply reliability, focusing on the following:

- Continuing water conservation
- Developing water supply management programs outside of the region
- Developing storage programs related to the Colorado River and the SWP
- Developing storage and groundwater management programs within the Southern California region
- Increasing water recycling, groundwater recovery, stormwater, and seawater desalination
- Pursuing long-term solutions for the ecosystem, regulatory and water supply issues in the California Bay-Delta (MET, 2021).

## 6.3 Groundwater

The District's water supply portfolio does not include groundwater.

## 6.4 Surface Water

In FY 2019-20, 352 AFY – approximately 4% of the District's water supply portfolio for FY 2019-20 – was attributed to local surface water from Irvine Lake and treated at the Baker Treatment Plant.

### 6.4.1 Existing Sources

Santiago Reservoir, or Irvine Lake, is the largest surface water reservoir in Orange County. Irvine Lake was built in 1931 and captures runoff from the upper Santiago Creek Watershed, as well as stores imported water (Orange County Local Agency Formation Commission, 2020). The 700-acre Irvine Lake is co-owned by IRWD and Serrano Water. The lake holds more than 9 billion gallons of water and is contained by the 810-foot-tall Santiago Dam. IRWD uses water from Irvine Lake as a source of water for non-drinking purposes such as irrigation and as a source of water for the Baker Treatment Plant, which is a water source for the District (Section 6.2.3). Serrano Water District also uses Irvine Lake to provide treated drinking water to its customers in the City of Villa Park and parts of the City of Orange. Both agencies balance the benefits of storing water in Irvine Lake with minimizing evaporation and preserving the ability to capture rainwater from the surrounding hills. During years with less rainfall, IRWD and Serrano Water District also add imported water from MET to the lake (IRWD, 2021).

### 6.4.2 Planned Future Sources

As of 2021, there are no additional surface water sources planned in the District's service area.

## 6.5 Stormwater

### 6.5.1 Existing Sources

There are, currently, no direct stormwater uses in the District's Service area.

### 6.5.2 Planned Future Sources

As of 2021, there are no planned stormwater uses in the District's service area.

## 6.6 Wastewater and Recycled Water

The District is directly involved in wastewater services through its ownership and operation of the wastewater treatment facilities and collection system in its service area. The sewer system service area encompasses 5,430 acres and includes approximately 158 miles of sewer main. The wastewater system serves about 48,821 residents.

Recycled water is wastewater that is treated through primary, secondary, and tertiary processes and is acceptable for most non-potable water purposes such as irrigation, and commercial and industrial process water per Title 22 requirements. Recycled water opportunities have continued to grow in Southern California as public acceptance and the need to expand local water resources continues to be a priority. Recycled water also provides a degree of flexibility and added reliability during drought conditions when imported water supplies are restricted. The following sections expand on the existing agency collaboration involved in these efforts as well as the District's projected recycled water use over the next 25 years.

### 6.6.1 Agency Coordination

There are several water agencies in south Orange County that provide potable water service as well as wastewater collection and treatment to recycled water standards. These agencies have been in the forefront of recycled water development to diversify water supplies because 1) they depend on imported water for most of their potable water supplies and 2) groundwater supplies are limited due to the local geography. Each of these agencies provides recycled water where feasible.

The District operates wastewater treatment facilities and is part of the regional SOCWA as shown on Figure 6-3 and described in further detail below.

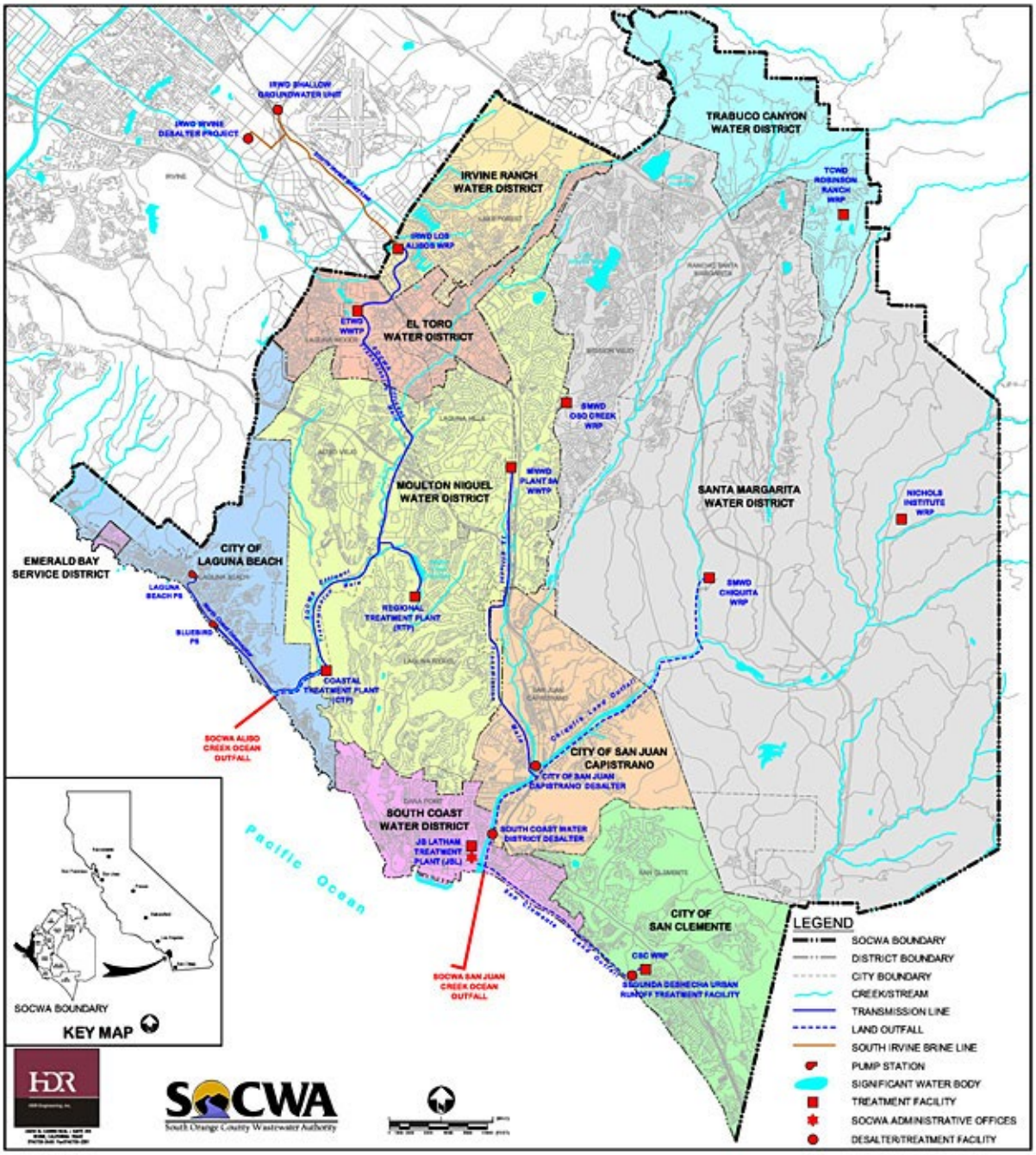


**Figure 6-3: Neighboring Water Systems**

### 6.6.2 Wastewater Description and Disposal

The District delivers approximately 6 MGD of potable water to customers' homes and businesses that generate approximately 3.8 MGD of wastewater. The District's wastewater collection system includes approximately 158 miles of sewer pipelines ranging from 4 inches to 24 inches in diameter and 11 sewer lift stations. Wastewater in the service area generally flows north to south and east to west.

Almost all the wastewater generated within the District's service area is conveyed to its Water Recycling Plant (WRP) where it is treated and either used for irrigation or disposed of through SOCWA's effluent transmission main and ocean outfall. The District's WRP is in Laguna Woods adjacent to the Laguna Woods Village Golf Course and serves portions of the Cities of Laguna Hills, Mission Viejo, Aliso Viejo, Lake Forest, and all of Laguna Woods. A small portion of flow on the southeast side of the District is conveyed directly to the MNWD collection system.

The WRP was originally constructed in 1963 to treat approximately 1.5 MGD. The plant has undergone several upgrades and was largely reconstructed in 1998. The capacity of the facility under an average flow condition is approximately 5.4 MGD, but has the capacity treat a maximum flow of 6 MGD to secondary effluent standards. Effluent from the WRP is treated to secondary or tertiary levels depending on the disposal method, ocean outfall or beneficial reuse. Recycled water is treated to Title 22 standards with the expansion completed in 2014. Treated effluent that is not recycled is disposed of through the Aliso Creek Ocean Outfall.

Table 6-4 summarizes the wastewater collected by the District in 2020. Table 6-5 shows the amount of wastewater treated and disposed by the District.

Table 6-4: Wastewater Collected Within Service Area in 2020 (AF)

| DWR Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020 | | | | | | |
|---|---|---|---|---|---|---|
| ☐ | There is no wastewater collection system. The supplier will not complete the table below. | | | | | |
| | Percentage of 2020 service area covered by wastewater collection system *(optional)* | | | | | |
| | Percentage of 2020 service area population covered by wastewater collection system *(optional)* | | | | | |
| **Wastewater Collection** | | | **Recipient of Collected Wastewater** | | | |
| Name of Wastewater Collection Agency | Wastewater Volume Metered or Estimated? | Volume of Wastewater Collected from UWMP Service Area 2020 | Name of Wastewater Treatment Agency Receiving Collected Wastewater | Treatment Plant Name | Is WWTP Located Within UWMP Area? | Is WWTP Operation Contracted to a Third Party? |
| *Add additional rows as needed* | | | | | | |
| ETWD | Estimated | 4,168 | ETWD | WRP | Yes | No |
| **Total Wastewater Collected from Service Area in 2020:** | | 4,168 | | | | |
| NOTES:<br>From influent flow data FY2019-20 | | | | | | |

**Table 6-5: Wastewater Treatment and Discharge within Service Area in 2020 (AF)**

| DWR Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ☐ | No wastewater is treated or disposed of within the UWMP service area.<br>The Supplier will not complete the table below. | | | | | | | | | | |
| Wastewater Treatment Plant Name | Discharge Location Name or Identifier | Discharge Location Description | Wastewater Discharge ID Number *(optional)* | Method of Disposal | Does This Plant Treat Wastewater Generated Outside the Service Area? | Treatment Level | 2020 volumes | | | | |
| | | | | | | | Wastewater Treated | Discharged Treated Wastewater | Recycled Within Service Area | Recycled Outside of Service Area | Instream Flow Permit Requirement |
| ETWD | Aliso Creek Ocean Outfall | Laguna Beach | | Ocean outfall | No | Secondary, Disinfected - 2.2 | 4,168 | 2,997 | 1,171 | 0 | 0 |
| | | | | | | **Total** | 4,168 | 2,997 | 1,171 | 0 | 0 |
| NOTES: | | | | | | | | | | | |

### 6.6.3 Current Recycled Water Uses

The District has over 130,000 linear feet of recycled water distribution pipelines and a 3.7 MGD tertiary treatment facility at the District's WRP that meets Title 22 requirements for landscape irrigation. The plant was designed with the ability to expand capacity up to the expected maximum amount of raw wastewater entering the plant. The District serves recycled water to over 250 sites. In the tertiary treatment process, secondary treated effluent flows through cloth media disc filters. The cloth media traps solids and debris, while the filtered water flows into a basin where chlorine is injected for disinfection. Chlorine disinfection further polishes and removes viruses and pathogens. The chlorine infused water travels through a series of baffled channels to ensure compliance with chlorine contact time requirements. The tertiary treated water is then ready to be pumped into the recycled water irrigation distribution system. The District's recycled water distribution system consists of nearly 25 miles of pipeline that range in between 4 inches and 20 inches in diameter.

The District puts approximately 30% of their wastewater to beneficial use that is treated at the WRP. The recycled water is primarily used for landscape irrigation, included at HOAs, the Laguna Woods Village Golf Course, irrigation on the WRP grounds, and as process water at the WRP. The District continues to investigate options for expanding the distribution of recycled water to its customers as well as other agencies in the region.

In FY 2019-20, an average of 2.5 MGD of secondary treated effluent was disposed via the SOCWA Effluent Transmission Main to the Aliso Creek Ocean Outfall and 1.2 MGD of secondary effluent was treated to tertiary standards to produce the total recycled water, including recycled water sent to the recycled water distribution system, provided to the golf course, and used at ETWD's WRP..

### 6.6.4 Projected Recycled Water Uses

Current and projected recycled water use through 2045 are shown in

Table 6-6 and are expected to remain constant. The usage is limited to landscape irrigation and in-plant uses at WRP, designated in the Table as industrial. The projected 2020 recycled water use from the District's 2015 UWMP are compared to the 2020 actual use in Table 6-7, where the actual use is slightly less than the projected.

**Table 6-6: Current and Projected Recycled Water Direct Beneficial Use within Service Area (AF)**

| **DWR Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ☐ | Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below. | | | | | | | | | |
| Name of Supplier Producing (Treating) the Recycled Water: | ETWD | | | | | | | | | |
| Name of Supplier Operating the Recycled Water Distribution System: | ETWD | | | | | | | | | |
| Supplemental Water Added in 2020 (volume) *Include units* | 10.6 AF | | | | | | | | | |
| Source of 2020 Supplemental Water | PW System | | | | | | | | | |
| Beneficial Use Type | Potential Beneficial Uses of Recycled Water (Describe) | Amount of Potential Uses of Recycled Water (Quantity) | General Description of 2020 Uses | Level of Treatment | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
| Landscape irrigation (excludes golf courses) | Landscape | See projections | Landscape | Tertiary | 966 | 1,181 | 1,181 | 1,181 | 1,181 | 1,181 |
| Golf course irrigation | Golf course | See projections | Golf course | Tertiary | 304 | 304 | 304 | 304 | 304 | 304 |
| | | | | **Total:** | 1,270 | 1,485 | 1,485 | 1,485 | 1,485 | 1,485 |
| Internal Reuse (*not counted towards Statewide Recycled Water volume*). | | | | | 90 | | | | | 111 |
| **IPR - Indirect Potable Reuse* | | | | | | | | | | |
| NOTES:<br>Source - ETWD Production Report for FY 19/20 and projection values based on discussion with ETWD Staff.<br>Projected recycled water volumes do not include internal reuse. With the inclusion of internal reuse, projected recycled water volumes are estimated to be 1,575 AFY through 2045. | | | | | | | | | | |

Table 6-7: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual (AF)

| DWR Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual | | |
|---|---|---|
| ☐ | Recycled water was not used in 2015 nor projected for use in 2020.<br>The Supplier will not complete the table below. | |
| **Use Type** | **2015 Projection for 2020** | **2020 Actual Use** |
| Agricultural irrigation | | |
| Landscape irrigation (excludes golf courses) | 1,170 | 966 |
| Golf course irrigation | 251 | 304 |
| **Total** | 1,421 | 1,270 |
| NOTES:<br>Recycled water volumes do not include internal reuse | | |

### 6.6.5 Potential Recycled Water Uses

The District continues to support, encourage, and contribute to the continued development of recycled water and potential uses throughout the region. The District is considering Recycled Water Expansion Phase III, as described in further detail in Section 6.9. These expected increase in recycled water use is shown in Table 6-8.

Table 6-8: Retail: Methods to Expand Future Recycled Water Use

| DWR Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use | | | |
|---|---|---|---|
| ☐ | Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation. | | |
| Section 6.9 | Provide page location of narrative in UWMP | | |
| Name of Action | Description | Planned Implementation Year | Expected Increase in Recycled Water Use |
| *Add additional rows as needed* | | | |
| Distribution System Expansion | Phase III | 2050 | 100-500 |
| | | **Total** | 100-500 |
| NOTES: | | | |

### 6.6.6 Optimization Plan

In Orange County, most recycled water is used for irrigating golf courses, parks, schools, businesses, and communal landscaping. Future recycled water use can be increased by requiring dual piping in new developments, retrofitting existing landscaped areas, and constructing recycled water pump stations and transmission pipelines to reach areas that are further from treatment plants. Gains in implementing some of these projects have been made throughout the county. However, additional costs, large energy requirements, and capital costs for facilities all contribute to the high costs of such projects.

To determine if additional projects are feasible, studies must be performed to determine if the project should be pursued. Feasibility studies should include evaluation of alternatives with a present worth analysis consisting of capital costs (design, environmental reviews, construction, etc.) and operations and maintenance costs (electrical costs for pumps and equipment and maintenance required for the system).

The District will continue to conduct feasibility studies for recycled water and seek out creative solutions such as funding, regulatory requirements, institutional arrangement, and public acceptance for recycled water use with MWDOC, MET and other cooperative agencies.

## 6.7 Desalination Opportunities

In 2001, MET developed a Seawater Desalination Program (SDP) to provide incentives for developing new seawater desalination projects in MET's service area. In 2014, MET modified the provisions of their Local Resources Program (LRP) to include incentives for locally produced seawater desalination projects that reduce the need for imported supplies. To qualify for the incentive, proposed projects must replace an existing demand or prevent new demand on MET's imported water supplies. In return, MET offers three incentive formulas under the program:

- Sliding scale incentive up to $340 per AF for a 25-year agreement term, depending on the unit cost of seawater produced compared to the cost of MET supplies.
- Sliding scale incentive up to $475 per AF for a 15-year agreement term, depending on the unit cost of seawater produced compared to the cost of MET supplies.
- Fixed incentive up to $305 per AF for a 25-year agreement term.

Developing local supplies within MET's service area is part of their IRP goal of improving water supply reliability in the region. Creating new local supplies reduce pressure on imported supplies from the SWP and Colorado River.

On May 6th, 2015, the SWRCB approved an amendment to the state's Water Quality Control Plan for the Ocean Waters of California (California Ocean Plan) to address effects associated with the construction and operation of seawater desalination facilities (Desalination Amendment). The amendment supports the use of ocean water as a reliable supplement to traditional water supplies while protecting marine life and water quality. The California Ocean Plan now formally acknowledges seawater desalination as a beneficial use of the Pacific Ocean and the Desalination Amendment provides a uniform, consistent process for permitting seawater desalination facilities statewide.

If the following projects are developed, MET's imported water deliveries to Orange County could be reduced. These projects include the Huntington Beach Seawater Desalination Project and the Doheny

Desalination Project. The District is considering the opportunity to receive 1 MGD from the Huntington Beach Seawater Desalination Project.

Brackish groundwater is groundwater with a salinity higher than freshwater, but lower than seawater. Brackish groundwater typically requires treatment using desalters.

### 6.7.1 Ocean Water Desalination

***Huntington Beach Seawater Desalination Project –*** Poseidon Resources LLC (Poseidon), a private company, is developing the Huntington Beach Seawater Desalination Project to be co-located at the AES Power Plant in the City of Huntington Beach along Pacific Coast Highway and Newland Street. The proposed project would produce up to 50 MGD (56,000 AFY) of drinking water to provide approximately 10% of Orange County's water supply needs.

Over the past several years, Poseidon has been working with OCWD on the general terms and conditions for selling the water to OCWD. OCWD and MWDOC have proposed a few distribution options to agencies in Orange County. The northern option proposes the water be distributed to the northern agencies closer to the plant within OCWD's service area with the possibility of recharging/injecting a portion of the product water into the Orange County Groundwater Basin (OC Basin). The southern option builds on the northern option by delivering a portion of the product water through the existing OC-44 pipeline for conveyance to the south Orange County water agencies. A third option is also being explored that includes all of the product water to be recharged into the OC Basin. Currently, a combination of these options could be pursued.

The Huntington Beach Seawater Desalination project plant capacity of 56,000 AFY would be the single largest source of new, local drinking water available to the region. In addition to offsetting imported demand, water from this project could provide OCWD with management flexibility in the OC Basin by augmenting supplies into the Talbert Seawater Barrier to prevent seawater intrusion.

In May 2015, OCWD and Poseidon entered into a non-binding Term Sheet that provided the overall partner structure in order to advance the project. Based on the initial Term Sheet, which was updated in 2018, Poseidon would be responsible for permitting, financing, design, construction, and operations of the treatment plant while OCWD would purchase the production volume, assuming the product water quality and quantity meet specific contract parameters and criteria. Furthermore, OCWD would then distribute the water in Orange County using one of the proposed distribution options described above.

Currently, the project is in the regulatory permit approval process with the Regional Water Quality Control Board and the California Coastal Commission. Once all of the required permits are approved, Poseidon will then work with OCWD and interested member agencies in developing a plan to distribute the water. Subsequent to the regulatory permit approval process, and agreement with interested parties, Poseidon estimates that the project could be online as early as 2027.

Under guidance provided by DWR, the Huntington Beach Seawater Desalination Plant's projected water supplies are not included in the supply projections due to its current status within the criteria established by State guidelines (DWR, 2020c).

***Doheny Desalination Project –*** SCWD is proposing to develop an ocean water desalination facility in Dana Point. SCWD intends to construct a facility with an initial capacity of up to 5 million gallons per day (MGD). The initial up to 5 MGD capacity would be available for SCWD and potential partnering water agencies to provide a high quality, locally-controlled, drought-proof water supply. The desalination facility would also provide emergency backup water supplies, should an earthquake, system shutdown, or other event disrupt the delivery of imported water to the area. The Project would consist of a subsurface slant well intake system (constructed within Doheny Beach State Park), raw (sea) water conveyance to the desalination facility site (located on SCWD owned property), a seawater reverse osmosis (SWRO) desalination facility, brine disposal through an existing wastewater ocean outfall, solids handling facilities, storage, and potable water conveyance interties to adjacent local and regional distribution infrastructure.

The Doheny Ocean Desalination Project has been determined as the best water supply option to meet reliability needs of SCWD and south Orange County. SCWD is pursuing the Project to ensure it meets the water use needs of its customers and the region by providing a drought-proof potable water supply, which diversifies SCWD's supply portfolio and protects against long-term imported water emergency outages and supply shortfalls that could have significant impact to our coastal communities, public health, and local economy. Phase I of the Project (aka, the "Local" Project) will provide SCWD and the region with up to 5 MGD of critical potable water supply that, together with recycled water, groundwater, and conservation, will provide the majority of SCWD's water supply through local reliable sources. An up to 15 MGD capacity project has been identified as a potential future "regional" project that could be phased incrementally, depending on regional needs.

On June 27, 2019, SCWD certified the final EIR and approved the Project. The Final EIR included considerable additional information provided at the request of the Coastal Commission and the Regional Board, including an updated coastal hazard analysis, updated brine discharge modeling, and updated groundwater modeling, updated hydrology analysis. The approval of the Project also included a commitment to 100 percent carbon neutrality through a 100 percent offset of emissions through the expansion of Project mitigation and use of renewable energy sources. SCWD is currently in the permitting process and finalizing additional due diligence studies. If implemented, SCWD anticipates an online date of 2025.

Under guidance provided by DWR, the Doheny Seawater Desalination Project's projected water supplies are not included in the supply projections due to its current status within the criteria established by State guidelines (DWR, 2020c).

### 6.7.2 Groundwater Desalination

There are currently no brackish groundwater opportunities within the District's service area.

## 6.8 Water Exchanges and Transfers

Interconnections with other agencies result in the ability to share water supplies during short-term emergency situations or planned shutdowns of major imported water systems. However, beyond short-term outages, transfers can also be involved with longer term water exchanges to deal with droughts or water allocation situations. The following subsections describe the District's existing and planned exchanges and transfers.

### 6.8.1 Existing Exchanges and Transfers

Interconnections with other agencies result in the ability to share water supplies during short term emergency situations or planned shutdowns of major imported water systems. The District maintains interconnections with other agencies as follows:

- TCWD at Cranbridge Dr. and Bridgemont Rd.
- IRWD at El Toro Rd. and Aliso Park Dr.
- IRWD at Ridge Route Dr. and Muirlands Blvd.
- IRWD at El Toro Rd. And Cornelius Dr.
- MNWD at Los Alisos Blvd, NE of Jeronimo Rd.
- SMWD at Trabuco Rd. and SMWD boundary
- IRWD at Second St. and Cherry Ave.
- SMWD/Aufdenkamp Connection Transmission Main at Ridge Route Dr. and Peralta Dr.
- MNWD at Beckenham St. and Wilkes Pl.
- MNWD at Los Alisos Blvd and Via Pimiento
- MNWD at Muirlands Blvd. and La Paz Rd.
- LBCWD at Avenida Sosiega West and Luz Del Sol
- JRWSS/Tri-Cities Transmission Main at Moulton Pkwy, NW of El Toro Rd.

### 6.8.2 Planned and Potential Exchanges and Transfers

The District does not currently have plans to introduce new exchanges and transfers. However, MWDOC continues to help its retail agencies develop transfer and exchange opportunities that promote reliability within their systems. Therefore, MWDOC will look to help its retail agencies navigate the operational and administrative issues of transfers within the MET distribution system.

On a regional scale, the Santa Ana River Conservation and Conjunctive Use Project (SARCCUP) is a joint project established by five regional water agencies within the Santa Ana River Watershed (Eastern Municipal Water District, Inland Empire Utilities Agency, Western Municipal Water District, OCWD, and San Bernardino Valley Municipal Water District).

In 2016, SARCCUP was successful in receiving $55 million in grant funds from Proposition 84 through DWR. The overall SARCCUP program awarded by Proposition 84, consists of three main program elements:

- Watershed-Scale Cooperative Water Banking Program
- Water Use Efficiency: Landscape Design and Irrigation Improvements and Water Budget Assistance for Agencies
- Habitat Creation and *Arundo Donax* Removal from the Santa Ana River

The Watershed-Scale Cooperative Water Banking Program is the largest component of SARCCUP and since 2016, Valley, MET, and the four SARCCUP-MWD Member Agencies, with MWDOC representing OCWD, have been discussing terms and conditions for the ability to purchase surplus water from Valley to be stored in the Santa Ana River watershed. With the Valley and MET surplus water purchase agreement due for renewal, it was the desire of Valley to establish a new agreement with MET that allows a portion of its surplus water to be stored within the Santa Ana River watershed.

An agreement between MET and four SARCCUP-MWD Member Agencies was approved earlier this year that gives the SARCCUP agencies the ability to purchase a portion (up to 50%) of the surplus water that San Bernardino Valley Municipal Water District (Valley), a SWP Contractor, sells to MET. Such water will be stored in local groundwater basins throughout the Santa Ana River watershed and extract during dry years to reduce the impacts from multiyear droughts. In Orange County, 36,000 AF can be stored in the OC Basin for use during dry years. More importantly, this stored SARCCUP water can be categorized as "extraordinary supplies", if used during a MET allocation, and can enhance a participating agencies' reliability during a drought. Moreover, if excess water is available MWDOC can purchase additional water for its service area.

Further details remain to be developed between OCWD, retail agencies, and MWDOC in how the water will be distributed in Orange County and who participates.

## 6.9 Summary of Future Water Projects

The District continually reviews practices that will provide its customers with adequate and reliable supplies. Trained staff continue to ensure the water quality is safe and the water supply will meet present and future needs in an environmentally and economically responsible manner.

Although the District has various projects planned to maintain and improve the water system, there are currently no District-specific planned projects that have both a concrete timeline and a quantifiable increase in supply.

### 6.9.1 District Initiatives

The District anticipates water demand in the District to remain relatively constant over the next 25 years. Any new water supply sources would be developed primarily to better manage local sources and to upgrade existing facilities, rather than to support population growth and new development. The projects that have been identified by the District to improve the District's water supply reliability and enhance the operations of the district include the expansion of their recycled water.

**Recycled Water Expansion Phase III** – The District is in the process of completing a conceptual level study that would potentially convert anywhere from 100 to 500 AFY of dedicated irrigation demand from potable water to recycled water on the East Side of the Interstate 5 freeway, which would increase the District's recycled water supply and local water supply reliability.

### 6.9.2 Regional Initiatives

Beyond District-specific projects, the District consistently coordinates its long-term water shortage planning with MWDOC. MWDOC has identified the following future regional projects, some of which

can indirectly benefit the District to further increase local supplies and offset imported supplies (CDM Smith, 2019).

**Poseidon Huntington Beach Ocean Desalination Project** – Poseidon proposes to construct and operate the Huntington Beach Ocean Desalination Plant on a 12-acre parcel adjacent to the AES Huntington Beach Generating Station. The facility would have a capacity of 50 MGD and 56,000 AFY, with its main components consisting of a water intake system, a desalination facility, a concentrate disposal system, and a product water storage tank. This project would provide both system and supply reliability benefits to South Orange County (SOC), the OC Basin, and Huntington Beach. The capital cost in the initial year for the plant is $1.22 billion.

**Doheny Ocean Desalination Project** – SCWD is proposing to construct an ocean water desalination facility in Dana Point at Doheny State Beach. The facility would have an initial up to 5 MGD capacity, with the potential for future expansions up to 15 MGD. The project's main components are a subsurface water intake system, a raw ocean water conveyance pipeline, a desalination facility, a seawater reverse osmosis (SWRO) desalination facility, a brine disposal system, and a product water storage tank.

**San Juan Watershed Project** – SMWD and other project partners have proposed a multi-phased project within the San Juan Creek Watershed to capture local stormwater and develop, convey, and recharge recycled water into the San Juan Groundwater Basin and treat the water upon pumping it out of the basin. The first phase includes the installation of three rubber dams within San Juan Creek to promote in-stream recharge of the basin, with an anticipated production of 700 AFY on average. The second phase would develop additional surface water and groundwater management practices by using stormwater and introducing recycled water for infiltration into the basin and has an anticipated production of 2,660 to 4,920 AFY. The third phase will introduce recycled water directly into San Juan Creek through live stream recharge, with an anticipated production of up to 2,660 AFY (SMWD, 2021).

**Cadiz Water Bank** – SMWD and Cadiz, Inc. are developing this project to create a new water supply by conserving groundwater that is currently being lost to evaporation and recovering the conserved water by pumping it out of the Fenner Valley Groundwater Basin to convey to MET's CRA. The project consists of a groundwater pumping component that includes an average of 50 TAFY of groundwater that can be pumped from the basin over a 50-year period, and a water storage component that allows participants to send surplus water supplies to be recharged in spreading basins and held in storage.

**South Orange County Emergency Interconnection Expansion** – MWDOC has been working with the SOC agencies on improvements for system reliability primarily due to the risk of earthquakes causing outages of the MET imported water system as well as extended grid outages. Existing regional interconnection agreements between IRWD and SOC agencies provides for the delivery of water through the IRWWD system to participating SOC agencies in times of emergency. MWDOC and IRWD are currently studying an expansion of the program, including the potential East Orange County Feeder No. 2 pipeline and an expanded and scalable emergency groundwater program, with a capital cost of $867,451.

**SARCCUP –** SARCCUP is a joint project established between MET, MWDOC, Eastern MWD, Western MWD, Inland Empire Utilities Agency, and OCWD that can provide significant benefits in the form of additional supplies during dry years for Orange County. Surplus SWP water from San Bernardino Valley Water District (SBVMWD) can be purchased and stored for use during dry years. This water can even be considered an extraordinary supply under MET allocation Plan, if qualified under MET's extraordinary

supply guidelines. OCWD has the ability to store 36,000 AF of SARCCUP water and if excess water is available MWDOC has the ability to purchase additional water. Further details remain to be developed between OCWD, retail agencies, and MWDOC in how the water will be distributed in Orange County and who participates.

**Moulton Niquel Water District (MNWD) / OCWD Pilot Storage Program -** OCWD entered into an agreement with MNWD to develop a pilot program to explore the opportunity to store water in the OC Basin. The purpose of such a storage account would provide MNWD water during emergencies and/or provide additional water during dry periods. As part of the agreement, OCWD hired consultants to evaluate where and how to extract groundwater from the OC Basin with several options to pump the water to MNWD via the East Orange County Feeder No. 2; as well as a review of existing banking/exchange programs in California to determine what compensation methodologies could OCWD assess for a storage/banking program.

## 6.10 Energy Intensity

A new requirement for this 2020 UWMP is an energy intensity analysis of the Supplier's water, wastewater, and recycled water systems, where applicable for a 12-month period. The District owns and operates a water distribution system, a wastewater collection/treatment system, and a recycled water system. This section reports the energy intensity for each system using data from FY 2019-20.

Water and energy resources are inextricably connected. Known as the "water-energy nexus", the California Energy Commission estimates the transport and treatment of water, treatment and disposal of wastewater, and the energy used to heat and consume water account for nearly 20% of the total electricity and 30% of non-power plant related natural gas consumed in California. In 2015, California issued new rules requiring 50% of its power to come from renewables, along with a reduction in greenhouse gas (GHG) emissions to 40% below 1990 levels by 2030. Consistent with energy and water conservation, renewable energy production, and GHG mitigation initiatives, the District reports the energy intensity of its water and wastewater operations.

The methodology for calculating water energy intensity outlined in Appendix O of the UWMP Guidebook was adapted from the California Institute for Energy Efficiency exploratory research study titled "Methodology for Analysis of the Energy Intensity of California's Water Systems" (Wilkinson 2000). The study defines water energy intensity as the total amount of energy, calculated on a whole-system basis, required for the use of a given amount of water in a specific location.

UWMP reporting is limited to available energy intensity information associated with water processes occurring within an urban water supplier's direct operational control. Operational control is defined as authority over normal business operations at the operational level. Any energy embedded in water supplies imparted by an upstream water supplier (e.g., water wholesaler) or consequently by a downstream water purveyor (e.g., retail water provider) is not included in the UWMP energy intensity tables. The District's calculations conform to methodologies outlined in the UWMP Guidebook and Wilkinson study.

### 6.10.1 Water Supply Energy Intensity

In FY2019, the District consumed 176.7 kilowatt-hour (KWh) per AF for water distribution services (Table 6-9). The basis for calculations is provided in more detail in the following subsections and in Appendix G.

## Table 6-9: Recommended Energy Intensity – Multiple Water Delivery Products

***Urban Water Supplier:*** *El Toro Water District*

**Water Delivery Product** (If delivering more than one type of product use Table O-1C)

*Retail Potable Deliveries*

**Table O-1A: Recommended Energy Reporting - Water Supply Process Approach**

Enter Start Date for Reporting Period: 7/1/2019

End Date: 6/29/2020

☐ Is upstream embedded in the values reported?

| | Water Volume Units Used | Urban Water Supplier Operational Control | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Water Management Process | | | | | | Non-Consequential Hydropower (if applicable) | |
| | | Extract and Divert | Place into Storage | Conveyance | Treatment | Distribution | Total Utility | Hydropower | Net Utility |
| *Volume of Water Entering Process* | AF | *0* | *0* | *0* | *0* | *6,880* | *6880* | *0* | *6880* |
| *Energy Consumed (kWh)* | *N/A* | *0* | *0* | *0* | *0* | *1,215,656* | *1215656* | *0* | *1215656* |
| *Energy Intensity (kWh/vol.)* | *N/A* | *0.0* | *0.0* | *0.0* | *0.0* | *176.7* | *176.7* | *0.0* | *176.7* |

**Quantity of Self-Generated Renewable Energy**

0 kWh

**Data Quality** *(Estimate, Metered Data, Combination of Estimates and Metered Data)*

*Combination of Estimates and Metered Data*

**Data Quality Narrative:**

Volume of Water Entering Process: Based on ETWD's Annual Water Audit. Non-Revenue Water is not considered in this calculation – the energy efficiency is based on water delivered to customers.
Energy Consumed: Based on metered data.

**Narrative:**

El Toro relies on imported water and recycled water to meet their customers' water needs. Operational control in the potable water system is limited to potable water booster stations. This table does not include upstream embedded energy consumed prior to El Toro taking control. In FY 2019, 7265 AF of water was imported by ETWD but the district experienced 385 AF of water losses resulting in a total of 6,880 AF of potable water delivered to customers.

#### 6.10.1.1 Operational Control and Reporting Period

As described throughout the report, the District is a retail agency that relies on imported water. Although calendar year reporting is standard for energy and GHG reporting to establish consistent reporting between various agencies, financial year data was used for this report as it provided the most current and complete data set.

#### 6.10.1.2 Volume of Water Entering Processes

According to ETWD's Annual Water Audit, 6,880 AF of water was distributed in FY 2019. A total of 7265 AF of water was imported by ETWD but the district experienced 385 AF of water losses resulting in a total of 6,880 AF of potable water delivered to customers. Water volume is based on water audit data.

#### 6.10.1.3 Energy Consumption and Generation

According to Southern California Edison Electricity Bills potable water pump stations along the distribution system consumed 1,215,656 kWh of electricity. Currently, the District does not generate renewable energy. Energy consumption is based on metered data.

### 6.10.2 Wastewater and Recycled Water Energy Intensity

In FY2019, the District consumed 1,441.9 kWh per AF for wastewater collection and treatment services and 647 kWh per AF for recycled water distribution services (Table 6-10). The basis for calculations is provided in more detail in the following subsections.

**Table 6-10: Recommended Energy Intensity – Wastewater & Recycled Water**

***Urban Water Supplier:*** *El Toro Water District*

| Table O-2: Recommended Energy Reporting - Wastewater & Recycled Water | | | | | |
|---|---|---|---|---|---|
| Enter Start Date for Reporting Period | 7/1/2019 | Urban Water Supplier Operational Control | | | |
| End Date | 6/29/2020 | Water Management Process | | | |
| ☐ Is upstream embedded in the values reported? | | Collection / Conveyance | Treatment | Discharge / Distribution | Total |
| **Volume** of Water Units Used | AF | | | | |
| *Volume of Wastewater Entering Process (volume units selected above)* | | *4,219* | *4,219* | *3,048* | *4219* |
| *Wastewater Energy Consumed (kWh)* | | *886,212* | *5,197,043* | *0* | *6083255* |
| *Wastewater Energy Intensity (kWh/volume)* | | *210.1* | *1231.8* | *0.0* | *1441.9* |
| *Volume of Recycled Water Entering Process (volume units selected above)* | | *0* | *0* | *1,171* | *1171* |
| *Recycled Water Energy Consumed (kWh)* | | *0* | *0* | *757,683* | *757683* |
| *Recycled Water Energy Intensity (kWh/volume)* | | *0.0* | *0.0* | *647.0* | *647.0* |

**Quantity of Self-Generated Renewable Energy related to recycled water and wastewater operations**

0 kWh

**Data Quality** *(Estimate, Metered Data, Combination of Estimates and Metered Data)*

*Combination of Estimates and Metered Data*

**Data Quality Narrative:**

Wastewater Volume of Water Entering Process: Estimated based potable water consumption in the service area. For these calculations, we assume that all wastewater collected is treated. A portion of treated wastewater then moves to the recycled water system while the rest is discharged to the ocean.
Wastewater Energy Consumed: Based on metered data.
Recycled Water Volume of Water Entering Process: based on metered data for recycled water delivered to the customer.

**Narrative:**

El Toro Water District operates the local wastewater collection system as well as a Water Recycling Plant. Water treated at the recycling plant is used for irrigation purposes.

#### 6.10.2.1 Operational Control and Reporting Period

The District's existing sewer system is made up of a network of gravity sewers, eleven sewer lift stations, and a water recycling plant. Water treated at the water recycling plant either enters the recycled water system or proceeds to an ocean outfall. Similar to the water supply energy intensity, wastewater energy intensity was calculated for the 2019 financial year.

#### 6.10.2.2 Volume of Wastewater Entering Processes

In CY2019, the District collected and conveyed an estimated 4219 AF of wastewater. This water was treated at the Water Recycling Plant and 1171 AF of recycled water was produced and distributed to customers. The volume of wastewater collected is an estimate based on potable water deliveries in the service area. This was used to provide consistency with reporting done by other Orange County water agencies as well as other sections of this report. The volume of recycled water delivered is based on data from customer meters.

#### 6.10.2.3 Energy Consumption and Generation

According to Southern California Edison Electricity Bills, the District's eleven wastewater lift stations consumed 866,212 kWh of electricity. The Water Recycling Plant consumed 5,197,043 kWh of electricity and the Recycled Water Pump Station consumed 757,683 of electricity. Currently, the District does not generate renewable energy. Energy consumption data was based on metered data.

### 6.10.3 Key Findings and Next Steps

Calculating and disclosing direct operationally controlled energy intensities is another step towards understanding the water-energy nexus. However, much work is still needed to better understand upstream and downstream (indirect) water-energy impacts. When assessing water supply energy intensities or comparing intensities between providers, it is important to consider reporting boundaries as they do not convey the upstream embedded energy or impacts energy intensity has on downstream users. Engaging one's upstream and downstream supply chain can guide more informed decisions that holistically benefit the environment and are mutually beneficial to engaged parties. Suggestions for further study include:

- Supply-chain engagement – The District relies on imported water for their customers. While some studies have used life cycle assessment tools to estimate energy intensities, there is a need to confirm this data. The 2020 UWMP requirement for all agencies to calculate energy intensity will help the District and neighboring agencies make more informed decisions that would benefit the region as a whole regarding the energy and water nexus. A similar analysis could be performed with upstream supply chain energy, for example, with State Project Water.
- Internal benchmarking and goal setting – With a focus on energy conservation and a projected increase in water demand despite energy conservation efforts, the District's energy intensities will likely decrease with time. Conceivably, in a case where water demand decreases, energy intensities may rise as the energy required to pump or treat is not always proportional to water

delivered. In the course of exploring the water-energy nexus and pursuing renewable energy goals, there is a need to assess whether energy intensity is a meaningful indicator or if it makes sense to use a different indicator to reflect the District's commitment to energy and water conservation.

- Regional sustainability – Water and energy efficiency are two components of a sustainable future. Efforts to conserve water and energy, however, may impact the social, environmental, and economic livelihood of the region. In addition to the relationship between water and energy, over time, it may also be important to consider and assess the connection these resources have on other aspects of a sustainable future.

# 7 WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

Building upon the water supply identified and projected in Section 6, this key section of the UWMP examines the District's projected water supplies, water demand, and the resulting water supply reliability. Water service reliability reflects the District's ability to meet the water needs of its customers under varying conditions. For the UWMP, water supply reliability is evaluated in two assessments: 1) the Water Service Reliability Assessment and 2) the DRA. The Water Service reliability assessment compares projected supply to projected demand in 2025 through 2045 for three hydrological conditions: a normal year, a single dry year, and a drought period lasting five consecutive years. The DRA, a new UWMP requirement, assesses near-term water supply reliability. It compares projected water supply and demand assuming the District experiences a drought period for the next five consecutive years. Factors affecting reliability, such as climate change and regulatory impacts, are accounted for in the assessment.

## 7.1 Water Service Reliability Overview

Every urban water supplier is required to assess the reliability of their water service to their customers under normal, single-dry, and multiple dry water years. The District depends on a combination of imported and local supplies to meet its water demands and has taken numerous steps to ensure it has adequate supplies. Development of local supplies augments the reliability of the water system. There are various factors that may impact reliability of supplies such as legal, environmental, water quality and climatic which are discussed below. MET's and MWDOC's 2020 UWMPs conclude that they are able to meet full-service demands of their member agencies starting 2025 through 2045 during normal years, single-dry year, and multiple-dry years. Consequently, the District is projected to meet full-service demands through 2045 for the same scenarios.

MET's 2020 IRP update describes the core water resources that will be used to meet full-service demands at the retail level under all foreseeable hydrologic conditions from 2025 through 2045. The foundation of MET's resource strategy for achieving regional water supply reliability has been to develop and implement water resources programs and activities through its IRP preferred resource mix. This preferred resource mix includes conservation, local resources such as water recycling and groundwater recovery, Colorado River supplies and transfers, SWP supplies and transfers, in-region surface reservoir storage, in-region groundwater storage, out-of-region banking, treatment, conveyance, and infrastructure improvements.

Table 7-1 shows the basis of water year data used to predict drought supply availability. The average (normal) hydrologic condition for the MWDOC service area, which the District is a part of, is represented by FY 2017-18 and FY 2018-19 and the single-dry year hydrologic condition by FY 2013-14. The five consecutive years of FY 2011-12 to FY 2015-16 represent the driest five-consecutive year historic sequence for MWDOC's service area. Locally, Orange County rainfall for the five-year period totaled 36 inches, the driest on record.

Table 7-1: Retail: Basis of Water Year Data (Reliability Assessment)

| DWR Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment) | | | |
|---|---|---|---|
| **Year Type** | **Base Year** | **Available Supplies if Year Type Repeats** | |
| | | ☐ | Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____ |
| | | ☑ | Quantification of available supplies is provided in this table as either volume only, percent only, or both. |
| | | **Volume Available** | **% of Average Supply** |
| Average Year | 2018-2019 | - | 100% |
| Single-Dry Year | 2014 | - | 109% |
| Consecutive Dry Years 1st Year | 2012 | - | 109% |
| Consecutive Dry Years 2nd Year | 2013 | - | 109% |
| Consecutive Dry Years 3rd Year | 2014 | - | 109% |
| Consecutive Dry Years 4th Year | 2015 | - | 109% |
| Consecutive Dry Years 5th Year | 2016 | - | 109% |
| NOTES: Assumes an increase of 9% above average year demands in dry and multiple dry years based on the Demand Forecast TM (CDM Smith, 2021). 109% represents the percent of average supply needed to meet demands of a single-dry and multiple-dry years. Since the District is able to meet all of its demand with imported water from MWDOC/MET (on top of local water sources), the percent of average supply value reported is equivalent to the percent of average demand under the corresponding hydrologic condition. | | | |

The following sections provide a detailed discussion of the District's water source reliability. Additionally, the following sections compare the District's projected supply and demand under various hydrological conditions, to determine the District's supply reliability for the 25-year planning horizon.

## 7.2 Factors Affecting Reliability

In order to prepare realistic water supply reliability assessments, various factors affecting reliability were considered. These include climate change and environmental requirements, regulatory changes, water quality impacts, and locally applicable criteria.

### 7.2.1 Climate Change and the Environment

Changing climate patterns are expected to shift precipitation patterns and affect water supply availability. Unpredictable weather patterns will make water supply planning more challenging. Although climate change impacts are associated with exact timing, magnitude, and regional impacts of these temperature and precipitation changes, researchers have identified several areas of concern for California water planners (MET, 2021). These areas include:

- A reduction in Sierra Nevada Mountain snowpack.
- Increased intensity and frequency of extreme weather events.
- Prolonged drought periods.
- Water quality issues associated with increase in wildfires.
- Changes in runoff pattern and amount.
- Rising sea levels resulting in:
    - Impacts to coastal groundwater basins due to seawater intrusion.
    - Increased risk of damage from storms, high-tide events, and the erosion of levees.
    - Potential pumping cutbacks to the SWP and CVP.

Other important issues of concern due to global climate change include:

- Effects on local supplies such as surface water
- Changes in urban and agricultural demand levels and patterns.
- Increased evapotranspiration from higher temperatures.
- Impacts to human health from water-borne pathogens and water quality degradation.
- Declines in ecosystem health and function.
- Alterations to power generation and pumping regime.
- Increases in ocean algal blooms affected seawater desalination supplies.

The major impact in California is that without additional surface storage, the earlier and heavier runoff (rather than snowpack retaining water in storage in the mountains), will result in more water being lost to the oceans. A heavy emphasis on storage is needed in California.

In addition, the Colorado River Basin supplies have been inconsistent since about the year 2000, with precipitation near normal while runoff has been less than average in two out of every three years. Climate models are predicting a continuation of this pattern whereby hotter and drier weather conditions will result in continuing lower runoff, pushing the system toward a drying trend that is often characterized as long-term drought.

Dramatic swings in annual hydrologic conditions have impacted water supplies available from the SWP over the last decade. The declining ecosystem in the Delta has also led to a reduction in water supply deliveries, and operational constraints, which will likely continue until a long-term solution to these problems is identified and implemented (MET, 2021).

Legal, environmental, and water quality issues may have impacts on MET supplies. It is felt, however, that climatic factors would have more of an impact than legal, water quality, and environmental factors. Climatic conditions have been projected based on historical patterns, but severe pattern changes are still a possibility in the future (MET, 2021).

### 7.2.2 Regulatory and Legal

Ongoing regulatory restrictions, such as those imposed by the Biops on the effects of SWP and the federal CVP operations on certain marine life, also contributes to the challenge of determining water delivery reliability. Endangered species protection and conveyance needs in the Delta have resulted in operational constraints that are particularly important because pumping restrictions impact many water resources programs – SWP supplies and additional voluntary transfers, Central Valley storage and transfers, and in-region groundwater and surface water storage. Biops protect special-status species listed as threatened or endangered under the ESAs and imposed substantial constraints on Delta water supply operations through requirements for Delta inflow and outflow and export pumping restrictions.

In addition, the SWRCB has set water quality objectives that must be met by the SWP including minimum Delta outflows, limits on SWP and CVP Delta exports, and maximum allowable salinity level. SWRCB plans to fully implement the new Lower San Joaquin River (LSJR) flow objectives from the Phase 1 Delta Plan amendments through adjudicatory (water rights) and regulatory (water quality) processes by 2022. These LSJR flow objectives are estimated to reduce water available for human consumptive use. New litigation, listings of additional species under the ESAs, or regulatory requirements imposed by the SWRCB could further adversely affect SWP operations in the future by requiring additional export reductions, releases of additional water from storage, or other operational changes impacting water supply operations.

The difficulty and implications of environmental review, documentation, and permitting pose challenges for multi-year transfer agreements, recycled water projects, and seawater desalination plants. The timeline and roadmap for getting a permit for recycled water projects are challenging and inconsistently implemented in different regions of the state. IPR projects face regulatory restraints such as treatment, blend water, retention time, and Basin Plan Objectives, which may limit how much recycled water can feasibly be recharged into the groundwater basins. New regulations and permitting uncertainty are also barriers to seawater desalination supplies, including updated Ocean Plan Regulations, Marine Life Protected Areas, and Once-Through Cooling Regulations (MET, 2021).

### 7.2.3 Water Quality

The following sub-sections include narratives on water quality issues experienced in various water supplies, if any, and the measures being taken to improve the water quality of these sources.

#### 7.2.3.1 Imported Water

MET is responsible for providing high quality potable water throughout its service area. Over 300,000 water quality tests are performed per year on MET's water to test for regulated contaminants and additional contaminants of concern to ensure the safety of its waters. MET's supplies originate primarily from the CRA and from the SWP. A blend of these two sources, proportional to each year's availability of the source, is then delivered throughout MET's service area.

MET's primary water sources face individual water quality issues of concern. The CRA water source contains higher total dissolved solids (TDS) and the SWP contains higher levels of organic matter, lending to the formation of disinfection byproducts. To remediate the CRA's high level of salinity and the SWP's high level of organic matter, MET blends CRA and SWP supplies and has upgraded all of its

treatment facilities to include ozone treatment processes. In addition, MET has been engaged in efforts to protect its Colorado River supplies from threats of uranium, perchlorate, and chromium VI while also investigating the potential water quality impact of the following emerging contaminants: N-nitrosodimethylamine (NDMA), pharmaceuticals and personal care products (PPCP), microplastics, per- and polyfluoroalkyl substances (PFAS), and 1,4-dioxane (MET, 2021). While unforeseeable water quality issues could alter reliability, MET's current strategies ensure the delivery of high-quality water.

The presence of quagga mussels in water sources is a water quality concern. Quagga mussels are an invasive species that was first discovered in 2007 at Lake Mead, on the Colorado River. This species of mussels forms massive colonies in short periods of time, disrupting ecosystems and blocking water intakes. They can cause significant disruption and damage to water distribution systems. MET has had success in controlling the spread and impacts of the quagga mussels within the CRA, however the future could require more extensive maintenance and reduced operational flexibility than current operations allow. It also resulted in MET eliminating deliveries of CRA water into DVL to keep the reservoir free from quagga mussels (MET, 2021).

### 7.2.4 Locally Applicable Criteria

Within Orange County, there are no significant local applicable criteria that directly affect reliability. Through the years, the water agencies in Orange County have made tremendous efforts to integrate their systems to provide flexibility to interchange with different sources of supplies. There are emergency agreements in place to ensure all parts of the County have an adequate supply of water. For agencies in southern Orange County, most demands are met with imported water where limitation is based on the capacity of the system, which is very robust.

However, if a major earthquake on the San Andreas Fault occurs, it will be damaging to all three key regional water aqueducts and disrupt imported supplies for up to six months. The region would likely impose a water use reduction ranging from 10-25% until the system is repaired. However, MET has taken proactive steps to handle such disruption, such as constructing DVL, which mitigates potential impacts. DVL, along with other local reservoirs, can store a six to twelve-month supply of emergency water (MET, 2021).

## 7.3 Water Service Reliability Assessment

This Section assesses the District's reliability to provide water services to its customers under various hydrological conditions. This is completed by comparing the projected long-term water demand (Section 4), to the projected water supply sources available to the District (Section 6), in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years.

### 7.3.1 Normal Year Reliability

The water demand forecasting model developed for the Demand Forecast TM (described in Section 4.3), to project the 25-year demand for Orange County water agencies, also isolated the impacts that weather and future climate can have on water demand through the use of a statistical model. The explanatory variables of population, temperature, precipitation, unemployment rate, drought restrictions, and

conservation measures were used to create the statistical model. The impacts of hot/dry weather condition are reflected as a percentage increase in water demands from the average condition. The average (normal) demand is represented by the average water demand of FY 2017-18 and FY 2018-19 (CDM Smith, 2021).

The District is 100% reliable for normal year demands from 2025 through 2045 (Table 7-2) due to diversified supply and conservation measures. For simplicity, the table shows supply to balance demand in the table. However, the District can purchase more MET water through MWDOC, should the need arise. The District has entitlements to receive imported water from MET through MWDOC via connections to MET's regional distribution system. All imported water supplies are assumed available to the District from existing water transmission facilities, as per MET and MWDOC's 2020 UWMPs. The supplies listed in Table 7-2 also include local recycled water supplies.

**Table 7-2: Retail: Normal Year Supply and Demand Comparison**

| DWR Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison | | | | | |
|---|---|---|---|---|---|
| | 2025 | 2030 | 2035 | 2040 | 2045 |
| Supply totals (AF) | 8,737 | 9,136 | 9,151 | 9,172 | 9,156 |
| Demand totals (AF) | 8,737 | 9,136 | 9,151 | 9,172 | 9,156 |
| Difference (AF) | 0 | 0 | 0 | 0 | 0 |
| NOTES:<br>This table compares the projected demand and supply volumes determined in Sections 4.3.2 and 6.1, respectively. | | | | | |

### 7.3.2 Single Dry Year Reliability

A single dry year is defined as a single year of minimal to no rainfall within a period where average precipitation is expected to occur. The water demand forecasting model developed for the Demand Forecast TM (described in Section 4.3) isolated the impacts that weather and future climate can have on water demand through the use of a statistical model. The impacts of hot/dry weather condition are reflected as a percentage increase in water demands from the normal year condition (average of FY 2017-18 and FY 2018-19). For a single dry year condition (FY 2013-14), the model projects a nine percent increase in demand for the South County region where the District's service area is located (CDM Smith, 2021). Detailed information of the model is included in Appendix E.

The District has documented that it is 100% reliable for single dry year demands from 2025 through 2045 with a demand increase of nine percent from normal demand with significant reserves held by MET and conservation. A comparison between the supply and the demand in a single dry year is shown in (Table 7-3). For simplicity, the table shows supply to balance demand in the table. However, the District can purchase more MET water through MWDOC, should the need arise.

Table 7-3: Retail: Single Dry Year Supply and Demand Comparison

| DWR Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison | | | | | |
|---|---|---|---|---|---|
| | 2025 | 2030 | 2035 | 2040 | 2045 |
| Supply totals (AF) | 9,523 | 9,958 | 9,975 | 9,998 | 9,980 |
| Demand totals (AF) | 9,523 | 9,958 | 9,975 | 9,998 | 9,980 |
| Difference (AF) | 0 | 0 | 0 | 0 | 0 |
| NOTES:<br>It is conservatively assumed that a single dry year demand is 9% greater than each respective year's normally projected total water demand from Table 7-2. Surface water and recycled water provide local supply (Sections 6.4 and 6.6, respectively) and based on MET's and MWDOC's UWMP, imported water is available to close any local water supply gap (Section 7.5.1). | | | | | |

### 7.3.3 Multiple Dry Year Reliability

Assessing the reliability to meet demand for five consecutive dry years is a new requirement for the 2020 UWMP, as compared to the previous requirement of assessing three or more consecutive dry years. Multiple dry years are defined as five or more consecutive dry years with minimal rainfall within a period of average precipitation. The water demand forecasting model developed for the Demand Forecast TM (described in Section 4.3) isolated the impacts that weather and future climate can have on water demand through the use of a statistical model. The impacts of hot/dry weather condition are reflected as a percentage increase in water demands from the normal year condition (average of FY 2017-18 and FY 2018-19). For a single dry year condition (FY 2013-14), the model projects a nine percent increase in demand for the South County region where the District's service area is located (CDM Smith, 2021). It is conservatively assumed that a five consecutive dry year scenario is a repeat of the single dry year over five consecutive years.

Even with a conservative demand increase of nine percent each year for five consecutive years, the District is capable of meeting all customers' demands from 2025 through 2045 (Table 7-4), with significant reserves held by MET and conservation. For simplicity, the table shows supply to balance demand in the table. However, the District can purchase more MET water through MWDOC, should the need arise.

Table 7-4: Retail: Multiple Dry Years Supply and Demand Comparison

| DWR Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison (AF) | | | | | | |
|---|---|---|---|---|---|---|
| | | 2025 | 2030 | 2035 | 2040 | 2045 |
| First year | Supply totals | 9,262 | 9,610 | 9,962 | 9,979 | 9,994 |
| | Demand totals | 9,262 | 9,610 | 9,962 | 9,979 | 9,994 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Second year | Supply totals | 9,327 | 9,697 | 9,965 | 9,984 | 9,991 |
| | Demand totals | 9,327 | 9,697 | 9,965 | 9,984 | 9,991 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Third year | Supply totals | 9,393 | 9,784 | 9,968 | 9,989 | 9,987 |
| | Demand totals | 9,393 | 9,784 | 9,968 | 9,989 | 9,987 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Fourth year | Supply totals | 9,458 | 9,871 | 9,971 | 9,993 | 9,984 |
| | Demand totals | 9,458 | 9,871 | 9,971 | 9,993 | 9,984 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Fifth year | Supply totals | 9,523 | 9,958 | 9,975 | 9,998 | 9,980 |
| | Demand totals | 9,523 | 9,958 | 9,975 | 9,998 | 9,980 |
| | Difference | 0 | 0 | 0 | 0 | 0 |

NOTES:
The multiple dry-year projections estimate a 9% increase on total normal water demand. The 2025 column assesses supply and demand for FY 2020-21 through FY 2024-25; the 2030 column assesses FY 2025-26 through FY 2029-30 and so forth, in order to end the water service reliability assessment in FY 2044-45.

Surface water and recycled water provide local supply (Sections 6.4 and 6.6, respectively) and based on MET's and MWDOC's UWMP, imported water is available to close any local water supply gap (Section 7.5.1).

## 7.4 Management Tools and Options

Existing and planned water management tools and options for the District and MWDOC's service area that seek to maximize local resources and result in minimizing the need to import water are described below. Although the District does not produce groundwater from the OC Basin, collaborative initiatives between MWDOC and OCWD benefit the District.

- **Reduced Delta Reliance:** MET has demonstrated consistency with Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (Delta Plan policy WR P1) by reporting the expected outcomes for measurable reductions in supplies from the Delta. MET has improved its self-reliance through methods including water use efficiency, water recycling, stormwater capture and reuse, advanced water technologies, conjunctive use projects, local and regional water supply and storage programs, and other programs and projects. In 2020, MET had a 602,000 AF change in supplies contributing to regional-self-reliance, corresponding to a 15.3% change, and this amount is projected to increase through 2045 (MET, 2021). For detailed information on the Delta Plan Policy WR P1, refer to Appendix C.

- **The continued and planned use of groundwater:** The water supply resources within MWDOC's service area are enhanced by the existence of groundwater basins that account for the majority of local supplies available and are used as reservoirs to store water during wet years and draw from storage during dry years, subsequently minimizing MWDOC's reliance on imported water. Groundwater basins are managed within a safe basin operating range so that groundwater wells are only pumped as needed to meet water use. Although MWDOC does not produce or manage recycled water, MWDOC supports and partners in recycled water efforts, including groundwater recharge.

- **Groundwater storage and transfer programs:** MWDOC and OCWD's involvement in SARCCUP includes participation in a CUP that improves water supply resiliency and increases available dry-year yield from local groundwater basins. The groundwater bank has 137,000 AF of storage (OCWD, 2020b). Additionally, MET has numerous groundwater storage and transfer programs in which MET endeavors to increase the reliability of water supplies, including the AVEK Waster Agency Exchange and Storage Program and the High Desert Water Bank Program. The IRWD Strand Ranch Water Banking Program has approximately 23,000 AF stored for IRWD's benefit, and by agreement, the water is defined to be an "Extraordinary Supply" by MET and counts essentially 1:1 during a drought/water shortage condition under MET's WSAP. In addition, MET has encouraged storage through its cyclic and conjunctive use programs that allow MET to deliver water into a groundwater basin in advance of agency demands, such as the Cyclic Storage Agreements under the Main San Gabriel Basin Judgement.

- **Water Loss Program:** The water loss audit program reduces MWDOC's dependency on imported water from the Delta by implementing water loss control technologies after assessing audit data and leak detection.

- **Increased use of recycled water:** MWDOC partners with local agencies in recycled water efforts, including OCWD to identify opportunities for the use of recycled water for irrigation

purposes, groundwater recharge and some non-irrigation applications. OCWD's Groundwater Replenishment System (GWRS) and Green Acres Project (GAP) allow Southern California to decrease its dependency on imported water and create a local and reliable source of water that meet or exceed all federal and state drinking level standards. Expansion of the GWRS is currently underway to increase the plant's production to 130 MGD, and further reduce reliance on imported water.

- **Implementation of demand management measures (DMMs) during dry periods:** During dry periods, water reduction methods to be applied to the public through the retail agencies, will in turn reduce MWDOC's overall demands on MET and reliance on imported water. MWDOC is assisting its retail agencies by leading the coordination of Orange County Regional Alliance for all of the retail agencies in Orange County. MWDOC assists each retail water supplier in Orange County in analyzing the requirements of and establishing their baseline and target water use, as guided by DWR. The District's specific DMMs are further discussed in Section 9.

## 7.5 Drought Risk Assessment

Water Code Section 10635(b) requires every urban water supplier include, as part of its UWMP, a DRA for its water service as part of information considered in developing its DMMs and water supply projects and programs. The DRA is a specific planning action that assumes the District is experiencing a drought over the next five years and addresses the District's water supply reliability in the context of presumed drought conditions. Together, the water service reliability assessment (Sections 7.1 through 7.3), DRA, and WSCP (Section 8 and Appendix H) allow the District to have a comprehensive picture of its short-term and long-term water service reliability and to identify the tools to address any perceived or actual shortage conditions.

Water Code Section 10612 requires the DRA to be based on the driest five-year historic sequence of the District's water supply. However, Water Code Section 10635 also requires that the analysis consider plausible changes on projected supplies and demands due to climate change, anticipated regulatory changes, and other locally applicable criteria.

The following sections describe the District's methodology and results of its DRA.

### 7.5.1 DRA Methodology

The water demand forecasting model developed for the Demand Forecast TM (described in Section 4.3) isolated the impacts that weather and future climate can have on water demand through the use of a statistical model. The impacts of hot/dry weather condition are reflected as a percentage increase in water demands from the average condition (average of FY 2017-18 and FY 2018-19). For a single dry year condition (FY 2013-14), the model projects a nine percent increase in demand for the South County region encompassing the District's service area (CDM Smith, 2021).

Locally, the five-consecutive years of FY 2011-12 through FY 2015-16 represent the driest five-consecutive year historic sequence for the District's water supply. This period that spanned water years 2012 through 2016 included the driest four-year statewide precipitation on record (2012-2015) and the smallest Sierra-Cascades snowpack on record (2015, with 5% of average). It was marked by

extraordinary heat: 2014, 2015 and 2016 were California's first, second and third warmest year in terms of statewide average temperatures. Locally, Orange County rainfall for the five-year period totaled 36 inches, the driest on record.

As explained in Section 6, the District currently relies on, and will continue to rely on, three main water sources: local surface water as available, local recycled water, and imported water supply from MWDOC / MET. The District maximizes local water supply use before the purchase of imported water. The difference between total forecasted potable demands and local potable water supply projections is the demand on MWDOC's imported water supplies, which are supplied by MET. Therefore, the District's DRA focuses on the assessment of imported water from MWDOC / MET, which will be used to close any local water supply gap. This assessment aligns with the DRA presented in MWDOC's 2020 UWMP.

**Water Demand Characterization**

All of MWDOC's water supplies are purchased from MET, regardless of hydrologic conditions. As described in Section 6.2, MET's supplies are from the Colorado River, SWP, and in-region storage. In its 2020 UWMP, MET's DRA concluded that even without activating WSCP actions, MET can reliably provide water to all of their member agencies, including MWDOC, and in effect the District, assuming a five-year drought from FY 2020-21 through FY 2024-25. Beyond this, MET's DRA indicated a surplus of supplies that would be available to all of its member agencies, including MWDOC, should the need arise. Therefore, any increase in demand that is experienced in MWDOC's service area, which includes the District, will be met by MET's water supplies.

Based on the Demand Forecast TM, in a single dry year, demand is expected to increase by nine percent above a normal year. Both MWDOC and the District's DRA conservatively assumes a drought from FY2020-21 through FY 2024-25 is a repeat of the single dry year over five consecutive years.

The District's demand projections were developed as part of the Demand Forecast TM, led by MWDOC. As part of the study, MWDOC estimated total retail demands for its service area. This was based on estimated future demands using historical water use trends, future expected water use efficiency measures, additional projected land-use development, and changes in population. The District's projected water use, linearly interpolated per the demand forecast, is presented annually for the next five years in Table 4-2. Next, MWDOC estimated the projections of local supplies derived from current and expected local supply programs from their member agencies. Finally, the demand model calculated the difference between total forecasted demands and local supply projections. The resulting difference between total demands net of savings from conservation and local supplies is the expected regional demands on MWDOC from their member agencies, such as the District.

**Water Supply Characterization**

MWDOC's assumptions for its supply capabilities are discussed and presented in five year increments under its 2020 UWMP water reliability assessment. For MWDOC's DRA, these supply capabilities are further refined and presented annually for the years 2021 to 2025 by assuming a repeat of historic conditions from FY 2011-12 to FY 2015-16. For its DRA, MWDOC assessed the reliability of supplies available to MWDOC through MET using historical supply availability under dry-year conditions. MET's supply sources under the Colorado River, SWP, and in-region supply categories are individually listed and discussed in detail in MET's UWMP. Future supply capabilities for each of these supply sources are also individually tabulated in Appendix 3 of MET's UWMP, with consideration for plausible

changes on projected supplies under climate change conditions, anticipated regulatory changes, and other factors. MWDOC's supplies are used to meet consumptive use and surface water and groundwater recharge needs that are in excess of locally available supplies. In addition, MWDOC has access to supply augmentation actions through MET. MET may exercise these actions based on regional need, and in accordance with their WSCP, and may include the use of supplies and storage programs within the Colorado River, SWP, and in-region storage.

### 7.5.2 Total Water Supply and Use Comparison

The District's DRA reveals that its supply capabilities are expected to balance anticipated total water use and supply, assuming a five-year consecutive drought from FY 2020-21 through FY 2024-25 (Table 7-5). For simplicity, the table shows supply to balance the modeled demand in the table. However, the District can purchase more MET water from MWDOC, should the need arise.

**Table 7-5: Five-Year Drought Risk Assessment Tables to Address Water Code Section 10635(b)**

| Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b) | |
|---|---|
| **2021** | **Total** |
| Total Water Use | 9,262 |
| Total Supplies | 9,262 |
| Surplus/Shortfall w/o WSCP Action | 0 |
| **Planned WSCP Actions** (use reduction and supply augmentation) | |
| WSCP - supply augmentation benefit | 0 |
| WSCP - use reduction savings benefit | 0 |
| Revised Surplus/(shortfall) | 0 |
| Resulting % Use Reduction from WSCP action | 0% |

| 2022 | Total |
|---|---|
| Total Water Use | 9,327 |
| Total Supplies | 9,327 |
| Surplus/Shortfall w/o WSCP Action | 0 |
| **Planned WSCP Actions** (use reduction and supply augmentation) | |
| WSCP - supply augmentation benefit | 0 |
| WSCP - use reduction savings benefit | 0 |
| Revised Surplus/(shortfall) | 0 |
| Resulting % Use Reduction from WSCP action | 0% |

**Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)**

| 2023 | Total |
|---|---|
| Total Water Use | 9,393 |
| Total Supplies | 9,393 |
| Surplus/Shortfall w/o WSCP Action | 0 |
| **Planned WSCP Actions** (use reduction and supply augmentation) | |
| WSCP - supply augmentation benefit | 0 |
| WSCP - use reduction savings benefit | 0 |
| Revised Surplus/(shortfall) | 0 |
| Resulting % Use Reduction from WSCP action | 0% |

| 2024 | Total |
|---|---|
| Total Water Use | 9,458 |
| Total Supplies | 9,458 |
| Surplus/Shortfall w/o WSCP Action | 0 |
| **Planned WSCP Actions** (use reduction and supply augmentation) | |
| WSCP - supply augmentation benefit | 0 |
| WSCP - use reduction savings benefit | 0 |
| Revised Surplus/(shortfall) | 0 |
| Resulting % Use Reduction from WSCP action | 0% |

| 2025 | Total |
|---|---|
| Total Water Use | 9,523 |
| Total Supplies | 9,523 |
| Surplus/Shortfall w/o WSCP Action | 0 |
| **Planned WSCP Actions** (use reduction and supply augmentation) | |
| WSCP - supply augmentation benefit | 0 |
| WSCP - use reduction savings benefit | 0 |
| Revised Surplus/(shortfall) | 0 |
| Resulting % Use Reduction from WSCP action | 0% |

Note: Surface water and recycled water provide local supply (Sections 6.4 and 6.6, respectively) and based on MET's and MWDOC's UWMP, imported water is available to close any local water supply gap (Section 7.5.1).

### 7.5.3 Water Source Reliability

Locally, the District's ability to continue producing water locally, via direct recycled water use, greatly improves the District's water supply reliability. Additionally, although they would not normally be considered part of the District's water portfolio, the emergency interconnections the District has with TCWD, IRWD, MNWD, SMWD, LBCWD, and the JRWSS/Tri-Cities could help mitigate any water supply shortages, though shortages are not expected.

The District's DRA concludes that its water supplies meet total water demand, assuming a five-year consecutive drought from FY 2020-21 through FY 2024-25 (Table 7-5). For simplicity, the table shows supply to balance the modeled demand in the table. However, the District can purchase more MET water from MWDOC, should the need arise.

As detailed in Section 9, the District has in place a robust WSCP and comprehensive shortage response planning efforts that include demand reduction measures and supply augmentation actions. However, since the District's DRA shows a balance between water supply and demand, no water service reliability concern is anticipated, and no shortfall mitigation measures are expected to be exercised over the next five years. The District and its wholesale supplier, MWDOC, will periodically revisit its representation of the supply sources and of the gross water use estimated for each year, and will revise its DRA if needed.

# 8 WATER SHORTAGE CONTINGENCY PLANNING

## 8.1 Layperson Description

Water shortage contingency planning is a strategic planning process that the District engages to prepare for and respond to water shortages. A water shortage, when water supply available is insufficient to meet the normally expected customer water use at a given point in time, may occur due to a number of reasons, such as water supply quality changes, climate change, drought, and catastrophic events (e.g., earthquake). The District's WSCP provides real-time water supply availability assessment and structured steps designed to respond to actual conditions. This level of detailed planning and preparation will help maintain reliable supplies and reduce the impacts of supply interruptions.

The Water Code Section 10632 requires that every urban water supplier that serves more than 3,000 AFY or has more than 3,000 connections prepare and adopt a standalone WSCP as part of its UWMP. The WSCP is required to plan for a greater than 50% supply shortage. This WSCP is due to be updated based on new requirements every five years and will be adopted as a current update for submission to DWR by July 1, 2021.

## 8.2 Overview of the WSCP

The WSCP serves as the operating manual that the District will use to prevent catastrophic service disruptions through proactive, rather than reactive, mitigation of water shortages. The WSCP contains processes and procedures documented in the WSCP, which are given legal authority through the WSCP Response Ordinance. This way, when shortage conditions arise, the District's governing body, its staff, and the public can easily identify and efficiently implement pre-determined steps to mitigate a water shortage to the level appropriate to the degree of water shortfall anticipated. Figure 8-1 illustrates the interdependent relationship between the three procedural documents related to planning for and responding to water shortages.

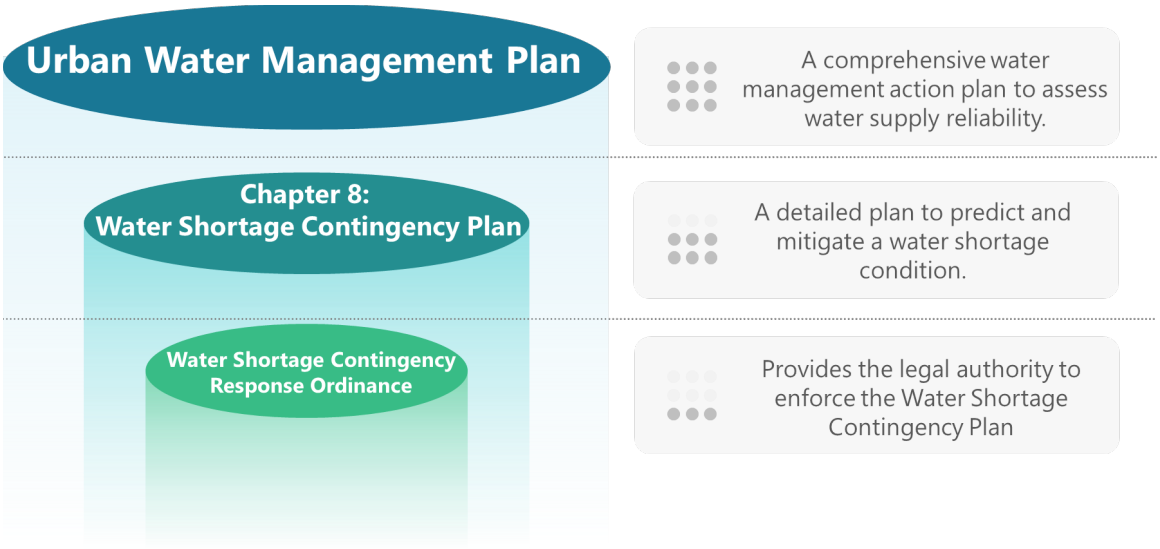


**Figure 8-1: UWMP Overview**

A copy of the District's WSCP is provided in Appendix H and includes the steps to assess if a water shortage is occurring, and what level of shortage drought actions to trigger the best response as appropriate to the water shortage conditions. WSCP has prescriptive elements, including an analysis of water supply reliability; the drought shortage actions for each of the six standard water shortage levels, that correspond to water shortage percentages ranging from 10% to greater than 50%; an estimate of the potential to close the supply gap for each measure; protocols and procedures to communicate identified actions for any current or predicted water shortage conditions; procedures for an annual water supply and demand assessment; monitoring and reporting requirements to determine customer compliance; and reevaluation and improvement procedures for evaluating the WSCP.

## 8.3 Summary of Water Shortage Response Strategy and Required DWR Tables

This WSCP is organized into three main sections, with Section 3 aligned with Water Code Section 16032 requirements.

**Section 1 Introduction and WSCP Overview** gives an overview of the WSCP fundamentals.

**Section 2 Background** provides a background on the District's water service area.

**Section 3.1 Water Supply Reliability Analysis** provides a summary of the water supply analysis and water reliability findings from the 2020 UWMP.

**Section 3.2 Annual Water Supply and Demand Assessment Procedures** provide a description of procedures to conduct and approve the Annual Assessment.

**Section 3.3 Six Standard Water Shortage Stages** explains the WSCP's six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, 50, and more than 50% shortages.

**Section 3.4 Shortage Response Actions** describes the WSCP's shortage response actions that align with the defined shortage levels.

**Section 3.5 Communication Protocols** addresses communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding any current or predicted shortages and any resulting shortage response actions.

**Section 3.6 Compliance and Enforcement** describes customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions.

**Section 3.7 Legal Authorities is** a description of the legal authorities that enable the District to implement and enforce its shortage response actions.

**Section 3.8 Financial Consequences of the WSCP** provides a description of the financial consequences of and responses for drought conditions.

**Section 3.9 Monitoring and Reporting** describes monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements**.**

**Section 3.10 WSCP Refinement Procedures** addresses reevaluation and improvement procedures for monitoring and evaluating the functionality of the WSCP.

**Section 3.11 Special Water Feature Distinction** is a required definition for inclusion in a WSCP per the Water Code.

**Section 3.12 Plan Adoption, Submittal, and Implementation** provides a record of the process the District followed to adopt and implement its WSCP.

The WSCP is based on adequate details of demand reduction and supply augmentation measures that are structured to match varying degrees of shortage will ensure the relevant stakeholders understand what to expect during a water shortage situation. Water Code Section 10632 (a)(3)(A) provides an option for urban water suppliers to align with six standard water shortage levels; however, the District has selected to retain its existing water shortage levels as defined in the District Code (Table 8-1). Table 8-2 shows the District's water shortage levels in relationship to the six standard water shortage levels prescribed by statute. This crosswalk is intended to clearly translate the District's water shortage levels to those mandated by statute.

The supply augmentation actions that align with each shortage level are described in DWR Table 8-3 (Appendix B). These augmentations represent short-term management objectives triggered by the WSCP and do not overlap with the long-term new water supply development or supply reliability enhancement projects.

The demand reduction measures that align with each shortage level are described in DWR Table 8-2 (Appendix B). This table also estimates the extent to which that action will reduce the gap between supplies and demands to demonstrate to the that choose suite of shortage response actions can be expected to deliver the expected outcomes necessary to meet the requirements of a given shortage level.

Table 8-1: Water Shortage Contingency Plan Levels

| Submittal Table 8-1<br>Water Shortage Contingency Plan Levels | | |
|---|---|---|
| **Shortage Level** | **Percent Shortage Range** | **Shortage Response Actions** |
| 1 | Up to 20% | A Level 1 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 2 | Up to 40% | A Level 2 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 3 | Greater than 40% | A Level 3 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| NOTES: | | |

Table 8-2: Relationship Between the District's Water Shortage Levels and Mandated Shortage Levels

| Relationship Between ETWD's Water Shortage Levels and Mandated Shortage Levels (DWR Table 8-1) | | | |
|---|---|---|---|
| **El Toro Water District Water Shortage Levels** | | **Mandated Shortage Levels** | |
| **Shortage Level** | **Percent Shortage Range** | **Shortage Level** | **Percent Shortage Range** |
| **Permanent Water Conservation Requirements** | 0% | **N/A** | 0% |
| **1** | Up to 20% | **1**<br>**2** | Up to 10%<br>10-20% |
| **2** | 20-40% | **3**<br>**4** | 20 – 30%<br>30 - 45% |
| **3** | >40% | **5**<br>**6** | 40 - 50%<br>>50% |

Water shortage contingency planning is a strategic planning process to prepare for and respond to water shortages. Detailed planning and preparation can help maintain reliable supplies and reduce the impacts of supply interruptions. This chapter provides a structured plan for dealing with water shortages, incorporating prescriptive information and standardized action levels, along with implementation actions in the event of a catastrophic supply interruption.

A well-structured WSCP allows real-time water supply availability assessment and structured steps designed to respond to actual conditions, to allow for efficient management of any shortage with predictability and accountability. A water shortage, when water supply available is insufficient to meet the normally expected customer water use at a given point in time, may occur due to a number of reasons, such as population growth, climate change, drought, and catastrophic events. The WSCP is the District's operating manual that is used to prevent catastrophic service disruptions through proactive, rather than reactive, management. This way, if and when shortage conditions arise, the District's governing body, its staff, and the public can easily identify and efficiently implement pre-determined steps to manage a water shortage.

# 9 DEMAND MANAGEMENT MEASURES

The District, along with other Retail water agencies throughout Orange County, recognizes the need to use existing water supplies efficiently. This ethic of efficient use of water has evolved as a result of the development and implementation of water use efficiency programs that make good economic sense and reflect responsible stewardship of the region's water resources. The District works closely with MWDOC to promote regional efficiency by participating in the regional water savings programs, leveraging MWDOC local program assistance, and applying the findings of MWDOCs research and evaluation efforts. This chapter communicates the District's efforts to promote conservation and to reduce demand on water supplies.

## 9.1 Demand Management Measures for Retail Suppliers

The goal of the DMM section is to provide a comprehensive description of the water conservation programs that a supplier has implemented, is currently implementing, and plans to implement in order to meet its urban water use reduction targets. The reporting requirements for DMM has been significantly modified and streamlined in 2014 by Assembly Bill 2067. Additionally, this section of the UWMP will report on the role of MWDOC's programs in meeting new state regulations for complying with the SWRCB's new Conservation Framework. These categories of demand management measures are as follows:

- Water waste prevention ordinances;
- Metering;
- Conservation pricing;
- Public education and outreach;
- Programs to assess and manage distribution system real loss;
- Water conservation program coordination and staffing support;
- Other DMMs that have a significant impact on water use as measured in GPCD, including innovative measures, if implemented;
- Programs to assist retailers with Conservation Framework Compliance.

### 9.1.1 Water Waste Prevention Ordinances

The District's Board of Directors adopted a Water Conservation and Water Supply Shortage Ordinance (Ordinance No. 2015-3) on June 9, 2015. The Ordinance establishes a Water Conservation and Water Supply Shortage Program designed to enable effective potable water supply planning, assure reasonable and beneficial use of potable water, and prevent waste of potable water and maximize efficient use in the District. This Ordinance, in conjunction with the District's water budget based tiered conservation rate structure establishes permanent mandatory water conservation measures that area designed to alter behaviors related to potable water use efficiency during non-shortage conditions, including the following:

- Limits on outside watering hours
- Limits on outside watering duration
- No excessive water flow or runoff

- No outside watering when it is raining
- Obligations to fix leaks, breaks, and malfunctions in lines, fixtures, or facilities
- No hosing or washing down hard or paved surfaces
- No hosing or washing down vehicles
- Re-circulating decorative water fountains and features
- Limits on washing vehicles
- Drinking water served upon requests only
- Commercial food-serving and lodging requirements
- Water served upon request
- Option not to have towels/linen laundered
- Commercial kitchen requirements
- Water efficient pre-rinse kitchen spray valves
- Commercial water recirculation requirements
- Car wash and laundry requirements
- No single pass cooling systems
- Indiscriminate water use
- Public health and safety

The Ordinance also establishes three levels of potential response to escalating water supply shortages that the District may implement during times of declared water shortage or water emergency. The three levels of response consist of expanded water use restrictions and the possible imposition of water supply shortage allocations through the use of a “drought factor” in conjunction with the budget based tiered rate structure. The provisions and water conservation measures to be implemented in response to each shortage level are described in the WSCP located in Appendix H of this 2020 UWMP. The District’s water conservation ordinance is included in Appendix B of the WSCP.

### 9.1.2 Metering

All water service connections supplied by the District are fully metered and customers are billed by volume of water used. The District requires individual metering for all new connections.

The District targets replacing meters every 15 years. The district does not have a billing meter calibration program but does have a production meter calibration program.

The District does not currently have plans to implement an innovative metering program but is looking into potential funding sources and the costs versus benefits of advanced metering infrastructure (AMI) and automatic meter reading (AMR).

### 9.1.3 Conservation Pricing

The District uses a budget-based tiered rate structure that comprises a fixed charge and a variable commodity charge. The fixed charges are based upon meter size and include Water Operations and Maintenance Charge, Capital Replacement and Refurbishment Charge, and Sewer Operations and Maintenance Charge. The water usage charge increases with usage as structured into four tiers. Each customer metered is allocated a water use budget per tier. Table 9-1 shows the District’s water use rates effective as of October 1, 2020.

**Table 9-1: Water Usage Rates**

| Water Use Charges | Price/CCF |
|---|---|
| Tier I – Indoor | $2.65 |
| Tier II – Outdoor | $3.04 |
| Tier III – Inefficient | $6.21 |
| Tier IV - Excessive | $7.95 |
| Commercial, Industrial, Institutional (CII) | $3.02 |

### 9.1.4 Public Education and Outreach

The District recognizes the importance of water conservation and protection of water resources of the State and seeks to maximize the beneficial use of available water resources. It is District policy to discourage and prevent water waste through its year-round mandatory conservation measures and to encourage water use efficiency through its public education and outreach programs.

**ETWD's Public Education and Outreach Programs**

The District's public education and education programs are designed to complement the public education and outreach programs implemented by MET and the MWDOC. The District utilizes the following programs to increase awareness and educate customers on local and regional water supply, costs of water, ETWD projects, water use efficiency and landscape management. The District outreach programs are also promoted on its website, bill messaging and through its social media platforms.

**Print and Electronic Materials -** The District publishes a newsletter called Water Views and bill inserts throughout the year. These are distributed to each customer as part of the billing cycle and delivered to homeowner associations. The district also produces a water quality brochure that describes the source of water in the District's service area and provides specific information regarding water quality issues such as disinfectants, Cryptosporidium, lead, and monitoring programs.

**Community Advisory Group Meetings (CAG)** – The District holds quarterly CAG meetings for the District customers. These meetings engage interactive discussions on new and ongoing water supply challenges, costs of water, ETWD projects and water conservation.

**Speaker Program** – The District's speaker's program offers to convey the water conservation message to local organizations including homeowner associations, service clubs and business organizations.

**Laguna Woods Television** – ETWD's board members present monthly on Laguna Woods Village Television "This Day" segments. Directors discuss current water issues ranging from water supply, water quality, environmental issues, local and regional projects to water conservation.

**Water Recycling Plant Field Trips –** In addition to hosting and providing tours for the MWDOC Boy Scout Soil and Water Conservation Merit Badge and Girl Scout Water Resources and Conservation Patch programs, the District offers on-site field trips to small groups within the District's service area. The educational field trip consists of touring the Water Recycling Plant, explanation of the District and the Water Recycling Plant, laboratory experience and why it is important to conserve water.

**Community Events** – Each year, ETWD participates in an array of community events throughout its service area. Staff provides opportunities to interact with customers and the public in a relaxed environment engaging them in important discussions about the value of water and indoor and outdoor water-use efficiency.

**Landscape Workshops**– The District offers various workshops for customers through the MET BeWaterWise® program. Water landscape professionals educate customers on California Friendly® and Native Landscape Training, Turf Removal and Garden Transformation, and Garden Design. Workshops details are promoted through its outreach programs and offered through the District's website.

### 9.1.5 MWDOC's Public Education and Outreach Programs

In addition to ETWD's outreach programs, the District participates in the public education and outreach program implemented by MWDOC, its wholesale supplier. MWDOC develops, coordinates, and delivers a substantial number of public education and outreach programs to assist retail agencies in Orange County promote water use efficiency awareness, current water issues, sound policy and regional water reliability investments within their service area. These efforts encourage good water stewardship that benefit all District residents, businesses, and industries across all demographics. Several examples are included below.

#### Print and Electronic Materials

MWDOC offers a variety of print and electronic materials that are designed to assist District water users in discovering where their water comes from, what the MWDOC and other water industry professionals are doing to address water challenges, how to use water most efficiently, and more. Through the MWDOC's robust social media presence, website, eCurrents newsletter, media tool kits, public service announcements (PSAs), flyers, and other outreach materials, MWDOC ensures that stakeholders are equipped with sufficient information and subject knowledge to assist them in making good behavioral and civic choices that ultimately affect the quality and quantity of the region's water supply.

#### Public Events

Each year, MWDOC hosts various public events intended to engage a diverse range of water users in targeted discussions and actions that homes in on their specific interests or needs. Some of these public events include:

- **MWDOC Water Policy Forums and Orange County Water Summit** are interactive symposiums that bring together hundreds of business professionals, elected officials, water industry stakeholders, and community leaders from throughout the state for a discussion on new and

ongoing water supply challenges, water policy issues, and other important topics that impact our water supply, economy, and public health.

- **Inspection Trips** of the state's water supply systems are sponsored each year by MWDOC and MET. Orange County elected officials, residents, business owners, and community leaders are invited to tour key water facilities throughout the state and learn more about the critical planning, procurement, and management of Southern California's water supply, as well as the issues surrounding delivery and management of our most precious natural resource – water.
- **Community Events and Events Featuring MWDOC Mascot Ricky the Rambunctious Raindrop** provide opportunities to interact with Orange County water users in a fun and friendly way, offer useful water-related information or education, and engage them in important discussions about the value of water and how their decisions at home or work may impact Orange County's quality and quantity of water for generations to come.

**Education Programs**

Over the past several years, MWDOC has amplified its efforts in water education programs and activities for Orange County's youngest water users. This is accomplished by continuing to grow professional networks and partnerships that consist of leading education groups, advisors, and teachers, and by leading the way for the MWDOC and its 28-member agencies to be key contributors of both Southern California and Orange County water-centric learning. Several key water education programs include:

- **MWDOC Choice School Programs** have provided Orange County K-12 students water-focused learning experiences for nearly five (5) decades. Interactive, grade-specific lessons invite students to connect with, and learn from, their local ecosystems, guiding them to identify and solve local water-related environmental challenges affecting their communities. Participating member agencies fund this program through the Choice School Program. Choice School Programs are aligned with state standards, and participation includes a dynamic in-class or virtual presentation, and pre- and post-activities that encourage and support Science Technology Engineering Arts and Mathematics (STEAM)-based learning and good water stewardship.
- **Water Energy Education Alliance (WEEA)** is a coalition of education and water and energy industry professionals led by MWDOC that works together to build and bolster Career Technical Education programs (CTE) for Southern California high school students. These CTEs focus on workforce pathways in the Energy, Environment, and Utility Sectors, and connections established through this powerful Southern California alliance assist stakeholders as they thoughtfully step up their investment in the education and career success of California's future workforce.
- **MWDOC Water Awareness Poster Contest** is an annual activity developed to encourage Orange County's K-12 students to investigate and explore their relationship to water, connect the importance of good water stewardship to their daily lives, and express their conclusions creatively through art. Each year, MWDOC receives hundreds of entries, and 40 winners from across Orange County are invited to attend a special awards ceremony with their parents and teachers, and Ricky the Rambunctious Raindrop.
- **Boy Scouts Soil and Water Conservation Merit Badge and Girl Scouts Water Resources and Conservation Patch Programs** guide Orange County Scouts on a learning adventure of

where their water comes from, the importance of Orange County water resources, and how to be water efficient. These STEAM-based clinics are hosted by MWDOC and include interactive learning stations, hands-on activities, and a guided tour of an Orange County water source, water treatment facility, or ecological reserve.

### 9.1.6 Programs to Assess and Manage Distribution System Real Loss

Senate Bill 1420 signed into law in September 2014 requires urban water suppliers that submit UWMPs to calculate annual system water losses using the water audit methodology developed by the AWWA. SB 1420 requires the water loss audit be submitted to DWR every five years as part of the urban water supplier's UWMP. Water auditing is the basis for effective water loss control. DWR's UWMP Guidebook include a water audit manual intended to help water utilities complete the AWWA Water Audit on an annual basis. A Water Loss Audit was completed for the District that quantified total loss. Multiple criteria are a part of each validity score and a system wide approach will need to be implemented for the District's improvement. Expressing water loss audit results in terms of Real Losses per Service Connection per Day allows for standardized comparison across MWDOC retailer agencies and is a metric consistent with the Water Board's forthcoming economic model. The Real Losses per Service Connection per Day for CY2019 was 25.02 gal/connection/day.

The District started performing distribution system prescreening audit in 1999. The prescreening audit results were used to determine the need for a full-scale system audit. The prescreening system audit involves determining 1) metered sales, 2) total supply into the system, and 3) other system verifiable uses. If the quantity of metered sales plus other verifiable uses divided by total supply into the system is less than 0.9 then a full-scale system audit is required. Thus far, a full-scale system audit has not been required.

The District does not have a routine and planned system maintenance; rather, it has a reactive system. The District does not have a program to detect leaks but does have one to repair them.

### 9.1.7 Water Conservation Program Coordination and Staffing Support

The District employs a Customer Service Manager who serves as a conservation coordinator a quarter of the time. The position was created in 1995. The responsibilities of the Customer Service Manager include coordinating and working closely with District's customers, MWDOC, MET, the CUWCC, and others. Other staff share in these responsibilities. The District's water conservation program is funded from the rate revenue.

### 9.1.8 Other Demand Management Measures

#### 9.1.8.1 Residential Program

MWDOC assists the District with the implementation of residential DMMs by making available the following programs aimed at increasing landscape and indoor water use efficiency for residential customers.

**High Efficiency Clothes Washer Rebate Program**

The High Efficiency Clothes Washer (HECW) Rebate Program provides residential customers with rebates for purchasing and installing HECWs that. Approximately 15% of home water use goes towards laundry, and HECWs use 35-50% less water than standard washer models, with savings of approximately 10,500 gallons per year, per device. Devices must meet or exceed the Consortium for Energy Efficiency (CEE) Tier 1 Standard, and a listing of qualified products can be found at ocwatersmart.com. There is a maximum of one rebate per home.

**Premium High Efficiency Toilet Rebate Program**

The largest amount of water used inside a home, 30%, goes toward flushing the toilet. The Premium High Efficiency Toilet (HET) Rebate Program offers incentives to residential customers for replacing their toilets using 1.6 gallons per flush (gpf) or more. Premium HETs use just 1.1 gpf or less, which is 20% less water than WaterSense standard toilets. In addition, Premium HETS save an average of 9 gallons of water per day while maintaining high performance standards.

### 9.1.8.2 CII Programs

MWDOC provides a variety of financial incentives to help District businesses, restaurants, institutions, hotels, hospitals, industrial facilities, and public sector sites achieve their efficiency goals. Water users in these sectors have options to choose from a standardized list of water efficient equipment/devices or may complete customized projects through a pay-for-performance where the incentive is proportional to the amount of water saved. Such projects include high efficiency commercial equipment installation and manufacturing process improvements.

**Water Savings Incentive Program**

The Water Savings Incentive Program (WSIP) is designed for non-residential customers to improve their water efficiency through upgraded equipment or services that do not qualify for standard rebates. WSIP is unique because it provides an incentive based on the amount of water customers actually save. This “pay-for-performance” design lets customers implement custom projects for their sites.

Projects must save at least 10 MG of water to qualify for the Program and are offered from $195 to $390 per acre foot of water saved. Examples of successfully projects include but are not limited to changing industrial process system water, capturing condensation, and using it to supplement cooling tower supply, and replacing water-using equipment with more efficient products.

**On-site Retrofit Program**

The On-site Retrofit Program (ORP) provides another pay-for-performance financial incentive to commercial, industrial and institutional property owners, including Homeowner Associations (HOAs), who convert potable water irrigation or industrial water systems to recycled water use.

Projects commonly include the conversion of mixed or dedicated irrigation meters using potable water to irrigate with reclaimed water, or convert industrial processes use to recycled water, such as a cooling towers. Financial incentives of up to $1,300 per AF of potable water saved are available for customer-side on the meter retrofits. Funding is provided by MET, USBR, and DWR.

**Multi-Family Premium High Efficiency Toilet Incentive Program**

MWDOC makes an effort to reach all water-users in Orange County. For the Multi-Family Premium HET Rebate Program, MWDOC targets multi-family buildings in both disadvantaged communities (DAC) and non-DAC communities, in addition to targeting all commercial buildings, and SF residential homes through Premium HET device rebates.

MWDOC offers the DAC Multi-Family HET Program, a special version of the HET Program, to ensure regardless of economic status all water-users in Orange County can benefit from the rebate. This Program targets 3.5 gpf or greater toilets to replace them with WaterSense Labeled 1.1 gpf or less. For this purpose, DAC are referenced as communities facing economic hardship. This is defined using criteria established by DWR and the County of Orange, which includes communities where the MHI is less than 85% of the Orange County MHI.

The DAC Multi-Family Program is contractor-driven, where a contractor works with building owners to replace all of the toilets in the building(s). To avoid any cost to tenants, the rebate is $200 per toilet paid to the contractor, essentially covering the contractor's cost; therefore, there is little to no charge to the building owners that may be passed through to tenants. This process was formed after consulting contractors and multi-family building owners in Orange County. To serve those in multi-family buildings outside of designated DAC locations, MWDOC offers $75 per toilet through the same contractor-driven format. An additional option is available through SoCalWater$mart, which offers up to $250 per toilet to multi-family buildings that were built before 1994, therefore targeting buildings built before legislation required low-flow plumbing fixtures in new construction.

**Device Retrofits**

MWDOC offers additional financial incentives under the Socal Water$mart Rebate Program which offers rebates for various water efficient devices to CII customers. Core funding is provided by MET and supplemental funding is sourced from MWDOC via grant funds and/or retail water agencies.

#### 9.1.8.3 Landscape Programs

One of the most active and exciting water use efficiency sectors MWDOC provides services for are those programs that target the reduction of outdoor water use. With close to 60% of water consumed outdoors, this sector has been and will continue to be a focus for MWDOC and the District.

**Turf Removal Program**

The Orange County Turf Removal Program offers incentives to remove turf grass from residential, commercial, and public properties throughout the County. This program is a partnership between MWDOC, MET, and local retail water agencies. The goals of this program are to increase water use efficiency through sustainable landscaping practices that result in multi-benefit projects across Orange County. Participants replace their turf grass with drought-tolerant, CA Friendly, or CA Native landscaping, and retrofit their irrigation systems to high efficiency equipment, such as drip, or remove it entirely, and are encouraged to utilize smart irrigation timers. Furthermore, projects are required to include a stormwater capture feature, such as a rain garden or dry stream bed, and have a minimum of three plants per 100 square feet to increase plant density and promote healthy soils. These projects save water and

also reduce dry and wet weather runoff, increase urban biomass, and sequester more carbon than turf landscapes.

**Landscape Design and Maintenance Plan Assistance Programs**

To maximize the water efficiency and quality of Orange County's Turf Removal Program Projects, MWDOC offers free landscape designs and free landscape maintenance plans to participating residential customers. The Landscape Design Assistance Program is offered at the beginning stages of their turf removal project so that customers may receive a customized, professionally designed landscape to replace their turf. Landscape designs include plant selection, layout, irrigation plans, and a stormwater capture feature. These designs help ensure climate appropriate plants are chosen and planted by hydrozone, that appropriate high efficiency irrigation is properly utilized, that water savings are maximized as a result of the transformation. Landscape maintenance plans are offered after a project is complete to ensure that the new landscape is cared for properly and water savings are maximized.

**Smart Timer Rebate Program**

Smart Timers are irrigation clocks that are either weather-based irrigation controllers (WBICs) or soil moisture sensor systems. WBICs adjust automatically to reflect changes in local weather and site-specific landscape needs, such as soil type, slopes, and plant material. When WBICs are programmed properly, turf and plants receive the proper amount of water throughout the year. During the fall months, when property owners and landscape professionals often overwater, Smart Timers can save significant amounts of water.

**Rotating Nozzles Rebate Program**

The Rotating Nozzle Rebate Program provides incentives to residential and commercial properties for the replacement of high-precipitation rate spray nozzles with low-precipitation rate multi-stream, multi-trajectory rotating nozzles. The rebate offered through this Program aims to offset the cost of the device and installation.

**Spray-to-Drip Rebate Program**

The Spray to Drip Rebate Program offers residential, commercial, and public agency customers rebates for converting areas irrigated by traditional high-precipitation rate spray heads to low-precipitation rate drip irrigation. Drip irrigation systems are extremely water-efficient. Rather than spraying wide areas subject to wind drift, overspray and runoff, drip systems use point emitters to deliver water to specific locations at or near plant root zones. Water drips slowly from the emitters either onto the soil surface or below ground. As a result, less water is lost to wind, evaporation, and overspray, saving water and reducing irrigation runoff and non-point source pollution.

**Socal Water$mart Rebate Program for Landscape**

The District through MWDOC also offers financial incentives under the SoCal Water$mart Rebate Program for a variety of water efficient landscape devices, such as Central Computer Irrigation Controllers, large rotary nozzles, and in-stem flow regulators.

**Landscape Training Classes**

The California Friendly and Native Landscape Training and the Turf Removal and Garden Transformation Workshops provide education to residential homeowners, property managers, and professional

landscape contractors on a variety of landscape water efficiency practices that they can employ and use to help design a beautiful garden using California Friendly and native plant landscaping principles. The California Friendly and Native Landscape Class demonstrates how to: implement storm water capture features in the landscape; create a living soil sponge that holds water; treat rainwater by a resource; select and arrange plants to maximize biodiversity and minimize water use; and control irrigation to minimize water waste, runoff, and non-point source pollution.

The Turf Removal and Garden Transformation Workshop teaches participants how to transform thirsty turfgrass into a beautiful, climate-appropriate water efficient garden. This class teaches how to: evaluate the landscape's potential; plan for garden transformation; identify the type of turfgrass in the yard; remove grass without chemicals; build healthy, living soils; select climate-appropriate plants that minimize water use and maximize beauty and biodiversity; and implement a maintenance schedule to maintain the garden.

**Qualified Water Efficient Landscape Certification (Commercial)**

Since 2018, MWDOC along with the District, has offered free Qualified Water Efficient Landscaper (QWEL) certification classes designed for landscape professionals. Classes are open to any city staff, professional landscaper, water district employee, or maintenance personnel that would like to become a Qualified Water Efficient Landscaper. The QWEL certification program provides 20 hours of instruction on water efficient areas of expertise such as local water supply, sustainable landscaping, soil types, irrigation systems and maintenance, as well as irrigation controller scheduling and programing. QWEL has received recognition from EPA WaterSense for continued promotion of water use efficiency. To earn the QWEL certification, class participants must demonstrate their ability to perform an irrigation audit as well as pass the QWEL exam. Successful graduates will be listed as a Certified Professional on the WaterSense website as well as on MWDOC's landscape resources page, to encourage Turf Removal participants or those making any landscape improvements to hire a QWEL certified professional.

Started in December 2020, a hybrid version of QWEL is available in conjunction with the California Landscape Contractors Association's Water Management Certification Program. This joint effort allows landscape industry an opportunity to obtain two nationally recognized EPA WaterSense Professional Certifications with one course and one written test. This option is offered through MET.

**OC Water Smart Gardens Resource Page**

MWDOC's OC Water Smart Gardens webpage provides a surplus of helpful guides and fact sheets, as well as an interactive photo gallery of water-saving landscape ideas. The purpose of this resource is to help Orange County residents find a broad variety of solutions for their water efficient landscaping needs. This includes a detailed plant database with advanced to search features; photo and/or video-based garden tours; garden gallery with images organized into helpful landscape categories such as back yards, hillsides, full sun, and/or shade with detailed plant information; and the ability to select and store plants in a list that the user can print for use when shopping.

Additional technical resources are available such as a watering calculator calibrated for local evapotranspiration rates, and a garden resources section with fact sheets on sustainable landscape fundamentals, water and soil management, composting, solving run-off, and other appropriate topics. Web page is accessible through mwdoc.com and directly at www.ocwatersmartgardens.com.

## 9.2 Implementation over the Past Five Years

During the past five years, FY 2015-16 to 2020-21, the District, with the assistance of MWDOC, has continued water use efficiency programs for its residential, CII, and landscape customers as described below. Implementation data is provided in Appendix I. The District will continue to implement all applicable programs in the next five years.

**Table 9-2: El Toro Water District Water Conservation Efficiency Program Participation**

| Measure | Unit | FY15/16 | FY16/17 | FY17/18 | FY18/19 | FY19/20 |
|---|---|---|---|---|---|---|
| Central Computer Irrigation Controllers | computer controllers | - | - | - | - | - |
| Flow Restrictor | restrictors | - | - | - | 595 | - |
| HECWs | washers | 68 | 47 | 50 | 40 | 28 |
| HETs | toilets | 281 | - | 1 | 10 | 5 |
| Rain Barrels | barrels | 88 | 13 | 3 | 6 | 3 |
| Cisterns | cisterns | - | - | - | - | - |
| Premium HETs | toilets | 19 | 52 | 16 | - | - |
| Rotating Nozzles | nozzles | 5,223 | 297 | 36 | - | - |
| CII WBICs | clocks | 17 | 6 | 9 | - | 3 |
| Residential WBICs | clocks | 9 | 33 | 30 | 35 | 23 |
| Zero Water Urinals | urinals | - | - | - | - | - |
| Plumbing Flow Control | valves | - | - | 729 | 122 | - |
| Soil Moisture Sensor | controllers | 1 | - | - | - | - |
| Ice-Making Machine | machines | - | - | - | - | - |
| Turf Removal | sf | 48,756 | 60,779 | 49,783 | 22,751 | 26,493 |
| Spray-to-Drip | sf | | | 11,473 | 17,854 | - |

| Measure | Unit | FY15/16 | FY16/17 | FY17/18 | FY18/19 | FY19/20 |
|---|---|---|---|---|---|---|
| Landscape Design Assistance | | | | | | 6 |
| Water Savings Incentive Program | projects | - | - | - | 1[1] | - |
| Recycled Water | projects | 14[2] | 3[3] | - | - | 5[4] |

[1]SaddleBack Memorial Hospital; 8.8 AFY
[2]14 sites, 11,606,410 sf, 657.8 AFY
[3] 3 projects, 362,664 sf, 24.6 AFY
[4] 5 projects, 1,088,660, 106.7 AFY

## 9.3 Water Use Objectives (Future Requirements)

To support Orange County retailers with SB 606 and AB 1668 compliance (Conservation Framework), MWDOC is providing multi-level support to members agencies to ensure they meet the primary goals of the legislation including to Use Water More Wisely and to Eliminate Water Waste. Beginning in 2023, Urban water suppliers are required to calculate and report their annual urban water use objective (WUO), submit validated water audits annually, and to implement and report Best Management Practice (BMP) CII performance measures.

**Urban Water Use Objective**

An Urban Water Supplier's urban WUO is based on efficient water use of the following:

- Aggregate estimated efficient **indoor residential** water use;
- Aggregate estimated efficient **outdoor residential** water use;
- Aggregate estimated efficient **outdoor** irrigation landscape areas with dedicated irrigation meters or equivalent technology in connection with **CII** water use;
- Aggregate estimated efficient **water losses;**
- Aggregate estimated water use for variances approved the State Water Board;
- Allowable **potable reuse water** bonus incentive adjustments.

MWDOC offers a large suite of programs, described in detail throughout Section 1.3.6, that will assist Orange County retailers in meeting and calculating their WUO.

Table 9-3 describes MWDOC's programs that will assist agencies in meeting their WUO through both direct measures: programs/activities that result in directly quantifiable water savings; and indirectly: programs that provide resources promoting water efficiencies to the public that are impactful but not directly measurable.

**Table 9-3: MWDOC Programs to Assist in Meeting WUO**

| WUO Component | Calculation | Program | Impact |
|---|---|---|---|
| **Indoor Residential** | Population and GPCD standard | **Direct Impact**<br>• HECW<br>• HET<br>• Multi-Family HET (DAC/ non-DAC) | Direct Impact: Increase of indoor residential efficiencies and reductions of GPCD use |
| **Outdoor Residential** | Irrigated/irrigable area measurement and a percent factor of local ETo | **Direct Impact**<br>• Turf Removal<br>• Spray-to-Dip<br>• Smart Timer<br>• High Efficiency Nozzle (HEN)<br>• Rain Barrels/Cisterns<br><br>**Indirect Impact**<br>• Landscape Design and Maintenance Assistance<br>• Orange County Friendly Gardens Webpage<br>• CA Friendly/Turf Removal Classes<br>• QWEL | Direct Impact: Increase outdoor residential efficiencies and reductions of gallons per $ft^2$ of irrigated/ irrigable area used<br><br>Indirect Impact:<br>Provide information, resources, and education to promote efficiencies in the landscape |
| **Outdoor Dedicated Irrigation Meters** | Irrigated/irrigable area measurement and a percent factor of local ETo | **Direct Impact**<br>• Turf Removal<br>• Spray-to-Dip<br>• Smart Timer<br>• HEN<br>• Central Computer Irrigation Controllers<br>• Large Rotary Nozzles | Direct Impact: Increase outdoor residential efficiencies and reductions of gallons per $ft^2$ of irrigated/ irrigable area used<br><br>Indirect Impact: |

| WUO Component | Calculation | Program | Impact |
|---|---|---|---|
| | | • In-Stem Flow Regulators<br><br>**<u>Indirect Impact</u>**<br>• Orange County Friendly Gardens Webpage<br>• CA Friendly/Turf Removal Classes<br>• QWEL | Provide information, resources, and education to promote efficiencies in the landscape |
| **Water Loss** | Following the AWWA M36 Water Audits and Water Loss Control Program, Fourth Edition and AWWA Water Audit Software V5 | **<u>Direct Impact</u>**<br>• Water Balance Validation<br>• Customer Meter Accuracy Testing<br>• Distribution System Pressure Surveys<br>• Distribution System Leak Detection<br>• No-Discharge Distribution System Flushing<br>• Water Audit Compilation<br>• Component Analysis | <u>Direct Impact</u>: Identify areas of the distribution system that need repair, replacement, or other action |
| **Bonus Incentives** | One of the following:<br>• Volume of potable reuse water from existing facilities, not to exceed 15% of WUO | **<u>Direct Impact</u>**<br>• GWRS | <u>Direct Impact:</u> The GWRS (run by OCWD) significantly increases the availability of potable reuse water |

| WUO Component | Calculation | Program | Impact |
|---|---|---|---|
| | • Volume of potable reuse water from new facilities, not to exceed 10% of WUO | | |

In addition, MWDOC is providing support to agencies to assist with the calculation of WUOs. DWR will provide residential outdoor landscape measurements; however, Urban Water Suppliers are responsible for measuring landscape that is irrigated/irrigable by dedicated irrigation meters. MWDOC is contracting for consultant services to assist agencies in obtaining these measurements. Services may include but are not limited to:

- Accounting/database clean up (e.g., data mining billing software to determine dedicated irrigation customers);
- Geolocation of dedicated irrigation meters;
- In-field measurements;
- GIS/Aerial imagery measurements;
- Transformation of static/paper maps to digital/GIS maps.

These services will help agencies organize and/or update their databases to determine which accounts are dedicated irrigation meters and provide landscape area measurements for those accounts. These data points are integral when calculating the WUO. MWDOC is also exploring funding options to help reduce retail agencies' costs of obtaining landscape area measurements for dedicated irrigation meters.

**CII Performance Measures**

Urban water supplies are expected to report BMPs and more for CII customers. MWDOC offers a broad variety of programs and incentives to help CII customers implement BMPs and increase their water efficiencies.

Table 9-4: CII Performance Measures and Programs

| Component | Program Offered | Impact |
|---|---|---|
| CII Performance Measures | • WSIP<br>• ORP<br>• HETs<br>• HE Urinals<br>• Plumbing Flow Control Valves<br>• Connectionless Food Steamers<br>• Air-cooled Ice Machines<br>• Cooling Tower Conductivity controllers<br>• Cooling Tower pH Controllers<br>• Dry Vacuum Pumps<br>• Laminar Flow Restrictors | WSIP incentivizes customized CII water efficiency projects that utilize BMPs.<br>ORP incentivizes the conversion of potable to recycled water and is applicable to CII dedicated irrigation meters or CII mixed-use meters that may be split to utilize recycled water for irrigation.<br>Additional CII rebates based on BMPs increase the economic feasibility of increasing water efficiencies. |

These efforts to assist Orange County retail agencies are only just beginning. Our plan is to ensure that all agencies are fully ready to begin complying with the new water use efficiency standards framework called for in SB 606 and SB 1668 by the start date of 2023.

# 10 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

The Water Code requires the UWMP to be adopted by the Supplier's governing body. Before the adoption of the UWMP, the Supplier has to notify the public and the cities and counties within its service area per the Water Code and hold a public hearing to receive input from the public on the UWMP. Post adoption, the Supplier submits the UWMP to DWR and the other key agencies and makes it available for public review.

This section provides a record of the process the District followed to adopt and implement its UWMP.

## 10.1 Overview

Recognizing that close coordination among other relevant public agencies is key to the success of its UWMP, the District worked closely with many other entities, including representation from diverse social, cultural, and economic elements of the population within the District's service area, to develop and update this planning document. The District also encouraged public involvement through its public hearing process, which provided residents with an opportunity to learn and ask questions about their water supply management and reliability. Through the public hearing, the public has an opportunity to comment and put forward any suggestions for revisions of the Plan.

Table 10-1 summarizes external coordination and outreach activities carried out by the District and their corresponding dates. The UWMP checklist to confirm compliance with the Water Code is provided in Appendix A.

**Table 10-1: External Coordination and Outreach**

| External Coordination and Outreach | Date | Reference |
|---|---|---|
| Notified the cities and counties within the Supplier's service area that Supplier is preparing an updated UWMP (at least 60 days prior to public hearing) | 3/22/2021 | Appendix K |
| Public Hearing Notice | 5/14/2021 & 5/21/2021 | Appendix K |
| Held Public Hearing | 5/27/2021 | Appendix K |
| Adopted UWMP | 5/27/2021 | Appendix L |
| Submitted UWMP to DWR (no later than 30 days after adoption) | 6/26/2021 | - |
| Submitted UWMP to the California State Library (no later than 30 days after adoption) | 6/26/2021 | - |
| Submitted UWMP to the cities and counties within the Supplier's service area (no later than 30 days after adoption) | 6/26/2021 | - |

| External Coordination and Outreach | Date | Reference |
|---|---|---|
| Made UWMP available for public review (no later than 30 days after filing with DWR) | 7/26/2021 | - |

This UWMP was adopted by the Board of Directors on May 27, 2021. A copy of the adopted resolution is provided in Appendix L.

## 10.2 Agency Coordination

The Water Code requires the Suppliers preparing UWMPs to notify any city or county within their service area at least 60 days prior to the public hearing. As shown in Table 10-2, the District sent a Letter of Notification to the cities within its service area and the County of Orange on March 22, 2021 to state that it was in the process of preparing an updated UWMP (Appendix K).

**Table 10-2: Retail: Notification to Cities and Counties**

| DWR Submittal Table 10-1 Retail: Notification to Cities and Counties | | |
|---|---|---|
| City Name | 60 Day Notice | Notice of Public Hearing |
| Aliso Viejo | ☑ | ☑ |
| Laguna Hills | ☑ | ☑ |
| Laguna Woods | ☑ | ☑ |
| Lake Forest | ☑ | ☑ |
| Mission Viejo | ☑ | ☑ |
| County Name | 60 Day Notice | Notice of Public Hearing |
| Orange County | ☑ | ☑ |

The District 's water supply planning relates to the policies, rules, and regulations of its regional and local water providers. The District involved the relevant agencies in this 2020 UWMP at various levels of contribution as summarized below.

MWDOC provided assistance to the District's 2020 UWMP development by providing much of the data and analysis such as population projections from the California State University at Fullerton CDR and the information quantifying water availability to meet the District's projected demands for the next 25 years, in five-year increments. Additionally, MWDOC led the effort to develop a Model Water Shortage Ordinance

that its retail suppliers can adopt as is or customize and adopt as part of developing their WSCPs. This 2020 UWMP was developed in collaboration with MWDOC's 2020 UWMP to ensure consistency between the two documents.

The various planning documents of the key agencies that were used to develop this UWMP are listed in Section 2.2.1.

## 10.3 Public Participation

The District encouraged community and public interest involvement in the plan update through a public hearing and inspection of the draft document on May 27, 2021. As part of the public hearing, the District discussed adoption of the UWMP, SBx7-7 baseline values, compliance with the water use targets (Section 5), implementation, and economic impacts of the water use targets (Section 9).

Copies of the draft plan were made available for public inspection at the District's offices and local Public Libraries.

Public hearing notifications were published in local newspapers. A copy of the published Notice of Public Hearing is included in Appendix K.

The hearing was conducted during a regularly scheduled meeting of the Board of Directors.

## 10.4 UWMP Submittal

The Board of Directors reviewed and approved the 2020 UWMP at its May 27, 2021 meeting after the public hearing. See Appendix L for the resolution approving the Plan.

By June 26, 2021, the District's adopted 2020 UWMP was filed with DWR, California State Library, the cities within its service area and the County of Orange. The submission to DWR was done electronically through the online submittal tool – WUE Data Portal. The District will make the Plan available for public review on its website no later than 30 days after filing with DWR.

## 10.5 Amending the Adopted UWMP or WSCP

Based on DWR's review of the UWMP, the District will make any amendments in its adopted UWMP, as required and directed by DWR, and will follow each of the steps for notification, public hearing, adoption, and submittal for the amending the adopted UWMP.

If the District revises its WSCP after UWMP is approved by DWR, then an electronic copy of the revised WSCP will be submitted to DWR within 30 days of its adoption.

# 11 REFERENCES

California Department of Housing and Community Development. (2020). *Accessory Dwelling Units (ADUs) and Junior Accessory Dwelling Units (JADUs)*. https://www.hcd.ca.gov/policy-research/accessorydwellingunits.shtml

California Department of Water Resources (DWR). (2020a, January). *California's Most Significant Droughts: Comparing Historical and Recent Conditions*. https://water.ca.gov/-/media/DWR-Website/Web-Pages/What-We-Do/Drought-Mitigation/Files/Publications-And-Reports/a6022_CalSigDroughts19_v9_ay11.pdf. Accessed on October 12, 2020.

California Department of Water Resources (DWR). (2020b, August 26). *The Final State Water Project Delivery Capability Report (DCR) 2019*. https://data.cnra.ca.gov/dataset/state-water-project-delivery-capability-report-dcr-2019. Accessed on December 28, 2020.

California Department of Water Resources (DWR). (2020c, August). *Draft Urban Water Management Plan Guidebook 2020.* https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/Urban-Water-Management-Plans/Draft-2020-UWMP-Guidebook.pdf?la=en&hash=266FE747760481ACF779F0F2AAEE615314693456. Accessed on December 28, 2020.

CDM Smith. (2021, March 30). *Orange County Water Demand Forecast for MWDOC and OCWD Technical Memorandum.*

Irvine Ranch Water District (IRWD). (2021a). *Facilities: Irvine Lake.* https://www.irwd.com/construction/irvine-lake. Accessed on February 2, 2021.

Irvine Ranch Water District (IRWD). (2021b). *Water Banking: The Strand Ranch Integrated Water Banking Project.* https://www.irwd.com/construction/irvine-lake. Accessed on February 2, 2021.

Metropolitan Water District of Southern California (MET). (2021, June). *2020 Urban Water Management Plan.*

Orange County Local Agency Formation Commission (OC LAFCO). (2020, September). *Municipal Service Review for the Municipal Water District of Orange County.*

RBF Consulting. (2004). *El Toro Water District Water and Sewer Master Plan*. http://etwd.com/wp-content/uploads/2019/09/2004MasterPlan.pdf

Santa Margarita Water District (SMWD). (2021). San Juan Watershed Project. *About the Project: Phases.* http://sanjuanwatershed.com/about-the-project/eir/phases/. Accessed on April 20, 2021.

The Metropolitan Water District Act. (1969). http://www.mwdh2o.com/Who%20We%20Are%20%20Fact%20Sheets/1.2_Metropolitan_Act.pdf

United States Bureau of Reclamation (USBR). (2012, December). *Colorado River Basin Water Supply and Demand Study: Study Report.* https://www.usbr.gov/lc/region/programs/crbstudy/finalreport/Study%20Report/CRBS_Study_Report_FINAL.pdf. Accessed on December 29, 2020.

University of California Berkeley. (2020). *About Accessory Dwelling Units.* https://www.aducalifornia.org/. Accessed on December 9, 2020.

# APPENDICES

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# APPENDIX A

## UWMP Water Code Checklist

## Water Code Requirements Checklist

| Water Code Section | Summary as Applies to UWMP | Subject | 2020 Guidebook Location | 2020 UWMP Location |
|---|---|---|---|---|
| 10615 | A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. | Introduction and Overview | Chapter 1 | Section 1.2 |
| 10630.5 | Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter. | Summary | Chapter 1 | Executive Summary |
| 10620(b) | Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier. | Plan Preparation | Section 2.2 | Sections 1 and 2.1 |
| 10620(d)(2) | Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable. | Plan Preparation | Section 2.6 | Sections 2.2.1 and 10.2 |
| 10642 | Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan. | Plan Preparation | Section 2.6.2 | Sections 2.2.3, 10.1 and 10.3, Appendix K |
| 10631(h) | Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source. | System Supplies | Section 2.6, Section 6.1 | Sections 2.2.2 and 4.3 |

| | | | | |
|---|---|---|---|---|
| 10631(h) | Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types. | System Supplies | Section 2.6 | N/A for Retailers |
| 10631(a) | Describe the water supplier service area. | System Description | Section 3.1 | Section 3.2 |
| 10631(a) | Describe the climate of the service area of the supplier. | System Description | Section 3.3 | Section 3.3 |
| 10631(a) | Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045. | System Description | Section 3.4 | Section 3.4.1 |
| 10631(a) | Describe other social, economic, and demographic factors affecting the supplier's water management planning. | System Description | Section 3.4.2 | Section 3.4.2 |
| 10631(a) | Indicate the current population of the service area. | System Description and Baselines and Targets | Sections 3.4 and 5.4 | Section 3.4.1 |
| 10631(a) | Describe the land uses within the service area. | System Description | Section 3.5 | Section 3.5 |
| 10631(d)(1) | Quantify past, current, and projected water use, identifying the uses among water use sectors. | System Water Use | Section 4.2 | Section 4.2 and 4.3 |
| 10631(d)(3)(C) | Retail suppliers shall provide data to show the distribution loss standards were met. | System Water Use | Section 4.2.4 | Section 4.4 |
| 10631(d)(4)(A) | In projected water use, include estimates of water savings from adopted codes, plans and other policies or laws. | System Water Use | Section 4.2.6 | Section 4.3 |
| 10631(d)(4)(B) | Provide citations of codes, standards, ordinances, or plans used to make water use projections. | System Water Use | Section 4.2.6 | Section 4.3 |
| 10631(d)(3)(A) | Report the distribution system water loss for each of the 5 years preceding the plan update. | System Water Use | Section 4.3.2.4 | Section 4.4 |
| 10631.1(a) | Include projected water use needed for lower income housing | System Water Use | Section 4.4 | Section 4.3.2.3 |

| | | | | |
|---|---|---|---|---|
| | projected in the service area of the supplier. | | | |
| 10635(b) | Demands under climate change considerations must be included as part of the drought risk assessment. | System Water Use | Section 4.5 | Section 4.3.1.1, 7.5.1 |
| 10608.20(e) | Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data. | Baselines and Targets | Chapter 5 | Section 5.1 and 5.2 |
| 10608.24(a) | Retail suppliers shall meet their water use target by December 31, 2020. | Baselines and Targets | Chapter 5 | Section 5.2.2 |
| 10608.36 | Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions. | Baselines and Targets | Section 5.1 | N/A for retailers |
| 10608.24(d)(2) | If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment. | Baselines and Targets | Section 5.2 | Section 5.2.2 |
| 10608.22 | Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100. | Baselines and Targets | Section 5.5 | Section 5.1.2 and 5.2.2 |
| 10608.4 | Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form. | Baselines and Targets | Section 5.5 and Appendix E | Section 5.2.2 and Appendix D |

| | | | | |
|---|---|---|---|---|
| 10631(b)(1) | Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought. | System Supplies | Sections 6.1 and 6.2 | Sections 7.1, 7.3, 7.5 |
| 10631(b)(1) | Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, *including changes in supply due to climate change.* | System Supplies | Sections 6.1 | Sections 7.1, 7.2, 7.3, 7.5 |
| 10631(b)(2) | When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies. | System Supplies | Section 6.1 | Section 6.1, 6.2, 6.4, 6.6, 6.8 |
| 10631(b)(3) | Describe measures taken to acquire and develop planned sources of water. | System Supplies | Section 6.1.1 | Sections 6.7, 6.8, 6.9 |
| 10631(b) | Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045. | System Supplies | Section 6.2.8 | Section 6.1 |
| 10631(b) | Indicate whether groundwater is an existing or planned source of water available to the supplier. | System Supplies | Section 6.2 | Section 6.3 |
| 10631(b)(4)(A) | Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization. | System Supplies | Section 6.2.2 | N/A – No groundwater supply |
| 10631(b)(4)(B) | Describe the groundwater basin. | System Supplies | Section 6.2.2 | N/A – No groundwater supply |
| 10631(b)(4)(B) | Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump. | System Supplies | Section 6.2.2 | N/A – No groundwater supply |

| | | | | |
|---|---|---|---|---|
| 10631(b)(4)(B) | For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions. | System Supplies | Section 6.2.2.1 | N/A – No groundwater supply |
| 10631(b)(4)(C) | Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years | System Supplies | Section 6.2.2.4 | N/A – No groundwater supply |
| 10631(b)(4)(D) | Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped. | System Supplies | Section 6.2.2 | N/A – No groundwater supply |
| 10631(c) | Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis. | System Supplies | Section 6.2.7 | Section 6.8 |
| 10633(b) | Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project. | System Supplies (Recycled Water) | Section 6.2.5 | Section 6.6.2 |
| 10633(c) | Describe the recycled water currently being used in the supplier's service area. | System Supplies (Recycled Water) | Section 6.2.5 | Section 6.6.3 |
| 10633(d) | Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses. | System Supplies (Recycled Water) | Section 6.2.5 | Sections 6.6.5 and 6.9.1 |
| 10633(e) | Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected. | System Supplies (Recycled Water) | Section 6.2.5 | Section 6.6.4 |
| 10633(f) | Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of | System Supplies (Recycled Water) | Section 6.2.5 | Sections 6.6.4, 6.6.5, 6.6.6 |

| | | | | |
|---|---|---|---|---|
| | acre-feet of recycled water used per year. | | | |
| 10633(g) | Provide a plan for optimizing the use of recycled water in the supplier's service area. | System Supplies (Recycled Water) | Section 6.2.5 | Section 6.6.6 |
| 10631(g) | Describe desalinated water project opportunities for long-term supply. | System Supplies | Section 6.2.6 | Section 6.7 |
| 10633(a) | Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods. | System Supplies (Recycled Water) | Section 6.2.5 | Section 6.6.2 |
| 10631(f) | Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years. | System Supplies | Section 6.2.8, Section 6.3.7 | Sections 6.2.5, 6.8.2, 6.9 |
| 10631.2(a) | The UWMP must include energy information, as stated in the code, that a supplier can readily obtain. | System Suppliers, Energy Intensity | Section 6.4 and Appendix O | Section 6.10 |
| 10634 | Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability | Water Supply Reliability Assessment | Section 7.2 | Section 7.2.3 |
| 10620(f) | Describe water management tools and options to maximize resources and minimize the need to import water from other regions. | Water Supply Reliability Assessment | Section 7.2.4 | Section 7.4 |
| 10635(a) | Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years. | Water Supply Reliability Assessment | Section 7.3 | Section 7.3 |

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| 10635(b) | Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects. | Water Supply Reliability Assessment | Section 7.3 | Section 7.5 |
| 10635(b)(1) | Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years. | Water Supply Reliability Assessment | Section 7.3 | Section 7.5.1 |
| 10635(b)(2) | Include a determination of the reliability of each source of supply under a variety of water shortage conditions. | Water Supply Reliability Assessment | Section 7.3 | Sections 7.3, 7.5.2 and 7.5.3 |
| 10635(b)(3) | Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period. | Water Supply Reliability Assessment | Section 7.3 | Section 7.5.2 |
| 10635(b)(4) | Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria. | Water Supply Reliability Assessment | Section 7.3 | Sections 7.2 and 7.5.1 |
| 10632(a) | Provide a water shortage contingency plan (WSCP) with specified elements below. | Water Shortage Contingency Planning | Chapter 8 | 2020 UWMP Appendix H - WSCP |
| 10632(a)(1) | Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP | Water Shortage Contingency Planning | Chapter 8 | 2020 UWMP Appendix H - WSCP (Section 3.1 ) |
| 10632(a)(10) | Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented. | Water Shortage Contingency Planning | Section 8.10 | 2020 UWMP Appendix H - WSCP (Section 3.10) |

| | | | | |
|---|---|---|---|---|
| 10632(a)(2)(A) | Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability. | Water Shortage Contingency Planning | Section 8.2 | 2020 UWMP Appendix H - WSCP (Section 3.2) |
| 10632(a)(2)(B) | Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code. | Water Shortage Contingency Planning | Section 8.2 | 2020 UWMP Appendix H - WSCP (Section 3.2.2.5) |
| 10632(a)(3)(A) | Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply. | Water Shortage Contingency Planning | Section 8.3 | 2020 UWMP Appendix H - WSCP (Section 3.3) |
| 10632(a)(3)(B) | Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories. | Water Shortage Contingency Planning | Section 8.3 | 2020 UWMP Appendix H - WSCP (Section 3.3) |
| 10632(a)(4)(A) | Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions. | Water Shortage Contingency Planning | Section 8.4 | 2020 UWMP Appendix H - WSCP (Section 3.4) |
| 10632(a)(4)(B) | Specify locally appropriate demand reduction actions to adequately respond to shortages. | Water Shortage Contingency Planning | Section 8.4 | 2020 UWMP Appendix H - WSCP (Section 3.4.1) |
| 10632(a)(4)(C) | Specify locally appropriate operational changes. | Water Shortage Contingency Planning | Section 8.4 | 2020 UWMP Appendix H - WSCP (Section 3.4.3) |
| 10632(a)(4)(D) | Specify additional mandatory prohibitions against specific water use practices that are in addition to | Water Shortage Contingency Planning | Section 8.4 | 2020 UWMP Appendix H - WSCP |

| | | | | |
|---|---|---|---|---|
| | state-mandated prohibitions are appropriate to local conditions. | | | (Section 3.4.4) |
| 10632(a)(4)(E) | Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action. | Water Shortage Contingency Planning | Section 8.4 | 2020 UWMP Appendix H - WSCP (Section 3.4.7) |
| 10632.5 | The plan shall include a seismic risk assessment and mitigation plan. | Water Shortage Contingency Plan | Section 8.4.6 | 2020 UWMP Appendix H - WSCP (Section 3.4.6) |
| 10632(a)(5)(A) | Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages. | Water Shortage Contingency Planning | Section 8.5 | 2020 UWMP Appendix H - WSCP (Section 3.5) |
| 10632(a)(5)(B)<br>10632(a)(5)(C) | Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications. | Water Shortage Contingency Planning | Section 8.5 and 8.6 | 2020 UWMP Appendix H - WSCP (Section 3.5) |
| 10632(a)(6) | Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP. | Water Shortage Contingency Planning | Section 8.6 | 2020 UWMP Appendix H - WSCP (Section 3.6) |
| 10632(a)(7)(A) | Describe the legal authority that empowers the supplier to enforce shortage response actions. | Water Shortage Contingency Planning | Section 8.7 | 2020 UWMP Appendix H - WSCP (Section 3.7) |
| 10632(a)(7)(B) | Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3. | Water Shortage Contingency Planning | Section 8.7 | 2020 UWMP Appendix H - WSCP (Section 3.7) |
| 10632(a)(7)(C) | Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency. | Water Shortage Contingency Planning | Section 8.7 | 2020 UWMP Appendix H - WSCP (Section 3.7) |
| 10632(a)(8)(A) | Describe the potential revenue reductions and expense increases associated with activated shortage response actions. | Water Shortage Contingency Planning | Section 8.8 | 2020 UWMP Appendix H - WSCP (Section 3.8) |

| | | | | |
|---|---|---|---|---|
| 10632(a)(8)(B) | Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions. | Water Shortage Contingency Planning | Section 8.8 | 2020 UWMP Appendix H - WSCP (Section 3.8) |
| 10632(a)(8)(C) | Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought | Water Shortage Contingency Planning | Section 8.8 | 2020 UWMP Appendix H - WSCP (Section 3.8) |
| 10632(a)(9) | Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance. | Water Shortage Contingency Planning | Section 8.9 | 2020 UWMP Appendix H - WSCP (Section 3.9) |
| 10632(b) | Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas. | Water Shortage Contingency Planning | Section 8.11 | 2020 UWMP Appendix H - WSCP (Section 3.11) |
| 10635(c) | Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR. | Plan Adoption, Submittal, and Implementation | Sections 8.12 and 10.4 | 2020 UWMP Appendix H - WSCP (Section 3.12) |
| 10632(c) | Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan. | Water Shortage Contingency Planning | Section 8.12 | 2020 UWMP Appendix H - WSCP (Section 3.12) |
| 10631(e)(2) | Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program. | Demand Management Measures | Sections 9.1 and 9.3 | 9.1 |
| 10631(e)(1) | Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will | Demand Management Measures | Sections 9.2 and 9.3 | 9.2 |

| | | | | |
|---|---|---|---|---|
| | address specific measures listed in code. | | | |
| 10608.26(a) | Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance). | Plan Adoption, Submittal, and Implementation | Chapter 10 | Sections 2.2.3, 10.1 and 10.3 |
| 10621(b) | Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1. | Plan Adoption, Submittal, and Implementation | Section 10.2.1 | Sections 10.1 and 10.2, Appendix K |
| 10621(f) | Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021. | Plan Adoption, Submittal, and Implementation | Section 10.4 | Sections 10.1 and 10.4 |
| 10642 | Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan. | Plan Adoption, Submittal, and Implementation | Sections 10.2.2, 10.3, and 10.5 | Sections 2.2.3, 10.1 and 10.3, Appendix K |
| 10642 | The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. | Plan Adoption, Submittal, and Implementation | Section 10.2.2 | Appendix K |
| 10642 | Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified. | Plan Adoption, Submittal, and Implementation | Section 10.3.2 | Appendix L of UWMP and Appendix D of WSCP |
| 10644(a) | Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library. | Plan Adoption, Submittal, and Implementation | Section 10.4 | Sections 10.1 and 10.4 |
| 10644(a)(1) | Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier | Plan Adoption, Submittal, and Implementation | Section 10.4 | Sections 10.1 and 10.4 |

| | | | | |
|---|---|---|---|---|
| | provides water no later than 30 days after adoption. | | | |
| 10644(a)(2) | The plan, or amendments to the plan, submitted to the department shall be submitted electronically. | Plan Adoption, Submittal, and Implementation | Sections 10.4.1 and 10.4.2 | Section 10.5 |
| 10645(a) | Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours. | Plan Adoption, Submittal, and Implementation | Section 10.5 | Sections 10.1 and 10.4 |
| 10645(b) | Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours. | Plan Adoption, Submittal, and Implementation | Section 10.5 | Sections 10.1 and 10.4, Appendix H |
| 10621(c) | If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings. | Plan Adoption, Submittal, and Implementation | Section 10.6 | N/A – City is not regulated by Public Utilities Commission |
| 10644(b) | If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption. | Plan Adoption, Submittal, and Implementation | Section 10.7.2 | Section 10.5 of UWMP and Section 3.12 of WSCP |

# APPENDIX B

## DWR Standardized Tables

| Submittal Table 2-1 Retail Only: Public Water Systems | | | |
|---|---|---|---|
| Public Water System Number | Public Water System Name | Number of Municipal Connections 2020 | Volume of Water Supplied 2020 * |
| *Add additional rows as needed* | | | |
| CA3010079 | El Toro Water District | 9,563 | 8,437 |
| | **TOTAL** | 9,563 | 8,437 |
| **** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.* | | | |

NOTES:
The number of municipal connections corresponds to the active connections.
The volume of water supplied includes both potable and non-potable.

| Submittal Table 2-2: Plan Identification | | | |
|---|---|---|---|
| **Select Only One** | **Type of Plan** | | **Name of RUWMP or Regional Alliance** *if applicable* (select from drop down list) |
| ☑ | **Individual UWMP** | | |
| | ☐ | Water Supplier is also a member of a RUWMP | |
| | ☑ | Water Supplier is also a member of a Regional Alliance | Orange County 20x2020 Regional Alliance |
| ☐ | **Regional Urban Water Management Plan (RUWMP)** | | |
| NOTES: | | | |

| Submittal Table 2-3: Supplier Identification | |
|---|---|
| Type of Supplier (select one or both) | |
| ☐ | Supplier is a wholesaler |
| ☑ | Supplier is a retailer |
| Fiscal or Calendar Year (select one) | |
| ☐ | UWMP Tables are in calendar years |
| ☑ | UWMP Tables are in fiscal years |
| If using fiscal years provide month and date that the fiscal year begins (mm/dd) | |
| *7/1* | |
| Units of measure used in UWMP * (select from drop down) | |
| Unit | AF |
| **** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.* | |
| NOTES: | |

| Submittal Table 2-4 Retail: Water Supplier Information Exchange |
| --- |
| The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631. |
| Wholesale Water Supplier Name |
| *Add additional rows as needed* |
| Municipal Water District of Orange County |
| NOTES: |

| Submittal Table 3-1 Retail: Population - Current and Projected | | | | | | |
|---|---|---|---|---|---|---|
| Population Served | 2020 | 2025 | 2030 | 2035 | 2040 | 2045*(opt)* |
| | 47,911 | 48,808 | 51,093 | 51,100 | 51,074 | 50,649 |
| NOTES:<br>Source - Center for Demographic Research at California State University, Fullerton, 2020 | | | | | | |

| Submittal Table 4-1 Retail: Demands for Potable and Non-Potable[1] Water - Actual | | | |
|---|---|---|---|
| Use Type | 2020 Actual | | |
| **Drop down list**<br>May select each use multiple times<br>These are the only Use Types that will be recognized by the WUEdata online submittal tool | Additional Description<br>(as needed) | Level of Treatment When Delivered<br>Drop down list | Volume[2] |
| Add additional rows as needed | | | |
| Single Family | | Drinking Water | 1,943 |
| Multi-Family | | Drinking Water | 2,738 |
| Commercial | | Drinking Water | 782 |
| Institutional/Governmental | | Drinking Water | 53 |
| Landscape | Represents large landscape (with irrigation meters) served by potable water and not recycled water | Drinking Water | 1,263 |
| Losses | Non-Revenue Water | Drinking Water | 385 |
| Other | Flooding Meters and Private Fire Systems | Drinking Water | 3 |
| | | **TOTAL** | 7,167 |

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.*

[2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: Volumes reported in AF. This table only represents potable water; recycled water projections are shown in Table 4-4 (DWR Submittal Tables 4-3) and Table 6-8 (DWR Submittal Tables 6-4).

| Submittal Table 4-2 Retail: Use for Potable and Non-Potable[1] Water - Projected | | | | | | |
|---|---|---|---|---|---|---|
| Use Type | Additional Description (as needed) | Projected Water Use[2] *Report To the Extent that Records are Available* | | | | |
| **Drop down list** May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool | | 2025 | 2030 | 2035 | 2040 | 2045 (opt) |
| Add additional rows as needed | | | | | | |
| Single Family | | 1,905 | 1,913 | 1,885 | 1,858 | 1,847 |
| Multi-Family | | 2,746 | 2,894 | 2,856 | 2,817 | 2,813 |
| Institutional/Governmental | | 55 | 68 | 73 | 78 | 78 |
| Commercial | | 822 | 1,004 | 1,080 | 1,160 | 1,160 |
| Landscape | | 1,314 | 1,339 | 1,339 | 1,339 | 1,339 |
| Losses | Non-revenue water | 410 | 432 | 433 | 434 | 433 |
| **TOTAL** | | 7,252 | 7,651 | 7,666 | 7,687 | 7,671 |

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.* [2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: Volumes reported in AF. This table only represents potable water; recycled water projections are shown in Table 4-4 (DWR Submittal Tables 4-3) and Table 6-8 (DWR Submittal Tables 6-4).

| Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable) | | | | | | |
|---|---|---|---|---|---|---|
| | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 (opt) |
| Potable Water, Raw, Other Non-potable *From Tables 4-1R and 4-2 R* | 7,167 | 7,252 | 7,651 | 7,666 | 7,687 | 7,671 |
| Recycled Water Demand[1] *From Table 6-4* | 1,270 | 1,485 | 1,485 | 1,485 | 1,485 | 1,485 |
| Optional Deduction of Recycled Water Put Into Long-Term Storage[2] | | | | | | |
| **TOTAL WATER USE** | 8,437 | 8,737 | 9,136 | 9,151 | 9,172 | 9,156 |

*[1] Recycled water demand fields will be blank until Table 6-4 is complete* *[2] Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier* ***may*** *deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.*

NOTES: Volumes in AF.

This includes volume that goes into the RW distribution system (250 connections), the golf course, and ETWD's own use for irrigation at the treatment plant. Source: Production Report, FY2019-20.

| Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting | |
|---|---|
| Reporting Period Start Date (mm/yyyy) | Volume of Water Loss [1,2] |
| 01/2015 | 376 |
| 01/2016 | 311 |
| 01/2017 | 359 |
| 01/2018 | 363 |
| 01/2019 | 350 |
| [1] *Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.* [2] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.* | |
| NOTES: | |

| Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections | |
|---|---|
| **Are Future Water Savings Included in Projections?**<br>(Refer to Appendix K of UWMP Guidebook)<br>*Drop down list (y/n)* | Yes |
| If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found. | Section 8 and 9 |
| **Are Lower Income Residential Demands Included In Projections?**<br>*Drop down list (y/n)* | Yes |
| NOTES: | |

**Submittal Table 5-1 Baselines and Targets Summary**
**From SB X7-7 Verification Form**
*Retail Supplier or Regional Alliance Only*

| Baseline Period | Start Year * | End Year * | Average Baseline GPCD* | Confirmed 2020 Target* |
|---|---|---|---|---|
| 10-15 year | *1996* | *2005* | *204* | *163* |
| 5 Year | *2004* | *2008* | *202* | |

**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*

NOTES:

| **Submittal Table 5-2: 2020 Compliance** **From** **SB X7-7 2020 Compliance Form** *Retail Supplier or Regional Alliance Only* | | | | |
|---|---|---|---|---|
| **2020 GPCD** | | | 2020 Confirmed Target GPCD* | Did Supplier Achieve Targeted Reduction for 2020? Y/N |
| Actual 2020 GPCD* | 2020 TOTAL Adjustments* | Adjusted 2020 GPCD* *(Adjusted if applicable)* | | |
| *134* | *0* | *134* | *163* | *Y* |
| **All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)* | | | | |
| NOTES: | | | | |

| Submittal Table 6-1 Retail: Groundwater Volume Pumped | | | | | | |
|---|---|---|---|---|---|---|
| ☑ | Supplier does not pump groundwater.<br>The supplier will not complete the table below. | | | | | |
| ☐ | All or part of the groundwater described below is desalinated. | | | | | |
| Groundwater Type<br>***Drop Down List***<br>*May use each category multiple times* | Location or Basin Name | 2016* | 2017* | 2018* | 2019* | 2020* |
| *Add additional rows as needed* | | | | | | |
| **TOTAL** | | 0 | 0 | 0 | 0 | 0 |
| **** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.* | | | | | | |
| NOTES: | | | | | | |

| Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020 | | | | | | |
|---|---|---|---|---|---|---|
| ☐ | There is no wastewater collection system. The supplier will not complete the table below. | | | | | |
| | Percentage of 2020 service area covered by wastewater collection system *(optional)* | | | | | |
| | Percentage of 2020 service area population covered by wastewater collection system *(optional)* | | | | | |
| **Wastewater Collection** | | | **Recipient of Collected Wastewater** | | | |
| Name of Wastewater Collection Agency | Wastewater Volume Metered or Estimated? *Drop Down List* | Volume of Wastewater Collected from UWMP Service Area 2020 * | Name of Wastewater Treatment Agency Receiving Collected Wastewater | Treatment Plant Name | Is WWTP Located Within UWMP Area? *Drop Down List* | Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List* |
| ETWD | Estimated | 4,168 | ETWD | WRP | Yes | No |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |
| | | | | | | |
| **Total Wastewater Collected from Service Area in 2020:** | | 4,168 | | | | |
| **** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3* **.** | | | | | | |
| NOTES:<br>From influent flow data FY2019-20 | | | | | | |

**Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020**

☐ **No wastewater is treated or disposed of within the UWMP service area.** The supplier will not complete the table below.

| Wastewater Treatment Plant Name | Discharge Location Name or Identifier | Discharge Location Description | Wastewater Discharge ID Number *(optional)* [2] | Method of Disposal ***Drop down list*** | Does This Plant Treat Wastewater Generated Outside the Service Area? ***Drop down list*** | Treatment Level ***Drop down list*** | 2020 volumes [1] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Wastewater Treated | Discharged Treated Wastewater | Recycled Within Service Area | Recycled Outside of Service Area | Instream Flow Permit Requirement |
| ETWD | Aliso Creek Ocean Outfall | Laguna Beach | | Ocean outfall | No | Secondary, Disinfected - 2.2 | 4,168 | 2,997 | 1,171 | 0 | 0 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | **Total** | 4,168 | 2,997 | 1,171 | 0 | 0 |

[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.

[2] If the **Wastewater Discharge ID Number** is not available to the UWMP preparer, access the SWRCB CIWQS regulated facility website at https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility

NOTES:

**Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area**

| | |
|---|---|
| ☐ | Recycled water is not used and is not planned for use within the service area of the supplier.<br>The supplier will not complete the table below. |

| | |
|---|---|
| Name of Supplier Producing (Treating) the Recycled Water: | ETWD |
| Name of Supplier Operating the Recycled Water Distribution System: | ETWD |
| Supplemental Water Added in 2020 (volume) *Include units* | 10.6 AF |
| Source of 2020 Supplemental Water | PW System |

| Beneficial Use Type *Insert additional rows if needed.* | **Potential** Beneficial Uses of Recycled Water (Describe) | Amount of **Potential** Uses of Recycled Water (Quantity) *Include volume units* [1] | General Description of 2020 Uses | Level of Treatment *Drop down list* | 2020 [1] | 2025 [1] | 2030 [1] | 2035 [1] | 2040 [1] | 2045 [1] (opt) |
|---|---|---|---|---|---|---|---|---|---|---|
| Agricultural irrigation | | | | | | | | | | |
| Landscape irrigation (exc golf courses) | Landscape | See projections | Landscape | Tertiary | 966 | 1,181 | 1,181 | 1,181 | 1,181 | 1,181 |
| Golf course irrigation | Golf course | See projections | Golf course | Tertiary | 304 | 304 | 304 | 304 | 304 | 304 |
| Commercial use | | | | | | | | | | |
| Industrial use | | | | | | | | | | |
| Geothermal and other energy production | | | | | | | | | | |
| Seawater intrusion barrier | | | | | | | | | | |
| Recreational impoundment | | | | | | | | | | |
| Wetlands or wildlife habitat | | | | | | | | | | |
| Groundwater recharge (IPR) | | | | | | | | | | |
| Reservoir water augmentation (IPR) | | | | | | | | | | |
| Direct potable reuse | | | | | | | | | | |
| Other (Description Required) | | | | | | | | | | |
| | | | | **Total:** | 1,270 | 1,485 | 1,485 | 1,485 | 1,485 | 1,485 |
| | | | | **2020 Internal Reuse** | 90 | | | | | |

[1] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:
Source - ETWD Production Report for FY 19/20 and projection values based on discussion with ETWD Staff.
Projected recycled water volumes do not include internal reuse. With the inclusion of internal reuse, projected recycled water volumes are estimated to be 1,575 AFY through 2045.

**Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual**

| | |
|---|---|
| ☐ | Recycled water was not used in 2015 nor projected for use in 2020.<br>The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table. |

| Beneficial Use Type | 2015 Projection for 2020 [1] | 2020 Actual Use[1] |
|---|---|---|
| *Insert additional rows as needed.* | | |
| Agricultural irrigation | | |
| Landscape irrigation (exc golf courses) | 1,170 | 966 |
| Golf course irrigation | 251 | 304 |
| Commercial use | | |
| Industrial use | | |
| Geothermal and other energy production | | |
| Seawater intrusion barrier | | |
| Recreational impoundment | | |
| Wetlands or wildlife habitat | | |
| Groundwater recharge (IPR) | | |
| Reservoir water augmentation (IPR) | | |
| Direct potable reuse | | |
| Other (Description Required) | | |
| **Total** | 1,421 | 1,270 |

[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.

NOTE:
Recycled water volumes do not include internal reuse

| Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use | | | |
|---|---|---|---|
| ☐ | Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation. | | |
| Section 6.9 | Provide page location of narrative in UWMP | | |
| Name of Action | Description | Planned Implementation Year | Expected Increase in Recycled Water Use * |
| *Add additional rows as needed* | | | |
| Distribution System Expansion | Phase III | 2050 | 100-500 |
| | | | |
| | | | |
| | | **Total** | 100-500 |
| ***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.* | | | |
| NOTES: | | | |

| Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs | | | | | | |
|---|---|---|---|---|---|---|
| ☑ | No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below. | | | | | |
| ☐ | Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format. | | | | | |
| | Provide page location of narrative in the UWMP | | | | | |
| Name of Future Projects or Programs | Joint Project with other suppliers? | | Description (if needed) | Planned Implementation Year | | Expected Increase in Water Supply to Supplier* *This may be a range* |
| | *Drop Down List (y/n)* | *If Yes, Supplier Name* | | | | |
| *Add additional rows as needed* | | | | | | |
| ***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.* | | | | | | |
| NOTES: | | | | | | |

| Submittal Table 6-8 Retail: Water Supplies — Actual | | | | |
|---|---|---|---|---|
| Water Supply | Additional Detail on Water Supply | 2020 | | |
| **Drop down list** May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool | | Actual Volume* | Water Quality Drop Down List | Total Right or Safe Yield* (optional) |
| Add additional rows as needed | | | | |
| Purchased or Imported Water | MWDOC (Treated) | 4,079 | Drinking Water | |
| Purchased or Imported Water | MWDOC (Untreated) | 2,736 | Drinking Water | |
| Recycled Water | Treated at District's WRP | 1,270 | Recycled Water | |
| Surface water (not desalinated) | Irvine Lake | 352 | Drinking Water | |
| | **Total** | 8,437 | | 0 |
| ***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.* | | | | |

NOTES:
Sources - MWDOC FY 2019-20 Water Use Report, 2020; ETWD Production Report (recycled water); and discussions with ETWD Staff

Recycled water volumes do not include internal reuse.

**Submittal Table 6-9 Retail: Water Supplies — Projected**

| Water Supply<br>**Drop down list**<br>May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool | Additional Detail on Water Supply | **Projected Water Supply ***<br>Report To the Extent Practicable | | | | |
|---|---|---|---|---|---|---|
| | | **2025** | **2030** | **2035** | **2040** | **2045** (opt) |
| | | Reasonably Available Volume | Reasonably Available Volume | Reasonably Available Volume | Reasonably Available Volume | Reasonably Available Volume |
| Add additional rows as needed | | | | | | |
| Purchased or Imported Water | MWDOC (Treated) | 3,652 | 4,051 | 4,066 | 4,087 | 4,071 |
| Purchased or Imported Water | MWDOC (Untreated)* | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 |
| Recycled Water | SOCWA | 1,485 | 1,485 | 1,485 | 1,485 | 1,485 |
| | **Total** | 8,737 | 9,136 | 9,151 | 9,172 | 9,156 |

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:
Source – Based on discussions with ETWD staff

Recycled water volumes do not include internal reuse. Untreated water supplies from MWDOC are treated at the Baker Water Treatment Plant. The water produced at Baker Water Treatment Plant offsets and reduces purchased treated MET water from MWDOC.
*May include Irvine Lake water

| Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment) | | | |
|---|---|---|---|
| **Year Type** | **Base Year** If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020 | **Available Supplies if Year Type Repeats** | |
| | | ☐ | Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____ |
| | | ☐ | Quantification of available supplies is provided in this table as either volume only, percent only, or both. |
| | | **Volume Available *** | **% of Average Supply** |
| Average Year | 2018-2019 | - | 100% |
| Single-Dry Year | 2014 | - | 109% |
| Consecutive Dry Years 1st Year | 2012 | - | 109% |
| Consecutive Dry Years 2nd Year | 2013 | - | 109% |
| Consecutive Dry Years 3rd Year | 2014 | - | 109% |
| Consecutive Dry Years 4th Year | 2015 | - | 109% |
| Consecutive Dry Years 5th Year | 2016 | - | 109% |

*Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.*

***Units of measure (AF, CCF, MG** ) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:
Assumes an increase of 9% above average year demands in dry and multiple dry years based on the Demand Forecast TM.(CDM Smith, 2021). 109% represents the percent of average supply needed to meet demands of a single-dry and multiple-dry years. Since the District is able to meet all of its demand with imported water from MWDOC/MET (on top of local water sources), the percent of average supply value reported is equivalent to the percent of average demand under the corresponding hydrologic condition.

| Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison | | | | | |
|---|---|---|---|---|---|
| | 2025 | 2030 | 2035 | 2040 | 2045 *(Opt)* |
| Supply totals<br>(*autofill from Table 6-9)* | 8,737 | 9,136 | 9,151 | 9,172 | 9,156 |
| Demand totals<br>*(autofill from Table 4-3)* | 8,737 | 9,136 | 9,151 | 9,172 | 9,156 |
| Difference | 0 | 0 | 0 | 0 | 0 |
| NOTES:<br>This table compares the projected demand and supply volumes determined in Sections 4.3.2 and 6.1, respectively. | | | | | |

| Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison | | | | | |
|---|---|---|---|---|---|
| | 2025 | 2030 | 2035 | 2040 | 2045 (Opt) |
| Supply totals* | 9,523 | 9,958 | 9,975 | 9,998 | 9,980 |
| Demand totals* | 9,523 | 9,958 | 9,975 | 9,998 | 9,980 |
| Difference | 0 | 0 | 0 | 0 | 0 |
| ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.* | | | | | |

NOTES:
It is conservatively assumed that a single dry year demand is 9% greater than each respective year's normally projected total water demand from Table 7-2. Surface water and recycled water provide local supply (Sections 6.4 and 6.6, respectively) and based on MET's and MWDOC's UWMP, imported water is available to close any local water supply gap (Section 7.5.1).

| Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison | | | | | | |
|---|---|---|---|---|---|---|
| | | 2025* | 2030* | 2035* | 2040* | 2045* (Opt) |
| First year | Supply totals | 9,262 | 9,610 | 9,962 | 9,979 | 9,994 |
| | Demand totals | 9,262 | 9,610 | 9,962 | 9,979 | 9,994 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Second year | Supply totals | 9,327 | 9,697 | 9,965 | 9,984 | 9,991 |
| | Demand totals | 9,327 | 9,697 | 9,965 | 9,984 | 9,991 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Third year | Supply totals | 9,393 | 9,784 | 9,968 | 9,989 | 9,987 |
| | Demand totals | 9,393 | 9,784 | 9,968 | 9,989 | 9,987 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Fourth year | Supply totals | 9,458 | 9,871 | 9,971 | 9,993 | 9,984 |
| | Demand totals | 9,458 | 9,871 | 9,971 | 9,993 | 9,984 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Fifth year | Supply totals | 9,523 | 9,958 | 9,975 | 9,998 | 9,980 |
| | Demand totals | 9,523 | 9,958 | 9,975 | 9,998 | 9,980 |
| | Difference | 0 | 0 | 0 | 0 | 0 |

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:
The multiple dry-year projections estimate a 9% increase on total normal water demand. The 2025 column assesses supply and demand for FY 2020-21 through FY 2024-25; the 2030 column assesses FY 2025-26 through FY 2029-30 and so forth, in order to end the water service reliability assessment in FY 2044-45.

Surface water and recycled water provide local supply (Sections 6.4 and 6.6, respectively) and based on MET's and MWDOC's UWMP, imported water is available to close any local water supply gap (Section 7.5.1).

| Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b) | |
|---|---|
| **2021** | **Total** |
| Total Water Use | 9,262 |
| Total Supplies | 9,262 |
| Surplus/Shortfall w/o WSCP Action | 0 |
| **Planned WSCP Actions** (use reduction and supply augmentation) | |
| WSCP - supply augmentation benefit | 0 |
| WSCP - use reduction savings benefit | 0 |
| Revised Surplus/(shortfall) | 0 |
| Resulting % Use Reduction from WSCP action | 0% |
| | |
| **2022** | **Total** |
| Total Water Use | 9,327 |
| Total Supplies | 9,327 |
| Surplus/Shortfall w/o WSCP Action | 0 |
| **Planned WSCP Actions** (use reduction and supply augmentation) | |
| WSCP - supply augmentation benefit | 0 |
| WSCP - use reduction savings benefit | 0 |
| Revised Surplus/(shortfall) | 0 |
| Resulting % Use Reduction from WSCP action | 0% |
| | |
| **2023** | **Total** |
| Total Water Use | 9,393 |
| Total Supplies | 9,393 |
| Surplus/Shortfall w/o WSCP Action | 0 |
| **Planned WSCP Actions** (use reduction and supply augmentation) | |
| WSCP - supply augmentation benefit | 0 |
| WSCP - use reduction savings benefit | 0 |
| Revised Surplus/(shortfall) | 0 |
| Resulting % Use Reduction from WSCP action | 0% |
| | |
| **2024** | **Total** |
| Total Water Use | 9,458 |
| Total Supplies | 9,458 |
| Surplus/Shortfall w/o WSCP Action | 0 |
| **Planned WSCP Actions** (use reduction and supply augmentation) | |
| WSCP - supply augmentation benefit | 0 |
| WSCP - use reduction savings benefit | 0 |
| Revised Surplus/(shortfall) | 0 |
| Resulting % Use Reduction from WSCP action | 0% |
| | |
| **2025** | **Total** |
| Total Water Use | 9,523 |
| Total Supplies | 9,523 |
| Surplus/Shortfall w/o WSCP Action | 0 |
| **Planned WSCP Actions** (use reduction and supply augmentation) | |
| WSCP - supply augmentation benefit | 0 |
| WSCP - use reduction savings benefit | 0 |
| Revised Surplus/(shortfall) | 0 |
| Resulting % Use Reduction from WSCP action | 0% |

| Submittal Table 8-1<br>Water Shortage Contingency Plan Levels | | |
|---|---|---|
| **Shortage Level** | **Percent Shortage Range** | **Shortage Response Actions**<br>**(*Narrative description)*** |
| 1 | Up to 20% | A Level 1 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 2 | Up to 40% | A Level 2 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 3 | Greater than 40% | A Level 3 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| NOTES: | | |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only***<br>*Drop Down List* |
| Permanent Year-Round | Other - Prohibit use of potable water for construction and dust control | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |
| Permanent Year-Round | Other - Require automatic shut of hoses | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |
| Permanent Year-Round | Landscape - Other landscape restriction or prohibition | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Commercial and multifamily and community development or redevelopment are required to install a sensor-based or weather- | No |
| Permanent Year-Round | Landscape - Limit landscape irrigation to specific times | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Watering or irrigating of lawns, landscaping, and other vegetated areas are prohibited any day of the week between 10:00 a.m. and 5:00 p.m. This does not apply to | No |
| Permanent Year-Round | Landscape - Other landscape restriction or prohibition | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Watering or irrigating of lawns, landscaping, and other vegetated areas that is not continuously attended to is limited to no more than fifteen (15) minutes per day per | No |
| Permanent Year-Round | Landscape - Restrict or prohibit runoff from landscape irrigation | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |
| Permanent Year-Round | Landscape - Limit landscape irrigation to specific times | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Watering or irrigating of lawns, landscaping, and other vegetated areas is prohibited during rain events and following 48 hours of significant precipitation. | No |
| Permanent Year-Round | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Leaks, breaks, and other malfunctions must be corrected in no more than five (5) days of District notification. | No |
| Permanent Year-Round | Other - Prohibit use of potable water for washing hard surfaces | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only***<br>*Drop Down List* |
| Permanent Year-Round | Other - Prohibit vehicle washing except at facilities using recycled or recirculating water | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | Other water feature or swimming pool restriction | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | All decorative water fountains and features must recirculate water or users must secure a waiver from the District. | No |
| Permanent Year-Round | CII - Restaurants may only serve water upon request | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | CII - Lodging establishment must offer opt out of linen service | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | CII - Commercial kitchens required to use pre-rinse spray valves | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | Other | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | All new commercial car-wash and laundry facilities and systems must recirculate the wash water or secure a waiver of this requirement from the | No |
| Permanent Year-Round | CII - Other CII restriction or prohibition | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Buildings requesting new water service or that are being remodeled are prohibited from installing single-pass systems. | No |
| 1 | Landscape - Limit landscape irrigation to specific days | 15% | Watering or irrigating of lawns, landscaping, and other vegetated areas may only take place no more than three (3) days per week from April to October and no more | Yes |
| 1 | Implement or Modify Drought Rate Structure or Surcharge | 5% | Assign financial penalty for failure to comply with water budget allocation. | Yes |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only***<br>*Drop Down List* |
| 1 | Expand Public Information Campaign | 3% | Community Outreach and Messaging. Expand Public Information Campaign to include Level 1 demand reduction actions, increase messaging | Yes |
| 2 | Landscape - Limit landscape irrigation to specific days | 15% | Watering or irrigating of lawns, landscaping, and other vegetated areas may only take place no more than two (2) days per week from April to October and no more | Yes |
| 2 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | 2% | Leaks, breaks, and other malfunctions must be corrected in no more than three (3) days of District notification. | Yes |
| 2 | Water Features - Restrict water use for decorative water features, such as fountains | 1% | Filling or refilling of ornamental lakes and ponds is prohibited except for those that sustain aquatic life provided that such life is of significant value and | Yes |
| 2 | Other water feature or swimming pool restriction | 2% | Filling residential swimming pools or outdoor spas is prohibited; refilling more than one (1) foot of water is prohibited. This does not apply to | Yes |
| 2 | Implement or Modify Drought Rate Structure or Surcharge | 5% | Impose 'drought factor' on existing tiered rate structure to achieve Shortage Level 2 demand reduction. | Yes |
| 2 | Expand Public Information Campaign | 3% | Community Outreach and Messaging. Expand Public Information Campaign to include Level 2 demand reduction actions, increase messaging | Yes |
| 3 | Other - Prohibit vehicle washing except at facilities using recycled or recirculating water | 1% | - | Yes |
| 3 | Landscape - Prohibit all landscape irrigation | 15% | This does not apply towards the following circumstances: 1) maintenance of vegetation that are watered using a hand-held bucket or similar | Yes |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only***<br>*Drop Down List* |
| 3 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | 2% | Leaks, breaks, and other malfunctions must be corrected in no more than two (2) days of District notification. | Yes |
| 3 | Other water feature or swimming pool restriction | 1% | Filling residential swimming pools or outdoor spas is prohibited; refilling more than one (1) foot of water is prohibited. This does not apply to | Yes |
| 3 | Landscape - Other landscape restriction or prohibition | 2% | No new potable water service, new temporary meters, and statement of immediate ability to serve or provide water service will be issued except under the | Yes |
| 3 | Other | 5% | Customers using over 10,000 units per year are required to submit a Water Conservation Plan and report quarterly progress. | Yes |
| 3 | Expand Public Information Campaign | 3% | Community Outreach and Messaging. Expand Public Information Campaign to include Level 3 demand reduction actions, increase messaging | Yes |
| 3 | Implement or Modify Drought Rate Structure or Surcharge | 5% | Impose 'drought factor' on existing tiered rate structure to achieve Shortage Level 3 demand reduction. | Yes |
| NOTES: | | | | |

| Submittal Table 8-3: Supply Augmentation and Other Actions | | | |
|---|---|---|---|
| Shortage Level | Supply Augmentation Methods and Other Actions by Water Supplier<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool* | How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)* | Additional Explanation or Reference *(optional)* |
| 1 through 6 | Other Purchases | 0 - 100% | Additional imported water purchase through MWDOC |
| NOTES:<br>Additional Imported Water Purchases to meet the supply gap may have financial ramifications per the MWDOC Water Supply Allocation Plan. | | | |

| Submittal Table 10-1 Retail: Notification to Cities and Counties | | |
|---|---|---|
| City Name | 60 Day Notice | Notice of Public Hearing |
| *Add additional rows as needed* | | |
| Aliso Viejo | Yes | Yes |
| Laguna Hills | Yes | Yes |
| Laguna Woods | Yes | Yes |
| Lake Forest | Yes | Yes |
| Mission Viejo | Yes | Yes |
| County Name *Drop Down List* | 60 Day Notice | Notice of Public Hearing |
| *Add additional rows as needed* | | |
| Orange County | Yes | Yes |
| NOTES: | | |

# APPENDIX C

## Reduced Delta Reliance

# El Toro Water District
# REDUCED DELTA RELIANCE REPORTING

## C.1 Background

Under the Sacramento-San Joaquin Delta Reform Act of 2009, state and local public agencies proposing a covered action in the Delta, prior to initiating the implementation of that action, must prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with applicable Delta Plan policies and submit that certification to the Delta Stewardship Council. Anyone may appeal a certification of consistency, and if the Delta Stewardship Council grants the appeal, the covered action may not be implemented until the agency proposing the covered action submits a revised certification of consistency, and either no appeal is filed, or the Delta Stewardship Council denies the subsequent appeal.

An urban water supplier that anticipates participating in or receiving water from a proposed covered action such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta should provide information in their 2015 and 2020 Urban Water Management Plans (UWMPs) that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (WR P1).

WR P1 details what is needed for a covered action to demonstrate consistency with reduced reliance on the Delta and improved regional self-reliance. WR P1 subsection (a) states that:

*(a) Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:*

> *(1) One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c);*
>
> *(2) That failure has significantly caused the need for the export, transfer, or use; and*
>
> *(3) The export, transfer, or use would have a significant adverse environmental impact in the Delta.*

WR P1 subsection (c)(1) further defines what adequately contributing to reduced reliance on the Delta means in terms of (a)(1) above.

*(c)(1) Water suppliers that have done all the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:*

> *(A) Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;*
>
> *(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and*
>
> *(C) Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self- reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).*

The analysis and documentation provided below include all of the elements described in WR P1(c)(1) that need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action.

## C.2 Summary of Expected Outcomes for Reduced Reliance on the Delta

As stated in WR P1 (c)(1)(C), the policy requires that, commencing in 2015, UWMPs include expected outcomes for measurable reduction in Delta reliance and improved regional self- reliance. WR P1 further states that those outcomes shall be reported in the UWMP as the reduction in the amount of water used, or in the percentage of water used, from the Delta.

The expected outcomes for El Toro Water District (hereafter referred to as 'District') regional self-reliance were developed using the approach and guidance described in Appendix C of DWR's Urban Water Management Plan Guidebook 2020 – Final Draft (Guidebook Appendix C) issued in March 2021. The data used in this analysis represent the total regional efforts of Metropolitan, the District, and its member agencies and were developed in conjunction with Metropolitan as part of the UWMP coordination process.

The following provides a summary of the near-term (2025) and long-term (2045) expected outcomes for the District's Delta reliance and regional self-reliance. The results show that as a region, the District, Metropolitan, and its member agencies are measurably reducing reliance on the Delta and improving regional self-reliance, both as an amount of water used and as a percentage of water used.

*Expected Outcomes for Regional Self-Reliance for the District*

- Near-term (2025) – Normal water year regional self-reliance is expected to increase by 5,895 AF from the 2010 baseline; this represents an increase of about 48.3 percent of 2025 normal water year retail demands (Table C-2).
- Long-term (2040) – Normal water year regional self-reliance is expected to increase by nearly 5,953 AF from the 2010 baseline, this represents an increase of about 46.7 percent of 2045 normal water year retail demands (Table C-2).

## C.3 Demonstration of Reduced Reliance on the Delta

The methodology used to determine the District's reduced Delta reliance and improved regional self-reliance is consistent with the approach detailed in DWR's UWMP Guidebook Appendix C, including the use of narrative justifications for the accounting of supplies and the documentation of specific data sources. Some of the key assumptions underlying the District's demonstration of reduced reliance include:

- All data were obtained from the current 2020 UWMP or previously adopted UWMPs and represent average or normal water year conditions.
- All analyses were conducted at the service area level, and all data reflect the total contributions of the District and MWDOC, in conjunction with information provided by Metropolitan.
- No projects or programs that are described in the UWMPs as "Projects Under Development" were included in the accounting of supplies.

*Baseline and Expected Outcomes*

In order to calculate the expected outcomes for measurable reduction in Delta reliance and improved regional self-reliance, a baseline is needed to compare against. This analysis uses a normal water year representation of 2010 as the baseline, which is consistent with the approach described in the Guidebook Appendix C. Data for the 2010 baseline were taken from the District's 2005 UWMP as the UWMPs generally do not provide normal water year data for the year that they are adopted (i.e., 2005 UWMP forecasts begin in 2010, 2010 UWMP forecasts begin in 2015, and so on).

Consistent with the 2010 baseline data approach, the expected outcomes for reduced Delta reliance and improved regional self-reliance for 2015 and 2020 were taken from the District's 2010 and 2015 UWMPs respectively. Expected outcomes for 2025-2040 are from the current 2020 UWMP. Documentation of the specific data sources and assumptions are included in the discussions below.

*Service Area Demands without Water Use Efficiency*

In alignment with the Guidebook Appendix C, this analysis uses normal water year demands, rather than normal

water year supplies to calculate expected outcomes in terms of the percentage of water used. Using normal water year demands serves as a proxy for the amount of supplies that would be used in a normal water year, which helps alleviate issues associated with how supply capability is presented to fulfill requirements of the UWMP Act versus how supplies might be accounted for to demonstrate consistency with WR P1.

Because WR P1 considers water use efficiency savings a source of water supply, water suppliers such as the District need to explicitly calculate and report water use efficiency savings separate from service area demands to properly reflect normal water year demands in the calculation of reduced reliance. As explained in the Guidebook Appendix C, water use efficiency savings must be added back to the normal year demands to represent demands without water use efficiency savings accounted for; otherwise the effect of water use efficiency savings on regional self-reliance would be overestimated. Table C-1 shows the results of this adjustment for the District. Supporting narratives and documentation for the all of the data shown in Table C-1 are provided below.

## Table C -1 – Calculation of Water Use Efficiency

| Service Area Water Use Efficiency Demands | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Service Area Water Demands with Water Use Efficiency | 10,984 | 10,075 | 8,321 | 7,252 | 7,651 | 7,666 | 7,687 |
| Non-Potable Water Demands | 575 | 1,200 | 1,660 | 1,485 | 1,485 | 1,485 | 1,485 |
| Potable Service Area Demands with Water Use Efficiency | 10,409 | 8,875 | 6,661 | | 6,166 | 6,181 | 6,202 |

| Total Service Area Population | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Service Area Population | 47,807 | 48,579 | 47,911 | 48,808 | 51,093 | 51,100 | 51,074 |

| Water Use Efficiency Since Baseline | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Per Capita Water Use (GPCD) | 194 | 163 | 124 | 105 | 108 | 108 | 108 |
| Change in Per Capita Water Use from Baseline (GPCD) | | (31) | (70) | (89) | (87) | (86) | (86) |
| Estimated Water Use Efficiency Since Baseline | | 1,702 | 3,771 | 4,860 | 4,959 | 4,945 | 4,918 |

| Total Service Area Water Demands | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Service Area Water Demands with Water Use Efficiency | 10,984 | 10,075 | 8,321 | 7,252 | 7,651 | 7,666 | 7,687 |
| Estimated Water Use Efficiency Since Baseline | | 1,702 | 3,771 | 4,860 | 4,959 | 4,945 | 4,918 |
| Service Area Water Demands without Water Use Efficiency | 10,984 | 11,777 | 12,092 | 12,112 | 12,609 | 12,611 | 12,605 |

*Service Area Demands with Water Use Efficiency*

The service area demands shown in Table C-1 represent the total retail water demands for the District's service area and may include municipal and industrial demands, agricultural demands, recycled, seawater barrier demands, and storage replenishment demands. These demand types and the modeling methodologies used to calculate them are described in Section 4-3 of the District's UWMP.

*Non-Potable Water Demands*

Any non-potable water demands shown in Table C-1 represent demands for non-potable recycled water, water used for purposes such as surface reservoir storage, and replenishment water for groundwater basin recharge and sweater barrier demands. Additionally, non-potable supplies have a demand hardening effect due to the inability to shift non-potable supplies to meet potable water demands. When water use efficiency or conservation measures are implemented, they fall solely on the potable water users. This is consistent with the approach for water conservation reporting used by the State Water Resources Control Board.

*Total Service Area Population*

The District's total service area population as shown in Table C-1 come from the Center for Demographic Research, with actuals and projections further described in Section 3.4 of the District's 2020 UWMP.

*Water Use Efficiency Since Baseline*

The water use efficiency numbers shown in Table C-1 represent the formulation that District utilized, consistent with Appendix C of the UWMP Guidebook approach.

Service area demands, excluding non-potable demands, are divided by the service area population to get per capita water use in the service area in gallons per capita per day (GPCD) for each five-year period. The change in per capita water use from the baseline is the comparative GPCD from that five-year period compared to the 2010 baseline. Changes in per capita water use over time are then applied back to the District's service area population to calculate the estimated WUE Supply. This estimated WUE Supply is considered an additional supply that may be used to show reduced reliance on Delta water supplies.

The demand and water use efficiency data shown in Table C-1 were collected from the following sources:

- Baseline (2010) values – District's 2005 UWMP
- 2015 values – District's 2010 UWMP
- 2020 values – District's 2015 UWMP
- 2025-2040 values – District's 2020 UWMP

It should be noted that the results of this calculation differ from what the District calculated under section 5.2 pertaining to the Water Conservation Act of 2009 (SB X7-7) due to differing formulas.

## C.4 Supplies Contributing to Regional Self-Reliance

For a covered action to demonstrate consistency with the Delta Plan, WR P1 subsection (c)(1)(C) states that water suppliers must report the expected outcomes for measurable improvement in regional self-reliance. Table C-2 shows expected outcomes for supplies contributing to regional self-reliance both in amount and as a percentage. The numbers shown in Table C-2 represent efforts to improve regional self-reliance for the District's entire service area and include the total contributions of the District. Supporting narratives and documentation for the all of the data shown in Table C-2 are provided below.

The results shown in Table C-2 demonstrate that the District's service area is measurably improving its regional self-reliance. In the near-term (2025), the expected outcome for normal water year regional self-reliance increases by 5,895 AF from the 2010 baseline; this represents an increase of about 48.3 percent of 2025 normal water year retail

demands. In the long-term (2040), normal water year regional self-reliance is expected to increase by more than 5,953 AF from the 2010 baseline; this represents an increase of about 46.7 percent of 2040 normal water year retail demands.

## Table C-2 – Supplies Contributing to Regional Self Reliance

| Water Supplies Contributing to Regional Self-Reliance (Acre-Feet) | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Water Use Efficiency | - | 1,702 | 3,771 | 4,860 | 4,959 | 4,945 | 4,918 |
| Water Recycling | 450 | 496 | 1,270 | 1,485 | 1,485 | 1,485 | 1,485 |
| Stormwater Capture and Use | | | | | | | |
| Advanced Water Technologies | | | | | | | |
| Conjunctive Use Projects | | | | | | | |
| Local and Regional Water Supply and Storage Projects | | | | | | | |
| Other Programs and Projects the Contribute to Regional Self-Reliance | | | | | | | |
| Water Supplies Contributing to Regional Self-Reliance | 450 | 2,198 | 5,041 | 6,345 | 6,444 | 6,430 | 6,403 |

| Service Area Water Demands without Water Use Efficiency | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Service Area Water Demands without Water Use Efficiency | 10,984 | 11,777 | 12,092 | 12,112 | 12,609 | 12,611 | 12,605 |

| Change in Regional Self Reliance (Acre-Feet) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Water Supplies Contributing to Regional Self-Reliance | 450 | 2,198 | 5,041 | 6,345 | 6,444 | 6,430 | 6,403 |
| Change in Water Supplies Contributing to Regional Self-Reliance | | 1,748 | 4,591 | 5,895 | 5,994 | 5,980 | 5,953 |

| Change in Regional Self Reliance (As a Percent of Water Demand w/out WUE) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Water Supplies Contributing to Regional Self-Reliance | 4.1% | 18.7% | 41.7% | 52.4% | 51.1% | 51.0% | 50.8% |
| Change in Water Supplies Contributing to Regional Self-Reliance | | 14.6% | 37.6% | 48.3% | 47.0% | 46.9% | 46.7% |

*Water Use Efficiency*

The water use efficiency information shown in Table C-2 is taken directly from Table C-1 above.

*Water Recycling*

The water recycling values shown in Table C-2 reflect the total recycled water production in the service area as described in Section 4.3 of District's UWMP.

## C.5 Reliance on Water Supplies from the Delta Watershed

Metropolitan's service area as a whole, reduces reliance on the Delta through investments in non-Delta water supplies, local water supplies and demand management measures. Quantifying the District's investments in self-reliance, locally, regionally, and throughout Southern California is infeasible for the reasons as noted in Section C.6. Due to the regional nature of these investments, the District is relying on Metropolitan's regional accounting of measurable reductions in supplies from the Delta Watershed.

The results shown in Table A.11-3 demonstrate that Metropolitan's service area, including the District, is measurably reducing its Delta reliance. In the near-term (2025), the expected outcome for normal water year reliance on supplies from the Delta watershed decreased by 301 TAF from the 2010 baseline; this represents a decrease of 3 percent of 2025 normal water year retail demands. In the long- term (2045), normal water year reliance on supplies from the Delta watershed decreased by 314 TAF from the 2010 baseline; this represents a decrease of just over 5 percent of 2045 normal water year retail demands.

**Table C-3**
**Metropolitan Reliance on Water Supplies from the Delta Watershed**

| Water Supplies from the Delta Watershed (Acre-Feet) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|---|---|---|---|
| CVP/SWP Contract Supplies | 1,472,000 | 1,029,000 | 984,000 | 1,133,000 | 1,130,000 | 1,128,000 | 1,126,000 | 1,126,000 |
| Delta/Delta Tributary Diversions | - | - | - | - | - | - | - | - |
| Transfers and Exchanges of Supplies from the Delta Watershed | 20,000 | 44,000 | 91,000 | 58,000 | 52,000 | 52,000 | 52,000 | 52,000 |
| Other Water Supplies from the Delta Watershed | - | - | - | - | - | - | - | - |
| **Total Water Supplies from the Delta Watershed** | **1,492,000** | **1,073,000** | **1,075,000** | **1,191,000** | **1,182,000** | **1,180,000** | **1,178,000** | **1,178,000** |

| Service Area Demands without Water Use Efficiency (Acre-Feet) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|---|---|---|---|
| Service Area Demands without Water Use Efficiency Accounted For | 5,493,000 | 5,499,000 | 5,219,000 | 4,925,000 | 5,032,000 | 5,156,000 | 5,261,000 | 5,374,000 |

| Change in Supplies from the Delta Watershed (Acre-Feet) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|---|---|---|---|
| Water Supplies from the Delta Watershed | 1,492,000 | 1,073,000 | 1,075,000 | 1,191,000 | 1,182,000 | 1,180,000 | 1,178,000 | 1,178,000 |
| **Change in Supplies from the Delta Watershed** | **NA** | **(419,000)** | **(417,000)** | **(301,000)** | **(310,000)** | **(312,000)** | **(314,000)** | **(314,000)** |
| **Percent Change in Supplies from the Delta Watershed (As a Percent of Demand w/out WUE)** | **Baseline (2010)** | **2015** | **2020** | **2025** | **2030** | **2035** | **2040** | **2045** |
| Percent of Supplies from the Delta Watershed | 27.2% | 19.5% | 20.6% | 24.2% | 23.5% | 22.9% | 22.4% | 21.9% |
| **Change in Percent of Supplies from the Delta Watershed** | **NA** | **-7.6%** | **-6.6%** | **-3.0%** | **-3.7%** | **-4.3%** | **-4.8%** | **-5.2%** |

## C.6 Infeasibility of Accounting Supplies from the Delta Watershed for Metropolitan's Member Agencies and their Customers

Metropolitan's service area, as a whole, reduces reliance on the Delta through investments in non-Delta water supplies, local water supplies, and regional and local demand management measures. Metropolitan's member agencies coordinate reliance on the Delta through their membership in Metropolitan, a regional cooperative providing wholesale water service to its 26 member agencies. Accordingly, regional reliance on the Delta can only be measured regionally—not by individual Metropolitan member agencies and not by the customers of those member agencies.

Metropolitan's member agencies, and those agencies' customers, indirectly reduce reliance on the Delta through their collective efforts as a cooperative. Metropolitan's member agencies do not control the amount of Delta water they receive from Metropolitan. Metropolitan manages a statewide integrated conveyance system consisting of its participation in the State Water Project (SWP), its Colorado River Aqueduct (CRA) including Colorado River water resources, programs and water exchanges, and its regional storage portfolio. Along with the SWP, CRA, storage programs, and Metropolitan's conveyance and distribution facilities, demand management programs increase the future reliability of water resources for the region. In addition, demand management programs provide system-wide

benefits by decreasing the demand for imported water, which helps to decrease the burden on the district's infrastructure and reduce system costs, and free up conveyance capacity to the benefit of all member agencies.

Metropolitan's costs are funded almost entirely from its service area, with the exception of grants and other assistance from government programs. Most of Metropolitan's revenues are collected directly from its member agencies. Properties within Metropolitan's service area pay a property tax that currently provides approximately 8 percent of the fiscal year 2021 annual budgeted revenues. The rest of Metropolitan's costs are funded through rates and charges paid by Metropolitan's member agencies for the wholesale services it provides to them.[1] Thus, Metropolitan's member agencies fund nearly all operations Metropolitan undertakes to reduce reliance on the Delta, including Colorado River Programs, storage facilities, Local Resources Programs and Conservation Programs within Metropolitan's service area.

Because of the integrated nature of Metropolitan's systems and operations, and the collective nature of Metropolitan's regional efforts, it is infeasible to quantify each of Metropolitan member agencies' individual reliance on the Delta. It is infeasible to attempt to segregate an entity and a system that were designed to work as an integrated regional cooperative.

In addition to the member agencies funding Metropolitan's regional efforts, they also invest in their own local programs to reduce their reliance on any imported water. Moreover, the customers of those member agencies may also invest in their own local programs to reduce water demand. However, to the extent those efforts result in reduction of demands on Metropolitan, that reduction does not equate to a like reduction of reliance on the Delta. Demands on Metropolitan are not commensurate with demands on the Delta because most of Metropolitan member agencies receive blended resources from Metropolitan as determined by Metropolitan—not the individual member agency—and for most member agencies, the blend varies from month-to-month and year-to-year due to hydrology, operational constraints, use of storage and other factors.

**Colorado River Programs**

As a regional cooperative of member agencies, Metropolitan invests in programs to ensure the continued reliability and sustainability of Colorado River supplies. Metropolitan was established to obtain an allotment of Colorado River water, and its first mission was to construct and operate the CRA. The CRA consists of five pumping plants, 450 miles of high voltage power lines, one electric substation, four regulating reservoirs, and 242 miles of aqueducts, siphons, canals, conduits and pipelines terminating at Lake Mathews in Riverside County. Metropolitan owns, operates, and manages the CRA. Metropolitan is responsible for operating, maintaining, rehabilitating, and repairing the CRA, and is responsible for obtaining and scheduling energy resources adequate to power pumps at the CRA's five pumping stations.

Colorado River supplies include Metropolitan's basic Colorado River apportionment, along with supplies that result from existing and committed programs, including supplies from the Imperial Irrigation District (IID)-Metropolitan Conservation Program, the implementation of the Quantification Settlement Agreement (QSA) and related agreements, and the exchange agreement with San Diego County Water Authority (SDCWA). The QSA established the baseline water use for each of the agreement parties and facilitates the transfer of water from agricultural agencies to urban uses. Since the QSA, additional programs have been implemented to increase Metropolitan's CRA supplies. These include the PVID Land Management, Crop Rotation, and Water Supply Program, as well as the Lower Colorado River Water Supply Project. The 2007 Interim Guidelines provided for the coordinated operation of Lake Powell and Lake Mead, as well as the Intentionally Created Surplus (ICS) program that allows Metropolitan to store water in Lake Mead.

**Storage Investments/Facilities**

Surface and groundwater storage are critical elements of Southern California's water resources strategy and help Metropolitan reduce its reliance on the Delta. Because California experiences dramatic swings in weather and hydrology, storage is important to regulate those swings and mitigate possible supply shortages. Surface and

[1] A standby charge is collected from properties within the service areas of 21 of Metropolitan's 26 member agencies, ranging from $5 to $14.20 per acre annually, or per parcel if smaller than an acre. Standby charges go towards those member agencies' obligations to Metropolitan for the Readiness-to-Serve Charge. The total amount collected annually is approximately $43.8 million, approximately 2 percent of Metropolitan's fiscal year 2021 annual budgeted revenues.

groundwater storage provide a means of storing water during normal and wet years for later use during dry years, when imported supplies are limited. The Metropolitan system, for purposes of meeting demands during times of shortage, regulating system flows, and ensuring system reliability in the event of a system outage, provides over 1,000,000 acre-feet of system storage capacity. Diamond Valley Lake provides 810,000 acre-feet of that storage capacity, effectively doubling Southern California's previous surface water storage capacity. Other existing imported water storage available to the region consists of Metropolitan's raw water reservoirs, a share of the SWP's raw water reservoirs in and near the service area, and the portion of the groundwater basins used for conjunctive-use storage.

Since the early twentieth century, DWR and Metropolitan have constructed surface water reservoirs to meet emergency, drought/seasonal, and regulatory water needs for Southern California. These reservoirs include Pyramid Lake, Castaic Lake, Elderberry Forebay, Silverwood Lake, Lake Perris, Lake Skinner, Lake Mathews, Live Oak Reservoir, Garvey Reservoir, Palos Verdes Reservoir, Orange County Reservoir, and Metropolitan's Diamond Valley Lake (DVL). Some reservoirs such as Live Oak Reservoir, Garvey Reservoir, Palos Verdes Reservoir, and Orange County Reservoir, which have a total combined capacity of about 3,500 AF, are used solely for regulating purposes. The total gross storage capacity for the larger remaining reservoirs is 1,757,600 AF. However, not all of the gross storage capacity is available to Metropolitan; dead storage and storage allocated to others reduce the amount of storage that is available to Metropolitan to 1,665,200 AF.

Conjunctive use of the aquifers offers another important source of dry year supplies. Unused storage in Southern California groundwater basins can be used to optimize imported water supplies, and the development of groundwater storage projects allows effective management and regulation of the region's major imported supplies from the Colorado River and SWP. Over the years, Metropolitan has implemented conjunctive use through various programs in the service area; the following table lists the groundwater conjunctive use programs that have been developed in the region.

| Program | Metropolitan Agreement Partners | Program Term | Max Storage AF | Dry-Year Yield AF/Yr |
|---|---|---|---|---|
| Long Beach Conjunctive Use Storage Project (Central Basin) | Long Beach | June 2002-2027 | 13,000 | 4,300 |
| Foothill Area Groundwater Storage Program (Monkhill/ Raymond Basin) | Foothill MWD | February 2003-2028 | 9,000 | 3,000 |
| Orange County Groundwater Conjunctive Use Program | MWDOC<br>OCWD | June 2003-2028 | 66,000+ | 22,000 |
| Chino Basin Conjunctive Use Programs | IEUA<br>TVMWD<br>Watermaster | June 2003-2028 | 100,000 | 33,000 |
| Live Oak Basin Conjunctive Use Project (Six Basins) | TVMWD<br>City of La Verne | October 2002-2027 | 3,000 | 1,000 |
| City of Compton Conjunctive Use Project (Central Basin) | Compton | February 2005-2030 | 2,289 | 763 |
| Long Beach Conjunctive Use Program Expansion in Lakewood (Central Basin) | Long Beach | July 2005-2030 | 3,600 | 1,200 |
| Upper Claremont Basin Groundwater Storage Program (Six Basins) | TVMWD | Sept. 2005- 2030 | 3,000 | 1,000 |
| Elsinore Basin Conjunctive Use Storage Program | Western MWD<br>Elsinore Valley MWD | May 2008- 2033 | 12,000 | 4,000 |
| **TOTAL** | | | **211,889** | **70,263** |

**Metropolitan Demand Management Programs**

Demand management costs are Metropolitan's expenditures for funding local water resource development programs and water conservation programs. These Demand Management Programs incentivize the development of local water supplies and the conservation of water to reduce the need to import water to deliver to Metropolitan's member agencies. These programs are implemented below the delivery points between Metropolitan's and its member agencies' distribution systems and, as such, do not add any water to Metropolitan's supplies. Rather, the effect of these downstream programs is to produce a local supply of water for the local agencies and to reduce demands by member agencies for water imported through Metropolitan's system. The following discussions outline how Metropolitan funds local resources and conservation programs for the benefit of all of its member agencies and the entire Metropolitan service area. Notably, the history of demand management by Metropolitan's member agencies and the local agencies that purchase water from Metropolitan's members has spanned more than four decades. The significant history of the programs is another reason it would be difficult to attempt to assign a portion of such funding to any one individual member agency.

<u>Local Resources Programs</u>

In 1982, Metropolitan began providing financial incentives to its member agencies to develop new local supplies to assist in meeting the region's water needs. Because of Metropolitan's regional distribution system, these programs benefit all member agencies regardless of project location because they help to increase regional water supply reliability, reduce demands for imported water supplies, decrease the burden on Metropolitan's infrastructure, reduce system costs and free up conveyance capacity to the benefit of all the agencies that rely on water from Metropolitan.

For example, the Groundwater Replenishment System (GWRS) operated by the Orange County Water District is the

world's largest water purification system for indirect potable reuse. It was funded, in part, by Metropolitan's member agencies through the Local Resources Program. Annually, the GWRS produces approximately 103,000 acre-feet of reliable, locally controlled, drought-proof supply of high-quality water to recharge the Orange County Groundwater Basin and protect it from seawater intrusion. The GWRS is a premier example of a regional project that significantly reduced the need to utilize imported water for groundwater replenishment in Metropolitan's service area, increasing regional and local supply reliability and reducing the region's reliance on imported supplies, including supplies from the State Water Project.

Metropolitan's local resource programs have evolved through the years to better assist Metropolitan's member agencies in increasing local supply production. The following is a description and history of the local supply incentive programs.

*Local Projects Program*

In 1982, Metropolitan initiated the Local Projects Program (LPP), which provided funding to member agencies to facilitate the development of recycled water projects. Under this approach, Metropolitan contributed a negotiated up-front funding amount to help finance project capital costs. Participating member agencies were obligated to reimburse Metropolitan over time. In 1986, the LPP was revised, changing the up-front funding approach to an incentive-based approach. Metropolitan contributed an amount equal to the avoided State Water Project pumping costs for each acre-foot of recycled water delivered to end-use consumers. This funding incentive was based on the premise that local projects resulted in the reduction of water imported from the Delta and the associated pumping cost. The incentive amount varied from year to year depending on the actual variable power cost paid for State Water Project imports. In 1990, Metropolitan's Board increased the LPP contribution to a fixed rate of $154 per acre-foot, which was calculated based on Metropolitan's avoided capital and operational costs to convey, treat, and distribute water, and included considerations of reliability and service area demands.

*Groundwater Recovery Program*

The drought of the early 1990s sparked the need to develop additional local water resources, aside from recycled water, to meet regional demand and increase regional water supply reliability. In 1991, Metropolitan conducted the Brackish Groundwater Reclamation Study which determined that large amounts of degraded groundwater in the region were not being utilized. Subsequently, the Groundwater Recovery Program (GRP) was established to assist the recovery of otherwise unusable groundwater degraded by minerals and other contaminants, provide access to the storage assets of the degraded groundwater, and maintain the quality of groundwater resources by reducing the spread of degraded plumes.

*Local Resources Program*

In 1995, Metropolitan's Board adopted the Local Resources Program (LRP), which combined the LPP and GRP into one program. The Board allowed for existing LPP agreements with a fixed incentive rate to convert to the sliding scale up to $250 per acre-foot, similar to GRP incentive terms. Those agreements that were converted to LRP are known as "LRP Conversions."

*Competitive Local Projects Program*

In 1998, the Competitive Local Resources Program (Competitive Program) was established. The Competitive Program encouraged the development of recycled water and recovered groundwater through a process that emphasized cost-efficiency to Metropolitan, timing new production according to regional need while minimizing program administration cost. Under the Competitive Program, agencies requested an incentive rate up to $250 per acre-foot of production over 25 years under a Request for Proposals (RFP) for the development of up to 53,000 acre-feet per year of new water recycling and groundwater recovery projects. In 2003, a second RFP was issued for the development of an additional 65,000 acre-feet of new recycled water and recovered groundwater projects through the LRP.

*Seawater Desalination Program*

Metropolitan established the Seawater Desalination Program (SDP) in 2001 to provide financial incentives to member agencies for the development of seawater desalination projects. In 2014, seawater desalination projects became eligible for funding under the LRP, and the SDP was ended.

*2007 Local Resources Program*

In 2006, a task force comprised of member agency representatives was formed to identify and recommend program improvements to the LRP. As a result of the task force process, the 2007 LRP was established with a goal of 174,000 acre-feet per year of additional local water resource development. The new program allowed for an open application process and eliminated the previous competitive process. This program offered sliding scale incentives of up to $250 per acre-foot, calculated annually based on a member agency's actual local resource project costs exceeding Metropolitan's prevailing water rate.

*2014 Local Resources Program*

A series of workgroup meetings with member agencies was held to identify the reasons why there was a lack of new LRP applications coming into the program. The main constraint identified by the member agencies was that the $250 per acre-foot was not providing enough of an incentive for developing new projects due to higher construction costs to meet water quality requirements and to develop the infrastructure to reach end-use consumers located further from treatment plants. As a result, in 2014, the Board authorized an increase in the maximum incentive amount, provided alternative payment structures, included onsite retrofit costs and reimbursable services as part of the LRP, and added eligibility for seawater desalination projects. The current LRP incentive payment options are structured as follows:

- Option 1 – Sliding scale incentive up to $340/AF for a 25-year agreement term
- Option 2 – Sliding scale incentive up to $475/AF for a 15-year agreement term
- Option 3 – Fixed incentive up to $305/AF for a 25-year agreement term

*On-site Retrofit Programs*

In 2014, Metropolitan's Board also approved the On-site Retrofit Pilot Program which provided financial incentives to public or private entities toward the cost of small-scale improvements to their existing irrigation and industrial systems to allow connection to existing recycled water pipelines. The On-site Retrofit Pilot Program helped reduce recycled water retrofit costs to the end-use consumer which is a key constraint that limited recycled water LRP projects from reaching full production capacity. The program incentive was equal to the actual eligible costs of the on-site retrofit, or $975 per acre-foot of up-front cost, which equates to $195 per acre-foot for an estimated five years of water savings ($195/AF x 5 years) multiplied by the average annual water use in previous three years, whichever is less. The Pilot Program lasted two years and was successful in meeting its goal of accelerating the use of recycled water.

In 2016, Metropolitan's Board authorized the On-site Retrofit Program (ORP), with an additional budget of $10 million. This program encompassed lessons learned from the Pilot Program and feedback from member agencies to make the program more streamlined and improve its efficiency. As of fiscal year 2019/20, the ORP has successfully converted 440 sites, increasing the use of recycled water by 12,691 acre-feet per year.

*Stormwater Pilot Programs*

In 2019, Metropolitan's Board authorized both the Stormwater for Direct Use Pilot Program and a Stormwater for Recharge Pilot Program to study the feasibility of reusing stormwater to help meet regional demands in Southern California. These pilot programs are intended to encourage the development, monitoring, and study of new and existing stormwater projects by providing financial incentives for their construction/retrofit and monitoring/reporting costs. These pilot programs will help evaluate the potential benefits delivered by stormwater capture projects and provide a basis for potential future funding approaches. Metropolitan's Board authorized a total of $12.5 million for the stormwater pilot programs ($5 million for the District Use Pilot and $7.5 million for the Recharge Pilot).

*Current Status and Results of Metropolitan's Local Resource Programs*

Today, nearly one-half of the total recycled water and groundwater recovery production in the region has been developed with an incentive from one or more of Metropolitan's local resource programs. During fiscal year 2020, Metropolitan provided about $13 million for production of 71,000 acre-feet of recycled water for non-potable and indirect potable uses. Metropolitan provided about $4 million to support projects that produced about 50,000 acre-

feet of recovered groundwater for municipal use. Since 1982, Metropolitan has invested $680 million to fund 85 recycled water projects and 27 groundwater recovery projects that have produced a cumulative total of about 4 million acre-feet.

Conservation Programs

Metropolitan's regional conservation programs and approaches have a long history. Decades ago, Metropolitan recognized that demand management at the consumer level would be an important part of balancing regional supplies and demands. Water conservation efforts were seen as a way to reduce the need for imported supplies and offset the need to transport or store additional water into or within the Metropolitan service area. The actual conservation of water takes place at the retail consumer level. Regional conservation approaches have proven to be effective at reaching retail consumers throughout Metropolitan's service area and successfully implementing water saving devices, programs and practices. Through the pooling of funding by Metropolitan's member agencies, Metropolitan is able to engage in regional campaigns with wide-reaching impact. Regional investments in demand management programs, of which conservation is a key part along with local supply programs, benefit all member agencies regardless of project location. These programs help to increase regional water supply reliability, reduce demands for imported water supplies, decrease the burden on Metropolitan's infrastructure, reduce system costs, and free up conveyance capacity to the benefit of all member agencies.

*Incentive-Based Conservation Programs*

*Conservation Credits Program*

In 1988, Metropolitan's Board approved the Water Conservation Credits Program (Credits Program). The Credits Program is similar in concept to the Local Projects Program (LPP). The purpose of the Credits Program is to encourage local water agencies to implement effective water conservation projects through the use of financial incentives. The Credits Program provides financial assistance for water conservation projects that reduce demands on Metropolitan's imported water supplies and require Metropolitan's assistance to be financially feasible.

Initially, the Credits Program provided 50 percent of a member agency's program cost, up to a maximum of $75 per acre-foot of estimated water savings. The $75 Base Conservation Rate was established based Metropolitan's avoided cost of pumping SWP supplies. The Base Conservation Rate has been revisited by Metropolitan's Board and revised twice since 1988, from $75 to $154 per acre-foot in 1990 and from $154 to $195 per acre-foot in 2005.

In fiscal year 2020 Metropolitan processed more than 30,400 rebate applications totaling $18.9 million.

*Member Agency Administered Program*

Some member agencies also have unique programs within their service areas that provide local rebates that may differ from Metropolitan's regional program. Metropolitan continues to support these local efforts through a member agency administered funding program that adheres to the same funding guidelines as the Credits Program. The Member Agency Administered Program allows member agencies to receive funding for local conservation efforts that supplement, but do not duplicate, the rebates offered through Metropolitan's regional rebate program.

*Water Savings Incentive Program*

There are numerous commercial entities and industries within Metropolitan's service area that pursue unique savings opportunities that do not fall within the general rebate programs that Metropolitan provides. In 2012, Metropolitan designed the Water Savings Incentive Program (WSIP) to target these unique commercial and industrial projects. In addition to rebates for devices, under this program, Metropolitan provides financial incentives to businesses and industries that created their own custom water efficiency projects. Qualifying custom projects can receive funding for permanent water efficiency changes that result in reduced potable demand.

*Non-Incentive Conservation Programs*

In addition to its incentive-based conservation programs, Metropolitan also undertakes additional efforts throughout its service area that help achieve water savings without the use of rebates. Metropolitan's non-incentive conservation efforts include:

- residential and professional water efficient landscape training classes

- water audits for large landscapes
- research, development and studies of new water saving technologies
- advertising and outreach campaigns
- community outreach and education programs
- advocacy for legislation, codes, and standards that lead to increased water savings

*Current Status and Results of Metropolitan's Conservation Programs*

Since 1990, Metropolitan has invested $824 million in conservation rebates that have resulted in a cumulative savings of 3.27 million acre-feet of water. These investments include $450 million in turf removal and other rebates during the last drought which resulted in 175 million square feet of lawn turf removed. During fiscal year 2020, 1.06 million acre-feet of water is estimated to have been conserved. This annual total includes Metropolitan's Conservation Credits Program; code-based conservation achieved through Metropolitan-sponsored legislation; building plumbing codes and ordinances; reduced consumption resulting from changes in water pricing; and pre-1990 device retrofits.

**Infeasibility of Accounting Regional Investments in Reduced Reliance Below the Regional Level**

The accounting of regional investments that contribute to reduced reliance on supplies from the Delta watershed is straightforward to calculate and report at the regional aggregate level. However, any similar accounting is infeasible for the individual member agencies or their customers. As described above, the region (through Metropolitan) makes significant investments in projects, programs and other resources that reduce reliance on the Delta. In fact, all of Metropolitan's investments in Colorado River supplies, groundwater and surface storage, local resources development and demand management measures that reduce reliance on the Delta are collectively funded by revenues generated from the member agencies through rates and charges.

Metropolitan's revenues cannot be matched to the demands or supply production history of an individual agency, or consistently across the agencies within the service area. Each project or program funded by the region has a different online date, useful life, incentive rate and structure, and production schedule. It is infeasible to account for all these things over the life of each project or program and provide a nexus to each member agency's contributions to Metropolitan's revenue stream over time. Accounting at the regional level allows for the incorporation of the local supplies and water use efficiency programs done by member agencies and their customers through both the regional programs and through their own specific local programs. As shown above, despite the infeasibility of accounting reduced Delta reliance below the regional level, Metropolitan's member agencies and their customers have together made substantial contributions to the region's reduced reliance.

**References**


http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2017/12-Dec/Reports/064863458.pdf

http://www.mwdh2o.com/PDF_About_Your_Water/Annual_Achievement_Report.pdf

http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2016/12-Dec/Reports/064845868.pdf

http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2012/05%20-%20May/Letters/064774100.pdf

http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2020/10%20-%20Oct/Letters/10132020%20BOD%209-3%20B-L.pdf

http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2001/10-October/Letters/003909849.pdf

# APPENDIX D

## SBx7-7 Verification and Compliance Forms

| **SB X7-7 Table 0: Units of Measure Used in UWMP*** *(select one from the drop down list)* |
| --- |
| Acre Feet |
| **The unit of measure must be consistent with Submittal Table 2-3* |
| NOTES: |

| SB X7-7 Table-1: Baseline Period Ranges | | | |
|---|---|---|---|
| **Baseline** | **Parameter** | **Value** | **Units** |
| **10- to 15-year baseline period** | 2008 total water deliveries | 11,043 | Acre Feet |
| | 2008 total volume of delivered recycled water | 379 | Acre Feet |
| | 2008 recycled water as a percent of total deliveries | 3% | **See Note 1** |
| | Number of years in baseline period[1, 2] | 10 | Years |
| | Year beginning baseline period range | 1996 | |
| | Year ending baseline period range[3] | 2005 | |
| **5-year baseline period** | Number of years in baseline period | 5 | Years |
| | Year beginning baseline period range | 2004 | |
| | Year ending baseline period range[4] | 2008 | |

[1] *If the 2008 recycled water delivery is less than 10 percent of total water deliveries, then the 10-15year baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10- to 15-year period.*

[2] *The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.*

[3] *The ending year for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.*

[4] *The ending year for the 5 year baseline period must be between December 31, 2007 and December 31, 2010.*

NOTES:

| SB X7-7 Table 2: Method for Population Estimates | |
|---|---|
| **Method Used to Determine Population** (may check more than one) | |
| ☑ | **1. Department of Finance** (DOF) or **American Community Survey** (ACS) |
| ☐ | **2. Persons-per-Connection Method** |
| ☐ | **3. DWR Population Tool** |
| ☐ | **4. Other**<br>DWR recommends pre-review |
| NOTES: | |

| SB X7-7 Table 3: Service Area Population | | |
|---|---|---|
| Year | | Population |
| 10 to 15 Year Baseline Population | | |
| Year 1 | 1996 | 46,747 |
| Year 2 | 1997 | 47,402 |
| Year 3 | 1998 | 48,117 |
| Year 4 | 1999 | 48,829 |
| Year 5 | 2000 | 49,796 |
| Year 6 | 2001 | 49,716 |
| Year 7 | 2002 | 49,683 |
| Year 8 | 2003 | 49,595 |
| Year 9 | 2004 | 49,351 |
| Year 10 | 2005 | 48,890 |
| *Year 11* | | |
| *Year 12* | | |
| *Year 13* | | |
| *Year 14* | | |
| *Year 15* | | |
| 5 Year Baseline Population | | |
| Year 1 | 2004 | 49,351 |
| Year 2 | 2005 | 48,890 |
| Year 3 | 2006 | 48,417 |
| Year 4 | 2007 | 48,065 |
| Year 5 | 2008 | 47,895 |
| NOTES: | | |

| SB X7-7 Table 4: Annual Gross Water Use * | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Deductions | | | | | Acre Feet |
| **Baseline Year** *Fm SB X7-7 Table 3* | | **Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.* | **Exported Water** | **Change in Dist. System Storage** (+/-) | **Indirect Recycled Water** *This column will remain blank until SB X7-7 Table 4-B is completed.* | **Water Delivered for Agricultural Use** | **Process Water** *This column will remain blank until SB X7-7 Table 4-D is completed.* | **Annual Gross Water Use** |
| 10 to 15 Year Baseline - Gross Water Use | | | | | | | | |
| Year 1 | 1996 | 11,102 | | | - | | - | 11,102 |
| Year 2 | 1997 | 11,607 | | | - | | - | 11,607 |
| Year 3 | 1998 | 10,115 | | | - | | - | 10,115 |
| Year 4 | 1999 | 11,010 | | | - | | - | 11,010 |
| Year 5 | 2000 | 11,881 | | | - | | - | 11,881 |
| Year 6 | 2001 | 10,959 | | | - | | - | 10,959 |
| Year 7 | 2002 | 11,201 | | | - | | - | 11,201 |
| Year 8 | 2003 | 11,736 | | | - | | - | 11,736 |
| Year 9 | 2004 | 11,420 | | | - | | - | 11,420 |
| Year 10 | 2005 | 10,317 | | | - | | - | 10,317 |
| *Year 11* | 0 | - | | | - | | - | - |
| *Year 12* | 0 | - | | | - | | - | - |
| *Year 13* | 0 | - | | | - | | - | - |
| *Year 14* | 0 | - | | | - | | - | - |
| *Year 15* | 0 | - | | | - | | - | - |
| **10 - 15 year baseline average gross water use** | | | | | | | | **11,135** |
| 5 Year Baseline - Gross Water Use | | | | | | | | |
| Year 1 | 2004 | 11,420 | | | - | | - | 11,420 |
| Year 2 | 2005 | 10,317 | | | - | | - | 10,317 |
| Year 3 | 2006 | 10,488 | | | - | | - | 10,488 |
| Year 4 | 2007 | 11,539 | | | - | | - | 11,539 |
| Year 5 | 2008 | 11,043 | | | - | | - | 11,043 |
| **5 year baseline average gross water use** | | | | | | | | **10,961** |

*** Units of measure** (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.

NOTES:

**SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment**

Complete one table for each source.

| **Name of Source** | Surface Water |
|---|---|
| **This water source is** *(check one)* **:** | |
| ☑ | The supplier's own water source |
| ☐ | A purchased or imported source |

| **Compliance Year 2020** | Volume Entering Distribution System [1] | Meter Error Adjustment [2] *Optional (+/-)* | Corrected Volume Entering Distribution System |
|---|---|---|---|
| | 352 | - | 352 |

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.*

[2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES

## SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

| Name of Source | MWDOC/MET |
|---|---|
| **This water source is:** | |
| ☐ | The supplier's own water source |
| ☑ | A purchased or imported source |

| **Baseline Year** *Fm SB X7-7 Table 3* | | Volume Entering Distribution System[1] | Meter Error Adjustment [2] *Optional (+/-)* | Corrected Volume Entering Distribution System |
|---|---|---|---|---|
| **10 to 15 Year Baseline - Water into Distribution System** | | | | |
| Year 1 | 1996 | 11,102 | | 11,102 |
| Year 2 | 1997 | 11,607 | | 11,607 |
| Year 3 | 1998 | 10,115 | | 10,115 |
| Year 4 | 1999 | 11,010 | | 11,010 |
| Year 5 | 2000 | 11,881 | | 11,881 |
| Year 6 | 2001 | 10,959 | | 10,959 |
| Year 7 | 2002 | 11,201 | | 11,201 |
| Year 8 | 2003 | 11,736 | | 11,736 |
| Year 9 | 2004 | 11,420 | | 11,420 |
| Year 10 | 2005 | 10,317 | | 10,317 |
| *Year 11* | 0 | | | - |
| *Year 12* | 0 | | | - |
| *Year 13* | 0 | | | - |
| *Year 14* | 0 | | | - |
| *Year 15* | 0 | | | - |
| **5 Year Baseline - Water into Distribution System** | | | | |
| Year 1 | 2004 | 11,420 | | 11,420 |
| Year 2 | 2005 | 10,317 | | 10,317 |
| Year 3 | 2006 | 10,488 | | 10,488 |
| Year 4 | 2007 | 11,539 | | 11,539 |
| Year 5 | 2008 | 11,043 | | 11,043 |

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

[2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

**SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction** *(For use only by agencies that are deducting indirect recycled water)*

| **Baseline Year** *Fm SB X7-7 Table 3* | | Surface Reservoir Augmentation | | | | | Groundwater Recharge | | | **Total Deductible Volume of Indirect Recycled Water Entering the Distribution System** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume Discharged from Reservoir for Distribution System Delivery [1] | Percent Recycled Water | Recycled Water Delivered to Treatment Plant | Transmission/ Treatment Loss [1] | Recycled Volume Entering Distribution System from Surface Reservoir Augmentation | Recycled Water Pumped by Utility [1, 2] | Transmission/ Treatment Losses [1] | Recycled Volume Entering Distribution System from Groundwater Recharge | |
| 10-15 Year Baseline - Indirect Recycled Water Use | | | | | | | | | | |
| Year 1 | 1996 | | | - | | - | | | - | - |
| Year 2 | 1997 | | | - | | - | | | - | - |
| Year 3 | 1998 | | | - | | - | | | - | - |
| Year 4 | 1999 | | | - | | - | | | - | - |
| Year 5 | 2000 | | | - | | - | | | - | - |
| Year 6 | 2001 | | | - | | - | | | - | - |
| Year 7 | 2002 | | | - | | - | | | - | - |
| Year 8 | 2003 | | | - | | - | | | - | - |
| Year 9 | 2004 | | | - | | - | | | - | - |
| Year 10 | 2005 | | | - | | - | | | - | - |
| *Year 11* | 0 | | | - | | - | | | - | - |
| *Year 12* | 0 | | | - | | - | | | - | - |
| *Year 13* | 0 | | | - | | - | | | - | - |
| *Year 14* | 0 | | | - | | - | | | - | - |
| *Year 15* | 0 | | | - | | - | | | - | - |
| 5 Year Baseline - Indirect Recycled Water Use | | | | | | | | | | |
| Year 1 | 2004 | | | - | | - | | | - | - |
| Year 2 | 2005 | | | - | | - | | | - | - |
| Year 3 | 2006 | | | - | | - | | | - | - |
| Year 4 | 2007 | | | - | | - | | | - | - |
| Year 5 | 2008 | | | - | | - | | | - | - |

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

[2] *Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

NOTES:

| **SB X7-7 Table 4-C: Process Water Deduction Eligibility**<br>*(For use only by agencies that are deducting process water) Choose Only One* | |
|---|---|
| ❑ | **Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use.<br>Complete SB X7-7 Table 4-C.1 |
| ❑ | **Criteria 2** - Industrial water use is equal to or greater than 15 GPCD.<br>Complete SB X7-7 Table 4-C.2 |
| ❑ | **Criteria 3** - Non-industrial use is equal to or less than 120 GPCD.<br>Complete SB X7-7 Table 4-C.3 |
| ❑ | **Criteria 4** - Disadvantaged Community.<br>Complete SB x7-7 Table 4-C.4 |
| NOTES: | |

**SB X7-7 Table 4-C.1: Process Water Deduction Eligibility**

**Criteria 1**
Industrial water use is equal to or greater than 12% of gross water use

| **Baseline Year** *Fm SB X7-7 Table 3* | | Gross Water Use Without Process Water Deduction | Industrial Water Use * | Percent Industrial Water | **Eligible for Exclusion Y/N** |
|---|---|---|---|---|---|
| 10 to 15 Year Baseline - Process Water Deduction Eligibility | | | | | |
| Year 1 | 1996 | 11,102 | | 0% | NO |
| Year 2 | 1997 | 11,607 | | 0% | NO |
| Year 3 | 1998 | 10,115 | | 0% | NO |
| Year 4 | 1999 | 11,010 | | 0% | NO |
| Year 5 | 2000 | 11,881 | | 0% | NO |
| Year 6 | 2001 | 10,959 | | 0% | NO |
| Year 7 | 2002 | 11,201 | | 0% | NO |
| Year 8 | 2003 | 11,736 | | 0% | NO |
| Year 9 | 2004 | 11,420 | | 0% | NO |
| Year 10 | 2005 | 10,317 | | 0% | NO |
| *Year 11* | 0 | - | | | NO |
| *Year 12* | 0 | - | | | NO |
| *Year 13* | 0 | - | | | NO |
| *Year 14* | 0 | - | | | NO |
| *Year 15* | 0 | - | | | NO |
| 5 Year Baseline - Process Water Deduction Eligibility | | | | | |
| Year 1 | 2004 | 11,420 | | 0% | NO |
| Year 2 | 2005 | 10,317 | | 0% | NO |
| Year 3 | 2006 | 10,488 | | 0% | NO |
| Year 4 | 2007 | 11,539 | | 0% | NO |
| Year 5 | 2008 | 11,043 | | 0% | NO |

*** Units of Measure** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

NOTES:

## SB X7-7 Table 4-C.2: Process Water Deduction Eligibility

### Criteria 2

Industrial water use is equal to or greater than 15 GPCD

| **Baseline Year** *Fm SB X7-7 Table 3* | | Industrial Water Use * | Population | Industrial GPCD | **Eligible for Exclusion Y/N** |
|---|---|---|---|---|---|
| 10 to 15 Year Baseline - Process Water Deduction Eligibility | | | | | |
| Year 1 | 1996 | | 46,747 | - | NO |
| Year 2 | 1997 | | 47,402 | - | NO |
| Year 3 | 1998 | | 48,117 | - | NO |
| Year 4 | 1999 | | 48,829 | - | NO |
| Year 5 | 2000 | | 49,796 | - | NO |
| Year 6 | 2001 | | 49,716 | - | NO |
| Year 7 | 2002 | | 49,683 | - | NO |
| Year 8 | 2003 | | 49,595 | - | NO |
| Year 9 | 2004 | | 49,351 | - | NO |
| Year 10 | 2005 | | 48,890 | - | NO |
| *Year 11* | 0 | | - | | NO |
| *Year 12* | 0 | | - | | NO |
| *Year 13* | 0 | | - | | NO |
| *Year 14* | 0 | | - | | NO |
| *Year 15* | 0 | | - | | NO |
| 5 Year Baseline - Process Water Deduction Eligibility | | | | | |
| Year 1 | 2004 | | 49,351 | - | NO |
| Year 2 | 2005 | | 48,890 | - | NO |
| Year 3 | 2006 | | 48,417 | - | NO |
| Year 4 | 2007 | | 48,065 | - | NO |
| Year 5 | 2008 | | 47,895 | - | NO |

**** Units of Measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

NOTES:

| SB X7-7 Table 4-C.3: Process Water Deduction Eligibility | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Criteria 3**<br>Non-industrial use is equal to or less than 120 GPCD | | | | | | | |
| **Baseline Year**<br>*Fm SB X7-7 Table 3* | | Gross Water Use Without Process Water Deduction<br>*Fm SB X7-7 Table 4* | Industrial Water Use * | Non-industrial Water Use | Population<br>*Fm SB X7-7 Table 3* | Non-Industrial GPCD | **Eligible for Exclusion Y/N** |
| 10 to 15 Year Baseline - Process Water Deduction Eligibility | | | | | | | |
| Year 1 | 1996 | 11,102 | | 11,102 | 46,747 | 212 | NO |
| Year 2 | 1997 | 11,607 | | 11,607 | 47,402 | 219 | NO |
| Year 3 | 1998 | 10,115 | | 10,115 | 48,117 | 188 | NO |
| Year 4 | 1999 | 11,010 | | 11,010 | 48,829 | 201 | NO |
| Year 5 | 2000 | 11,881 | | 11,881 | 49,796 | 213 | NO |
| Year 6 | 2001 | 10,959 | | 10,959 | 49,716 | 197 | NO |
| Year 7 | 2002 | 11,201 | | 11,201 | 49,683 | 201 | NO |
| Year 8 | 2003 | 11,736 | | 11,736 | 49,595 | 211 | NO |
| Year 9 | 2004 | 11,420 | | 11,420 | 49,351 | 207 | NO |
| Year 10 | 2005 | 10,317 | | 10,317 | 48,890 | 188 | NO |
| *Year 11* | 0 | - | | - | - | | NO |
| *Year 12* | 0 | - | | - | - | | NO |
| *Year 13* | 0 | - | | - | - | | NO |
| *Year 14* | 0 | - | | - | - | | NO |
| *Year 15* | 0 | - | | - | - | | NO |
| 5 Year Baseline - Process Water Deduction Eligibility | | | | | | | |
| Year 1 | 2004 | 11,420 | | 11,420 | 49,351 | 207 | NO |
| Year 2 | 2005 | 10,317 | | 10,317 | 48,890 | 188 | NO |
| Year 3 | 2006 | 10,488 | | 10,488 | 48,417 | 193 | NO |
| Year 4 | 2007 | 11,539 | | 11,539 | 48,065 | 214 | NO |
| Year 5 | 2008 | 11,043 | | 11,043 | 47,895 | 206 | NO |
| **** Units of Measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.* | | | | | | | |
| NOTES: | | | | | | | |

## SB X7-7 Table 4-C.4: Process Water Deduction Eligibility

**Criteria 4**

Disadvantaged Community. A "Disadvantaged Community" (DAC) is a community with a median household income less than 80 percent of the statewide average.

**SELECT ONE**

"Disadvantaged Community" status was determined using one of the methods listed below:

☐ **1. IRWM DAC Mapping tool https://gis.water.ca.gov/app/dacs/**

If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.

☐ **2. 2010 Median Income**

| California Median Household Income | | Service Area Median Household Income | Percentage of Statewide Average | **Eligible for Exclusion? Y/N** |
|---|---|---|---|---|
| 2010 | $60,883 | | 0% | YES |

NOTES:

**SB X7-7 Table 4-D: Process Water Deduction - Volume**

*Complete a separate table for each industrial customer with a process water exclusion*

| **Name of Industrial Customer** | | *Enter Name of Industrial Customer 1* | | | | |
|---|---|---|---|---|---|---|
| **Baseline Year** *Fm SB X7-7 Table 3* | | Industrial Customer's Total Water Use * | Total Volume Supplied by Water Agency* | % of Water Supplied by Water Agency | Customer's Total Process Water Use* | Volume of Process Water Eligible for Exclusion for this Customer |
| **10 to 15 Year Baseline - Process Water Deduction** | | | | | | |
| Year 1 | 1996 | | | | | - |
| Year 2 | 1997 | | | | | - |
| Year 3 | 1998 | | | | | - |
| Year 4 | 1999 | | | | | - |
| Year 5 | 2000 | | | | | - |
| Year 6 | 2001 | | | | | - |
| Year 7 | 2002 | | | | | - |
| Year 8 | 2003 | | | | | - |
| Year 9 | 2004 | | | | | - |
| Year 10 | 2005 | | | | | - |
| *Year 11* | 0 | | | | | - |
| *Year 12* | 0 | | | | | - |
| *Year 13* | 0 | | | | | - |
| *Year 14* | 0 | | | | | - |
| *Year 15* | 0 | | | | | - |
| **5 Year Baseline - Process Water Deduction** | | | | | | |
| Year 1 | 2004 | | | | | - |
| Year 2 | 2005 | | | | | - |
| Year 3 | 2006 | | | | | - |
| Year 4 | 2007 | | | | | - |
| Year 5 | 2008 | | | | | - |

**** Units of Measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

NOTES:

| SB X7-7 Table 5: Baseline Gallons Per Capita Per Day (GPCD) | | | | |
|---|---|---|---|---|
| **Baseline Year** *Fm SB X7-7 Table 3* | | Service Area Population *Fm SB X7-7 Table 3* | Annual Gross Water Use *Fm SB X7-7 Table 4* | Daily Per Capita Water Use (GPCD) |
| 10 to 15 Year Baseline GPCD | | | | |
| Year 1 | 1996 | 46,747 | 11,102 | 212 |
| Year 2 | 1997 | 47,402 | 11,607 | 219 |
| Year 3 | 1998 | 48,117 | 10,115 | 188 |
| Year 4 | 1999 | 48,829 | 11,010 | 201 |
| Year 5 | 2000 | 49,796 | 11,881 | 213 |
| Year 6 | 2001 | 49,716 | 10,959 | 197 |
| Year 7 | 2002 | 49,683 | 11,201 | 201 |
| Year 8 | 2003 | 49,595 | 11,736 | 211 |
| Year 9 | 2004 | 49,351 | 11,420 | 207 |
| Year 10 | 2005 | 48,890 | 10,317 | 188 |
| *Year 11* | 0 | - | - | |
| *Year 12* | 0 | - | - | |
| *Year 13* | 0 | - | - | |
| *Year 14* | 0 | - | - | |
| *Year 15* | 0 | - | - | |
| **10-15 Year Average Baseline GPCD** | | | | **204** |
| 5 Year Baseline GPCD | | | | |
| **Baseline Year** *Fm SB X7-7 Table 3* | | Service Area Population *Fm SB X7-7 Table 3* | Gross Water Use *Fm SB X7-7 Table 4* | Daily Per Capita Water Use |
| Year 1 | 2004 | 49,351 | 11,420 | 207 |
| Year 2 | 2005 | 48,890 | 10,317 | 188 |
| Year 3 | 2006 | 48,417 | 10,488 | 193 |
| Year 4 | 2007 | 48,065 | 11,539 | 214 |
| Year 5 | 2008 | 47,895 | 11,043 | 206 |
| **5 Year Average Baseline GPCD** | | | | **202** |
| NOTES: | | | | |

| **SB X7-7 Table 6: Baseline GPCD** *From Table SB X7-7 Table 5* | *Summary* |
|---|---|
| 10-15 Year Baseline GPCD | 204 |
| 5 Year Baseline GPCD | 202 |
| NOTES: | |

| **SB X7-7 Table 7: 2020 Target Method**<br>*Select Only One* | | |
|---|---|---|
| **Target Method** | | **Supporting Tables** |
| ☑ | Method 1 | SB X7-7 Table 7A |
| ☐ | Method 2 | SB X7-7 Tables 7B, 7C, and 7D |
| ☐ | Method 3 | SB X7-7 Table 7-E |
| ☐ | Method 4 | Method 4 Calculator *Located in the WUE Data Portal at wuedata.water.ca.gov* Resources *button* |
| NOTES: | | |

| **SB X7-7 Table 7-A: Target Method 1**<br>20% Reduction | |
|---|---|
| 10-15 Year Baseline<br>GPCD | **2020 Target<br>GPCD** |
| 204 | **163** |
| NOTES: | |

| SB X7-7 Table 7-B: Target Method 2 | | |
|---|---|---|
| Target Landscape Water Use | | |
| Units of Measure | | Acre Feet |
| Reference Evapotranspiration Rate (ET0)[1] for Service Area (inches/year) | | |
| **Acres of Irrigated Landscape and Applicable ETAF** | **Acres** | **Water Use[3]** |
| Acres of landscape installed pre-2010 (ETAF 0.8)[2] | | - |
| Acres of landscape installed post-2010 (ETAF 0.7)[2] | | - |
| Acres of residential landscape installed post 2015 (ETAF .55) | | - |
| Acres of CII landscape installed post 2015 (ETAF .45) | | - |
| Acres of Special Landscape Area (ETAF 1.0)[2] | | - |
| **Target Landscape Water Use for 2020** | | **-** |

*[1] ETo information can be found at https://cimis.water.ca.gov. If the water supplier's service area spans more than one ETo Zone, the supplier will use multiple versions of SB X7-7 Table 7B for each ETo zone that they serve.*

*[2] ETAF - Evapotranspiration Adjustment Factor. Refer to the Model Water Efficient Landscape Ordinance at https://water.ca.gov/Programs/Water-Use-And-Efficiency/Model-Water-Efficient-Landscape-Ordinance*

*[3] Water Use Unit of Measure (AF, MG, CCF) is automatically converted to the units selected by the user in Table 0.*

NOTES

**SB X7-7 Table 7-C: Target Method 2**

Target CII Water Use

| Baseline Year *Fm SB X7-7 Table 3* | | CII Water Use [1,2] | Process Water Exclusion (Optional) *Fm SB X7-7 Table 4* | CII Water Use Minus Process Water | Population *Fm SB X7-7 Table 3* | CII GPCD |
|---|---|---|---|---|---|---|
| **Unit of Measure** | | | | | | **Acre Feet** |
| Year 1 | 1996 | | 0 | 0 | 46,747 | 0 |
| Year 2 | 1997 | | 0 | 0 | 47,402 | 0 |
| Year 3 | 1998 | | 0 | 0 | 48,117 | 0 |
| Year 4 | 1999 | | 0 | 0 | 48,829 | 0 |
| Year 5 | 2000 | | 0 | 0 | 49,796 | 0 |
| Year 6 | 2001 | | 0 | 0 | 49,716 | 0 |
| Year 7 | 2002 | | 0 | 0 | 49,683 | 0 |
| Year 8 | 2003 | | 0 | 0 | 49,595 | 0 |
| Year 9 | 2004 | | 0 | 0 | 49,351 | 0 |
| Year 10 | 2005 | | 0 | 0 | 48,890 | 0 |
| *Year 11* | 0 | | 0 | 0 | - | |
| *Year 12* | 0 | | 0 | 0 | - | |
| *Year 13* | 0 | | 0 | 0 | - | |
| *Year 14* | 0 | | 0 | 0 | - | |
| *Year 15* | 0 | | 0 | 0 | - | |
| Average Annual 10 to 15 Year Baseline CII Water Use (GPCD) | | | | | | 0 |
| 10% Reduction | | | | | | 0.0 |
| **2020 Target CII Water Use** | | | | | | **0** |

[1] *CII water use for each year of the baseline period must be provided by the user.*

[2] *Units of measure (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

NOTES

| SB X7-7 Table 7-D: Target Method 2 Summary | | |
|---|---|---|
| **2020 Population** | | 47,911 |
| **Sector** | **Volume** **Acre Feet** | **GPCD** |
| Target Indoor Residential Water Use | 2,952 | 55 |
| Target Landscape Water Use* *From SB X7-7 Table 7-B* | - | 0 |
| Target CII Water Use *From SB X7-7 Table 7-C* | - | 0 |
| **2020 Target** | 2,952 | **55** |

**Additional rows may be added for Target Landscape Water Use if the service area spans more than one Eto Zone.*

NOTES:

| SB X7-7 Table 7-E: Target Method 3 | | | | |
|---|---|---|---|---|
| Agency May Select More Than One as Applicable | Percentage of Service Area in This Hydrological Region | Hydrologic Region | "2020 Plan" Regional Targets | Method 3 Regional Targets (95%) |
| ☐ | | North Coast | 137 | 130 |
| ☐ | | North Lahontan | 173 | 164 |
| ☐ | | Sacramento River | 176 | 167 |
| ☐ | | San Francisco Bay | 131 | 124 |
| ☐ | | San Joaquin River | 174 | 165 |
| ☐ | | Central Coast | 123 | 117 |
| ☐ | | Tulare Lake | 188 | 179 |
| ☐ | | South Lahontan | 170 | 162 |
| ☑ | 100% | South Coast | 149 | 142 |
| ☐ | | Colorado River | 211 | 200 |
| | | | **2020 Target** *(If more than one region is selected, this value is calculated.)* | **142** |

NOTES:

| SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target | | | | | |
|---|---|---|---|---|---|
| 5 Year Baseline GPCD *From SB X7-7 Table 5* | Maximum 2020 Target[1] | **Calculated 2020 Target [2]** | | | **Confirmed 2020 Target[4]** |
| | | As calculated by supplier in this SB X7-7 Verification Form | **Special Situations[3]** | | |
| | | | Prorated 2020 Target | Population Weighted Average 2020 Target | |
| 202 | 192 | 163 | | | **163** |

[1] ***Maximum 2020 Target*** *is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD.*

[2] ***Calculated 2020 Target*** *is the target calculated by the Supplier based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target. Supplier may only enter one calculated target.*

[3] ***Prorated targets and population weighted target*** *are allowed for special situations only. These situations are described in Appendix P, Section P.3*

[4] ***Confirmed Target*** *is the lesser of the Calculated 2020 Target (C5, D5, or E5) or the Maximum 2020 Target (Cell B5)*

NOTES:

| **SB X7-7 Table 0: Units of Measure Used in 2020 UWMP*** *(select one from the drop down list)* |
| --- |
| Acre Feet |
| **The unit of measure must be consistent throughout the UWMP, as reported in Submittal Table 2-3.* |
| NOTES: |

| SB X7-7 Table 2: Method for 2020 Population Estimate | |
|---|---|
| **Method Used to Determine 2020 Population** (may check more than one) | |
| ☑ | **1. Department of Finance** (DOF) or **American Community Survey** (ACS) |
| ☐ | **2. Persons-per-Connection Method** |
| ☐ | **3. DWR Population Tool** |
| ☐ | **4. Other** DWR recommends pre-review |
| NOTES: | |

| SB X7-7 Table 3: 2020 Service Area Population | |
|---|---|
| **2020 Compliance Year Population** | |
| **2020** | 47,911 |
| NOTES: | |

| SB X7-7 Table 4: 2020 Gross Water Use | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Compliance Year 2020** | **2020 Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.* | **2020 Deductions** | | | | | **2020 Gross Water Use** |
| | | **Exported Water *** | **Change in Dist. System Storage*** (+/-) | **Indirect Recycled Water** *This column will remain blank until SB X7-7 Table 4-B is completed.* | **Water Delivered for Agricultural Use*** | **Process Water** *This column will remain blank until SB X7-7 Table 4-D is completed.* | |
| | 7,167 | | | - | | - | **7,167** |

*** Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES:

**SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s) Meter Error Adjustment**

Complete one table for each source.

| **Name of Source** | MWDOC/MET |
|---|---|

**This water source is** *(check one)* **:**

| | |
|---|---|
| ☐ | The supplier's own water source |
| ☑ | A purchased or imported source |

| **Compliance Year 2020** | Volume Entering Distribution System [1] | Meter Error Adjustment [2] *Optional (+/-)* | Corrected Volume Entering Distribution System |
|---|---|---|---|
| | 6,815 | | 6,815 |

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

| **SB X7-7 Table 4-B: 2020 Indirect Recycled Water Use Deduction** *(For use only by agencies that are deducting indirect recycled water)* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **2020 Compliance Year** | **2020 Surface Reservoir Augmentation** | | | | | **2020 Groundwater Recharge** | | | **Total Deductible Volume of Indirect Recycled Water Entering the Distribution System** |
| | Volume Discharged from Reservoir for Distribution System Delivery[1] | Percent Recycled Water | Recycled Water Delivered to Treatment Plant | Transmission/ Treatment Loss[1] | Recycled Volume Entering Distribution System from Surface Reservoir Augmentation | Recycled Water Pumped by Utility[1,2] | Transmission/ Treatment Losses[1] | Recycled Volume Entering Distribution System from Groundwater Recharge | |
| | | | - | | - | | | - | - |

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.*

[2] *Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

| SB X7-7 Table 4-C: 2020 Process Water Deduction Eligibility<br>(For use only by agencies that are deducting process water) Choose Only One | |
|---|---|
| ☐ | **Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use.<br>Complete SB X7-7 Table 4-C.1 |
| ☐ | **Criteria 2** - Industrial water use is equal to or greater than 15 GPCD.<br>Complete SB X7-7 Table 4-C.2 |
| ☐ | **Criteria 3** - Non-industrial use is equal to or less than 120 GPCD.<br>Complete SB X7-7 Table 4-C.3 |
| ☐ | **Criteria 4** - Disadvantaged Community.<br>Complete SB x7-7 Table 4-C.4 |
| NOTES: | |

**SB X7-7 Table 4-C.1: 2020 Process Water Deduction Eligibility** *(For use only by agencies that are deducting process water using Criteria 1)*

**Criteria 1**

Industrial water use is equal to or greater than 12% of gross water use

| **2020 Compliance Year** | 2020 Gross Water Use Without Process Water Deduction | 2020 Industrial Water Use | Percent Industrial Water | **Eligible for Exclusion Y/N** |
|---|---|---|---|---|
| | 7,167 | | 0% | NO |

NOTES:

**SB X7-7 Table 4-C.2: 2020 Process Water Deduction Eligibility** *(For use only by agencies that are deducting process water using Criteria 2)*

**Criteria 2**
Industrial water use is equal to or greater than 15 GPCD

| **2020 Compliance Year** | 2020 Industrial Water Use | 2020 Population | 2020 Industrial GPCD | **Eligible for Exclusion Y/N** |
|---|---|---|---|---|
| | | 47,911 | - | NO |

NOTES:

**SB X7-7 Table 4-C.3: 2020 Process Water Deduction Eligibility** *(For use only by agencies that are deducting process water using Criteria 3)*

**Criteria 3**
Non-industrial use is equal to or less than 120 GPCD

| **2020 Compliance Year** | 2020 Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4* | 2020 Industrial Water Use | 2020 Non-industrial Water Use | 2020 Population *Fm SB X7-7 Table 3* | Non-Industrial GPCD | **Eligible for Exclusion Y/N** |
|---|---|---|---|---|---|---|
| | 7,167 | | 7,167 | 47,911 | 134 | NO |

NOTES:

**SB X7-7 Table 4-C.4: 2020 Process Water Deduction Eligibility** ***(For** use only by agencies that are deducting process water using Criteria 4)*

**Criteria 4**

Disadvantaged Community. A "Disadvantaged Community" (DAC) is a community with a median household income less than 80 percent of the statewide average.

**SELECT ONE**

"Disadvantaged Community" status was determined using one of the methods listed below:

**1. IRWM DAC Mapping tool https://gis.water.ca.gov/app/dacs/**

| | |
|---|---|
| ☐ | If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC. |

**2. 2020 Median Income**

| | California Median Household Income* | | Service Area Median Household Income | Percentage of Statewide Average | **Eligible for Exclusion? Y/N** |
|---|---|---|---|---|---|
| ☐ | **2020** | **$75,235** | | 0% | YES |

*California median household income 2015 -2019 as reported in US Census Bureau QuickFacts.

NOTES

| **SB X7-7 Table 4-D: 2020 Process Water Deduction - Volume** *Complete a separate table for each industrial customer with a process water exclusion* | | | | | |
|---|---|---|---|---|---|
| **Name of Industrial Customer** | *Enter Name of Industrial Customer 1* | | | | |
| **Compliance Year 2020** | Industrial Customer's Total Water Use * | Total Volume Provided by Supplier* | % of Water Provided by Supplier | Customer's Total Process Water Use* | Volume of Process Water Eligible for Exclusion for this Customer |
| | | | | | - |
| * **Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3. | | | | | |
| NOTES: | | | | | |

| SB X7-7 Table 5: 2020 Gallons Per Capita Per Day (GPCD) | | |
|---|---|---|
| **2020 Gross Water** *Fm SB X7-7 Table 4* | **2020 Population** *Fm SB X7-7 Table 3* | **2020 GPCD** |
| 7,167 | 47,911 | **134** |
| NOTES: | | |

**SB X7-7 Table 9: 2020 Compliance**

| Actual 2020 GPCD[1] | Optional Adjustments to 2020 GPCD (Enter "0" if Adjustment Not Used) | | | TOTAL Adjustments[1] | Adjusted 2020 GPCD [1] *(Adjusted if applicable)* | 2020 Confirmed Target GPCD [1, 2] | **Did Supplier Achieve Targeted Reduction for 2020?** |
|---|---|---|---|---|---|---|---|
| | Extraordinary Events[1] | Weather Normalization[1] | Economic Adjustment[1] | | | | |
| 134 | - | - | - | - | 134 | 163 | **YES** |

[1] *All values are reported in GPCD*

[2] ***2020 Confirmed Target GPCD*** *is taken from the Supplier's SB X7-7 Verification Form Table SB X7-7, 7-F.*

NOTES:

# APPENDIX E

## 2021 OC Water Demand Forecast for MWDOC and OCWD Technical Memorandum

## Memorandum

*To:* *Rob Hunter, General Manager, MWDOC*
*John Kennedy, Assistant General Manager, OCWD*

*From:* *Dan Rodrigo, CDM Smith*

*Date:* *March 30, 2021*

*Subject:* *Orange County Water Demand Forecast for MWDOC and OCWD*

# Purpose and Background

For the purposes of water supply reliability planning and to support the preparation of 2020 UWMPs, CDM Smith prepared water demand forecasts for the MWDOC and OCWD service areas using a consistent forecast methodology. While the methodology was a bottoms-up approach—meaning water demand forecasts were developed for every retail water agency in Orange County—the results presented in this technical memorandum are for the total service areas for MWDOC and OCWD, as well as a total for Orange County. All retail water agencies were given an opportunity to review both the forecast methodology and forecast results to determine if they wanted to utilize the information for their own 2020 UWMPs and local planning.

CDM Smith developed and presented a draft forecast methodology to a meeting of both MWDOC and OCWD member agencies for input. CDM Smith then developed draft retail agency forecasts for agency review. Based on interest, several retail water agencies met with CDM Smith individually to refine assumptions specific to their agency. We believe these meetings with the retail agencies improved both the methodology and demand forecast results. In the end, six retail water agencies decided to utilize their own water demand forecast.

# Demand Forecast Methodology

Given the significant changes in residential water use in the past 5 years due to California plumbing codes and landscape ordinances, as well as substantial customer participation in agency rebates for water use efficiency programs, the focus of the forecast methodology was on single-family and multifamily residential sectors. This decision to focus more on residential sectors was also supported by the relatively constant commercial/institutional/industrial (CII) water demands on a per account basis for the last five years.

The forecast methodology for residential sectors also provided the ability to separate indoor vs outdoor water use to support agency reporting for California's indoor residential target of 55 gallons per capita per day (gpcd) by 2025 and approximately 50 gpcd by 2030.

The forecast methodology began with a retail water agency survey that asked for FY2018, 2019 and 2020 water use by major sector, including number of accounts (see Figure 1 for example survey for FY2018). If an agency provided recycled water to customers that information was also requested. All retail agencies had provided the requested information to MWDOC and OCWD by December of 2020.

**Figure 1. Member Agency Water Use Survey**

Please fill out **all** three worksheets for **FY Ending 2017-18, 2018-19, and 2019-20**.

Input billed water demand data by sector, use **either:** AFY, CCF, or GPD columns.

If non-residential sectors are combined for commercial, institutional, industrial, enter values under commercial sector and provide comments to indicate what is included.

Non-revenue water, the difference between total water production from all sources of water supply minus total billed water, includes system losses, fire protection, system flushing and meter error.

| FY Ending 2017-18 | | | | | |
|---|---|---|---|---|---|
| Water Demand by Billing Sector | Water Demand (AFY) | Water Demand (CCF) | Water Demand (GPD) | Number of Accounts | Comments |
| Residential, Single-Family | | | | | |
| Residential, Multifamily | | | | | |
| Government/Institutional | | | | | |
| Commercial | | | | | |
| Industrial | | | | | |
| Large Landscape (Irrigation) | | | | | |
| Recycled Water | | | | | |
| Other | | | | | |
| Total Consumptive Demand | | | | | |
| Non-Revenue Water | | | | | |
| Total Water Production | | | | | |

Given that FY 2018 was a slightly above-normal demand year (warmer/drier than average) and FY 2019 was a slightly below-normal demand year (cooler/wetter than average), water use from these two years were averaged to represent an average-year base water demand. FY 2020 was examined to determine potential impacts of the COVID-19 pandemic on water use.

## Residential Forecast Methodology

For the residential sectors (single-family and multifamily) the base year water demand was divided by households in order to get a total per unit water use (gallons per home per day). In order to split household water use into indoor and outdoor uses, three sources of information were used, along with professional judgement. The sources of information included: (1) *the Residential End Uses of Water* (Water Research Foundation, 2016); (2) California's plumbing codes and landscape ordinances; and (3) CA DWR's Model Water Efficient Landscape Ordinance (MWELO) calculator.

Three different periods of residential end uses of water were analyzed as follows:

- **Pre-2010 efficiency levels** – Has an average indoor water use that is considered to be moderately efficient, also does not include the most recent requirements for MWELO.
- **High-efficiency levels** – Includes the most recent plumbing codes that are considered to be highly efficient, and also includes the most recent requirements for MWELO.
- **Current average efficiency levels** – Represents the weighted average between pre-2010 efficiency and high efficiency levels, based on average age of homes for each retail water agency.

Table 1. Shows the three indoor single-family residential end uses of water for the three efficiency levels assumed for the Orange County water demand forecast.

**Table 1. Single-Family Residential Indoor End Uses of Water Used for OC Water Demand Forecast**

| Indoor Single-Family End Use of Water | Unit | Per Person Use Rate | Pre-2010 Efficiency Level | | High Efficiency Level | | Current Avg. Efficiency Level | |
|---|---|---|---|---|---|---|---|---|
| | | | Flow Rate per Day | Per Capita Use (gal/day) | Flow Rate per Day | Per Capita Use (gal/day) | Flow Rate per Day | Per Capita Use (gal/day) |
| Toilet (gal/flush) | gal/flush | 5 | 1.4 | 7.0 | 1.28 | 6.40 | 1.36 | 6.80 |
| Shower (gmp) | gal/min | 5.1 | 2.1 | 10.7 | 1.8 | 9.18 | 2.00 | 10.19 |
| Bathroom Faucet (gpm) | gal/min | 4.2 | 1.8 | 7.6 | 1.2 | 5.04 | 1.60 | 6.71 |
| Kitchen Faucet (gpm) | gal/min | 6.2 | 2.1 | 13.0 | 1.8 | 11.16 | 2.00 | 12.39 |
| Dishwashing | gal/load | 0.1 | 12 | 1.2 | 9 | 0.90 | 10.98 | 1.10 |
| Clotheswashing | gal/load | 0.3 | 30 | 9.0 | 28 | 8.40 | 29.32 | 8.80 |
| All Others | gal/day | 1 | 3.5 | 3.5 | 3 | 3.00 | 3.33 | 3.33 |
| Leaks | gal/day | 1 | 6.8 | 6.8 | 6.5 | 6.50 | 6.70 | 6.70 |
| **Total** | | | | **58.79** | | **50.58** | | **56.01** |

The multifamily residential uses were similar in magnitude as shown in Table 1, although slightly lower for certain end uses.

For outdoor residential water use, the indoor per capita total was multiplied by each retail agency-specific persons per household in order to get an indoor residential household water use (gallons per day per home), and then was subtracted from the base year total household water use for single-family and multifamily for each agency based on actual water use as reported by the agency surveys.

For illustrative purposes, the average single-family household water use for Orange County was derived showing indoor and outdoor water uses for both single-family and multifamily homes (see Figures 2 and 3).

**Figure 2. Single-Family Indoor and Outdoor Water Use per Household**

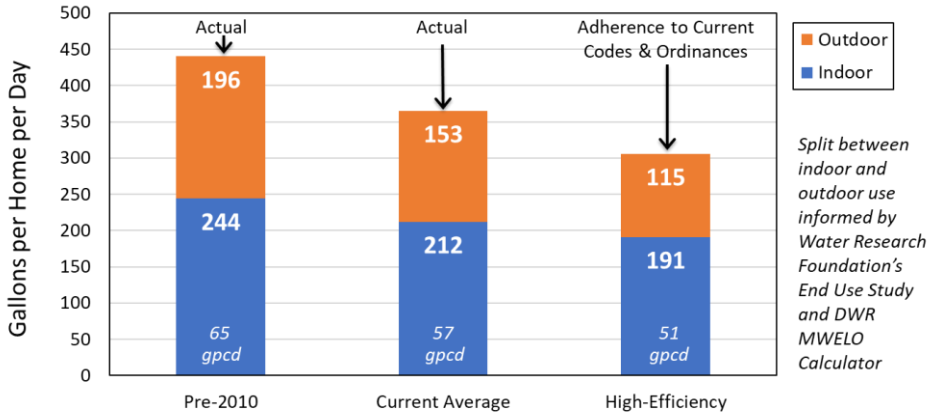
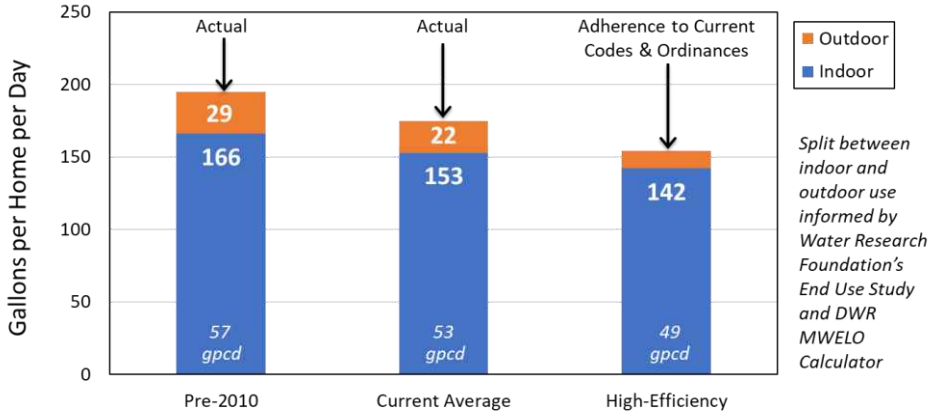



**Figure 3. Multifamily Indoor and Outdoor Water Use per Household**

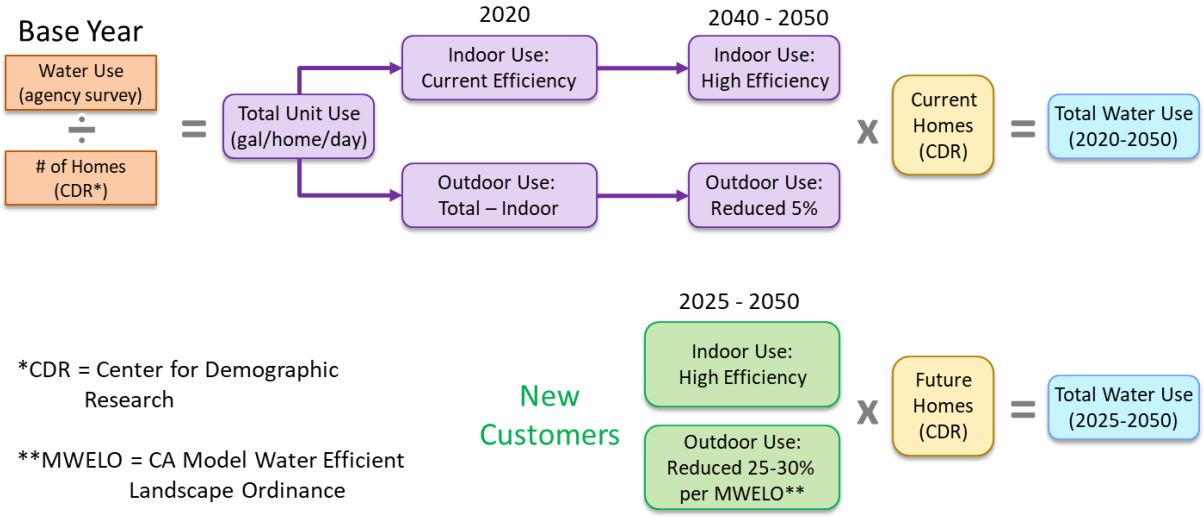


For existing residential homes, the current average indoor and outdoor water use (as illustrated in Figures 2 and 3) for each agency were used for the year 2020. It was assumed that indoor water uses would reach the high efficiency level by 2040. Based on current age of homes, replacement/remodeling rates, and water utility rebate programs it is believed this assumption is very achievable. It was also assumed that current outdoor water use would be reduced by 5% by 2050.

For new homes, the indoor high efficiency level was assumed for the years 2025 through 2050. Outdoor uses for new homes were assumed to be 25% and 30% lower than current household water use for single-family and multifamily homes, respectively.

The residential water demand methodology is depicted in Figure 4.

**Figure 4. Residential Water Demand Methodology for Orange County**




Existing and projected population, single-family and multifamily households for each retail water agency were provided by the Center for Demographic Research (CDR) under contract by MWDOC and OCWD. CDR provides historical and future demographics by census tracts for all of Orange County. Census tract data is then clipped to retail water agency service boundaries in order to produce historical and projected demographic data by agency.

## CII Forecast Methodology

For the CII water demands, which have been fairly stable from a unit use perspective (gallons/account/day), it was assumed that the unit demand in FY2020 would remain the same from 2020-2025 to represent COVID-19 impacts. Reviewing agency water use data from FY2018 through FY2020 revealed that residential water use increased slightly in FY2020 while CII demands decreased slightly as a result of COVID-19. From 2030 to 2050, the average CII unit use from FY2018 and 2019 was used. These unit use factors were then multiplied by an assumed growth of CII accounts under three broad scenarios:

- Low Scenario – assuming no growth in CII accounts
- Mid Scenario – assuming 0.5% annual growth in CII accounts
- High Scenario – assuming 1.5% annual growth in CII accounts

For most retail agencies, the Mid Scenario of CII account growth was used, but for those retail agencies that have had faster historical growth the High Scenario was used. For those retail agencies that have had relatively stable CII water demand, the Low Scenario was used.

### Other Demand Categories Forecast Methodology

For those agencies that supply recycled water for non-potable demands, we used agency-specified growth assumptions. Most agencies have already maximized their recycled water and thus are not expecting for this category of demand to grow. However, a few agencies in South Orange County do expect moderate growth in recycled water customers.

For large landscape customers served currently by potable water use, we assumed these demands to be constant through 2050, except for agencies that have growing recycled water demands. For the agencies that have growing recycled water demands, we reduced the large landscape demands served by potable water accordingly.

For non-revenue water, which represents the difference in total water production less all water billed to customers, we held this percentage constant through 2050.

## Demand Forecast Results

The results of the water demand forecast for MWDOC's service area are presented in Table 2 by major category of demand and for average weather under Mid Scenario for CII. MWDOC's service area includes all retail water agencies in Orange County except Anaheim, Fullerton and Santa Ana.

**Table 2. MWDOC Service Area Water Demand Under Average Weather and Mid Scenario Growth**

| Sector Demand (AFY) | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|
| Single-Family Residential | 171,622 | 170,108 | 168,573 | 167,335 | 164,546 | 163,979 | 163,411 |
| Multifamily Residential | 60,013 | 61,411 | 60,994 | 60,916 | 60,364 | 61,123 | 61,882 |
| CII | 65,252 | 66,868 | 76,557 | 78,450 | 80,391 | 80,391 | 80,391 |
| Large Landscape Potable | 36,819 | 35,439 | 35,169 | 35,119 | 35,094 | 35,094 | 35,094 |
| Non-Potable Recycled Water | 50,174 | 52,645 | 54,094 | 56,774 | 56,829 | 56,829 | 56,829 |
| Non-Revenue | 27,102 | 27,267 | 28,198 | 28,384 | 28,470 | 28,507 | 28,544 |
| **Grand Total** | **410,982** | **413,738** | **423,584** | **426,978** | **425,694** | **425,923** | **426,151** |

As CDR is projecting only slight single-family housing growth for MWDOC's area, plus the impacts of highly efficient plumbing codes and MWELO on new development and retrofits, it is forecasted that single-family water use will steadily decrease from current 171,622 acre-feet (AFY) in 2020 to 163,411 AFY in 2050. While plumbing codes and MWELO will impact multifamily water demand in similar ways as single-family, CDR is projecting significantly more multifamily units—thus, these two factors are countering each other somewhat and results in a relatively constant multifamily water demand. CII water demands, based on 0.5% annual growth in CII accounts, are forecasted to increase from 65,252 AFY in 2020 to 80,391 AFY in 2040 and then hold relatively constant. Large landscape demands served by potable water are expected to decrease somewhat due to increases in non-potable recycled water (although not on a one to one basis). Finally, there will be a slight increase in non-revenue water in the planning horizon. In total, MWDOC's average year water demands under Mid Scenario CII growth are expected to increase from 410,982 AFY in 2020 to 426,978 AFY in 2035, and then level off through 2050.

The results of the water demand forecast for OCWD's service area are presented in Table 3 by major category of demand and for average weather under Mid Scenario for CII. OCWD's service area includes all retail water agencies in Orange County that produce groundwater from the Orange County Basin, including Anaheim, Fullerton and Santa Ana. It also includes a portion of IWRD's service area that overlays the groundwater basin.

**Table 3. OCWD Service Area Water Demand Under Average Weather and Mid Scenario Growth**

| Sector Demand (AFY) | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|
| Single-Family Residential | 157,755 | 155,725 | 153,616 | 151,319 | 148,737 | 148,311 | 147,885 |
| Multifamily Residential | 69,188 | 72,351 | 72,778 | 73,137 | 73,132 | 74,534 | 75,937 |
| CII | 86,886 | 89,043 | 100,752 | 103,251 | 105,812 | 105,812 | 105,812 |
| Large Landscape Potable | 22,988 | 22,988 | 22,988 | 22,988 | 22,988 | 22,988 | 22,988 |
| Non-Potable Recycled Water | 24,899 | 24,899 | 24,899 | 24,899 | 24,899 | 24,899 | 24,899 |
| Non-Revenue | 22,406 | 22,719 | 23,671 | 23,881 | 24,044 | 24,111 | 24,178 |
| **Grand Total** | **384,123** | **387,726** | **398,705** | **399,475** | **399,613** | **400,656** | **401,699** |

OCWD's service area demands for single-family are decreasing until 2040, but then stabilize due to the older housing stock which uses more water per home than new development in Anaheim, Fullerton and Santa Ana. Multifamily water demands for OCWD's area are expected to increase from 2020 to 2050 due to significantly greater projected multifamily housing in Anaheim, Fullerton, and Santa Ana. CII water demands, based on 0.5% annual growth in CII accounts, are forecasted to increase from 86,886 AFY in 2020 to 105,812 AFY in 2040 and then hold relatively constant. Large landscape served by potable water and non-potable recycled water demands served by potable water are forecasted to remain fairly constant. Finally, there will be a slight increase in non-revenue water in the planning horizon. In total, OCWD's average year water demands under Mid Scenario CII growth are expected to increase from 384,123 AFY in 2020 to 401,699 AFY in 2050.

The results of the water demand forecast for the total Orange County are presented in Table 4 by major category of demand and for average weather under Mid Scenario for CII. The total Orange County area includes all retail water agencies in Orange County.

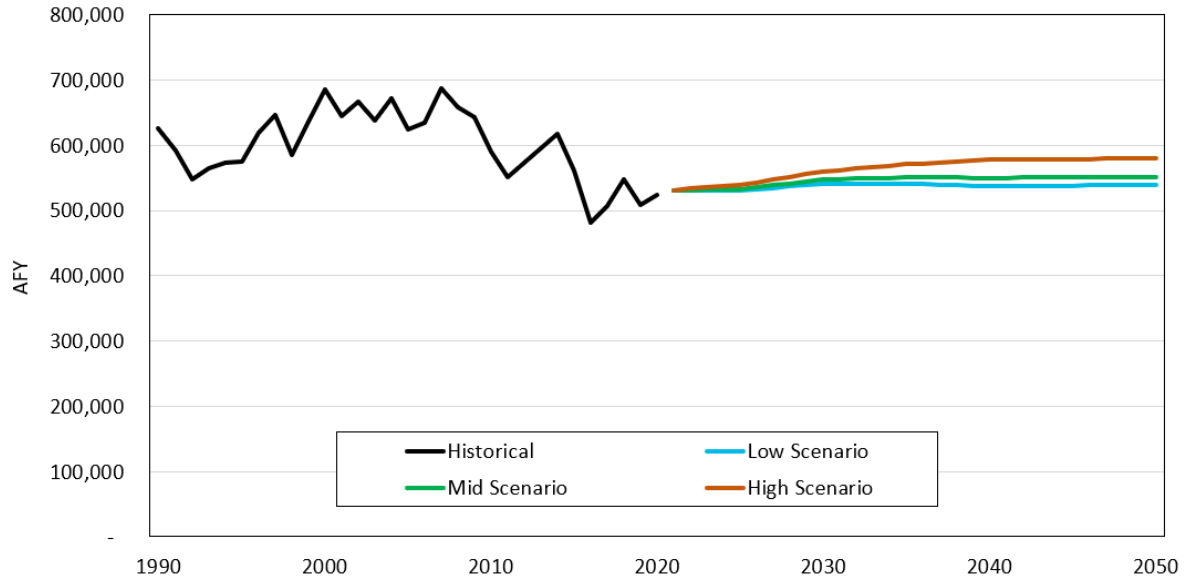
**Table 4. Total Orange County Water Demand Under Average Weather and Mid Scenario Growth**

| Sector Demand (AFY) | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|
| Single-Family Residential | 215,900 | 213,658 | 211,302 | 209,257 | 205,649 | 204,951 | 204,253 |
| Multifamily Residential | 86,584 | 89,866 | 90,222 | 90,473 | 90,262 | 91,853 | 93,443 |
| CII | 101,418 | 103,939 | 118,298 | 121,235 | 124,246 | 124,246 | 124,246 |
| Large Landscape Potable | 39,545 | 38,165 | 37,895 | 37,845 | 37,820 | 37,820 | 37,820 |
| Non-Potable Recycled Water | 50,518 | 52,989 | 54,438 | 57,118 | 57,173 | 57,173 | 57,173 |
| Non-Revenue | 31,739 | 32,012 | 33,181 | 33,432 | 33,587 | 33,656 | 33,725 |
| **Grand Total** | **525,704** | **530,628** | **545,335** | **549,360** | **548,737** | **549,698** | **550,659** |

The total water demand for all of Orange County is forecasted to increase from 525,704 AFY in 2020 to 550,659 AFY in 2050.

Figure 5 presents the historical and forecasted water demand over time for the total Orange County area under average weather and for all three scenarios of CII growth.

**Figure 5. Total Orange County Water Demand Forecast Under Average Weather**




For comparison, the previous water demand used for the 2014 Orange County Water Reliability Study was approximately 580,000 AFY in 2050. Which compares closely with the demands under the High Scenario of CII growth for this forecast of 579,500 AFY. However, the Mid Scenario demand forecast is about 30,000 AFY lower than the 2014 forecast in 2050.

## Weather Variability and Long-Term Climate Change Impacts

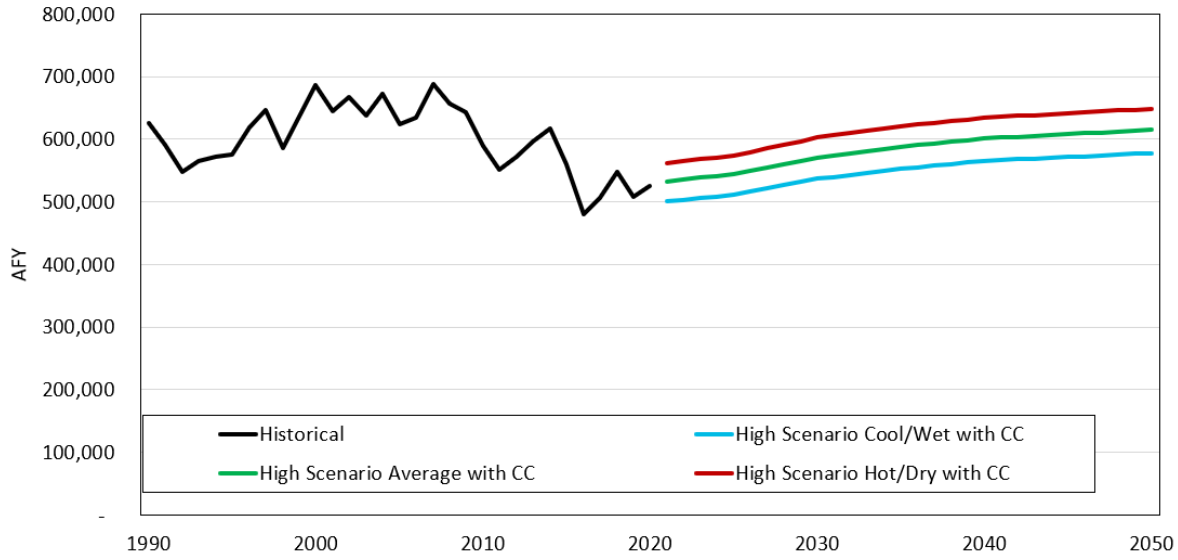
In any given year water demands can vary substantially due to weather. In addition, long-term climate change can have an impact on water demands into the future. For the 2014 OC Water Reliability Study, CDM Smith developed a robust statistical model of total water monthly production from 1990 to 2014 from a sample of retail water agencies. This model removed impacts from population growth, the economy and drought restrictions in order to estimate the impact on water use from temperature and precipitation.

The results of this statistical analysis are:

- Hot/dry weather demands will be 5.5% greater than current average weather demands
- Cooler/wet weather demands will be 6% lower than current average weather demands
- Climate change impacts will increase current average weather demands by:
    - 2% in 2030
    - 4% in 2040
    - 6% in 2050

Figure 6 presents the water demand forecast for the total Orange County area under the High Scenario showing climate change impacts and year-to-year weather variability. This forecast represents the likely higher-end range of future water demands.

**Figure 6. Total Orange County Water Demand Forecast Under High Scenario with Climate Change**




## Comparison with Retail Agency Specified Demand Forecasts

At the start of this effort, MWDOC and OCWD committed to use retail water agency generated water demand forecasts for official reporting purposes (i.e., MWDOC's 2020 UWMP) if agencies decided not to use CDM Smith's methodology. As stated earlier, six retail water agencies either provided their own water demand forecast or made significant modifications to CDM Smith's methodology such that it was no longer considered uniform.

Table 5 compares the water demand forecast generated using CDM Smith's methodology applied uniformly across all retail agencies with a forecast that represents a combination of agency-generated forecasts (for the six retail agencies that supplied them) along with CDM Smith's methodology applied to the rest of the retail agencies for MWDOC and OCWD service areas.

**Table 5. Comparison of Water Demand Forecasts Under Average Weather without Climate Change**

| | MWDOC Service Area | | | OCWD Service Area | | |
|---|---|---|---|---|---|---|
| Year | CDM Smith Method Uniformly Applied | CDM Smith + Agency Provided Method | Difference | CDM Smith Method Uniformly Applied | CDM Smith + Agency Provided Method | Difference |
| Act. 2020 | 409,025 | 409,025 | NA | 387,317 | 387,317 | NA |
| 2025 | 413,738 | 431,130 | (17,392) | 387,726 | 400,460 | (12,734) |
| 2030 | 423,584 | 440,341 | (16,757) | 398,705 | 412,568 | (13,863) |
| 2035 | 426,978 | 446,398 | (19,420) | 399,475 | 415,973 | (16,498) |
| 2040 | 425,694 | 445,870 | (20,176) | 399,613 | 417,371 | (17,758) |
| 2045 | 425,923 | 445,778 | (19,855) | 400,656 | 418,308 | (17,652) |
| 2050 | 426,151 | 445,416 | (19,265) | 401,699 | 418,973 | (17,274) |

The difference between the CDM Smith method applied uniformly to all agencies vs the CDM Smith method plus agency provided forecast is between 4.3 and 4.5 percent by 2050, certainly within the reasonable range of error.

# APPENDIX F

## AWWA Water Loss Audits

# AWWA Free Water Audit Software v5.0



This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format, and is not meant to take the place of a full-scale, comprehensive water audit format.

Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targetting loss reduction levels

The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

**Please begin by providing the following information**

| | |
|---|---|
| Name of Contact Person: | Booby Young |
| Email Address: | byoung@etwd.com |
| Telephone (incl Ext.): | 949-837-705 ext. 247 |
| Name of City / Utility: | El Toro Water District |
| City/Town/Municipality: | Lake Forest |
| State / Province: | California (CA) |
| Country: | USA |
| Year: | 2015 Calendar Year |
| Audit Preparation Date: | 4/20/2016 |
| Volume Reporting Units: | Acre-feet |
| PWSID / Other ID: | |

**The following guidance will help you complete the Audit**

All audit data are entered on the ***Reporting Worksheet***

- Value can be entered by user
- Value calculated based on input data
- These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left

To enter a value, choose this button and enter a value in the cell to the right

**The following worksheets are available by clicking the buttons below or selecting the tabs along the bottom of the page**

***Instructions***
The current sheet. Enter contact information and basic audit details (year, units etc)

***Reporting Worksheet***
Enter the required data on this worksheet to calculate the water balance and data grading

***Comments***
Enter comments to explain how values were calculated or to document data sources

***Performance Indicators***
Review the performance indicators to evaluate the results of the audit

***Water Balance***
The values entered in the Reporting Worksheet are used to populate the Water Balance

***Dashboard***
A graphical summary of the water balance and Non-Revenue Water components

***Grading Matrix***
Presents the possible grading options for each input component of the audit

***Service Connection Diagram***
Diagrams depicting possible customer service connection line configurations

***Definitions***
Use this sheet to understand the terms used in the audit process

***Loss Control Planning***
Use this sheet to interpret the results of the audit validity score and performance indicators

***Example Audits***
Reporting Worksheet and Performance Indicators examples are shown for two validated audits

***Acknowledgements***
Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: wlc@awwa.org

# AWWA Free Water Audit Software:
## Reporting Worksheet

WAS v5.0


? Click to access definition
+ Click to add a comment

**Water Audit Report for:** El Toro Water District
**Reporting Year:** 2015 (1/2015 - 12/2015)

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the

**All volumes to be entered as: ACRE-FEET PER YEAR**

To select the correct data grading for each input, determine the highest grade where

Master Meter and Supply Error Adjustments

### WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

| | | | | Pcnt: | Value: | |
|---|---|---|---|---|---|---|
| Volume from own sources: | | | acre-ft/yr | | | acre-ft/yr |
| Water imported: | 7 | 7,631.446 | acre-ft/yr | 7 | | acre-ft/yr |
| Water exported: | | | acre-ft/yr | | | acre-ft/yr |
| **WATER SUPPLIED:** | | **7,631.446** | acre-ft/yr | | | |

Enter negative % or value for under-registration
Enter positive % or value for over-registration

### AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

| | | | Pcnt: | Value: | |
|---|---|---|---|---|---|
| Billed metered: | 5 | 7,243.603 | acre-ft/yr | | | |
| Billed unmetered: | n/a | | acre-ft/yr | | | |
| Unbilled metered: | 8 | 7.568 | acre-ft/yr | | | |
| Unbilled unmetered: | 6 | 4.500 | acre-ft/yr | | 4.500 | acre-ft/yr |
| **AUTHORIZED CONSUMPTION:** | | **7,255.671** | acre-ft/yr | | | |

Use buttons to select percentage of water supplied **OR** value

**WATER LOSSES (Water Supplied - Authorized Consumption)** **375.775** acre-ft/yr

#### Apparent Losses

| | | | Pcnt: | Value: | |
|---|---|---|---|---|---|
| Unauthorized consumption: | | 19.079 | acre-ft/yr | 0.25% | | acre-ft/yr |
| Customer metering inaccuracies: | 1 | 36.438 | acre-ft/yr | 0.50% | | acre-ft/yr |
| Systematic data handling errors: | 5 | 18.109 | acre-ft/yr | 0.25% | | acre-ft/yr |
| **Apparent Losses:** | | **73.626** | acre-ft/yr | | | |

**Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed**

**Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed**

#### Real Losses (Current Annual Real Losses or CARL)

| | | |
|---|---|---|
| **Real Losses = Water Losses - Apparent Losses:** | **302.149** | acre-ft/yr |
| **WATER LOSSES:** | **375.775** | acre-ft/yr |

### NON-REVENUE WATER

| | | |
|---|---|---|
| **NON-REVENUE WATER:** | **387.843** | acre-ft/yr |

= Water Losses + Unbilled Metered + Unbilled Unmetered

### SYSTEM DATA

| | | | |
|---|---|---|---|
| Length of mains: | 8 | 180.6 | miles |
| Number of active AND inactive service connections: | 7 | 10,033 | |
| Service connection density: | | 56 | conn./mile main |
| Are customer meters typically located at the curbstop or property line? | | Yes | |
| Average length of customer service line: | | | (length of service line, beyond the property boundary, that is the responsibility of the utility) |

**Average length of customer service line has been set to zero and a data grading score of 10 has been applied**

| | | | |
|---|---|---|---|
| Average operating pressure: | 8 | 87.0 | psi |

### COST DATA

| | | | |
|---|---|---|---|
| Total annual cost of operating water system: | 9 | $14,579,645 | $/Year |
| Customer retail unit cost (applied to Apparent Losses): | 8 | $3.16 | $/100 cubic feet (ccf) |
| Variable production cost (applied to Real Losses): | 10 | $942.00 | $/acre-ft ☐Use Customer Retail Unit Cost to value real losses |

### WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 67 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

### PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported
2: Customer metering inaccuracies
3: Billed metered

# AWWA Free Water Audit Software:
## System Attributes and Performance Indicators



**Water Audit Report for:** El Toro Water District
**Reporting Year:** 2015 | 1/2015 - 12/2015

***** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 67 out of 100 *****

### System Attributes:

| | | | |
|---|---|---|---|
| | Apparent Losses: | 73.626 | acre-ft/yr |
| + | Real Losses: | 302.149 | acre-ft/yr |
| = | **Water Losses:** | **375.775** | acre-ft/yr |
| ? | Unavoidable Annual Real Losses (UARL): | 241.89 | acre-ft/yr |
| | Annual cost of Apparent Losses: | $101,404 | |
| | Annual cost of Real Losses: | $284,624 | Valued at **Variable Production Cost** |

Return to Reporting Worksheet to change this assumpiton

### Performance Indicators:

| | | | |
|---|---|---|---|
| Financial: | Non-revenue water as percent by volume of Water Supplied: | 5.1% | |
| | Non-revenue water as percent by cost of operating system: | 2.7% | Real Losses valued at Variable Production Cost |
| Operational Efficiency: | Apparent Losses per service connection per day: | 6.55 | gallons/connection/day |
| | Real Losses per service connection per day: | 26.89 | gallons/connection/day |
| | Real Losses per length of main per day*: | N/A | |
| | Real Losses per service connection per day per psi pressure: | 0.31 | gallons/connection/day/psi |
| | From Above, Real Losses = Current Annual Real Losses (CARL): | 302.15 | acre-feet/year |
| ? | Infrastructure Leakage Index (ILI) [CARL/UARL]: | 1.25 | |

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

# AWWA Free Water Audit Software:
## User Comments



Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

| | |
|---|---|
| **General Comment:** | |

| Audit Item | Comment |
|---|---|
| Volume from own sources: | |
| Vol. from own sources: Master meter error adjustment: | |
| Water imported: | |
| Water imported: master meter error adjustment: | |
| Water exported: | |
| Water exported: master meter error adjustment: | |
| Billed metered: | |
| Billed unmetered: | |
| Unbilled metered: | |
| Unbilled unmetered: | |
| Unauthorized consumption: | |

| Audit Item | Comment |
|---|---|
| Customer metering inaccuracies: | |
| Systematic data handling errors: | |
| Length of mains: | |
| Number of active AND inactive service connections: | |
| Average length of customer service line: | |
| Average operating pressure: | |
| Total annual cost of operating water system: | |
| Customer retail unit cost (applied to Apparent Losses): | |
| Variable production cost (applied to Real Losses): | |

# AWWA Free Water Audit Software: Water Balance

WAS v5.0

American Water Works Association.

| | | |
|---|---|---|
| Water Audit Report for: | El Toro Water District | |
| Reporting Year: | 2015 | 1/2015 - 12/2015 |
| Data Validity Score: | 67 | |

| | | | | | |
|---|---|---|---|---|---|
| | Water Exported<br>*0.000* | Billed Water Exported | | | |
| Own Sources<br>(Adjusted for known errors)<br>*0.000* | Water Supplied<br>*7,631.446* | Authorized Consumption<br>*7,255.671* | Billed Authorized Consumption<br>*7,243.603* | Billed Metered Consumption (water exported is removed)<br>*7,243.603* | Revenue Water<br>7,243.603 |
| | | | | Billed Unmetered Consumption<br>*0.000* | |
| | | | Unbilled Authorized Consumption<br>*12.068* | Unbilled Metered Consumption<br>*7.568* | Non-Revenue Water (NRW)<br>387.843 |
| | | | | Unbilled Unmetered Consumption<br>*4.500* | |
| | | Water Losses<br>*375.775* | Apparent Losses<br>*73.626* | Unauthorized Consumption<br>*19.079* | |
| | | | | Customer Metering Inaccuracies<br>*36.438* | |
| | | | | Systematic Data Handling Errors<br>*18.109* | |
| Water Imported<br>*7,631.446* | | | Real Losses<br>*302.149* | Leakage on Transmission and/or Distribution Mains<br>*Not broken down* | |
| | | | | Leakage and Overflows at Utility's Storage Tanks<br>*Not broken down* | |
| | | | | Leakage on Service Connections<br>*Not broken down* | |

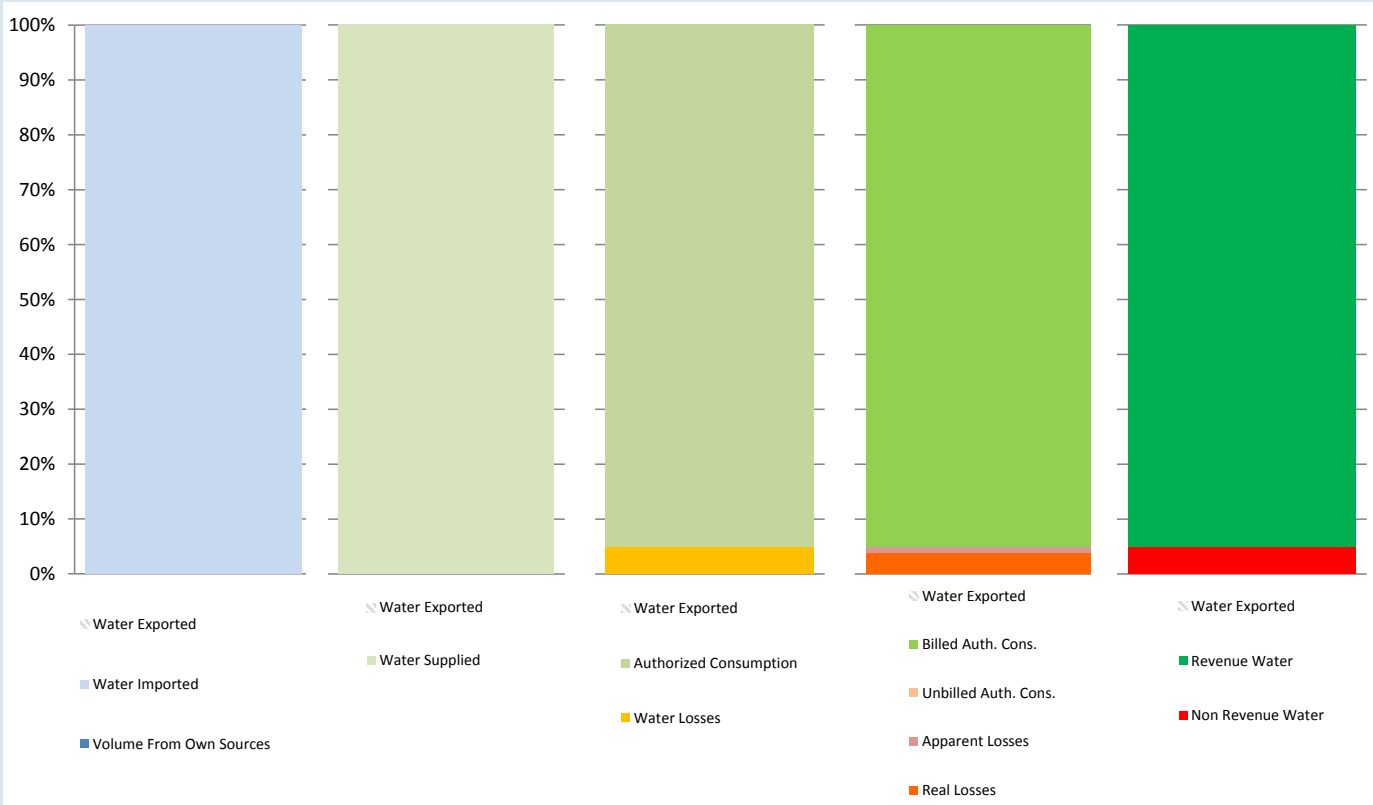
# AWWA Free Water Audit Software:
## Dashboard

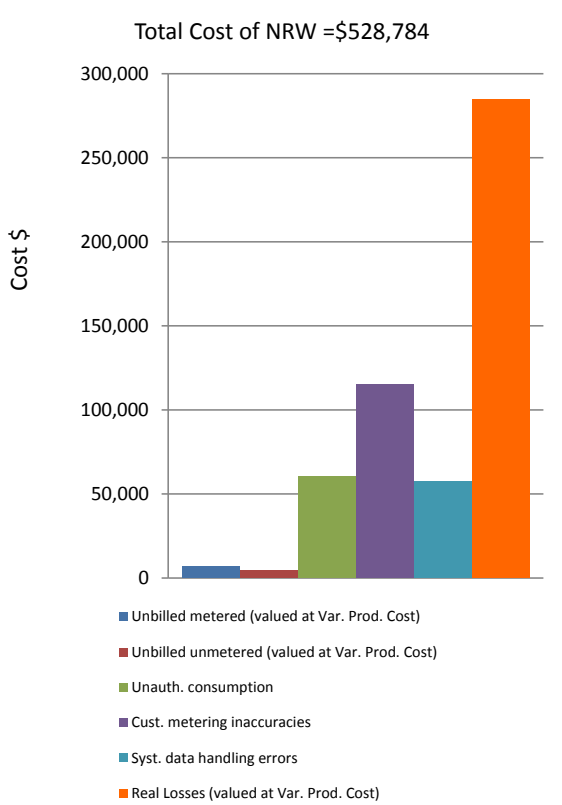
WAS v5.0
American Water Works Association.

The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

**Water Audit Report for:** El Toro Water District
**Reporting Year:** 2015 | 1/2015 - 12/2015
**Data Validity Score:** 67

○ Show me the VOLUME of Non-Revenue Water
◉ Show me the COST of Non-Revenue Water



# AWWA Free Water Audit Software v5.0



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Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targetting loss reduction levels

The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

**Please begin by providing the following information**

| | |
|---|---|
| Name of Contact Person: | Bobby Young |
| Email Address: | byoung@etwd.com |
| Telephone (incl Ext.): | 949-837-705 ext. 247 |
| Name of City / Utility: | El Toro Water District |
| City/Town/Municipality: | Lake Forest |
| State / Province: | California (CA) |
| Country: | USA |
| Year: | 2016 Calendar Year |
| Audit Preparation Date: | 4/20/2016 |
| Volume Reporting Units: | Acre-feet |
| PWSID / Other ID: | |

**The following guidance will help you complete the Audit**

All audit data are entered on the ***Reporting Worksheet***

- Value can be entered by user
- Value calculated based on input data
- These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left

To enter a value, choose this button and enter a value in the cell to the right

**The following worksheets are available by clicking the buttons below or selecting the tabs along the bottom of the page**

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***Reporting Worksheet***
Enter the required data on this worksheet to calculate the water balance and data grading

***Comments***
Enter comments to explain how values were calculated or to document data sources

***Performance Indicators***
Review the performance indicators to evaluate the results of the audit

***Water Balance***
The values entered in the Reporting Worksheet are used to populate the Water Balance

***Dashboard***
A graphical summary of the water balance and Non-Revenue Water components

***Grading Matrix***
Presents the possible grading options for each input component of the audit

***Service Connection Diagram***
Diagrams depicting possible customer service connection line configurations

***Definitions***
Use this sheet to understand the terms used in the audit process

***Loss Control Planning***
Use this sheet to interpret the results of the audit validity score and performance indicators

***Example Audits***
Reporting Worksheet and Performance Indicators examples are shown for two validated audits

***Acknowledgements***
Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: wlc@awwa.org

# AWWA Free Water Audit Software:
## Reporting Worksheet

WAS v5.0


? Click to access definition
+ Click to add a comment

**Water Audit Report for:** El Toro Water District
**Reporting Year:** 2016 (1/2016 - 12/2016)

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

**All volumes to be entered as: ACRE-FEET PER YEAR**

To select the correct data grading for each input, determine the highest grade where

Master Meter and Supply Error Adjustments

### WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

| | | | | Pcnt: | Value: | |
|---|---|---|---|---|---|---|
| Volume from own sources: | n/a | 0.000 | acre-ft/yr | | | acre-ft/yr |
| Water imported: | 7 | 6,974.891 | acre-ft/yr | | -97.200 | acre-ft/yr |
| Water exported: | n/a | 0.000 | acre-ft/yr | | | acre-ft/yr |

Enter negative % or value for under-registration
Enter positive % or value for over-registration

**WATER SUPPLIED:** 7,072.091 acre-ft/yr

### AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

| | | | Pcnt: | Value: | |
|---|---|---|---|---|---|
| Billed metered: | 5 | 6,733.542 | acre-ft/yr | | | |
| Billed unmetered: | n/a | 0.000 | acre-ft/yr | | | |
| Unbilled metered: | 8 | 21.310 | acre-ft/yr | | | |
| Unbilled unmetered: | 3 | 5.740 | acre-ft/yr | | 5.740 | acre-ft/yr |

Use buttons to select percentage of water supplied **OR** value

**AUTHORIZED CONSUMPTION:** 6,760.592 acre-ft/yr

### WATER LOSSES (Water Supplied - Authorized Consumption)

311.499 acre-ft/yr

**Apparent Losses**

| | | | Pcnt: | Value: | |
|---|---|---|---|---|---|
| Unauthorized consumption: | | 17.680 | acre-ft/yr | 0.25% | | acre-ft/yr |

**Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed**

| | | | | | |
|---|---|---|---|---|---|
| Customer metering inaccuracies: | 3 | 33.944 | acre-ft/yr | 0.50% | acre-ft/yr |
| Systematic data handling errors: | 5 | 16.834 | acre-ft/yr | 0.25% | acre-ft/yr |

**Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed**

**Apparent Losses:** 68.458 acre-ft/yr

**Real Losses (Current Annual Real Losses or CARL)**

**Real Losses = Water Losses - Apparent Losses:** 243.041 acre-ft/yr

**WATER LOSSES:** 311.499 acre-ft/yr

### NON-REVENUE WATER

**NON-REVENUE WATER:** 338.549 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

### SYSTEM DATA

| | | | |
|---|---|---|---|
| Length of mains: | 8 | 180.6 | miles |
| Number of active AND inactive service connections: | 7 | 10,033 | |
| Service connection density: | | 56 | conn./mile main |

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

**Average length of customer service line has been set to zero and a data grading score of 10 has been applied**

Average operating pressure: 4 — 87.0 psi

### COST DATA

| | | | |
|---|---|---|---|
| Total annual cost of operating water system: | 10 | $14,579,645 | $/Year |
| Customer retail unit cost (applied to Apparent Losses): | 8 | $2.90 | $/100 cubic feet (ccf) |
| Variable production cost (applied to Real Losses): | 5 | $984.07 | $/acre-ft |

☐ Use Customer Retail Unit Cost to value real losses

### WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 65 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

### PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported
2: Customer metering inaccuracies
3: Billed metered

# AWWA Free Water Audit Software:
## System Attributes and Performance Indicators



**Water Audit Report for:** El Toro Water District
**Reporting Year:** 2016 | 1/2016 - 12/2016

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 65 out of 100 ***

**System Attributes:**

| | | | |
|---|---|---|---|
| | Apparent Losses: | 68.458 | acre-ft/yr |
| + | Real Losses: | 243.041 | acre-ft/yr |
| = | **Water Losses:** | **311.499** | acre-ft/yr |
| ? | Unavoidable Annual Real Losses (UARL): | 241.80 | acre-ft/yr |
| | Annual cost of Apparent Losses: | $86,479 | |
| | Annual cost of Real Losses: | $239,169 | Valued at **Variable Production Cost** |

Return to Reporting Worksheet to change this assumpiton

**Performance Indicators:**

| | | | |
|---|---|---|---|
| Financial: | Non-revenue water as percent by volume of Water Supplied: | 4.8% | |
| | Non-revenue water as percent by cost of operating system: | 2.4% | Real Losses valued at Variable Production Cost |
| Operational Efficiency: | Apparent Losses per service connection per day: | 6.09 | gallons/connection/day |
| | Real Losses per service connection per day: | 21.63 | gallons/connection/day |
| | Real Losses per length of main per day*: | N/A | |
| | Real Losses per service connection per day per psi pressure: | 0.25 | gallons/connection/day/psi |
| | From Above, Real Losses = Current Annual Real Losses (CARL): | 243.04 | acre-feet/year |
| ? | Infrastructure Leakage Index (ILI) [CARL/UARL]: | 1.01 | |

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

# AWWA Free Water Audit Software:
## User Comments



Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

| | |
|---|---|
| **General Comment:** | |

| Audit Item | Comment |
|---|---|
| Volume from own sources: | |
| Vol. from own sources: Master meter error adjustment: | |
| Water imported: | |
| Water imported: master meter error adjustment: | |
| Water exported: | |
| Water exported: master meter error adjustment: | |
| Billed metered: | |
| Billed unmetered: | |
| Unbilled metered: | |
| Unbilled unmetered: | |
| Unauthorized consumption: | |

| Audit Item | Comment |
|---|---|
| Customer metering inaccuracies: | |
| Systematic data handling errors: | |
| Length of mains: | |
| Number of active AND inactive service connections: | |
| Average length of customer service line: | |
| Average operating pressure: | |
| Total annual cost of operating water system: | |
| Customer retail unit cost (applied to Apparent Losses): | |
| Variable production cost (applied to Real Losses): | |

# AWWA Free Water Audit Software: Water Balance

WAS v5.0

American Water Works Association.

| | | |
|---|---|---|
| Water Audit Report for: | El Toro Water District | |
| Reporting Year: | 2016 | 1/2016 - 12/2016 |
| Data Validity Score: | 65 | |

**Own Sources** (Adjusted for known errors)
*0.000*

**Water Imported**
*7,072.091*

**Water Exported**
*0.000*

**Water Supplied**
*7,072.091*

**Authorized Consumption**
*6,760.592*

**Billed Authorized Consumption**
*6,733.542*

**Billed Water Exported**

**Billed Metered Consumption (water exported is removed)**
*6,733.542*

**Billed Unmetered Consumption**
*0.000*

**Revenue Water**
6,733.542

**Unbilled Authorized Consumption**
*27.050*

**Unbilled Metered Consumption**
*21.310*

**Unbilled Unmetered Consumption**
*5.740*

**Non-Revenue Water (NRW)**
338.549

**Water Losses**
*311.499*

**Apparent Losses**
*68.458*

**Unauthorized Consumption**
*17.680*

**Customer Metering Inaccuracies**
*33.944*

**Systematic Data Handling Errors**
*16.834*

**Real Losses**
*243.041*

**Leakage on Transmission and/or Distribution Mains**
*Not broken down*

**Leakage and Overflows at Utility's Storage Tanks**
*Not broken down*

**Leakage on Service Connections**
*Not broken down*

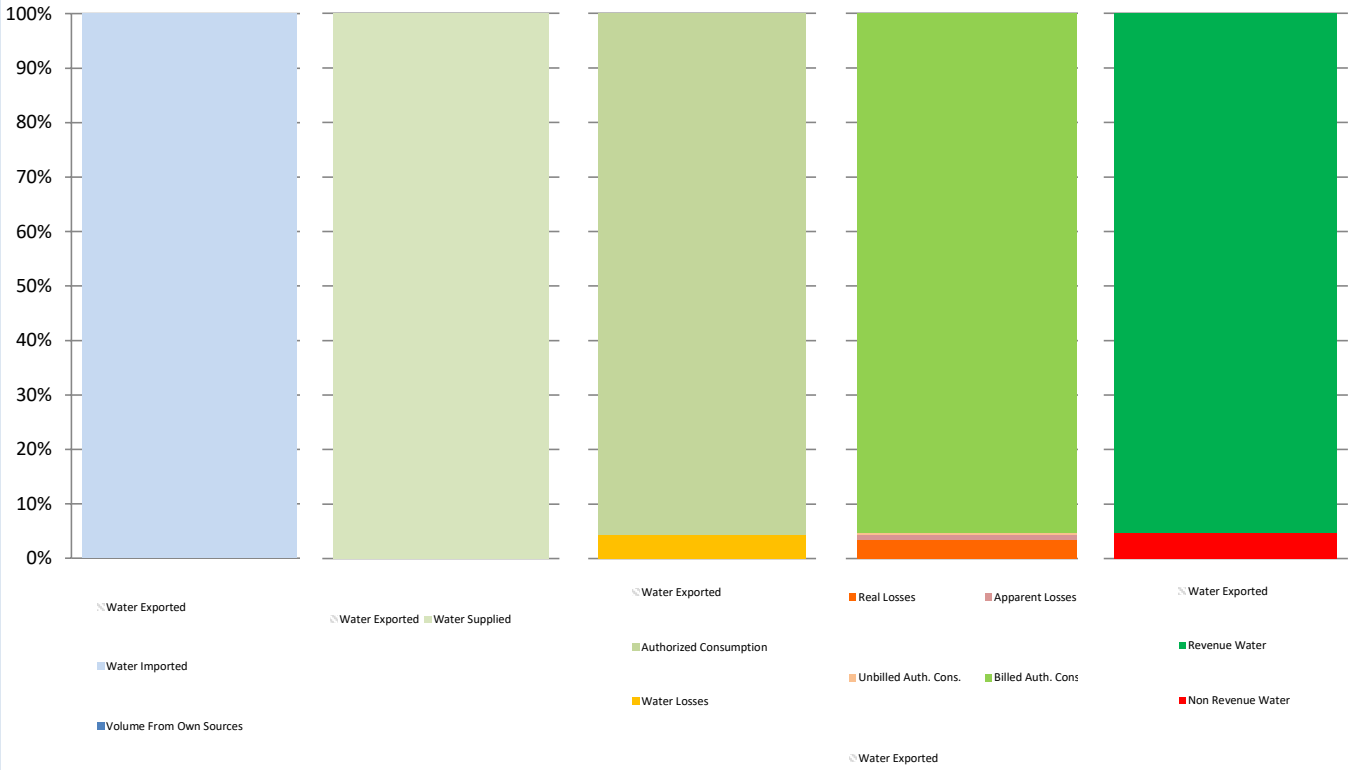
# AWWA Free Water Audit Software:
## Dashboard

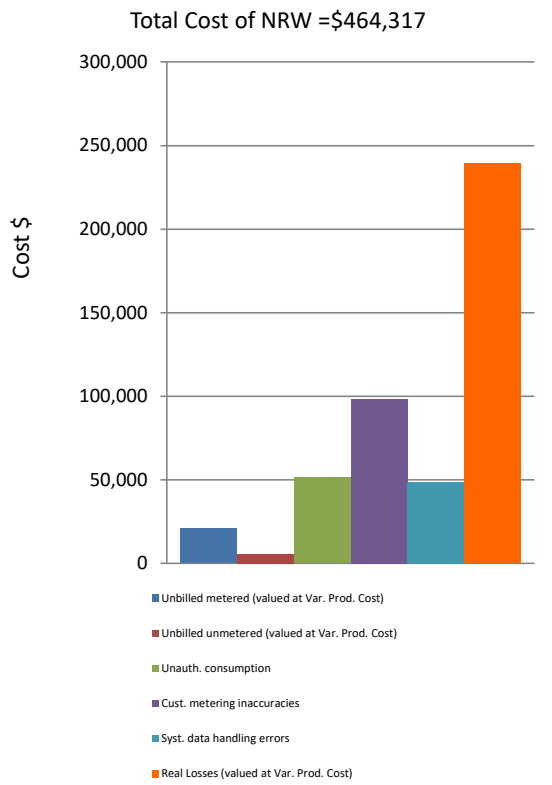
WAS v5.0
American Water Works Association.

The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

**Water Audit Report for:** El Toro Water District
**Reporting Year:** 2016 | 1/2016 - 12/2016
**Data Validity Score:** 65

○ Show me the VOLUME of Non-Revenue Water
◉ Show me the COST of Non-Revenue Water



# AWWA Free Water Audit Software v5.0



This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format, and is not meant to take the place of a full-scale, comprehensive water audit format.

Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targetting loss reduction levels

The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

**Please begin by providing the following information**

| | |
|---|---|
| Name of Contact Person: | Booby Young |
| Email Address: | byoung@etwd.com |
| Telephone (incl Ext.): | 949-837-705 ext. 247 |
| Name of City / Utility: | El Toro Water District |
| City/Town/Municipality: | Lake Forest |
| State / Province: | California (CA) |
| Country: | USA |
| Year: | 2017 Calendar Year |
| Audit Preparation Date: | 6/28/2018 |
| Volume Reporting Units: | Acre-feet |
| PWSID / Other ID: | 3010079 |

**The following guidance will help you complete the Audit**

All audit data are entered on the ***Reporting Worksheet***

- Value can be entered by user
- Value calculated based on input data
- These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left

To enter a value, choose this button and enter a value in the cell to the

**The following worksheets are available by clicking the buttons below or selecting the tabs along the bottom of the page**

***Instructions***
The current sheet. Enter contact information and basic audit details (year, units etc)

***Reporting Worksheet***
Enter the required data on this worksheet to calculate the water balance and data grading

***Comments***
Enter comments to explain how values were calculated or to document data sources

***Performance Indicators***
Review the performance indicators to evaluate the results of the audit

***Water Balance***
The values entered in the Reporting Worksheet are used to populate the Water Balance

***Dashboard***
A graphical summary of the water balance and Non-Revenue Water components

***Grading Matrix***
Presents the possible grading options for each input component of the audit

***Service Connection Diagram***
Diagrams depicting possible customer service connection line configurations

***Definitions***
Use this sheet to understand the terms used in the audit process

***Loss Control Planning***
Use this sheet to interpret the results of the audit validity score and performance indicators

***Example Audits***
Reporting Worksheet and Performance Indicators examples are shown for two validated audits

***Acknowledgements***
Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: wlc@awwa.org

# AWWA Free Water Audit Software:
## Reporting Worksheet

WAS v5.0
American Water Works Association.


? Click to access definition
+ Click to add a comment

**Water Audit Report for:** El Toro Water District (3010079)
**Reporting Year:** 2017 | 1/2017 - 12/2017

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

**All volumes to be entered as: ACRE-FEET PER YEAR**

To select the correct data grading for each input, determine the highest grade where

Master Meter and Supply Error Adjustments

### WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ----------> | Pcnt: | Value:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Volume from own sources: | n/a | | acre-ft/yr | | | | | | acre-ft/yr |
| Water imported: | 7 | 7,553.855 | acre-ft/yr | | 1 | | -66.250 | | acre-ft/yr |
| Water exported: | n/a | 0.000 | acre-ft/yr | | | | | | acre-ft/yr |

Enter negative % or value for under-registration
Enter positive % or value for over-registration

**WATER SUPPLIED:** 7,620.105 acre-ft/yr

### AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

Pcnt: | Value:

| | | | | | | |
|---|---|---|---|---|---|---|
| Billed metered: | 5 | 7,192.222 | acre-ft/yr | | | |
| Billed unmetered: | 10 | 0.000 | acre-ft/yr | | | |
| Unbilled metered: | 9 | 63.185 | acre-ft/yr | | | |
| Unbilled unmetered: | 3 | 5.750 | acre-ft/yr | | 5.750 | acre-ft/yr |

Use buttons to select percentage of water supplied **OR** value

**AUTHORIZED CONSUMPTION:** 7,261.157 acre-ft/yr

**WATER LOSSES (Water Supplied - Authorized Consumption)** 358.948 acre-ft/yr

#### Apparent Losses

Pcnt: | Value:

| | | | | | |
|---|---|---|---|---|---|
| Unauthorized consumption: | | 19.050 | acre-ft/yr | 0.25% | acre-ft/yr |

**Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed**

| | | | | | |
|---|---|---|---|---|---|
| Customer metering inaccuracies: | 3 | 36.459 | acre-ft/yr | 0.50% | acre-ft/yr |
| Systematic data handling errors: | 5 | 17.981 | acre-ft/yr | 0.25% | acre-ft/yr |

**Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed**

**Apparent Losses:** 73.490 acre-ft/yr

#### Real Losses (Current Annual Real Losses or CARL)

**Real Losses = Water Losses - Apparent Losses:** 285.458 acre-ft/yr

**WATER LOSSES:** 358.948 acre-ft/yr

### NON-REVENUE WATER

**NON-REVENUE WATER:** 427.883 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

### SYSTEM DATA

| | | | |
|---|---|---|---|
| Length of mains: | 9 | 179.9 | miles |
| Number of active AND inactive service connections: | 7 | 10,049 | |
| Service connection density: | | 56 | conn./mile main |

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

**Average length of customer service line has been set to zero and a data grading score of 10 has been applied**

Average operating pressure: 5 | 87.0 psi

### COST DATA

| | | | | |
|---|---|---|---|---|
| Total annual cost of operating water system: | 10 | $16,891,278 | $/Year | |
| Customer retail unit cost (applied to Apparent Losses): | 10 | $2.92 | $/100 cubic feet (ccf) | |
| Variable production cost (applied to Real Losses): | 5 | $914.87 | $/acre-ft | ☐ Use Customer Retail Unit Cost to value real losses |

### WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 67 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

### PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported
2: Customer metering inaccuracies
3: Billed metered

# AWWA Free Water Audit Software:
## System Attributes and Performance Indicators



**Water Audit Report for:** El Toro Water District (3010079)
**Reporting Year:** 2017 | 1/2017 - 12/2017

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 67 out of 100 ***

**System Attributes:**

| | | |
|---|---|---|
| Apparent Losses: | 73.490 | acre-ft/yr |
| + Real Losses: | 285.458 | acre-ft/yr |
| = **Water Losses:** | **358.948** | acre-ft/yr |
| ? voidable Annual Real Losses (UARL): | 241.66 | acre-ft/yr |
| Annual cost of Apparent Losses: | $93,476 | |
| Annual cost of Real Losses: | $261,157 | Valued at **Variable Production Cost** |

Return to Reporting Worksheet to change this assumpiton

**Performance Indicators:**

Financial:

| | | |
|---|---|---|
| Non-revenue water as percent by volume of Water Supplied: | 5.6% | |
| Non-revenue water as percent by cost of operating system: | 2.5% | Real Losses valued at Variable Production Cost |

Operational Efficiency:

| | | |
|---|---|---|
| Apparent Losses per service connection per day: | 6.53 | gallons/connection/day |
| Real Losses per service connection per day: | 25.36 | gallons/connection/day |
| Real Losses per length of main per day*: | N/A | |
| Real Losses per service connection per day per psi pressure: | 0.29 | gallons/connection/day/psi |

| | | |
|---|---|---|
| From Above, Real Losses = Current Annual Real Losses (CARL): | 285.46 | acre-feet/year |
| ? astructure Leakage Index (ILI) [CARL/UARL]: | 1.18 | |

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

# AWWA Free Water Audit Software:
## User Comments

American Water Works Association.

Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

| | |
|---|---|
| **General Comment:** | |

| Audit Item | Comment |
|---|---|
| Volume from own sources: | |
| Vol. from own sources: Master meter error adjustment: | |
| Water imported: | |
| Water imported: master meter error adjustment: | |
| Water exported: | |
| Water exported: master meter error adjustment: | |
| Billed metered: | |
| Billed unmetered: | |
| Unbilled metered: | |
| Unbilled unmetered: | |
| Unauthorized consumption: | |

| Audit Item | Comment |
|---|---|
| Customer metering inaccuracies: | |
| Systematic data handling errors: | |
| Length of mains: | |
| Number of active AND inactive service connections: | |
| Average length of customer service line: | |
| Average operating pressure: | |
| Total annual cost of operating water system: | |
| Customer retail unit cost (applied to Apparent Losses): | |
| Variable production cost (applied to Real Losses): | |

# AWWA Free Water Audit Software: Water Balance

WAS v5.0

American Water Works Association.

| | |
|---|---|
| Water Audit Report for: | El Toro Water District (3010079) |
| Reporting Year: | 2017 — 1/2017 - 12/2017 |
| Data Validity Score: | 67 |

| | | | | | |
|---|---|---|---|---|---|
| Own Sources (Adjusted for known errors) 0.000 | Water Exported 0.000 | Billed Water Exported | | | |
| | Water Supplied 7,620.105 | Authorized Consumption 7,261.157 | Billed Authorized Consumption 7,192.222 | Billed Metered Consumption (water exported is removed) 7,192.222 | Revenue Water 7,192.222 |
| | | | | Billed Unmetered Consumption 0.000 | |
| | | | Unbilled Authorized Consumption 68.935 | Unbilled Metered Consumption 63.185 | Non-Revenue Water (NRW) 427.883 |
| | | | | Unbilled Unmetered Consumption 5.750 | |
| | | Water Losses 358.948 | Apparent Losses 73.490 | Unauthorized Consumption 19.050 | |
| | | | | Customer Metering Inaccuracies 36.459 | |
| | | | | Systematic Data Handling Errors 17.981 | |
| Water Imported 7,620.105 | | | Real Losses 285.458 | Leakage on Transmission and/or Distribution Mains Not broken down | |
| | | | | Leakage and Overflows at Utility's Storage Tanks Not broken down | |
| | | | | Leakage on Service Connections Not broken down | |

# AWWA Free Water Audit Software:
# Dashboard

WAS v5.0

American Water Works Association.

The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

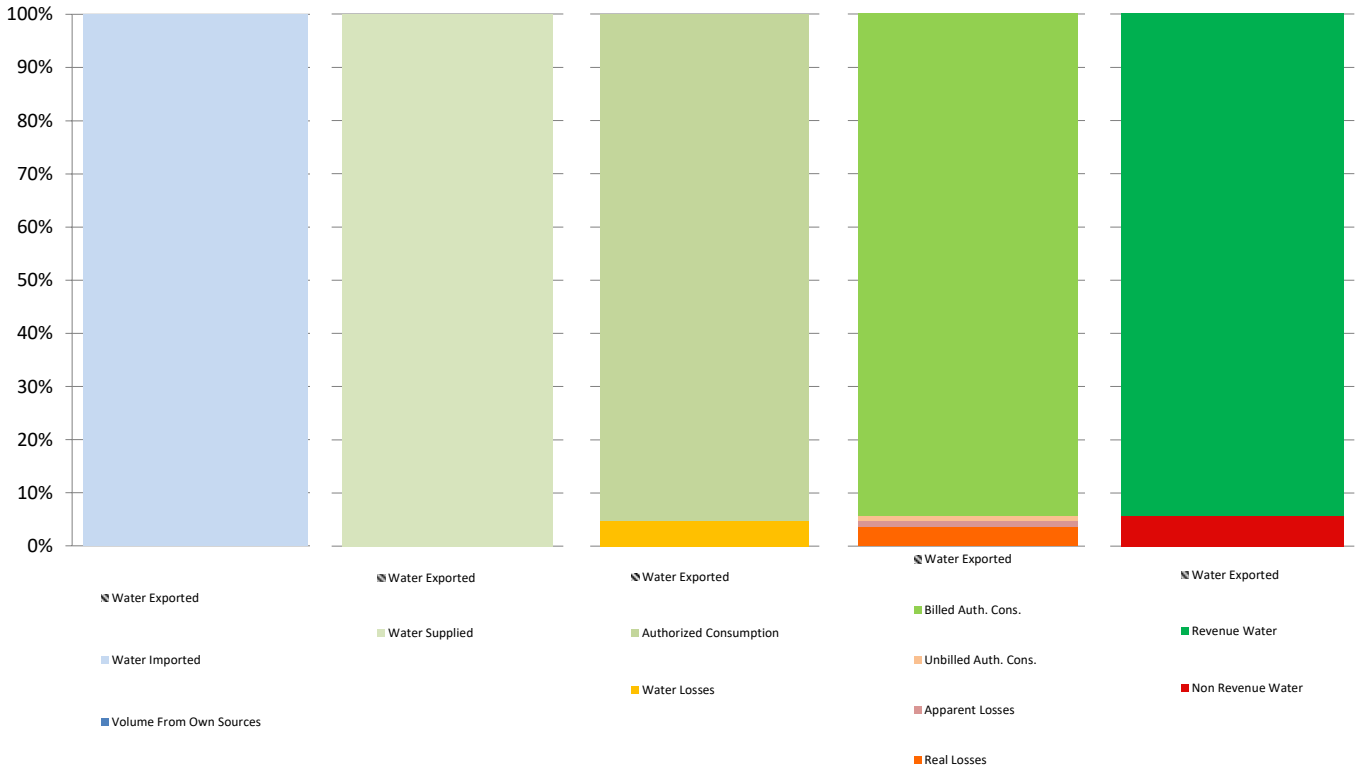
**Water Audit Report for:** El Toro Water District (3010079)

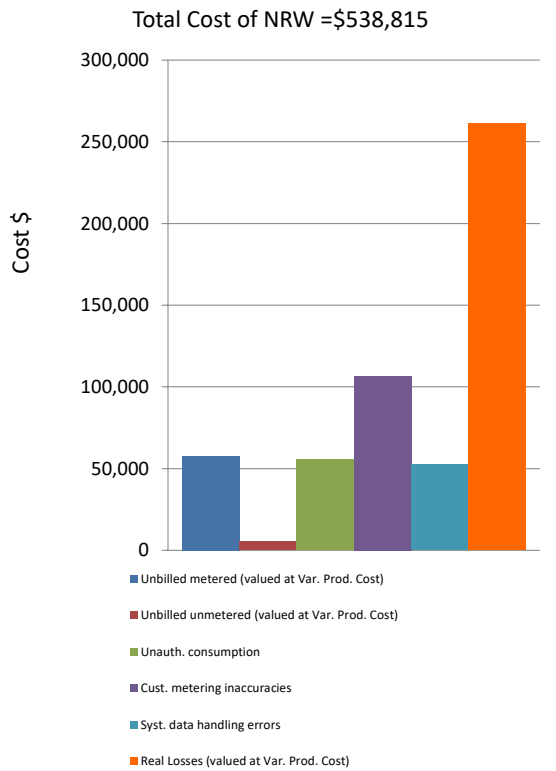
**Reporting Year:** 2017 | 1/2017 - 12/2017

**Data Validity Score:** 67

○ Show me the VOLUME of Non-Revenue Water

◉ Show me the COST of Non-Revenue Water



# AWWA Free Water Audit Software v5.0



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The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

**Please begin by providing the following information**

| | |
|---|---|
| Name of Contact Person: | Booby Young |
| Email Address: | byoung@etwd.com |
| Telephone (incl Ext.): | 949-837-705 ext. 247 |
| Name of City / Utility: | El Toro Water District |
| City/Town/Municipality: | Lake Forest |
| State / Province: | California (CA) |
| Country: | USA |
| Year: | 2018 Calendar Year |
| Audit Preparation Date: | 4/29/2018 |
| Volume Reporting Units: | Acre-feet |
| PWSID / Other ID: | 3010079 |

**The following guidance will help you complete the Audit**

All audit data are entered on the ***Reporting Worksheet***

- Value can be entered by user
- Value calculated based on input data
- These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left

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***Example Audits***
Reporting Worksheet and Performance Indicators examples are shown for two validated audits

***Acknowledgements***
Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: wlc@awwa.org

# AWWA Free Water Audit Software:
## Reporting Worksheet

WAS v5.0



? Click to access definition
+ Click to add a comment

**Water Audit Report for:** El Toro Water District (3010079)
**Reporting Year:** 2018 | 1/2018 - 12/2018

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

**All volumes to be entered as: ACRE-FEET PER YEAR**

To select the correct data grading for each input, determine the highest grade

Master Meter and Supply Error Adjustments

### WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

| | | | | | | Pcnt: | Value: | |
|---|---|---|---|---|---|---|---|---|
| Volume from own sources: | n/a | | acre-ft/yr | | | | | acre-ft/yr |
| Water imported: | 5 | 7,632.807 | acre-ft/yr | 1 | | | -84.990 | acre-ft/yr |
| Water exported: | 3 | 84.167 | acre-ft/yr | 1 | | | | acre-ft/yr |

Enter negative % or value for under-registration
Enter positive % or value for over-registration

**WATER SUPPLIED:** 7,633.630 acre-ft/yr

### AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

| | | | Pcnt: | Value: | |
|---|---|---|---|---|---|
| Billed metered: | 5 | 7,177.676 | acre-ft/yr | | | |
| Billed unmetered: | n/a | | acre-ft/yr | | | |
| Unbilled metered: | 9 | 87.700 | acre-ft/yr | | | |
| Unbilled unmetered: | 6 | 5.745 | acre-ft/yr | 1.25% | 5.745 | acre-ft/yr |

FALSE

Use buttons to select percentage of water supplied **OR** value

**AUTHORIZED CONSUMPTION:** 7,271.121 acre-ft/yr

### WATER LOSSES (Water Supplied - Authorized Consumption)

362.509 acre-ft/yr

#### Apparent Losses

| | | | Pcnt: | Value: | |
|---|---|---|---|---|---|
| Unauthorized consumption: | | 19.084 | acre-ft/yr | 0.25% | | acre-ft/yr |

**Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed**

| | | | | | |
|---|---|---|---|---|---|
| Customer metering inaccuracies: | 3 | 36.509 | acre-ft/yr | 0.50% | acre-ft/yr |
| Systematic data handling errors: | 5 | 17.944 | acre-ft/yr | 0.25% | acre-ft/yr |

**Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed**

**Apparent Losses:** 73.538 acre-ft/yr

#### Real Losses (Current Annual Real Losses or CARL)

**Real Losses = Water Losses - Apparent Losses:** 288.971 acre-ft/yr

**WATER LOSSES:** 362.509 acre-ft/yr

### NON-REVENUE WATER

**NON-REVENUE WATER:** 455.954 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

### SYSTEM DATA

| | | | | |
|---|---|---|---|---|
| Length of mains: | 9 | 180.0 | miles | |
| Number of active AND inactive service connections: | 9 | 10,051 | | |
| Service connection density: | | 56 | conn./mile main | |
| Are customer meters typically located at the curbstop or property line? | | Yes | | |
| Average length of customer service line: | | | | (length of service line, beyond the property boundary, that is the responsibility of the utility) |

**Average length of customer service line has been set to zero and a data grading score of 10 has been applied**

| | | | | |
|---|---|---|---|---|
| Average operating pressure: | 5 | 86.8 | psi | |

### COST DATA

| | | | | |
|---|---|---|---|---|
| Total annual cost of operating water system: | 10 | $17,786,264 | $/Year | |
| Customer retail unit cost (applied to Apparent Losses): | 10 | $2.94 | $/100 cubic feet (ccf) | |
| Variable production cost (applied to Real Losses): | 5 | $938.94 | $/acre-ft | ☐ Use Customer Retail Unit Cost to value real losses |

### WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 61 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

### PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported
2: Customer metering inaccuracies
3: Billed metered

# AWWA Free Water Audit Software:
## System Attributes and Performance Indicators



**Water Audit Report for:** El Toro Water District (3010079)
**Reporting Year:** 2018 | 1/2018 - 12/2018

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 61 out of 100 ***

**System Attributes:**

| | | |
|---|---|---|
| Apparent Losses: | 73.538 | acre-ft/yr |
| + Real Losses: | 288.971 | acre-ft/yr |
| = **Water Losses:** | **362.509** | acre-ft/yr |
| ? voidable Annual Real Losses (UARL): | 241.27 | acre-ft/yr |
| Annual cost of Apparent Losses: | $94,177 | |
| Annual cost of Real Losses: | $271,327 | Valued at **Variable Production Cost** |

Return to Reporting Worksheet to change this assumpiton

**Performance Indicators:**

Financial:

| | | |
|---|---|---|
| Non-revenue water as percent by volume of Water Supplied: | 6.0% | |
| Non-revenue water as percent by cost of operating system: | 2.5% | Real Losses valued at Variable Production Cost |

Operational Efficiency:

| | | |
|---|---|---|
| Apparent Losses per service connection per day: | 6.53 | gallons/connection/day |
| Real Losses per service connection per day: | 25.67 | gallons/connection/day |
| Real Losses per length of main per day*: | N/A | |
| Real Losses per service connection per day per psi pressure: | 0.30 | gallons/connection/day/psi |

| | | |
|---|---|---|
| From Above, Real Losses = Current Annual Real Losses (CARL): | 288.97 | acre-feet/year |
| ? astructure Leakage Index (ILI) [CARL/UARL]: | 1.20 | |

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

# AWWA Free Water Audit Software:
## User Comments

American Water Works Association.

Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

| | |
|---|---|
| **General Comment:** | |

| Audit Item | Comment |
|---|---|
| Volume from own sources: | |
| Vol. from own sources: Master meter error adjustment: | |
| Water imported: | |
| Water imported: master meter error adjustment: | |
| Water exported: | |
| Water exported: master meter error adjustment: | |
| Billed metered: | |
| Billed unmetered: | |
| Unbilled metered: | |
| Unbilled unmetered: | |
| Unauthorized consumption: | |

| Audit Item | Comment |
|---|---|
| Customer metering inaccuracies: | |
| Systematic data handling errors: | |
| Length of mains: | |
| Number of active AND inactive service connections: | |
| Average length of customer service line: | |
| Average operating pressure: | |
| Total annual cost of operating water system: | |
| Customer retail unit cost (applied to Apparent Losses): | |
| Variable production cost (applied to Real Losses): | |

# AWWA Free Water Audit Software: Water Balance

WAS v5.0

American Water Works Association.

| | |
|---|---|
| Water Audit Report for: | El Toro Water District (3010079) |
| Reporting Year: | 2018 — 1/2018 - 12/2018 |
| Data Validity Score: | 61 |

**Water Exported**
*84.167*

**Billed Water Exported**

**Own Sources**
(Adjusted for known errors)
*0.000*

**Water Supplied**
*7,633.630*

**Authorized Consumption**
*7,271.121*

**Billed Authorized Consumption**
*7,177.676*

**Billed Metered Consumption (water exported is removed)**
*7,177.676*

**Billed Unmetered Consumption**
*0.000*

**Revenue Water**
7,177.676

**Unbilled Authorized Consumption**
*93.445*

**Unbilled Metered Consumption**
*87.700*

**Unbilled Unmetered Consumption**
*5.745*

**Non-Revenue Water (NRW)**
*455.954*

**Water Losses**
*362.509*

**Apparent Losses**
*73.538*

**Unauthorized Consumption**
*19.084*

**Customer Metering Inaccuracies**
*36.509*

**Systematic Data Handling Errors**
*17.944*

**Water Imported**
*7,717.797*

**Real Losses**
*288.971*

**Leakage on Transmission and/or Distribution Mains**
*Not broken down*

**Leakage and Overflows at Utility's Storage Tanks**
*Not broken down*

**Leakage on Service Connections**
*Not broken down*

# AWWA Free Water Audit Software:
## Dashboard

WAS v5.0

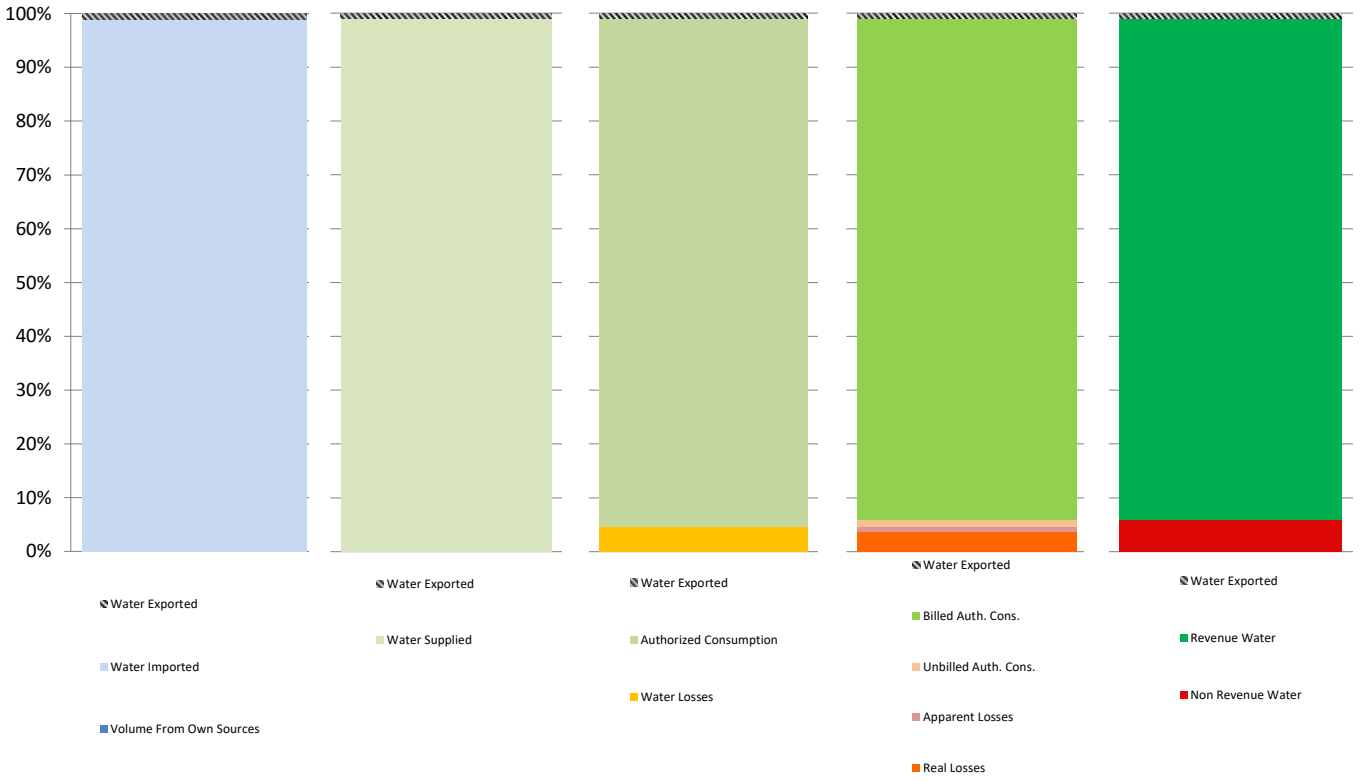
American Water Works Association.

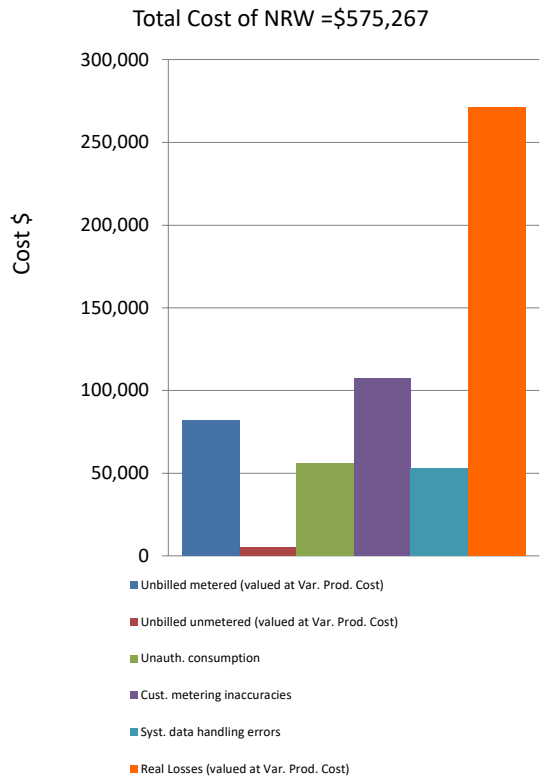
The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

| | | |
|---|---|---|
| **Water Audit Report for:** | **El Toro Water District (3010079)** | |
| **Reporting Year:** | **2018** | **1/2018 - 12/2018** |
| **Data Validity Score:** | **61** | |

○ Show me the VOLUME of Non-Revenue Water

◉ Show me the COST of Non-Revenue Water



# AWWA Free Water Audit Software v5.0



This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format, and is not meant to take the place of a full-scale, comprehensive water audit format.

Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targetting loss reduction levels

The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

**Please begin by providing the following information**

| | |
|---|---|
| Name of Contact Person: | Booby Young |
| Email Address: | byoung@etwd.com |
| Telephone \| Ext.: | 949-837-7050 ext. 247 |
| Name of City / Utility: | El Toro Water District |
| City/Town/Municipality: | Lake Forest |
| State / Province: | California (CA) |
| Country: | USA |
| Year: | 2019 Calendar Year |
| Audit Preparation Date: | 7/27/2020 |
| Volume Reporting Units: | Acre-feet |
| PWSID / Other ID: | 3010079 |

**The following guidance will help you complete the Audit**

All audit data are entered on the ***Reporting Worksheet***

- Value can be entered by user
- Value calculated based on input data
- These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left

To enter a value, choose this button and enter a value in the cell to the right

**The following worksheets are available by clicking the buttons below or selecting the tabs along the bottom of the page**

***Instructions***
The current sheet. Enter contact information and basic audit details (year, units etc)

***Reporting Worksheet***
Enter the required data on this worksheet to calculate the water balance and data grading

***Comments***
Enter comments to explain how values were calculated or to document data sources

***Performance Indicators***
Review the performance indicators to evaluate the results of the audit

***Water Balance***
The values entered in the Reporting Worksheet are used to populate the Water Balance

***Dashboard***
A graphical summary of the water balance and Non-Revenue Water components

***Grading Matrix***
Presents the possible grading options for each input component of the audit

***Service Connection Diagram***
Diagrams depicting possible customer service connection line configurations

***Definitions***
Use this sheet to understand the terms used in the audit process

***Loss Control Planning***
Use this sheet to interpret the results of the audit validity score and performance indicators

***Example Audits***
Reporting Worksheet and Performance Indicators examples are shown for two validated audits

***Acknowledgements***
Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: wlc@awwa.org

# AWWA Free Water Audit Software:
## Reporting Worksheet

WAS v5.0
American Water Works Association.

? Click to access definition
+ Click to add a comment

**Water Audit Report for:** El Toro Water District (3010079)
**Reporting Year:** 2019 | 1/2019 - 12/2019

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

**All volumes to be entered as: ACRE-FEET PER YEAR**

To select the correct data grading for each input, determine the highest grade where

Master Meter and Supply Error Adjustments

### WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

| | | | | | Pcnt: | Value: | |
|---|---|---|---|---|---|---|---|
| Volume from own sources: | n/a | | acre-ft/yr | | | | acre-ft/yr |
| Water imported: | 5 | 7,025.776 | acre-ft/yr | 1 | | -43.860 | acre-ft/yr |
| Water exported: | 3 | 0.030 | acre-ft/yr | 1 | | | acre-ft/yr |
| **WATER SUPPLIED:** | | **7,069.606** | acre-ft/yr | | | | |

Enter negative % or value for under-registration
Enter positive % or value for over-registration

### AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

| | | | Pcnt: | Value: | |
|---|---|---|---|---|---|
| Billed metered: | 5 | 6,684.808 acre-ft/yr | | | |
| Billed unmetered: | n/a | acre-ft/yr | | | |
| Unbilled metered: | 9 | 29.345 acre-ft/yr | | | |
| Unbilled unmetered: | 6 | 5.745 acre-ft/yr | | | acre-ft/yr |
| **AUTHORIZED CONSUMPTION:** | | **6,719.898** acre-ft/yr | | | |

Use buttons to select percentage of water supplied **OR** value

### WATER LOSSES (Water Supplied - Authorized Consumption)

**349.708** acre-ft/yr

#### Apparent Losses

| | | | Pcnt: | Value: | |
|---|---|---|---|---|---|
| Unauthorized consumption: | | 17.674 acre-ft/yr | 0.25% | | acre-ft/yr |

**Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed**

| | | | | | |
|---|---|---|---|---|---|
| Customer metering inaccuracies: | 3 | 33.739 acre-ft/yr | 0.50% | | acre-ft/yr |
| Systematic data handling errors: | | 16.712 acre-ft/yr | 0.25% | | acre-ft/yr |

**Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed**

**Apparent Losses:** **68.125** acre-ft/yr

#### Real Losses (Current Annual Real Losses or CARL)

**Real Losses = Water Losses - Apparent Losses:** **281.583** acre-ft/yr

**WATER LOSSES:** **349.708** acre-ft/yr

### NON-REVENUE WATER

**NON-REVENUE WATER:** **384.798** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

### SYSTEM DATA

| | | | |
|---|---|---|---|
| Length of mains: | 9 | 180.0 | miles |
| Number of active AND inactive service connections: | 9 | 10,049 | |
| Service connection density: | | 56 | conn./mile main |

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

**Average length of customer service line has been set to zero and a data grading score of 10 has been applied**

Average operating pressure: 5 | 86.8 psi

### COST DATA

| | | | |
|---|---|---|---|
| Total annual cost of operating water system: | 10 | $16,995,003 | $/Year |
| Customer retail unit cost (applied to Apparent Losses): | 10 | $2.94 | $/100 cubic feet (ccf) |
| Variable production cost (applied to Real Losses): | 5 | $1,090.00 | $/acre-ft ☐ Use Customer Retail Unit Cost to value real losses |

### WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 61 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

### PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported
2: Customer metering inaccuracies
3: Billed metered

# AWWA Free Water Audit Software:
## System Attributes and Performance Indicators

WAS v5.0

American Water Works Association.

**Water Audit Report for:** El Toro Water District (3010079)
**Reporting Year:** 2019 | 1/2019 - 12/2019

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 61 out of 100 ***

**System Attributes:**

| | | | |
|---|---|---|---|
| | Apparent Losses: | 68.125 | acre-ft/yr |
| + | Real Losses: | 281.583 | acre-ft/yr |
| = | **Water Losses:** | **349.708** | acre-ft/yr |
| ? | Unavoidable Annual Real Losses (UARL): | 241.28 | acre-ft/yr |
| | Annual cost of Apparent Losses: | $87,246 | |
| | Annual cost of Real Losses: | $306,925 | Valued at **Variable Production Cost** |

Return to Reporting Worksheet to change this assumpiton

**Performance Indicators:**

| | | | |
|---|---|---|---|
| Financial: | Non-revenue water as percent by volume of Water Supplied: | 5.4% | |
| | Non-revenue water as percent by cost of operating system: | 2.5% | Real Losses valued at Variable Production Cost |
| Operational Efficiency: | Apparent Losses per service connection per day: | 6.05 | gallons/connection/day |
| | Real Losses per service connection per day: | 25.02 | gallons/connection/day |
| | Real Losses per length of main per day*: | N/A | |
| | Real Losses per service connection per day per psi pressure: | 0.29 | gallons/connection/day/psi |
| | From Above, Real Losses = Current Annual Real Losses (CARL): | 281.58 | acre-feet/year |
| ? | Infrastructure Leakage Index (ILI) [CARL/UARL]: | 1.17 | |

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

# AWWA Free Water Audit Software:
## User Comments




Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

| | |
|---|---|
| **General Comment:** | |

| Audit Item | Comment |
|---|---|
| Volume from own sources: | |
| Vol. from own sources: Master meter error adjustment: | |
| Water imported: | |
| Water imported: master meter error adjustment: | |
| Water exported: | |
| Water exported: master meter error adjustment: | |
| Billed metered: | |
| Billed unmetered: | |
| Unbilled metered: | |

| Audit Item | Comment |
|---|---|
| Unbilled unmetered: | |
| Unauthorized consumption: | |
| Customer metering inaccuracies: | |
| Systematic data handling errors: | |
| Length of mains: | |
| Number of active AND inactive service connections: | |
| Average length of customer service line: | |
| Average operating pressure: | |
| Total annual cost of operating water system: | |
| Customer retail unit cost (applied to Apparent Losses): | |
| Variable production cost (applied to Real Losses): | |

# AWWA Free Water Audit Software: Water Balance

WAS v5.0

American Water Works Association.

| | |
|---|---|
| Water Audit Report for: | El Toro Water District (3010079) |
| Reporting Year: | 2019 — 1/2019 - 12/2019 |
| Data Validity Score: | 61 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Water Exported 0.030 | | Billed Water Exported | | Revenue Water 0.030 |
| Own Sources (Adjusted for known errors) 0.000 | System Input 7,069.636 | Water Supplied 7,069.606 | Authorized Consumption 6,719.898 | Billed Authorized Consumption 6,684.808 | Billed Metered Consumption (water exported is removed) 6,684.808 | Revenue Water 6,684.808 |
| | | | | | Billed Unmetered Consumption 0.000 | |
| | | | | Unbilled Authorized Consumption 35.090 | Unbilled Metered Consumption 29.345 | Non-Revenue Water (NRW) 384.798 |
| | | | | | Unbilled Unmetered Consumption 5.745 | |
| | | | Water Losses 349.708 | Apparent Losses 68.125 | Unauthorized Consumption 17.674 | |
| | | | | | Customer Metering Inaccuracies 33.739 | |
| | | | | | Systematic Data Handling Errors 16.712 | |
| Water Imported 7,069.636 | | | | Real Losses 281.583 | Leakage on Transmission and/or Distribution Mains Not broken down | |
| | | | | | Leakage and Overflows at Utility's Storage Tanks Not broken down | |
| | | | | | Leakage on Service Connections Not broken down | |

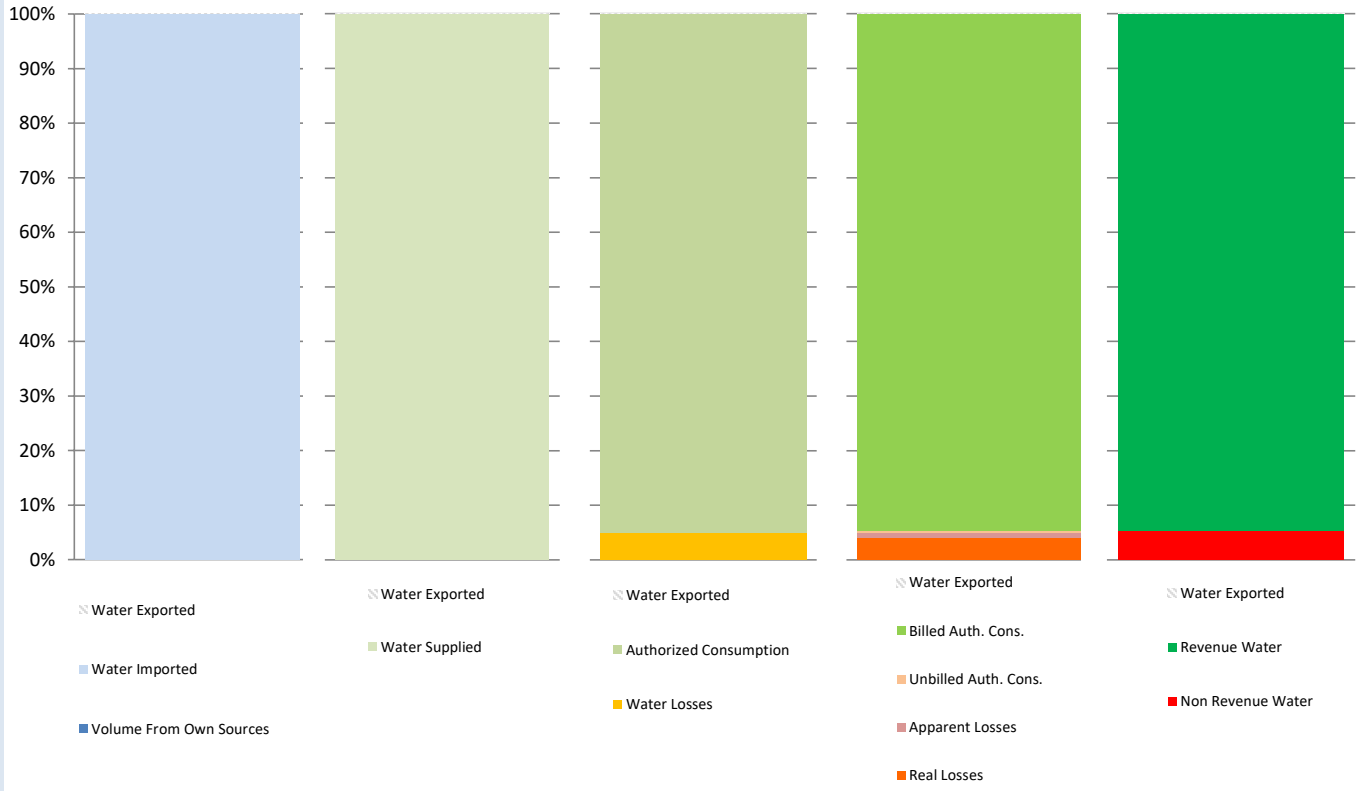
# AWWA Free Water Audit Software:
## Dashboard

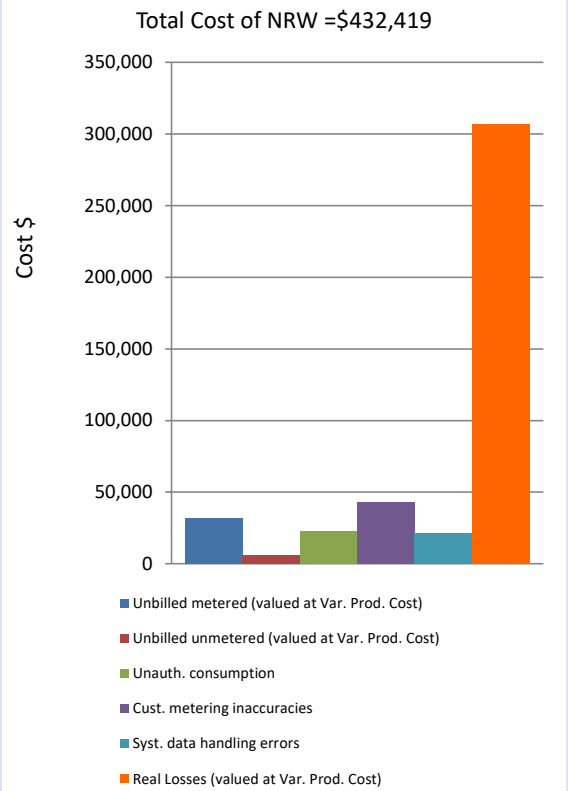
WAS v5.0
American Water Works Association.

The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

| | | |
|---|---|---|
| **Water Audit Report for:** | **El Toro Water District (3010079)** | |
| **Reporting Year:** | **2019** | **1/2019 - 12/2019** |
| **Data Validity Score:** | **61** | |

○ Show me the VOLUME of Non-Revenue Water
◉ Show me the COST of Non-Revenue Water



# APPENDIX G

## DWR Energy Use Tables

***Urban Water Supplier:*** *El Toro Water District*

**Water Delivery Product** (If delivering more than one type of product use Table O-1C)

*Retail Potable Deliveries*

**Table O-1A: Recommended Energy Reporting - Water Supply Process Approach**

Enter Start Date for Reporting Period: 7/1/2019

End Date: 6/29/2020

☐ Is upstream embedded in the values reported?

| | Water Volume Units Used | Urban Water Supplier Operational Control: Water Management Process: Extract and Divert | Place into Storage | Conveyance | Treatment | Distribution | Total Utility | Non-Consequential Hydropower (if applicable): Hydropower | Net Utility |
|---|---|---|---|---|---|---|---|---|---|
| *Volume of Water Entering Process* | AF | *0* | *0* | *0* | *0* | *6,880* | *6880* | *0* | *6880* |
| *Energy Consumed (kWh)* | *N/A* | *0* | *0* | *0* | *0* | *1,215,656* | *1215656* | *0* | *1215656* |
| *Energy Intensity (kWh/vol.)* | *N/A* | *0.0* | *0.0* | *0.0* | *0.0* | *176.7* | *176.7* | *0.0* | *176.7* |

**Quantity of Self-Generated Renewable Energy**

0 kWh

**Data Quality** *(Estimate, Metered Data, Combination of Estimates and Metered Data)*

*Combination of Estimates and Metered Data*

**Data Quality Narrative:**

Volume of Water Entering Process: Based on ETWD's Annual Water Audit. Non-Revenue Water is not considered in this calculation – the energy efficiency is based on water delivered to customers. Energy Consumed: Based on metered data.

**Narrative:**

El Toro relies on imported water and recycled water to meet their customers' water needs. Operational control in the potable water system is limited to potable water booster stations. This table does not include upstream embedded energy consumed prior to El Toro taking control. In FY 2019, 7265 AF of water was imported by ETWD but the district experienced 385 AF of water losses resulting in a total of 6,880 AF of potable water delivered to customers.

***Urban Water Supplier:*** *El Toro Water District*

| Table O-2: Recommended Energy Reporting - Wastewater & Recycled Water | | | | | |
|---|---|---|---|---|---|
| Enter Start Date for Reporting Period | 7/1/2019 | **Urban Water Supplier Operational Control** | | | |
| End Date | 6/29/2020 | **Water Management Process** | | | |
| ☐ Is upstream embedded in the values reported? | | Collection / Conveyance | Treatment | Discharge / Distribution | Total |
| **Volume** of Water Units Used | AF | | | | |
| *Volume of Wastewater Entering Process (volume units selected above)* | | *4,219* | *4,219* | *3,048* | *4219* |
| *Wastewater Energy Consumed (kWh)* | | *886,212* | *5,197,043* | *0* | *6083255* |
| *Wastewater Energy Intensity (kWh/volume)* | | *210.1* | *1231.8* | *0.0* | *1441.9* |
| *Volume of Recycled Water Entering Process (volume units selected above)* | | *0* | *0* | *1,171* | *1171* |
| *Recycled Water Energy Consumed (kWh)* | | *0* | *0* | *757,683* | *757683* |
| *Recycled Water Energy Intensity (kWh/volume)* | | *0.0* | *0.0* | *647.0* | *647.0* |

**Quantity of Self-Generated Renewable Energy related to recycled water and wastewater operations**

0 kWh

**Data Quality** *(Estimate, Metered Data, Combination of Estimates and Metered Data)*

*Combination of Estimates and Metered Data*

**Data Quality Narrative:**

Wastewater Volume of Water Entering Process: Estimated based potable water consumption in the service area. For these calculations, we assume that all wastewater collected is treated. A portion of treated wastewater then moves to the recycled water system while the rest is discharged to the ocean.
Wastewater Energy Consumed: Based on metered data.
Recycled Water Volume of Water Entering Process: based on metered data for recycled water delivered to the customer.

**Narrative:**

El Toro Water District operates the local wastewater collection system as well as a Water Recycling Plant. Water treated at the recycling plant is used for irrigation purposes.

# APPENDIX H

## Water Shortage Contingency Plan

May 2021

# 2020 Water Shortage Contingency Plan

## Final Draft

# 2020 Water Shortage Contingency Plan

May 2021

**Prepared By:**
Arcadis U.S., Inc.
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https://etwd.com/

Maddaus Water Management Inc.
Danville, California 94526
Sacramento, California 95816
www.maddauswater.com

**Our Ref:**
30055240

_____

Lisa Maddaus, PE
Technical Lead
Maddaus Water Management, Inc.

_____

Sarina Sriboonlue, PE
Project Manager
Arcadis U.S., Inc.

# Contents

# Tables



# Figures

# Appendices

# Acronyms and Abbreviations

| | |
|---|---|
| % | Percent |
| AF | Acre-Feet |
| Annual Assessment | Annual Water Supply and Demand Assessment |
| CRA | Colorado River Aqueduct |
| District | El Toro Water District |
| DRA | Drought Risk Assessment |
| DVL | Diamond Valley Lake |
| DWR | California Department of Water Resources |
| EAP | Emergency Operations Center Actions Plan |
| EOC | Emergency Operation Center |
| EOP | Emergency Operations Plan |
| ERP | Emergency Response Plan |
| FY | Fiscal Year |
| HMP | Hazard Mitigation Plan |
| IRP | Integrated Water Resource Plan |
| M&I | Municipal and Industrial |
| MCL | Maximum Contaminant Level |
| MET | Metropolitan Water District of Southern California |
| Metropolitan Act | Metropolitan Water District Act |
| MWDOC | Municipal Water District of Orange County |
| NIMS | National Incident Management System |
| OCWD | Orange County Water District |
| SEMS | California Standardized Emergency Management System |
| Supplier | Urban Water Supplier |
| SOCWA | South Orange County Wastewater Authority |
| SWP | State Water Project |
| UWMP | Urban Water Management Plan |
| Water Code | California Water Code |
| WEROC | Water Emergency Response Organization of Orange County |
| WSAP | Water Supply Allocation Plan |
| WSCP | Water Shortage Contingency Plan |
| WSDM | Water Surplus and Drought Management Plan |

# 1 INTRODUCTION AND WSCP OVERVIEW

The Water Shortage Contingency Plan (WSCP) is a strategic planning document designed to prepare for and respond to water shortages. This WSCP complies with California Water Code (Water Code) Section 10632, which requires that every urban water supplier (Supplier) shall prepare and adopt a WSCP as part of its Urban Water Management Plan (UWMP). This level of detailed planning and preparation is intended to help maintain reliable supplies and reduce the impacts of supply interruptions.

The WSCP is El Toro Water District (District)'s operating manual that is used to prevent catastrophic service disruptions through proactive, rather than reactive, management. A water shortage, when water supply available is insufficient to meet the normally expected customer water use at a given point in time, may occur due to a number of reasons, such as drought, climate change, and catastrophic events. This WSCP provides a structured guide for the District to deal with water shortages, incorporating prescriptive information and standardized action levels, along with implementation actions in the event of a catastrophic supply interruption. This way, if and when shortage conditions arise, the District's governing body, its staff, and the public can easily identify and efficiently implement pre-determined steps to manage a water shortage. A well-structured WSCP allows real-time water supply availability assessment and structured steps designed to respond to actual conditions, to allow for efficient management of any shortage with predictability and accountability.

The WSCP also describes the District's procedures for conducting an Annual Water Supply and Demand Assessment (Annual Assessment) that is required by Water Code Section 10632.1 and is to be submitted to the California Department of Water Resources (DWR) on or before July 1 of each year, or within 14 days of receiving final allocations from the State Water Project (SWP), whichever is later. The District's 2020 WSCP is included as an appendix to its 2020 UWMP which will be submitted to DWR by July 1, 2021. However, this WSCP is created separately from the District's 2020 UWMP and can be amended, as needed, without amending the UWMP. Furthermore, the Water Code does not prohibit a Supplier from taking actions not specified in its WSCP, if needed, without having to formally amend its UWMP or WSCP.

## 1.1 Water Shortage Contingency Plan Requirements and Organization

The WSCP provides the steps and water shortage response actions to be taken in times of water shortage conditions. The WSCP has prescriptive elements, such as an analysis of water supply reliability; the water shortage response actions for each of the six standard water shortage levels that correspond to water shortage percentages ranging from 10% to greater than 50%; an estimate of potential to close supply gap for each measure; protocols and procedures to communicate identified actions for any current or predicted water shortage conditions; procedures for an Annual Assessment; monitoring and reporting requirements to determine customer compliance; and reevaluation and improvement procedures for evaluating the WSCP.

This WSCP is organized into three main sections, with Section 3 aligned with Water Code Section 16032 requirements.

**Section 1 Introduction and WSCP Overview** gives an overview of the WSCP fundamentals.

**Section 2 Background** provides a background on the District's water service area.

**Section 3 Water Shortage Contingency Preparedness and Response Planning**

**Section 3.1 Water Supply Reliability Analysis** provides a summary of the water supply analysis and water reliability findings from the 2020 UWMP.

**Section 3.2 Annual Water Supply and Demand Assessment Procedures** provide a description of procedures to conduct and approve the Annual Assessment.

**Section 3.3 Six Standard Water Shortage Stages** explains the WSCP's six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, 50, and more than 50% shortages.

**Section 3.4 Shortage Response Actions** describes the WSCP's shortage response actions that align with the defined shortage levels.

**Section 3.5 Communication Protocols** addresses communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding any current or predicted shortages and any resulting shortage response actions.

**Section 3.6 Compliance and Enforcement** describes customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions.

**Section 3.7 Legal Authorities** is a description of the legal authorities that enable the District to implement and enforce its shortage response actions.

**Section 3.8 Financial Consequences of the WSCP** provides a description of the financial consequences of and responses for drought conditions.

**Section 3.9 Monitoring and Reporting** describes monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements**.**

**Section 3.10 WSCP Refinement Procedures** addresses reevaluation and improvement procedures for monitoring and evaluating the functionality of the WSCP.

**Section 3.11 Special Water Feature Distinction** is a required definition for inclusion in a WSCP per the Water Code.

**Section 3.12 Plan Adoption, Submittal, and Implementation** provides a record of the process the District followed to adopt and implement its WSCP.

## 1.2 Integration with Other Planning Efforts

As a retail water supplier in Orange County, the District considered other key entities in the development of this WSCP, including the Municipal Water District of Orange County ([MWDOC] (regional wholesale supplier)), the Metropolitan Water District of Southern California ([MET] (regional wholesaler for Southern California and the direct supplier of imported water to MWDOC)), and the Baker Water Treatment Plant. As a MWDOC member agency, the District also developed this WSCP with input from several coordination efforts led by MWDOC.

Some of the key planning and reporting documents that were used to develop this WSCP are:

- **MWDOC's 2020 UWMP** provides the basis for the projections of the imported supply availability over the next 25 years for the District's service area.

- **MWDOC's 2020 WSCP** provides a water supply availability assessment and structured steps designed to respond to actual conditions that will help maintain reliable supplies and reduce the impacts of supply interruptions.
- **2021 Orange County Water Demand Forecast for MWDOC and Orange County Water District (OCWD) Technical Memorandum (Demand Forecast TM)** provides the basis for water demand projections for MWDOC's member agencies as well as Anaheim, Fullerton, and Santa Ana.
- **MET's 2020 Integrated Water Resources Plan (IRP)** is a long-term planning document to ensure water supply availability in Southern California and provides a basis for water supply reliability in Orange County.
- **MET's 2020 UWMP** was developed as a part of the 2020 IRP planning process and was used by MWDOC as another basis for the projections of supply capability of the imported water received from MET.
- **MET's 2020 WSCP** provides a water supply assessment and guide for MET's intended actions during water shortage conditions.
- **2020 Local Hazard Mitigation Plan (HMP)** provides the basis for the seismic risk analysis of the water system facilities.
- **Orange County Local Agency Formation Commission's 2020 Municipal Service Review for MWDOC Report** provides a comprehensive service review of the municipal services provided by MWDOC.
- **Water Master Plan and Sewer Master Plan** of the District provide information on water infrastructure planning projects and plans to address any required water system improvements.

# 2 BACKGROUND INFORMATION

Currently governed by a five-member Board of Directors, the District was formed in 1960 under provisions of California Water District Law, Division 13 of the Water Code of the State of California, commencing with Section 34000 for the purpose of providing water supply for the service area.

## 2.1 District Service Area

The District encompasses approximately 5,430 acres and is almost entirely developed and encompasses all of the City of Laguna Woods and portions of four other cities: Lake Forest, Aliso Viejo, Laguna Hills, and Mission Viejo.

The District service area ranges in elevation between 230 feet above sea level at its lowest point to 904 feet at its highest. In general, elevations increase from west to east. Interstate 5 bisects the District from north to south, with the higher elevations located on the east side. The District is bordered by the Irvine Ranch Water District to the north, the Laguna Beach County Water District to the west, the Moulton Niguel Water District to the west and south, and the Santa Margarita Water District to the south and east. The District also shares a small border with the Trabuco Canyon Water District in the north.

The District operates and maintains a system that has approximately 9,500 service connections, 12 different pressure zones, 6 reservoirs, 8 pump stations, 19 pressure reducing stations and approximately 180 miles of transmission and distribution pipelines of varying diameters between four inches and 24 inches.

A map of the District's water service area is shown in Figure 2-1.

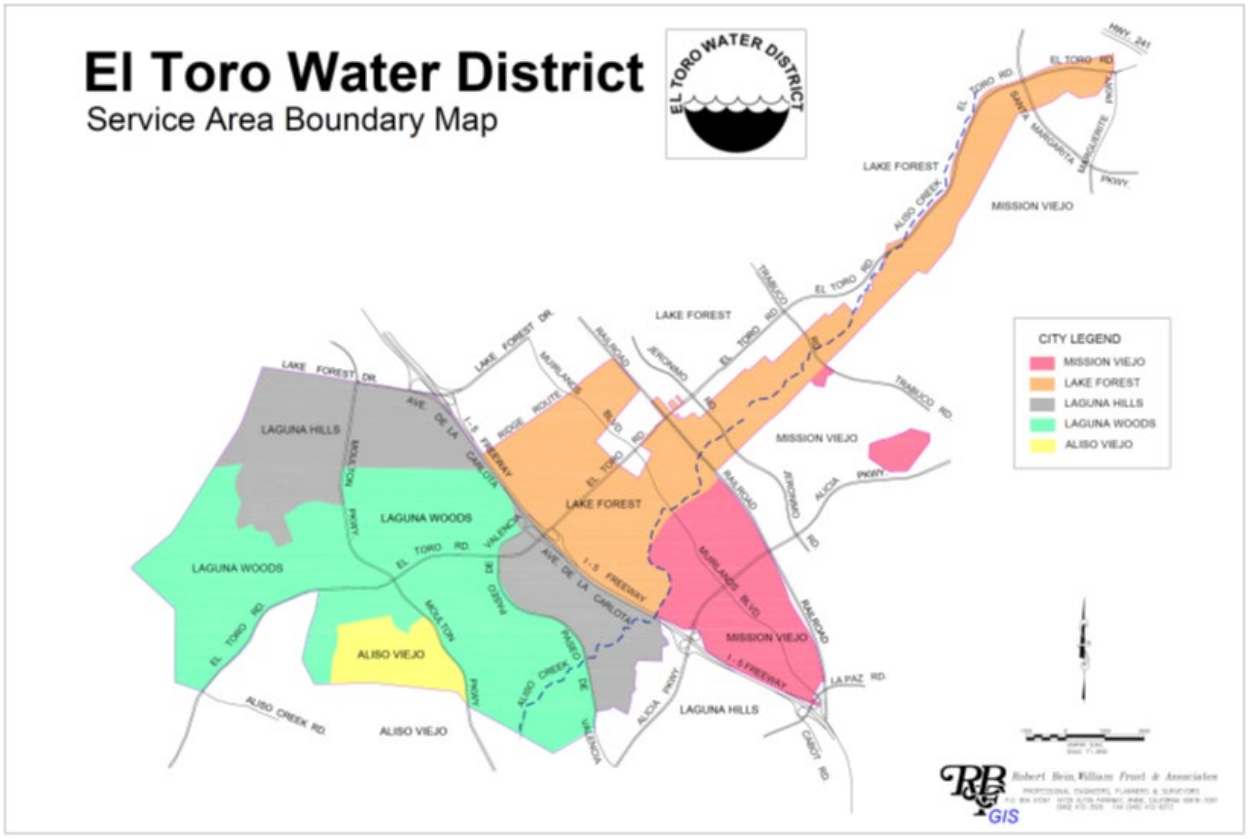


**Figure 2-1: District Service Area**

Although the District supplements it water supply portfolio with recycled water, the WSCP only applies to its potable water supply. The District is directly involved in wastewater services through its ownership and operation of the wastewater treatment facilities and collection system in its service area. The District operates wastewater treatment facilities and is part of the regional South Orange County Wastewater Authority (SOCWA). Almost all of the wastewater generated within the District's service area is conveyed to its Water Recycling Plant, where it is treated and either used for irrigation or disposed of through SOCWA's effluent transmission main and ocean outfall (ETWD, 2021). The District will determine the recycled water demand reduction actions for recycled water based on the availability of supply and to meet necessary wastewater discharge permit requirements.

## 2.2 Relationship to Wholesalers

**MET**: MET is the largest water wholesaler for domestic and municipal uses in California, serving approximately 19 million customers. MET wholesales imported water supplies to 26 member cities and water districts in six Southern California counties. Its service area covers the Southern California coastal plain, extending approximately 200 miles along the Pacific Ocean from the City of Oxnard in the north to the international boundary with Mexico in the south. This encompasses 5,200 square miles and includes portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties. Approximately 85% of the population from the aforementioned counties reside within MET's boundaries.

MET is governed by a Board of Directors comprised of 38 appointed individuals with a minimum of one representative from each of MET's 26 member agencies. The allocation of directors and voting rights are determined by each agency's assessed valuation. Each member of the Board shall be entitled to cast one vote for each ten million dollars ($10,000,000) of assessed valuation of property taxable for district purposes, in accordance with Section 55 of the Metropolitan Water District Act (Metropolitan Act). Directors can be appointed through the chief executive officer of the member agency or by a majority vote of the governing board of the agency. Directors are not compensated by MET for their service.

MET is responsible for importing water into the region through its operation of the Colorado River Aqueduct (CRA) and its contract with the State of California for SWP supplies. Member agencies receive water from MET through various delivery points and pay for service through a rate structure made up of volumetric rates, capacity charges and readiness to serve charges. Member agencies provide estimates of imported water demand to MET annually in April regarding the amount of water they anticipate they will need to meet their demands for the next five years.

**MWDOC:** In Orange County, MWDOC and the cities of Anaheim, Fullerton, and Santa Ana are MET member agencies that purchase imported water directly from MET. Furthermore, MWDOC purchases both treated potable and untreated water from MET to supplement its retail agencies' local supplies.

The District is one of MWDOC's 28 member agencies receiving imported water from MWDOC. The District's location within MWDOC's service area is shown on Figure 2-2.

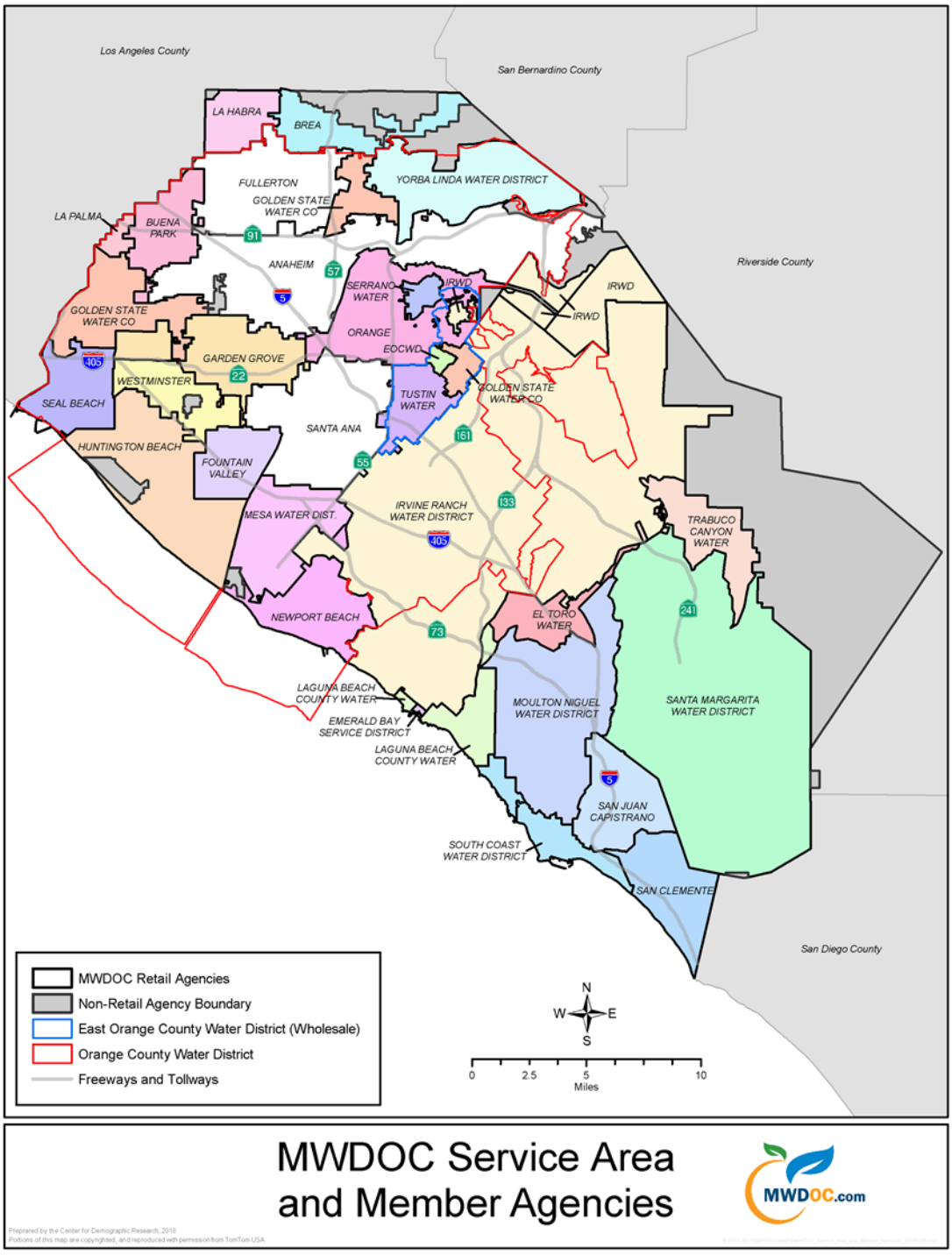


**Figure 2-2: Regional Location of the District and Other MWDOC Member Agencies**

## 2.3 Relationship with Wholesaler Water Shortage Planning

The WSCP is designed to be consistent with MET's Water Shortage and Demand Management (WSDM) Plan, MWDOC's Water Supply Allocation Plan (WSAP), and other emergency planning efforts as described below. MWDOC's WSAP is integral to the WSCP's shortage response strategy in the event that MET or MWDOC determines that supply augmentation (including storage) and lesser demand reduction measures would not be sufficient to meet a projected shortage levels needed to meet demands.

### 2.3.1 MET Water Surplus and Drought Management Plan

MET evaluates the level of supplies available and existing levels of water in storage to determine the appropriate management stage annually. Each stage is associated with specific resource management actions to avoid extreme shortages to the extent possible and minimize adverse impacts to retail customers should an extreme shortage occur. The sequencing outlined in the WSDM Plan reflects anticipated responses towards MET's existing and expected resource mix.

Surplus stages occur when net annual deliveries can be made to water storage programs. Under the WSDM Plan, there are four surplus management stages that provides a framework for actions to take for surplus supplies. Deliveries in Diamond Valley Lake (DVL) and in SWP terminal reservoirs continue through each surplus stage provided there is available storage capacity. Withdrawals from DVL for regulatory purposes or to meet seasonal demands may occur in any stage.

The WSDM Plan distinguishes between shortages, severe shortages, and extreme shortages. The differences between each term are listed below.

- Shortage: MET can meet full-service demands and partially meet or fully meet interruptible demands using stored water or water transfers as necessary.
- Severe Shortage: MET can meet full-service demands only by using stored water, transfers, and possibly calling for extraordinary conservation.
- Extreme Shortage: MET must allocate available supply to full-service customers.

There are six shortage management stages to guide resource management activities. These stages are defined by shortfalls in imported supply and water balances in MET's storage programs. When MET must make net withdrawals from storage to meet demands, it is considered to be in a shortage condition. Figure 2-3 gives a summary of actions under each surplus and shortage stages when an allocation plan is necessary to enforce mandatory cutbacks. The goal of the WSDM plan is to avoid Stage 6, an extreme shortage (MET, 1999).

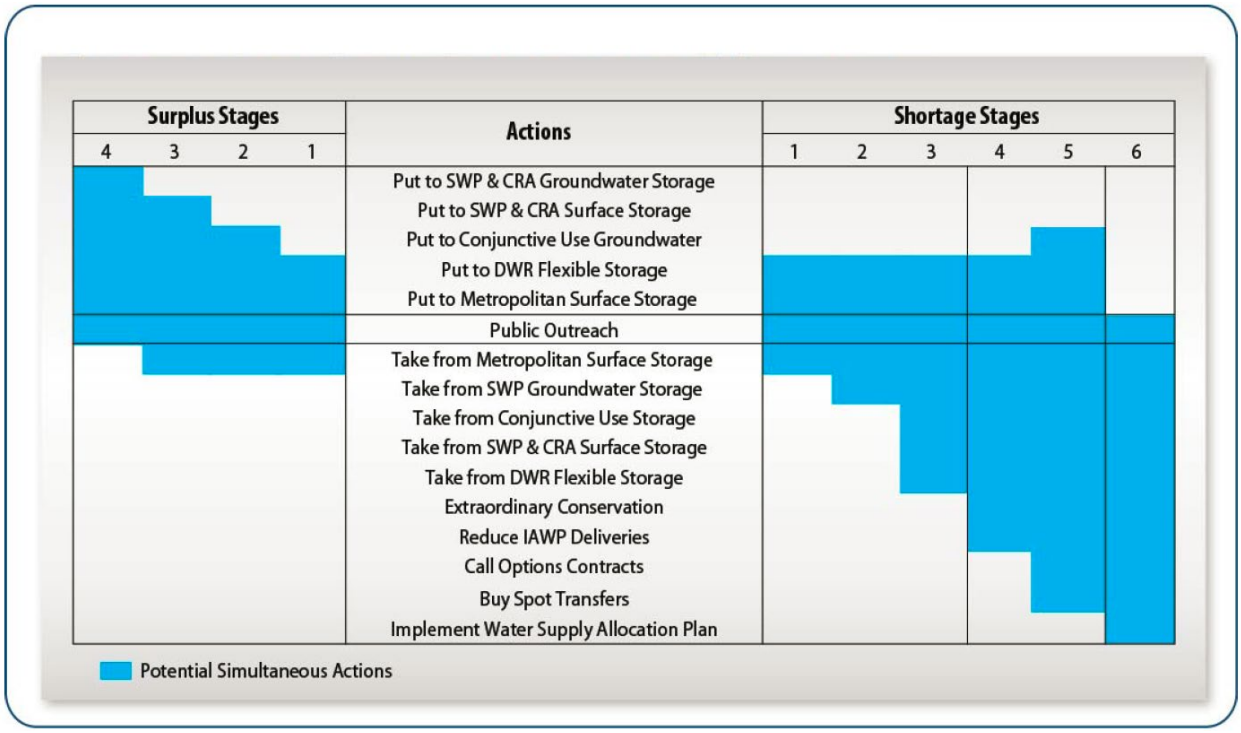


**Figure 2-3: Resource Stages, Anticipated Actions, and Supply Declarations**

MET's Board of Directors adopted a Water Supply Condition Framework in June 2008 in order to communicate the urgency of the region's water supply situation and the need for further water conservation practices. The framework has four conditions, each calling increasing levels of conservation. Descriptions for each of the four conditions are listed below:

- Baseline Water Use Efficiency: Ongoing conservation, outreach, and recycling programs to achieve permanent reductions in water use and build storage reserves.
- Condition 1 Water Supply Watch: Local agency voluntary dry-year conservation measures and use of regional storage reserves.
- Condition 2 Water Supply Alert: Regional call for cities, counties, member agencies, and retail water agencies to implement extraordinary conservation through drought ordinances and other measures to mitigate use of storage reserves.
- Condition 3 Water Supply Allocation: Implement MET's WSAP.

As noted in Condition 3, should supplies become limited to the point where imported water demands cannot be met, MET will allocate water through the WSAP (MET, 2021a).

### 2.3.2 MET Water Supply Allocation Plan

MET's imported supplies have been impacted by a number of water supply challenges as noted earlier. In case of extreme water shortage within the MET service area is the implementation of its WSAP.

MET's Board of Directors originally adopted the WSAP in February 2008 to fairly distribute a limited amount of water supply and applies it through a detailed methodology to reflect a range of local conditions and needs of the region's retail water consumers (MET, 2021a).

The WSAP includes the specific formula for calculating member agency supply allocations and the key implementation elements needed for administering an allocation. MET's WSAP is the foundation for the urban water shortage contingency analysis required under Water Code Section 10632 and is part of MET's 2020 UWMP.

MET's WSAP was developed in consideration of the principles and guidelines in MET's 1999 WSDM Plan with the core objective of creating an equitable "needs-based allocation." The WSAP's formula seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level for shortages of MET supplies of up to greater than 50%. The formula takes into account a number of factors, such as the impact on retail customers, growth in population, changes in supply conditions, investments in local resources, demand hardening aspects of water conservation savings, recycled water, extraordinary storage and transfer actions, and groundwater imported water needs.

The formula is calculated in three steps: 1) based period calculations, 2) allocation year calculations, and 3) supply allocation calculations. The first two steps involve standard computations, while the third step contains specific methodology developed for the WSAP.

**Step 1: Base Period Calculations –** The first step in calculating a member agency's water supply allocation is to estimate their water supply and demand using a historical based period with established water supply and delivery data. The base period for each of the different categories of supply and demand is calculated using data from the two most recent non-shortage years.

**Step 2: Allocation Year Calculations –** The next step in calculating the member agency's water supply allocation is estimating water needs in the allocation year. This is done by adjusting the base period estimates of retail demand for population growth and changes in local supplies.

**Step 3: Supply Allocation Calculations –** The final step is calculating the water supply allocation for each member agency based on the allocation year water needs identified in Step 2.

In order to implement the WSAP, MET's Board of Directors makes a determination on the level of the regional shortage, based on specific criteria, typically in April. The criteria used by MET includes current levels of storage, estimated water supplies conditions, and projected imported water demands. The allocations, if deemed necessary, go into effect in July of the same year and remain in effect for a 12-month period. The schedule is made at the discretion of the Board of Directors (MET, 2021b).

As demonstrated by the findings in MET's 2020 UWMP both the Water Reliability Assessment and the Drought Risk Assessment (DRA) demonstrate that MET is able to mitigate the challenges posed by hydrologic variability, potential climate change, and regulatory risk on its imported supply sources through the significant storage capabilities it has developed over the last two decades, both dry-year and emergency storage (MET, 2021a).

Although MET's 2020 UWMP forecasts that MET will be able to meet projected imported demands throughout the projected period from 2025 to 2045, uncertainty in supply conditions can result in MET needing to implement its WSAP to preserve dry-year storage and curtail demands (MET, 2021b).

### 2.3.3 MWDOC Water Supply Allocation Plan

To prepare for the potential allocation of imported water supplies from MET, MWDOC worked collaboratively with its 28 retail agencies to develop its own WSAP that was adopted in January 2009 and amended in 2016. The MWDOC WSAP outlines how MWDOC will determine and implement each of its retail agency's allocation during a time of shortage.

The MWDOC WSAP uses a similar method and approach, when reasonable, as that of the MET's WSAP. However, MWDOC's plan remains flexible to use an alternative approach when MET's method produces a significant unintended result for the member agencies. The MWDOC WSAP model follows five basic steps to determine a retail agency's imported supply allocation.

**Step 1: Determine Baseline Information –** The first step in calculating a water supply allocation is to estimate water supply and demand using a historical based period with established water supply and delivery data. The base period for each of the different categories of demand and supply is calculated using data from the last two non-shortage years.

**Step 2: Establish Allocation Year Information –** In this step, the model adjusts for each retail agency's water need in the allocation year. This is done by adjusting the base period estimates for increased retail water demand based on population growth and changes in local supplies.

**Step 3: Calculate Initial Minimum Allocation Based on MET's Declared Shortage Level –** This step sets the initial water supply allocation for each retail agency. After a regional shortage level is established, MWDOC will calculate the initial allocation as a percentage of adjusted Base Period Imported water needs within the model for each retail agency.

**Step 4: Apply Allocation Adjustments and Credits in the Areas of Retail Impacts and Conservation**– In this step, the model assigns additional water to address disparate impacts at the retail level caused by an across-the-board cut of imported supplies. It also applies a conservation credit given to those agencies that have achieved additional water savings at the retail level as a result of successful implementation of water conservation devices, programs and rate structures.

**Step 5: Sum Total Allocations and Determine Retail Reliability –** This is the final step in calculating a retail agency's total allocation for imported supplies. The model sums an agency's total imported allocation with all of the adjustments and credits and then calculates each agency's retail reliability compared to its Allocation Year Retail Demand.

The MWDOC WSAP includes additional measures for plan implementation, including the following (MWDOC, 2016):

- **Appeal Process –** An appeals process to provide retail agencies the opportunity to request a change to their allocation based on new or corrected information. MWDOC anticipates that under most circumstances, a retail agency's appeal will be the basis for an appeal to MET by MWDOC.
- **Melded Allocation Surcharge Structure –** At the end of the allocation year, MWDOC would only charge an allocation surcharge to each retail agency that exceeded their allocation if MWDOC exceeds its total allocation and is required to pay a surcharge to MET. MET enforces allocations to retail agencies through an allocation surcharge to a retail agency that exceeds its total annual allocation at the end of the 12-month allocation period. MWDOC's surcharge would be assessed according to the retail agency's prorated share (acre-feet over usage) of MWDOC amount with MET. Surcharge funds collected by MET will be invested in its

Water Management Fund, which is used to in part to fund expenditures in dry-year conservation and local resource development.

- **Tracking and Reporting Water Usage –** MWDOC will provide each retail agency with water use monthly reports that will compare each retail agency's current cumulative retail usage to their allocation baseline. MWDOC will also provide quarterly reports on its cumulative retail usage versus its allocation baseline.
- **Timeline and Option to Revisit the Plan –** The allocation period will cover 12 consecutive months and the Regional Shortage Level will be set for the entire allocation period. MWDOC only anticipates calling for allocation when MET declares a shortage; and no later than 30 days from MET's declaration will MWDOC announce allocation to its retail agencies.

# 3 WATER SHORTAGE CONTINGENCY PREPAREDNESS AND RESPONSE PLANNING

The District's WSCP is a detailed guide of how the District intends to act in the case of an actual water shortage condition. The WSCP anticipates a water supply shortage and provides pre-planned guidance for managing and mitigating a shortage. Regardless of the reason for the shortage, the WSCP is based on adequate details of demand reduction and supply augmentation measures that are structured to match varying degrees of shortage will ensure the relevant stakeholders understand what to expect during a water shortage situation.

## 3.1 Water Supply Reliability Analysis

Per Water Code Section 10632 (a)(1), the WSCP shall provide an analysis of water supply reliability conducted pursuant to Water Code Section 10635, and the key issues that may create a shortage condition when looking at the District's water asset portfolio.

Understanding water supply reliability, factors that could contribute to water supply constraints, availability of alternative supplies, and what effect these have on meeting customer demands provides the District with a solid basis on which to develop appropriate and feasible response actions in the event of a water shortage. In the 2020 UWMP, the District conducted a Water Reliability Assessment to compare the total water supply sources available to the water supplier with long-term projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years (ETWD, 2021).

The District also conducted a DRA to evaluate a drought period that lasts five consecutive water years starting from the year following when the assessment is conducted. An analysis of both assessments determined that the District is capable of meeting all customers' demands from 2021 through 2045 for a normal year, a single dry year, and a drought lasting five consecutive years with significant imported water supplemental drought supplies from MWDOC/MET and ongoing conservation program efforts. The District receives the majority of its water supply from imported water from MWDOC, as well as supplemental supplies from local recycled water from the District's Water Recycling Plant that add reliability for non-potable demand.

As a result, there is no projected shortage condition due to drought that will trigger customer demand reduction actions until MWDOC notifies the District of insufficient imported supplies. More information is available in the District's 2020 UWMP Sections 6 and 7 (ETWD, 2021).

## 3.2 Annual Water Supply and Demand Assessment Procedures

Per Water Code Section 10632.1, the District will conduct an Annual Assessment pursuant to subdivision (a) of Section 10632 and by July 1st of each year, beginning in 2022, submit an annual water shortage assessment with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the Supplier's WSCP.

The District must include in its WSCP the procedures used for conducting an Annual Assessment. The Annual Assessment is a determination of the near-term outlook for supplies and demands and how a perceived shortage may relate to WSCP shortage stage response actions in the current calendar year. This determination is based

on information available to the District at the time of the analysis. Starting in 2022, the Annual Assessment will be due by July 1 of every year.

This section documents the decision-making process required for formal approval of the District's Annual Assessment determination of water supply reliability each year and the key data inputs and the methodologies used to evaluate the water system reliability for the coming year, while considering that the year to follow would be considered dry.

### 3.2.1 Decision-Making Process

The following decision-making process describes the functional steps that the District will take to formally approve the Annual Assessment determination of water supply reliability each year.

#### 3.2.1.1 District Steps to Approve the Annual Assessment Determination

The Annual Assessment will be predicated on the MWDOC Annual Assessment outcomes.

MWDOC surveys its member agencies annually for anticipated water demands and supplies for the upcoming year. MWDOC utilizes this information to plan for the anticipated imported water supplies for the MWDOC service area. This information is then shared and coordinated with MET and is incorporated into their analysis of their service area's annual imported water needs. Based on the year's supply conditions and WSDM actions, MET will present a completed Annual Assessment for its member agencies' review from which they will then seek Board approval in April of each year. Additionally, MET expects that any triggers or specific shortage response actions that result from the Annual Assessment would be approved by their Board at that time. Based upon MET's Assessment and taking into consideration information provided to MWDOC through the annual survey, MWDOC will provide an anticipated estimate of imported supplies for ETWD to incorporate into the annual supply and demand assessment.

The Annual Assessment findings will determine the approval process. If a shortage is identified, the Annual Assessment will be taken to the ETWD Board of Directors for approval and formally submitted to DWR prior to the July 1 deadline. If no shortage is identified, the Annual Assessment will be approved by the General Manager, or designee, and submitted to DWR prior to the July 1 deadline.

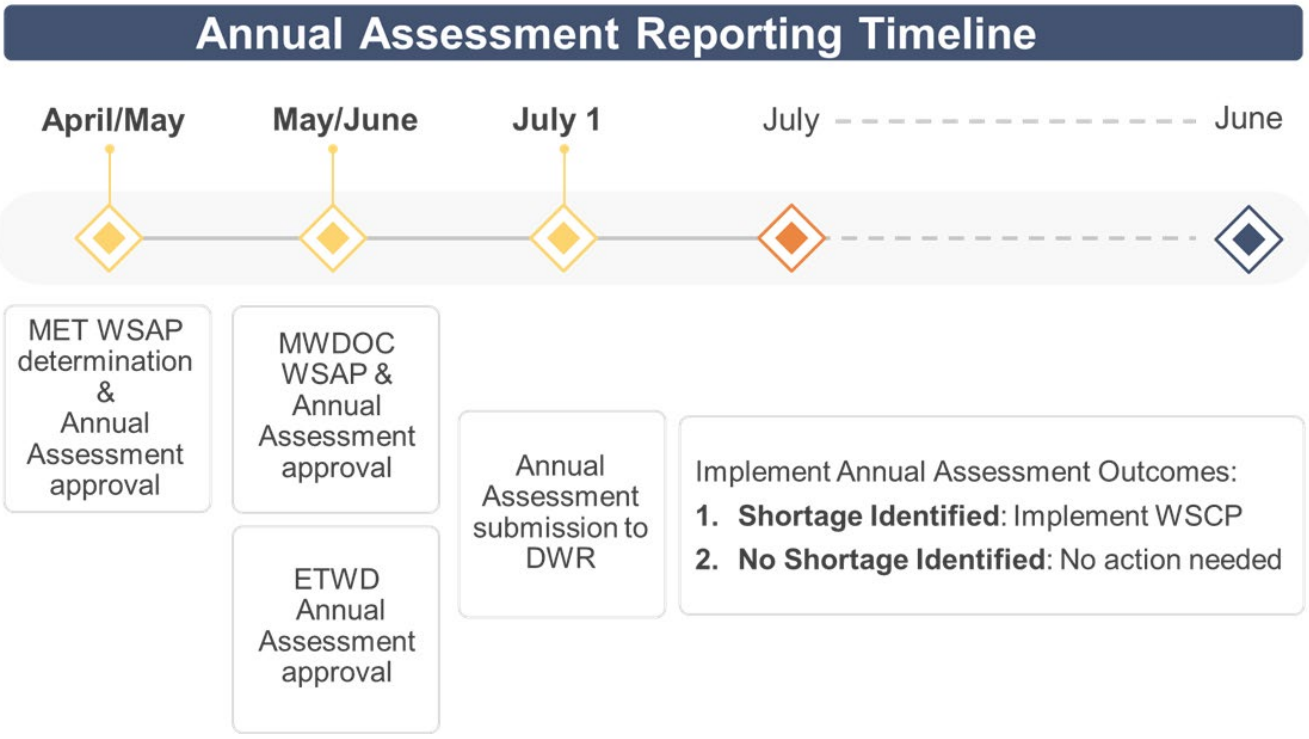


**Figure 3-1: Annual Assessment Reporting Timeline**

### 3.2.2 Data and Methodologies

The following paragraphs document the key data inputs and methodologies that are used to evaluate the water system reliability for the coming year, while considering that the year to follow would be considered dry.

#### 3.2.2.1 Assessment Methodology

The District will evaluate water supply reliability for the current year and one dry year for the purpose of the Annual Assessment. The Annual Assessment determination will be based on considerations of unconstrained water demand, local water supplies, MWDOC/MET imported water supplies, planned water use, and infrastructure considerations. The balance between projected local supplies coupled with MET imported supplies and anticipated unconstrained demand will be used to determine what, if any, shortage stage is expected under the WSCP framework as presented in Figure 3-2. The WSCP's standard shortage stages are defined in terms of shortage percentages. Shortage percentages will be calculated by dividing the difference between water supplies and unconstrained demand by total unconstrained demand. This calculation will be performed separately for anticipated current year conditions and for assumed dry year conditions.

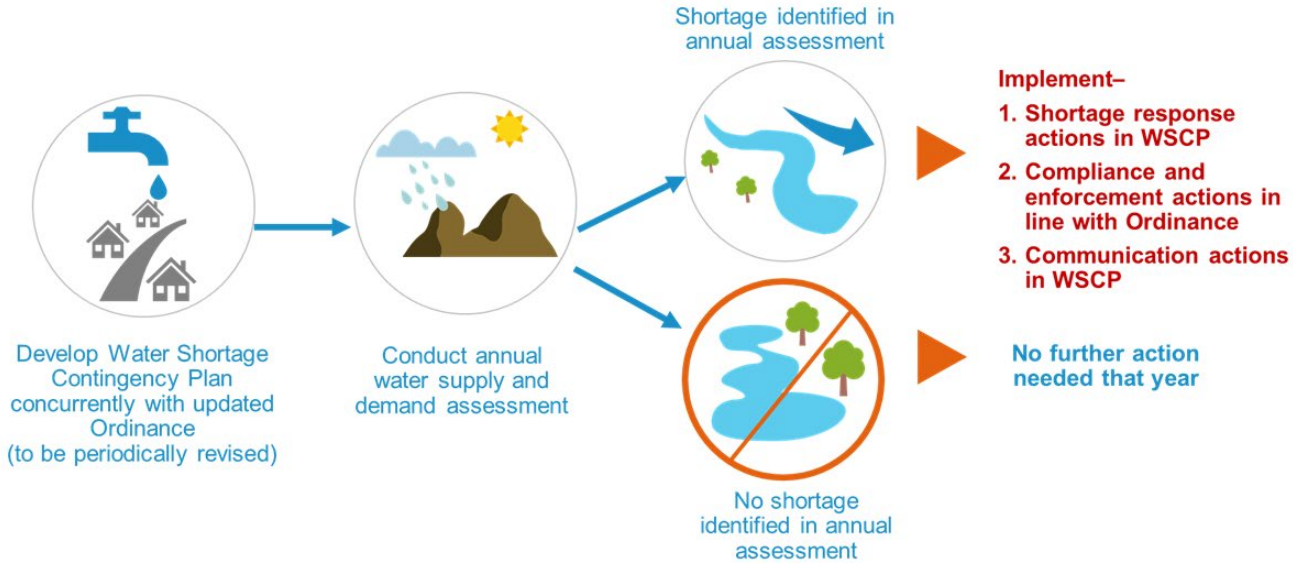


**Figure 3-2: Water Shortage Contingency Plan Annual Assessment Framework**

### 3.2.2.2 Locally Applicable Evaluation Criteria

Within Orange County, there are no significant local applicable criteria that directly affect reliability. Through the years, the water agencies in Orange County have made tremendous efforts to integrate their systems to provide flexibility to interchange with different sources of supplies. There are emergency agreements in place to ensure all parts of the County have an adequate supply of water. For the agencies in southern Orange County, most of their demands are met with imported water where their limitation is based on the capacity of their system, which is considered sufficient to meet anticipated demands.

The District will also continue to monitor emerging supply and demand conditions related to supplemental imported water from MWDOC/MET and take appropriate actions consistent with the flexibility and adaptiveness inherent to the WSCP. The District's Annual Assessment was based on the District's service area, water sources, water supply reliability, and water use as described in Water Code Section 10631, including available data from state, regional, or local agency population, land use development, and climate change projections within the service area of the District. Some conditions that affect MWDOC's wholesale supply and demand, such as groundwater replenishment, surface water and local supply production, can differ significantly from earlier projections throughout the year.

However, if a major earthquake on the San Andreas Fault occurs, it will damage all three key regional water aqueducts and disrupt imported supplies for up to six months. The region would likely impose a water use reduction ranging from 10-25% until the system is repaired. However, MET and MWDOC have taken proactive steps to handle such disruption, such as constructing DVL, which mitigates potential impacts. DVL, along with other local reservoirs, can store a six to twelve-month supply of emergency water (MET, 2021b).

### 3.2.2.3 Water Supply

As detailed in the Districts 2020 UWMP, the District meets all of its customers' demands with a combination of treated and untreated imported water from MWDOC/MET, local recycled water, and local surface water from Irvine Lake. The District's main source of water supply is imported water, with recycled water and surface water making up the rest of the District's water supply portfolio. In fiscal year (FY) 2019-20, the District relied on 50%

treated imported water, 32% untreated imported water, 14% recycled water, and 4% surface water. It is projected that by 2045, the District's water supply portfolio will change to approximately 45% treated imported water, 39% untreated imported water, and 16% recycled water (ETWD, 2021).

#### 3.2.2.4 Unconstrained Customer Demand

The WSCP and Annual Assessment define unconstrained demand as expected water use prior to any projected shortage response actions that may be taken under the WSCP. Unconstrained demand is distinguished from observed demand, which may be constrained by preceding, ongoing, or future actions, such as emergency supply allocations during a multi-year drought. WSCP shortage response actions to constrain demand are inherently extraordinary; routine activities such as ongoing conservation programs and regular operational adjustments are not considered as constraints on demands.

The District's DRA reveals that its supply capabilities are expected to balance anticipated total water use and supply, assuming a five-year consecutive drought from FY 2020-21 through FY 2024-25 (ETWD, 2021). Water demands in a five-year consecutive drought are calculated as a six percent increase in water demand above a normal year for each year of the drought (CDM Smith, 2021).

#### 3.2.2.5 Planned Water Use for Current Year Considering Dry Subsequent Year

Water Code Section 10632(a)(2)(B)(ii) requires the Annual Assessment to determine "current year available supply, considering hydrological and regulatory conditions in the current year and one dry year."

The Annual Assessment will include two separate estimates of the District's annual water supply and unconstrained demand using: 1) current year conditions, and 2) assumed dry year conditions. Accordingly, the Annual Assessment's shortage analysis will present separate sets of findings for the current year and dry year scenarios. The Water Code does not specify the characteristics of a dry year, allowing discretion to the Supplier. The District will use its discretion to refine and update its assumptions for a dry year scenarios in each Annual Assessment as information becomes available and in accordance with best management practices.

Supply and demand analyses for the single-dry year case was based on conditions affecting the SWP as this supply availability fluctuates the most among MET's, and therefore MWDOC and the District's, sources of supply. FY 2013-14 was the single driest year for SWP supplies with an allocation of 5% to Municipal and Industrial (M&I) uses. Unique to this year, the 5% SWP allocation was later reduced to 0%, before ending up at its final allocation of 5%, highlighting the stressed water supplies for the year. Furthermore, on January 17, 2014 Governor Brown declared the drought State of Emergency citing 2014 as the driest year in California history. Additionally, within MWDOC's service area, precipitation for FY 2013-14 was the second lowest on record, with 4.37 inches of rain, significantly impacting water demands.

The water demand forecasting model developed for the Demand Forecast TM isolated the impacts that weather and future climate can have on water demand through the use of a statistical model. The impacts of hot/dry weather conditions are reflected as a percentage increase in water demands from the normal year condition (average of FY 2017-18 and FY 2018-19). For a single dry year condition (FY 2013-14), the model projects a 6% increase in demand for the Orange County Groundwater Basin area where the District's service area is located (CDM Smith, 2021). Detailed information of the model is included in the District's 2020 UWMP.

The District has documented that it is 100% reliable for single dry year demands from 2025 through 2045 with a demand increase of 6% from normal demand with significant reserves held by MET, local groundwater supplies, and water use efficiency (ETWD, 2021).

#### 3.2.2.6 Infrastructure Considerations

The Annual Assessment will include consideration of any infrastructure issues that may pertain to near-term water supply reliability, including repairs, construction, and environmental mitigation measures that may temporarily constrain capabilities, as well as any new projects that may add to system capacity. MWDOC closely coordinates with MET and its member agencies, including the District, on any planned infrastructure work that may impact water supply availability. Throughout each year, MET regularly carries out preventive and corrective maintenance of its facilities within the MWDOC service area that may require shutdowns to inspect and repair pipelines and facilities and support capital improvement projects. These shutdowns involve a high level of planning and coordination between MWDOC, MWDOC's member agencies, and MET to ensure that major portions of the distribution system are not out of service at the same time. Operational flexibility within MET's system and the cooperation of member agencies allow shutdowns to be successfully completed while continuing to meet all system demands.

Specifically for the District, the Capital Improvement Program is updated annually to maintain existing infrastructure rather than expand to new water supply sources.

#### 3.2.2.7 Other Factors

For the Annual Assessment, any known issues related to water quality would be considered for their potential effects on water supply reliability.

## 3.3 Six Standard Water Shortage Levels

Per Water Code Section 10632 (a)(3)(A), the District must define the water shortage levels that represent shortages from the normal reliability as determined in the Annual Assessment. The Water Code provides an option for suppliers to align with six standard water shortage levels; however, the District has selected to retain its existing water shortage levels as defined in District Code (Table 3-1). Table 3-2 shows the District's water shortage levels in relationship to the six standard water shortage levels prescribed by statute. This crosswalk is intended to clearly translate the District's water shortage levels to those mandated by statute.

**Table 3-1: Water Shortage Contingency Plan Levels**

| **Submittal Table 8-1**<br>**Water Shortage Contingency Plan Levels** | | |
|---|---|---|
| **Shortage Level** | **Percent Shortage Range** | **Shortage Response Actions** |
| 1 | Up to 20% | A Level 1 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 2 | Up to 40% | A Level 2 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 3 | Greater than 40% | A Level 3 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| NOTES: | | |

Table 3-2: Relationship Between the District's Water Shortage Levels and Mandated Shortage Levels

| Relationship Between ETWD's Water Shortage Levels and Mandated Shortage Levels (DWR Table 8-1) | | | |
|---|---|---|---|
| **El Toro Water District Water Shortage Levels** | | **Mandated Shortage Levels** | |
| **Shortage Level** | **Percent Shortage Range** | **Shortage Level** | **Percent Shortage Range** |
| **Permanent Water Conservation Requirements** | 0% | **N/A** | 0% |
| **1** | Up to 20% | **1**<br>**2** | Up to 10%<br>10-20% |
| **2** | 20-40% | **3**<br>**4** | 20 – 30%<br>30 - 40% |
| **3** | >40% | **5**<br>**6** | 40 - 50%<br>>50% |

## 3.4 Shortage Response Actions

Water Code Section 10632 (a)(4) requires the WSCP to specify shortage response actions that align with the defined shortage levels. The District has defined specific shortage response actions that align with the defined shortage levels in DWR Tables 8-2 and 8-3 (Appendix A). These shortage response actions were developed with consideration to the system infrastructure and operations changes, supply augmentation responses, customer-class or water use-specific demand reduction initiatives, and increasingly stringent water use prohibitions.

### 3.4.1 Demand Reduction

The demand reduction measures that would be implemented to address shortage levels are described in DWR Table 8-2 (Appendix A). This table indicates which actions align with specific defined shortage levels and estimates the extent to which that action will reduce the gap between supplies and demands. DWR Table 8-2 (Appendix A) demonstrates to the that choose suite of shortage response actions can be expected to deliver the expected outcomes necessary to meet the requirements of a given shortage level (e.g., target of an additional 10% water savings). This table also identifies the enforcement action, if any, associated with each demand reduction measure.

### 3.4.2 Supply Augmentation

The supply augmentation actions are described in DWR Table 8-3 (Appendix A). These augmentations represent short-term management objectives triggered by the MET's WSDM Plan and do not overlap with the long-term new water supply development or supply reliability enhancement projects. Supply Augmentation is made available to the District through MWDOC and MET. The District relies on MET's reliability portfolio of water supply programs including existing water transfers, storage and exchange agreements to supplement gaps in the District's supply/demand balance. MET has developed significant storage capacity (over 5 million AF) in reservoirs and groundwater banking programs both within and outside of the Southern California region. Additionally, MET can pursue additional water transfer and exchange programs with other water agencies to help mitigate supply/demand imbalances and provide additional dry-year supply sources.

MWDOC, and in turn its retail agencies, including the District, has access to supply augmentation actions through MET. MET may exercise these actions based on regional need, and in accordance with their WSCP, and may include the use of supplies and storage programs within the Colorado River, SWP, and in-region storage. The District has the ability to augment its supply to reduce the shortage gap by up to 100% by purchasing additional imported water through MWDOC; however, this is subject to rate penalties from MWDOC.

### 3.4.3 Operational Changes

During shortage conditions, operations may be affected by supply augmentation or demand reduction responses. The District will consider their operational procedures when it completes its Annual Assessment or as needed to identify changes that can be implemented to address water shortage on a short-term basis, such as suspending normal system flushing procedures or other minor changes to increase efficiency and to more effectively distribute available supply across the service area.

### 3.4.4 Additional Mandatory Restrictions

California Water Code Section 10632(a)(4)(D) calls for "additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions" to be included among the WSCP's shortage response actions. The District has identified additional mandatory restrictions in the Water Conservation and Water Supply Shortage Ordinance 2015-3 (Appendix B).

### 3.4.5 Emergency Response Plan (Hazard Mitigation Plan)

A catastrophic water shortage would be addressed according to the appropriate water shortage level and response actions. It is likely that a catastrophic shortage would immediately trigger Shortage Level 3 (equivalent to mandated Level 6) and response actions have been put in place to mitigate a catastrophic shortage. In addition, there are several plans that address catastrophic failures and align with the WSCP, including MET's WSDM and WSAP and the Water Emergency Response Organization of Orange County (WEROC)'s Emergency Operations Plan (EOP).

#### 3.4.5.1 MET's WSDM and WSAP

MET has comprehensive plans for stages of actions it would undertake to address a catastrophic interruption in water supplies through its WSDM and WSAP. MET also developed an Emergency Storage Requirement to mitigate against potential interruption in water supplies resulting from catastrophic occurrences within the

Southern California region, including seismic events along the San Andreas Fault. In addition, MET is working with the state to implement a comprehensive improvement plan to address catastrophic occurrences outside of the Southern California region, such as a maximum probable seismic event in the Sacramento-San Joaquin River Delta that would cause levee failure and disruption of SWP deliveries.

#### 3.4.5.2 Water Emergency Response Organization of Orange County Emergency Operations Plan

In 1983, the Orange County water community identified a need to develop a plan on how agencies would respond effectively to disasters impacting the regional water distribution system. The collective efforts of these agencies resulted in the formation of the Water Emergency Response Organization of Orange County (WEROC) to coordinate emergency response on behalf of all Orange County water and wastewater agencies, develop an emergency plan to respond to disasters, and conduct disaster training exercises for the Orange County water community. WEROC was established with the creation of an indemnification agreement between its member agencies to protect each other against civil liabilities and to facilitate the exchange of resources. WEROC is unique in its ability to provide a single point of contact for representation of all water and wastewater utilities in Orange County during a disaster. This representation is to the county, state, and federal disaster coordination agencies. Within the Orange County Operational Area, WEROC is the recognized contact for emergency response for the water community, including the District.

As a member of WEROC, the District will follow WEROC's EOP in the event of an emergency and coordinate with WEROC to assess damage, initiate repairs, and request and coordinate mutual aid resources in the event that the District is unable to provide the level of emergency response support required by the situation.

The EOP defines the actions to be taken by WEROC Emergency Operations Center (EOC) staff to reduce the loss of water and wastewater infrastructure; to respond effectively to a disaster; and to coordinate recovery operations in the aftermath of any emergency involving extensive damage to Orange County water and wastewater utilities. The EOP includes activation notification protocol that will be used to contact partner agencies to inform them of the situation, activation status of the EOC, known damage or impacts, or resource needs. The EOP is a standalone document that is reviewed annually and approved by the Board every three years.

WEROC is organized on the basis that each member agency is responsible for developing its own EOP in accordance with the California Standardized Emergency Management System (SEMS), National Incident Management System (NIMS), and Public Health Security and Bioterrorism Preparedness and Response Act of 2002 to meet specific emergency needs within its service area.

The WEROC EOC is responsible for assessing the overall condition and status of the Orange County regional water distribution and wastewater collection systems including MET facilities that serve Orange County. The EOC can be activated during an emergency situation that can result from both natural and man-made causes, and can be activated through automatic, manual, or standby for activation.

WEROC recognized four primary phases of emergency management, which include:

- **Preparedness:** Planning, training, and exercises that are conducted prior to an emergency to support and enhance response to an emergency or disaster.
- **Response:** Activities and programs designed to address the immediate and short-term effects of the onset of an emergency or disaster that helps to reduce effects to water infrastructure and speed recovery. This includes alert and notification, EOC activation, direction and control, and mutual aid.

- **Recovery:** This phase involved restoring systems to normal, in which short-term recovery actions are taken to assess the damage and return vital life-support systems to minimum operating standards, while long-term recovery actions have the potential to continue for many years.
- **Mitigation/Prevention:** These actions prevent the occurrence of an emergency or reduce the area's vulnerability in ways that minimize the adverse impacts of a disaster or emergency. MWDOC's HMP outlines threats and identifies mitigation projects.

The EOC Action Plans (EAP) provide frameworks for EOC staff to respond to different situations with the objectives and steps required to complete them, which will in turn serve the WEROC member agencies. In the event of an emergency which results in a catastrophic water shortage, the District will declare a water shortage condition of Level 2 or 3 for the impacted area depending on the severity of the event, and coordination with WEROC is anticipated to begin at Level 2 (standardized Level 4) or greater (WEROC, 2018).

#### 3.4.5.3 El Toro Water District Emergency Response Plan

The District will also refer to its current American Water Infrastructure Act Risk and Resilience Assessment and Emergency Response Plan in the event of a catastrophic supply interruption.

### 3.4.6 Seismic Risk Assessment and Mitigation Plan

Per the Water Code Section 10632.5, Suppliers are required to assess seismic risk to water supplies as part of their WSCP. The plan also must include the mitigation plan for the seismic risk(s). Given the great distances that imported supplies travel to reach Orange County, the region is vulnerable to interruptions along hundreds of miles of aqueducts, pipelines and other facilities associated with delivering the supplies to the region. Additionally, the infrastructure in place to deliver supplies are susceptible to damage from earthquakes and other disasters.

In lieu of conducting a seismic risk assessment specific to the District's 2020 UWMP, the District has included the previously prepared regional HMP by MWDOC as the regional imported water wholesaler that is required under the federal Disaster Mitigation Act of 2000 (Public Law 106-390).

MWDOC's HMP identified that the overarching goals of the HMP were the same for all of its member agencies, which include:

- Goal 1: Minimize vulnerabilities of critical infrastructure to minimize damages and loss of life and injury to human life caused by hazards.
- Goal 2: Minimize security risks to water and wastewater infrastructure.
- Goal 3: Minimize interruption to water and wastewater utilities.
- Goal 4: Improve public outreach, awareness, education, and preparedness for hazards in order to increase community resilience.
- Goal 5: Eliminate or minimize wastewater spills and overflows.
- Goal 6: Protect water quality and supply, critical aquatic resources, and habitat to ensure a safe water supply.
- Goal 7: Strengthen Emergency Response Services to ensure preparedness, response, and recovery during any major or multi-hazard event.

MWDOC's HMP evaluates hazards applicable to all jurisdictions in its entire planning area, prioritized based on probability, location, maximum probable extent, and secondary impacts. The identification of hazards is highly

dependent on the location of facilities within the District's jurisdiction and takes into consideration the history of the hazard and associated damage, information provided by agencies specializing in a specific hazard, and relies upon the District's expertise and knowledge.

Earthquake fault rupture and seismic hazards, including ground shaking and liquefaction, are among the highest ranked hazards to the region as a whole because of its long history of earthquakes, with some resulting in considerable damage. A significant earthquake along one of the major faults could cause substantial casualties, extensive damage to infrastructure, fires, damages and outages of water and wastewater facilities, and other threats to life and property.

Nearly all of Orange County is at risk of moderate to extreme ground shaking, with liquefaction possible throughout much of Orange County but the most extensive liquefaction zones occur in coastal areas. Based on the amount of seismic activity that occurs within the region, there is no doubt that communities within Orange County will continue to experience future earthquake events, and it is a reasonable assumption that a major event will occur within a 30-year timeframe.

The mitigation actions identify the hazard, proposed mitigation action, location/facility, local planning mechanism, risk, cost, timeframe, possible funding sources, status, and status rationale, as applicable. Mitigation actions for MWDOC's member agencies for seismic risks may include (MWDOC, 2019):

- Secure above ground assets in all buildings, booster stations, pressure reducing stations, emergency interties, water systems, and pipelines.
- Conduct assessment of infrastructure to ensure seismic retrofitting is in place.
- Replace aging infrastructure throughout the District.
- Install backup power for critical facilities to ensure operability during emergency events. Enhance emergency operability by implementing communication infrastructure improvements.

### 3.4.7 Shortage Response Action Effectiveness

For each specific Shortage Response Action identified in the plan, the WSCP also estimates the extent to which that action will reduce the gap between supplies and demands identified in DWR Table 8-2 (Appendix A). To the extent feasible, the District has estimated percentage savings for the chosen suite of shortage response actions, which can be anticipated to deliver the expected outcomes necessary to meet the requirements of a given shortage level.

## 3.5 Communication Protocols

Timely and effective communication is a key element of the WSCP implementation. In the context of water shortage response, the purpose may be an immediate emergency water shortage situation, such as may result from an earthquake, or a longer-term shortage condition, such as may result from a drought. In an immediate emergency, the District will activate the communication protocol detailed in the Emergency Response Plan. In a longer-term water shortage situation, the District will implement follow the communication protocols described below.

Per the Water Code Section 10632 (a)(5), the District has established communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments regarding any current or predicted shortages as determined by the Annual Assessment described pursuant to Section 10632.1;

any shortage response actions triggered or anticipated to be triggered by the Annual Assessment described pursuant to Section 10632.1; and any other relevant communications.

Longer-term water shortage communication protocols are focused on communicating the water shortage contingency planning actions that can be derived from the results of the Annual Assessment, and it would likely trigger based upon the decision-making process in Section 3.2. Prior to water shortage level declaration, the District will pursue outreach to inform customers of water shortage levels and definitions, targeted water savings for each drought stage, guidelines that customers are to follow during each stage, and sources of current information on the District's supply and demand response status.

The type and degree of communication will vary with each shortage level in order to inform stakeholders of the current water shortage level status and associated shortage response actions, as defined in Section 3.4.1. Predefined communication objectives and tools will ensure the District's ability to message necessary events and information to ensure compliance with shortage response actions. These communication objectives and tools are summarized in Table 3-3.

The District's Public Relations department will lead public information and outreach efforts in close coordination with other MWDOC and MET. The District will share information and provide guidance to its customers as well as monitor the customer response and attitude toward both voluntary and mandatory customer response guidelines. The District's customer outreach is required to successfully achieve targeted water savings during each drought stage.

**Table 3-3: Communication Procedures**

| Shortage level | Communication Objectives | Communication Tools |
|---|---|---|
| **1** | Compliance with shortage response actions, 20% reduction in water use | Water Bill Communications<br>Water Bill Insert Communication<br>Water Bill Pay Portal Communication<br>Information on Website Homepage<br>Social Media Outreach<br>Educational Outreach – Local Events, Laguna Woods Television Director Interviews, ETWD Community Advisory Group Meetings, Regional School Program and Laguna Woods Village Direct Email Communications |

| Shortage level | Communication Objectives | Communication Tools |
|---|---|---|
| **2** | Compliance with storage response actions, 40% reduction in water use | Presence at Local Events<br>Direct Mailings to Homes and Businesses<br>Direct Communication with High Water Users<br>Communication with Commercial Users<br>Local Media Coverage (print and electronic)<br>Public Service Announcements |
| **3** | Compliance with shortage response actions, >40% reduction in water use | Water Waste Patrols<br>Neighborhood Canvasing<br>Partnerships/Regional Initiatives |

## 3.6 Compliance and Enforcement

Per the Water Code Section 10632 (a)(6), the District has defined customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions. Communication procedures to ensure customer compliance are described in Section 3.5 and customer enforcement, appeal, and exemption procedures are defined in the District's existing Water Conservation and Water Supply Shortage Ordinance 2015-3 (Appendix B). The District intends to update any enforcement procedures in a subsequently adopted ordinance which will supersede the existing ordinance.

## 3.7 Legal Authorities

Per Water Code Section 10632 (a)(7)(A), the District has provided a description of the legal authorities that empower the District to implement and enforce its shortage response in its Water Conservation and Water Supply Shortage Ordinance 2015-3 (Appendix B).

Per Water Code Section 10632 (a)(7) (B), the District shall declare a water shortage emergency condition to prevail within the area served by such wholesaler whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

Per Water Code Section 10632 (a)(7)(C), the District shall coordinate with any agency or county within which it provides water supply services for the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558). Table 3-4 identifies the contacts for all cities or counties for which the Supplier provides service in the WSCP, along with developed coordination protocols, can facilitate compliance with this section of the Water Code in the event of a local emergency as defined in subpart (c) of Government Code Section 8558.

Table 3-4: Agency Contacts and Coordination Protocols

| Contact | Agency | Coordination Protocols |
|---|---|---|
| Dennis Wilberg | City of Mission Viejo | call/email |
| Chris Macon | City of Laguna Woods | call/email |
| Debra Rose | City of Lake Forest | call/email |
| Donald White | City of Laguna Hills | call/email |
| David Doyle | City of Aliso Viejo | call/email |

## 3.8 Financial Consequences of WSCP

Per Water Code Section 10632(a)(8), Suppliers must include a description of the overall anticipated financial consequences to the Supplier of implementing the WSCP. This description must include potential reductions in revenue and increased expenses associated with implementation of the shortage response actions. This should be coupled with an identification of the anticipated mitigation actions needed to address these financial impacts.

During a catastrophic interruption of water supplies, prolonged drought, or water shortage of any kind, the District will experience a reduction in revenue due to reduced water sales. Throughout this period of time, expenditures may increase or decrease with varying circumstances. Expenditures may increase in the event of significant damage to the water system, resulting in emergency repairs. Expenditures may also decrease as less water is pumped through the system, resulting in lower power costs. Water shortage mitigation actions will also impact revenues and require additional costs for drought response activities such as increased staff costs for tracking, reporting, and communications.

The District receives water revenue from a service charge and a commodity charge based on consumption. The service charge recovers costs associated with providing water to the serviced property. The service charge does not vary with consumption and the commodity charge is based on water usage. Rates have been designed to recover the full cost of water service in the charges. Therefore, the total cost of purchasing water would decrease as the usage or sale of water decreases. In the event of a drought emergency, the Water Budget will be raised to a higher tier and the District will impose excessive water use penalties on its customers, which may include an additional administrative penalty or additional costs associated with reduced water revenue, staff time taken for penalty enforcement, and advertising the excessive use penalties. The excessive water use penalties are further described in the District's Water Conservation and Water Supply Shortage Ordinance 2015-3 (Appendix B).

However, there are significant fixed costs associated with maintaining a minimal level of service. The District will monitor projected revenues and expenditures should an extreme shortage and a large reduction in water sales occur for an extended period of time. To overcome these potential revenue losses and/or expenditure impacts, the District may use reserves. If necessary, the District may reduce expenditures by delaying implementation of its Capital Improvement Program and equipment purchases to reallocate funds to cover the cost of operations

and critical maintenance, adjust the work force, implement a drought surcharge, and/or make adjustments to its water rate structure.

Based on current water rates, a volumetric cutback of 50% and above of water sales may lead to a range of reduction in revenues. The impacts to revenues will depend on a proportionate reduction in variable costs related to supply, pumping, and treatment for the specific shortage event. The District could mitigate these impacts by increasing water rate revenues and/or increasing fixed charges.

## 3.9 Monitoring and Reporting

Per Water Code Section 10632(a)(9), the District is required to provide a description of the monitoring and reporting requirements and procedures that have been implemented to ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.

Monitoring and reporting key water use metrics is fundamental to water supply planning and management. Monitoring is also essential in times of water shortage to ensure that the response actions are achieving their intended water use reduction purposes, or if improvements or new actions need to be considered (see Section 3.10). Monitoring for customer compliance tracking is also useful in enforcement actions.

Under normal water supply conditions, potable water import data is reviewed daily. Weekly and monthly reports are prepared and monitored. This data will be used to measure the effectiveness of any water shortage contingency level that may be implemented. As levels of water shortage are declared by MET and MWDOC, the District will follow implementation of those levels as appropriate based on the District's risk profile provided in UWMP Chapter 6 and continue to monitor water demand levels. When MET calls for extraordinary conservation, MET's Drought Program Officer will coordinate public information activities with MWDOC and monitor the effectiveness of ongoing conservation programs.

The District will participate in monthly member agency manager meetings with MWDOC to monitor and discuss monthly water allocation charts. This will enable the District to be aware of import use on a timely basis as a result of specific actions taken responding to the District's WSCP.

## 3.10 WSCP Refinement Procedures

Per Water Code Section 10632 (a)(10), the District must provide reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.

The District's WSCP is prepared and implemented as an adaptive management plan. The District will use the monitoring and reporting process defined in Section 3.9 to refine the WSCP. In addition, if certain procedural refinements or new actions are identified by District staff, or suggested by customers or other interested parties, the District will evaluate their effectiveness, incorporate them into the WSCP, and implement them quickly at the appropriate water shortage level.

It is envisioned that the WSCP will be periodically re-evaluated to ensure that its shortage risk tolerance is adequate and the shortage response actions are effective and up to date based on lessons learned from implementing the WSCP. The WSCP will be reviewed during the UWMP update cycle to incorporate any updated and potential new information. For example, new supply augmentation actions may be added, and actions that

are no longer applicable for reasons such as program expiration will be removed. However, if revisions to the WSCP are warranted before the UWMP is updated, the WSCP will be updated outside of the UWMP update cycle. In the course of preparing the Annual Assessment each year, District staff may consider the functionality of the overall WSCP and may prepare recommendations for the District General Manager, or designee, if changes are found to be needed.

## 3.11 Special Water Feature Distinction

Per Water Code Section 10632 (b), the District has defined water features in that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code, in the Water Conservation and Water Supply Shortage Ordinance 2015-3 (Appendix B).

## 3.12 Plan Adoption, Submittal, and Availability

Per Water Code Section 10632 (a)(c), the District provided notice of the availability of the draft 2020 UWMP and draft 2020 WSCP and notice of the public hearing to consider adoption of the WSCP. The public review drafts of the 2020 UWMP and the 2020 WSCP were posted prominently on the District's website in advance of the public hearing on May 27, 2021. Copies of the draft WSCP were also made available for public inspection at the District Clerk's and Utilities Department offices and public hearing notifications were published in local newspapers. A copy of the published Notice of Public Hearing is included in Appendix C.

The District held the public hearing for the draft 2020 UWMP and draft WSCP on May 27, 2021 at the District Board meeting. The District Board reviewed and approved the 2020 UWMP and the WSCP at its May 27, 2021 meeting after the public hearing. See Appendix D for the resolution approving the WSCP.

By July 1, 2021, the District's adopted 2020 UWMP and WSCP was filed with DWR, California State Library, and the County of Orange. The District will make the WSCP available for public review on its website no later than 30 days after filing with DWR.

Based on DWR's review of the WSCP, the District will make any amendments in its adopted WSCP, as required and directed by DWR.

If the District revises its WSCP after UWMP is approved by DWR, then an electronic copy of the revised WSCP will be submitted to DWR within 30 days of its adoption.

# 4 REFERENCES

CDM Smith. (2021, March 30). *Orange County Water Demand Forecast for MWDOC and OCWD Technical Memorandum.*

El Toro Water District (ETWD). (2021, July). *2020 Urban Water Management Plan*.

Metropolitan Water District of Southern California (MET). (2021a, March). *Water Shortage Contingency Plan*. http://www.mwdh2o.com/PDF_About_Your_Water/Draft_Metropolitan_WSCP_March_2021.pdf

Metropolitan Water District of Southern California (MET). (2021b, June). *2020 Urban Water Management Plan.*

Metropolitan Water District of Southern California (MET). (1999, August). *Water Surplus and Drought Management Plan*. http://www.mwdh2o.com/PDF_About_Your_Water/2.4_Water_Supply_Drought_Management_Plan.pdf

Municipal Water District of Orange County (MWDOC). (2016). *Water Supply Allocation Plan*.

Municipal Water District of Orange County (MWDOC). (2019, August). *Orange County Regional Water and Wastewater Hazard Mitigation Plan*.

Water Emergency Response Organization of Orange County (WEROC). (2018, March). *WEROC Emergency Operations Plan (EOP).*

# Appendix A

## DWR Submittal Tables

### Table 8-1: Water Shortage Contingency Plan Levels

### Table 8-2: Demand Reduction Actions

### Table 8-3: Supply Augmentation and Other Actions

| Submittal Table 8-1<br>Water Shortage Contingency Plan Levels | | |
|---|---|---|
| **Shortage Level** | **Percent Shortage Range** | **Shortage Response Actions**<br>**(*Narrative description)*** |
| 1 | Up to 20% | A Level 1 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 2 | Up to 40% | A Level 2 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 3 | Greater than 40% | A Level 3 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| NOTES: | | |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| Permanent Year-Round | Other - Prohibit use of potable water for construction and dust control | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |
| Permanent Year-Round | Other - Require automatic shut of hoses | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |
| Permanent Year-Round | Landscape - Other landscape restriction or prohibition | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Commercial and multifamily and community development or redevelopment are required to install a sensor-based or weather-based irrigation controller. | No |
| Permanent Year-Round | Landscape - Limit landscape irrigation to specific times | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Watering or irrigating of lawns, landscaping, and other vegetated areas are prohibited any day of the week between 10:00 a.m. and 5:00 p.m. This does not apply to watering with a hand-held bucket or similar container, watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle, or adjusting or repairing an irrigation system for very short periods of time. | No |
| Permanent Year-Round | Landscape - Other landscape restriction or prohibition | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Watering or irrigating of lawns, landscaping, and other vegetated areas that is not continuously attended to is limited to no more than fifteen (15) minutes per day per valve. This does not apply to irrigation systems that use very low-flow drip-type systems where no emitter discharges more than two (2) gallons of water per hour and systems equipped with sensor or weather-based controllers. | No |
| Permanent Year-Round | Landscape - Restrict or prohibit runoff from landscape irrigation | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| Permanent Year-Round | Landscape - Limit landscape irrigation to specific times | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Watering or irrigating of lawns, landscaping, and other vegetated areas is prohibited during rain events and following 48 hours of significant precipitation. | No |
| Permanent Year-Round | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Leaks, breaks, and other malfunctions must be corrected in no more than five (5) days of District notification. | No |
| Permanent Year-Round | Other - Prohibit use of potable water for washing hard surfaces | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |
| Permanent Year-Round | Other - Prohibit vehicle washing except at facilities using recycled or recirculating water | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | Other water feature or swimming pool restriction | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | All decorative water fountains and features must recirculate water or users must secure a waiver from the District. | No |
| Permanent Year-Round | CII - Restaurants may only serve water upon request | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | CII - Lodging establishment must offer opt out of linen service | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | CII - Commercial kitchens required to use pre-rinse spray valves | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | Other | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | All new commercial car-wash and laundry facilities and systems must recirculate the wash water or secure a waiver of this requirement from the District. | No |
| Permanent Year-Round | CII - Other CII restriction or prohibition | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Buildings requesting new water service or that are being remodeled are prohibited from installing single-pass systems. | No |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| 1 | Landscape - Limit landscape irrigation to specific days | 15% | Watering or irrigating of lawns, landscaping, and other vegetated areas may only take place no more than three (3) days per week from April to October and no more than one (1) day per week from November to March. This does not apply to watering with a hand-held bucket or similar container, watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle, or irrigation systems that exclusively use very-low flow drip type systems where emitters discharge no more than two (2) gallons of water per hour. | Yes |
| 1 | Implement or Modify Drought Rate Structure or Surcharge | 5% | Assign financial penalty for failure to comply with water budget allocation. | Yes |
| 1 | Expand Public Information Campaign | 3% | Community Outreach and Messaging. Expand Public Information Campaign to include Level 1 demand reduction actions, increase messaging frequency, increase public outreach. | Yes |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| 2 | Landscape - Limit landscape irrigation to specific days | 15% | Watering or irrigating of lawns, landscaping, and other vegetated areas may only take place no more than two (2) days per week from April to October and no more than one (1) day per week from November to March. This does not apply to watering with a hand-held bucket or similar container, watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle, or irrigation systems that exclusively use very-low flow drip type systems where emitters discharge no more than two (2) gallons of water per hour. | Yes |
| 2 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | 2% | Leaks, breaks, and other malfunctions must be corrected in no more than three (3) days of District notification. | Yes |
| 2 | Water Features - Restrict water use for decorative water features, such as fountains | 1% | Filling or refilling of ornamental lakes and ponds is prohibited except for those that sustain aquatic life provided that such life is of significant value and was actively managed in the water feature prior to declaring the shortage. | Yes |
| 2 | Other water feature or swimming pool restriction | 2% | Filling residential swimming pools or outdoor spas is prohibited; refilling more than one (1) foot of water is prohibited. This does not apply to individuals who, due to health reasons or medical conditions, find it necessary to fill or refill their pools or spas or individuals who have not filled their pool in the last 24 months and who adhere to Best Practices for the construction and operation of pools and spas. | Yes |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| 2 | Implement or Modify Drought Rate Structure or Surcharge | 5% | Impose 'drought factor' on existing tiered rate structure to achieve Shortage Level 2 demand reduction. | Yes |
| 2 | Expand Public Information Campaign | 3% | Community Outreach and Messaging. Expand Public Information Campaign to include Level 2 demand reduction actions, increase messaging frequency, increase public outreach. | Yes |
| 2 | Other | 0-1% | The District may reduce non-potable water allocations in all categories to meet the available water supply. | Yes |
| 3 | Other - Prohibit vehicle washing except at facilities using recycled or recirculating water | 1% | - | Yes |
| 3 | Landscape - Prohibit all landscape irrigation | 15% | This does not apply towards the following circumstances: 1) maintenance of vegetation that are watered using a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, 2) maintenance of existing landscape necessary for fire protection, 3) maintenance of existing landscape for soil erosion, and 4) public works projects and actively-irrigated environmental mitigation projects. | Yes |
| 3 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | 2% | Leaks, breaks, and other malfunctions must be corrected in no more than two (2) days of District notification. | Yes |
| 3 | Other water feature or swimming pool restriction | 1% | Filling residential swimming pools or outdoor spas is prohibited; refilling more than one (1) foot of water is prohibited. This does not apply to individuals who, due to health reasons or medical conditions, find it necessary to fill or refill their pools or spas. | Yes |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| 3 | Landscape - Other landscape restriction or prohibition | 2% | No new potable water service, new temporary meters, and statement of immediate ability to serve or provide water service will be issued except under the following circumstances: 1) a valid, unexpired building permit has been issued for the project, 2) the project is necessary to protect the public health, safety, and welfare, or the applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the District. | Yes |
| 3 | Other | 5% | Customers using over 10,000 units per year are required to submit a Water Conservation Plan and report quarterly progress. | Yes |
| 3 | Expand Public Information Campaign | 3% | Community Outreach and Messaging. Expand Public Information Campaign to include Level 3 demand reduction actions, increase messaging frequency, increase public outreach. | Yes |
| 3 | Implement or Modify Drought Rate Structure or Surcharge | 5% | Impose 'drought factor' on existing tiered rate structure to achieve Shortage Level 3 demand reduction. | Yes |
| 3 | Other | 0-70% | Water use for public health and safety purposes only. Customer rationing may be implemented. | Yes |
| NOTES: | | | | |

| Submittal Table 8-3: Supply Augmentation and Other Actions | | | |
|---|---|---|---|
| Shortage Level | Supply Augmentation Methods and Other Actions by Water Supplier<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool* | How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)* | Additional Explanation or Reference *(optional)* |
| 1 through 6 | Other Purchases | 0 - 100% | Additional imported water purchase through MWDOC |
| NOTES:<br>Additional Imported Water Purchases to meet the supply gap may have financial ramifications per the MWDOC Water Supply Allocation Plan. | | | |

# Appendix B

## Water Conservation and Water Supply Shortage Ordinance 2015-3

RESOLUTION NO. 15-6-1

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING WATER CONSERVATION &
WATER SUPPLY SHORTAGE ORDINANCE NO. 2015-3
WHICH AMENDS EL TORO WATER DISTRICT'S
WATER CONSERVATION & WATER SUPPLY SHORTAGE ORDINANCE NO. 2015-1
IN ITS ENTIRETY

**WHEREAS,** the general welfare of the people in the El Toro Water District ("District") requires that the water available to the District be utilized in a manner which maximizes beneficial use and that the waste and unreasonable use, or unreasonable method of use of water be prevented;

**WHEREAS,** pursuant to Section 34000 *et seq.* of the Water Code of the State of California, the District has the authority to adopt rules and regulations for the provision of water service and facilities;

**WHEREAS,** Section 375 *et seq.* of the Water Code of the State of California permits public entities which supply water at retail or wholesale to adopt and enforce a water conservation program to reduce the quantity of water used by the people therein for the purpose of conserving the water supplies of such public entity;

**WHEREAS,** Section 350 *et seq.* of the Water Code of the State of California permits the governing body of a distributor of a public water supply to declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent there would be insufficient water for human consumption, sanitation, and fire protection;

**WHEREAS,** on March 26, 2009, the District adopted Ordinance No. 2009-1 which addressed, among other things, Permanent Mandatory Water Conservation Measures as prescribed by the Metropolitan Water District of Southern California, along with Declarations for Level I, II, and III Water Shortage enforcement measures;

**WHEREAS,** on May 28, 2009, the District declared a Level I Water Supply Shortage, in response to Municipal Water District of Orange County's Stage II Water Supply Shortage Declaration. The declaration included initiation of a water allocation program and the requirement for notices, fines, and monetary penalties for the violation of Permanent Conservation Measures and expanded Level I Conservation Measures;

**WHEREAS,** on February 25, 2010, the District adopted Resolution No. 10-2-1 which Resolution amended the District's Level I Water Supply Shortage Implementation Provisions which, among other things, added a provision that, subject to the results of a 2009/10 year-end reconciliation of Wholesale Water Supplier penalty assessments imposed upon the District and costs incurred for the District's 2009/10 allocation/conservation efforts, provided for the Board of Directors to utilize remaining penalty funds to accommodate a year-end prorate annualized penalty credit;

**WHEREAS,** effective July 1, 2010, the District implemented a Water Budget Based Tiered Conservation Rate Structure (Tiered Conservation Rates Structure) which replaced the single tier water allocation program administered during fiscal year 2009/10;

**WHEREAS,** on November 23, 2010, the District adopted Ordinance No. 2010-1 which amended and replaced in its entirety, Ordinance No. 2009-1 in order to: (1) incorporate the District's recently implemented Water Budget Based Tiered Rate Structure (WBBTRS) inclusive of the Drought Factor which could be applied during local, regional, and statewide water shortage situations; and (2) recognize that the WBBTRS serves as the primary water reduction monitoring and enforcement mechanism for Permanent Mandatory Conservation Measures and Water Supply Shortage Declarations;

**WHEREAS,** Ordinance No. 2010-1 identified the "Drought Factor" as a component of water budget calculations that modifies (reduces) the indoor and/or outdoor budget of residential and irrigation customers to further encourage conservation in times of water supply shortage and provides a financial incentive for adhering to budgeted amounts;

**WHEREAS,** on January 17, 2014, Governor Brown declared a drought state of emergency and on April 25, 2014, the Governor signed an Executive Order ("Executive Order") calling on the State Water Resources Control Board ("State Water Board") to adopt emergency regulations to ensure that urban water suppliers implement drought response plans to limit outdoor potable water irrigation and prohibit other wasteful water practices; and

**WHEREAS,** on July 15 2014, the State Water Board adopted Emergency Regulations ("State Regulations") effective July 29, 2014 that mandate that urban water suppliers take action implementing the stage of its water conservation and water shortage plan that imposes mandatory restrictions on outdoor irrigation; and

**WHEREAS,** on August 15, 2014, the District held a Public Hearing and declared a Level 1 Water Supply Shortage in response to the State Water Board's Emergency Regulations of July 15, 2014. The declaration included the adoption of Permanent Water Conservation Measures as summarized in Resolution No. 14-8-1 inclusive of Ordinance No. 2010-1; and

**WHEREAS,** on March 26, 2015, the District adopted Ordinance No. 2015-1, which amended and replaced Ordinance No. 2010-1 in its entirety in furtherance of the District's Water

Conservation program and to harmonize same with the District's Water Budget Based Tiered Conservation Rate Structure; and

**WHEREAS,** on April 1, 2015, Governor Brown issued Executive Order B-29-15, the fourth in a series of Executive Orders that called upon the State Water Resource Control Board to adopt and enforce Emergency Regulations that would achieve a statewide 25% reduction in potable water production/usage June 1, 2015 through February 28, 2016; and

**WHEREAS,** on May 5, 2015, in compliance with Executive Order B-29-15, the State Water Resources Control Board adopted Emergency Water Conservation Regulations (California Code of Regulations, Title 23, Sections 863-865) that, among other conservation measures, mandates that Urban Water Suppliers as a whole, reduce by 25% the total potable water production/usage (relative to the amount produced/used in 2013) June 1, 2015 through February 28, 2016; and

**WHEREAS,** on May 18, 2015, the Office of Administrative Law approved the Emergency Water Conservation Regulation that the State Water Resources Control Board adopted on May 5, 2015; and

**WHEREAS,** pursuant to the Regulatory Framework (and the apportioned water reductions applicable therein), adopted by the State Water Resources Control Board, the District is mandated to achieve a 24% reduction in water production/usage relative to the District's 2013 production/usage; and

**WHEREAS,** due to the prevailing drought in the State and the Declared Emergency by the Governor and the resulting Emergency Regulations adopted by the State Water Resources Control Board, it is necessary for the District to adopt, implement, and enforce a water conservation program in the form and content contained in proposed Ordinance No. 2015-3, attached hereto marked Exhibit "A", in order to advance compliance with the Governor's Proclamation and the Regulatory mandates promulgated thereunder; and

**WHEREAS,** the District's Board of Directors desires to make a violation of proposed Ordinance No. 2015-3, subject to an "Administrative Penalty" as authorized by California Government Code Section 53069.4; and

**WHEREAS,** the District's Board of Directors desires to reaffirm and maintain its declaration of a Level I Water Supply Shortage;

**NOW, THEREFORE, BE IT RESOLVED,** that the Board of Directors of the El Toro Water District hereby determines and finds that the above recitals, determinations, and findings are true and correct statements and are fully incorporated herein;

**RESOLVED FURTHER,** that the maintenance of the general welfare of the District's customers necessitates the adoption of Ordinance No. 2015-3 in the form and content set forth in Exhibit "A" attached hereto, which exhibit, by this reference, is fully incorporated herein;

**RESOLVED FURTHER,** that Ordinance No. 2015-3 in the form and content set forth in Exhibit "A" attached hereto, is adopted, effective June 9, 2015;

**RESOLVED FURTHER,** that a Level I Water Shortage Emergency is hereby reaffirmed and re-declared pursuant to Ordinance No. 2015-3 (as set forth and attached to this Resolution marked Exhibit "A") and all Level 1 conservation measures and applicable Administrative Penalties set forth therein shall become operative, effective June 9, 2015;

**RESOLVED FURTHER,** that the District's General Manager is hereby directed to publish this Resolution within fifteen (15) days of June 9, 2015, in conformance with Section 376(b)(2) of the Water Code of the State of California.

**ADOPTED, SIGNED, AND APPROVED** by the following vote this 9th day of June, 2015.

AYES:
NOES:
ABSTAIN:
ABSENT:

**EL TORO WATER DISTRICT**

M. Scott Goldman, President
El Toro Water District and the
Board of Directors thereof

ATTEST:

Robert R. Hill, General Manager/Secretary
El Toro Water District and the
Board of Directors thereof

STATE OF CALIFORNIA )
)
COUNTY OF ORANGE )

I, ROBERT R. HILL, Secretary of the Board of Directors of the El Toro Water District, do hereby certify that the above and foregoing is a full, true and correct copy of Resolution No. 15-6-1 of said Board, and that the same has not been amended or repealed.

DATED: June 9, 2015

ROBERT R. HILL, Secretary
El Toro Water District and of
the Board of Directors thereof

(SEAL)

# EL TORO WATER DISTRICT

# WATER CONSERVATION & WATER SUPPLY SHORTAGE ORDINANCE 2015 – 3

## (effective June 9, 2015)

# Table of Contents

# ORDINANCE NO. 2015 - 3

## AN ORDINANCE OF THE BOARD OF DIRECTORS OF EL TORO WATER DISTRICT ESTABLISHING A WATER CONSERVATION & WATER SUPPLY SHORTAGE PROGRAM FOR USERS OF POTABLE WATER PROVIDED BY THE DISTRICT

### Section I. Title

**El Toro Water District Water Conservation & Water Supply Shortage Ordinance ("Ordinance No. 2015-3")**

### Section II. Findings, Determinations and Authority

1. **Resolution No. 15-6-1** – The recitals, finding and determinations set forth in Resolution No. 15-6-1 are fully incorporated herein as though set forth in full.

2. **A reliable minimum supply of potable water is essential** to the public health, safety and welfare of the people and economy of Southern California.

3. **Southern California is a semi-arid region, largely dependent on imported water** supplies from Northern California and the Colorado River. Population growth, drought, climate change, environmental concerns, government policy changes, restrictions on pumping and other factors in our region, in other parts of the State and in the western U.S. make Southern California highly-susceptible to water supply reliability issues.

4. **Careful water management requires active conservation measures** not only in times of drought but at all times. It is essential to ensure a reliable minimum supply of water to meet current and future water supply needs.

5. **California Constitution Article X, Section 2 and California Water Code Section 100** provide that because of conditions prevailing in the state of California, it is the declared policy of the State that the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable and that the waste or unreasonable us or unreasonable method of water be prevented, and that the conservation of such water is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.

6. **California Water Code Section 375** authorizes water suppliers to adopt and enforce a comprehensive water conservation program to reduce water consumption and conserve supplies.

7. **California Water Code Sections 350, et. seq.,** sets forth the determination and notification procedures for water suppliers seeking to declare a water shortage or a water emergency.

**8. California Water Code Section 356** allows for the adoption of regulations and restrictions that include discontinuance of service as an enforcement option where a water shortage emergency condition has been declared.

**9. California Water Code Section 370, et. seq.,** authorizes water suppliers to adopt water allocation programs for water users and allocation-based conservation water conservation pricing.

**10. California Water Code Section 375 et seq.,** authorizes public water suppliers to establish by Ordinance, the maximum levels of water to be used by customers under emergency supply conditions (which give rise to the utilization of the Drought Factor), and declaring that the customer's excess usage, to be a violation of this Ordinance.

**11. California Water Code Sections 13550 and 13551** declare a statewide policy that the use of potable domestic water for irrigation purposes when reclaimed (recycled) water is available constitutes a waste or unreasonable use of water within the meaning of the State Constitution.

**12. El Toro Water District's Rules and Regulations** requires that future developments utilize reclaimed (recycled) water wherever economically and technically feasible within the boundaries of the District in order to conserve potable water for the purposes of human consumption and fire protection.

**13. The adoption and enforcement of a Water Conservation & Water Supply Shortage Ordinance is necessary to manage the District's potable water supply** short- and long-term and to minimize and/or avoid the effects of drought and water shortage within the District. Such a program is essential to ensure a reliable and sustainable minimum supply of water for public health, safety and welfare.

14. California Government Code Section 53069.4 authorizes a local public agency to make a violation of an Ordinance, subject to an "administrative fine or penalty". "Penalty", as used throughout this Ordinance is an "Administrative Penalty", authorized pursuant to this section.

## Section III. Declaration of Purpose and Intent

1. To minimize or avoid the effect and hardship of potential shortages of **potable water** to the greatest extent possible, this Ordinance establishes a Water Conservation & Water Supply Shortage Program designed to:

    a. Enable effective potable water supply planning

    b. Assure reasonable and beneficial use of potable water

    c. Prevent waste of potable water and maximize efficient use in the District

2. **This Ordinance in conjunction with the District's Water Budget Based Tiered Conservation Rate Structure (which is subject to the provisions of Proposition 218 and is incorporated into the Cost of Service Rate Study) establishes**:

a. **Permanent Mandatory Water Conservation Measures** are designed to alter behaviors related to potable water-use efficiency during non-shortage conditions

b. **Three levels of potential response to escalating water supply shortages** which the El Toro Water District Board may implement during times of declared water shortage or water emergency. The three levels of response consist of expanded water use restrictions and the possible imposition of water supply shortage allocations through the use of a "drought factor" in conjunction with the District's Water Budget Based Tiered Conservation Rate Structure which is a component of the water budget calculation that is an integral part of the District's Water Budget Based Tiered Conservation Rate Structure, which modifies (reduces) the indoor and/or outdoor budget to further encourage conservation in times of water supply shortage emergencies and Administrative Penalties imposed on designated customer categories who exceed their revised water budget.

## Section IV. Definitions

1. **General**

a. **"The District"** means El Toro Water District.

b. **"The Board"** means the El Toro Water District Board of Directors.

c. **"Person"** means any person or persons, corporation, public or private entity, governmental agency or institution, or any other user of water provided by the District.

d. **"Potable Water"** means water that is suitable for drinking.

e. **"Recycled Water"** means the reclamation and reuse of non-potable water and/or wastewater for beneficial use, such as irrigation. Also known as "Reclaimed Water."

f. **"Water Waste"** refers to uses of water that are limited or prohibited under the Ordinance because they exceed necessary or intended use and could reasonably be prevented, such as runoff from outdoor watering.

g. **"Billing Unit"** is equal to 100 cubic feet (1 CCF) of water, which is 748 gallons. Water use is measured in units of 100-cubic-feet and multiplied by applicable water usage rates for billing. Also known as a "Unit of Water."

h. **"Undue Hardship"** is a unique circumstance in which a requirement of the Ordinance would result in a disproportionate impact on a water user or property upon which water is used compared to the impact on water users generally or similar properties or classes of water use.

i. **"Safety and Sanitary Hazard"** is one which presents an immediate and imminent threat to human health (injury).

j. "**Water Budget Based Tiered Conservation Rate Structure**" ("Tiered Conservation Rate Structure") is a rate structure which provides "water budgets" to each customer based on efficient indoor and outdoor need. Water used in excess of the combined indoor and outdoor budget is billed at a progressively higher rate which is designed to recover the increased cost associated with providing such water and provides a clear indicator regarding inefficient use of potable water. The increased rates and potential Administrative Penalties for utilization of water in excess of budgeted amounts provide financial incentive to stay within assigned budgets and to comply with Permanent Mandatory Water Conservation Measures.

k. **"Water Supply Shortage Emergency"** means a condition existing within the State, Region and/or the District in which the ordinary water demands and requirements of persons within the District cannot be satisfied without depleting the water supply of the District to the extent that there would be insufficient water for human consumption, sanitation, and fire protection. A water shortage emergency includes both an immediate emergency, in which the District is unable to meet current water needs of persons within the District, as well as a threatened water shortage, in which the District determines that its future supply of water may not meet an anticipated future demand.

l. **"Administrative Penalty"** means a financial penalty as authorized by Government Code Section 53069.4 as a result of any person or entity violating the provisions of this Ordinance.

2. **Irrigation**

a. **"Irrigation Controller"** is the part of an automated irrigation system that instructs the valves to open and close to start or stop the flow of water.

1. **"Sensor-based irrigation controller"** operates based on input from a combination of sensors (rain, solar, soil moisture) installed in or around the landscaped area.

2. **"Weather-based irrigation controller"** operates automatically based on evapo-transpiration rates and historic or real-time weather data.

b. **"Irrigation System"** refers to a manual or automated watering system consisting of pipes, hoses, spray heads and/or sprinkler devices or valves. Also known as a "Landscape Irrigation System."

c. **"Positive Self-Closing Shut-Off Hose Nozzle"** refers to a water-efficient hose nozzle for residential or commercial hoses that users must press or release to start or stop the flow of water. Also known as an "Automatic Shut-Off Nozzle."

d. **"Valves"** refer to the part of an irrigation system that opens and closes manually or electronically to start or stop the flow of water.

3. Other

   a. **"Pre-Rinse Kitchen Spray Valves"** refer to highly water-efficient sprayers that commercial kitchens use to rinse dishes in the sink before washing and for other preliminary cleaning purposes.

   b. **"Single-Pass Cooling System"** refers to an air conditioning, refrigeration or other cooling system that removes heat by transferring it to a supply of clean water and dumping the water down the drain – after a single use. This type of cooling system is extremely water-inefficient compared to systems that re-circulate the water.

## Section V. Application of Ordinance

1. **The provisions of this Ordinance apply to any person or entity using potable water provided by the District.** This includes individuals, persons, corporations, public or private entities, governmental agencies or institutions, or any other users of District water.

2. **In addition, the provisions of this Ordinance do not apply to the following:**

   a. **Water use which is immediately necessary to protect public health and safety** or for essential government services, such as police, fire and similar services.

   b. **Recycled water use for irrigation.** Use of recycled water requires a permit that has specific use restrictions, many of which focus on water efficiency. Given such permits and the interest in promoting the use of recycled water as a means to preserve potable, recycled water is exempt from all requirements of this Ordinance.

   c. **Water used by nurseries and growers** to sustain plants, trees, shrubs, crops, compost or other landscape vegetation material intended for distribution or commercial sale.

3. **This Ordinance is intended solely to further the conservation of potable water.** It is not intended to implement any provision of federal, state or local statutes, ordinances or regulations relating to protection of water quality or control of drainage or runoff. Refer to the local jurisdiction or Regional Water Quality Control Board for information on storm water ordinances or management plans.

## Section VI: Permanent Mandatory Water Conservation Measures (Refer to Appendix A Summary Table)

The following Permanent Mandatory Water Conservation Measures for potable water are in effect at all times.

1. **General Restrictions – Residential, Irrigation, Commercial and Public Customers**

   a. **Limits on Outside Watering Hours**

      1. **Watering or irrigating is prohibited any day of the week between 10:00 a.m. and 5:00 p.m..**

      2. The week includes weekdays and weekends, seven (7) days

      3. This applies to lawns, landscaping and all other vegetated areas.

      4. The following are **exempt** from this restriction:

         a. Watering with a hand-held bucket or similar container
         b. Watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle
         c. Adjusting or repairing an irrigation system for very short periods of time

   b. **Limits on Outside Watering Duration**

      1. **Watering or irrigating with a device or system that is not continuously attended is limited to no more than 15 minutes per day per valve.**

      2. This applies to lawns, landscaping and all other vegetated areas.

      3. The following irrigation systems are **exempt:**

         a. Very low-flow drip-type systems where no emitter discharges more than two (2) gallons of water per hour
         b. Systems equipped with sensor or weather-based controllers.

   c. **No Excessive Water Flow or Runoff:** It is prohibited to water lawns, landscaping and vegetated areas in a manner that causes or allows excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter or ditch.

   d. **No Outside Watering when it is Raining:** During rain events and following 48 hours of significant precipitation, outside watering must be manually terminated or automatically terminated using sensor-based or weather-based irrigation controllers.

   e. **Obligation to Fix Leaks, Breaks or Malfunctions in lines, fixtures or facilities**

      1. Excessive use, loss or escape of water through breaks, leaks or malfunctions in the water user's plumbing or distribution system:

         a. Is prohibited for any period of time after such water waste should have reasonably been discovered and corrected

b. Must be corrected in **no more than five (5) days of District notification**

f. **No Hosing or Washing Down Hard or Paved Surfaces**

1. It is prohibited to hose or wash down hard or paved surfaces, such as sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys.

2. When it is necessary to hose or wash down hard or paved surfaces to alleviate safety or sanitary hazards, the following may be used:

a. Hand-held bucket or similar container
b. Hand-held hose equipped with a positive self-closing shut off hose nozzle
c. Low-volume high-pressure cleaning machine equipped to recycle used water

g. **No Hosing or Washing Down Vehicles**

1. It is prohibited to use water to hose or wash down a motorized or non-motorized vehicle, including but not limited to automobiles, trucks, vans, buses, motorcycles, boats or trailers.

2. The following are **exempt** from this restriction:

a. Use of a hand-held bucket or similar container
b. Use of a hand-held hose equipped with a positive self-closing shut off hose nozzle
c. Commercial car washing facility

h. **Re-Circulating Decorative Water Fountains and Features** All decorative water fountains and water features must re-circulate water -- or users must secure a waiver from the District.

2. **Commercial Food-Serving & Lodging Requirements**

a. **Water Served Only Upon Request.** Eating or drinking establishments, including but not limited to restaurants, hotels, cafes, bars or other public places where food or drinks are sold, or served or offered for sale, are prohibited from providing drinking water to any person unless requested.

b. **Option Not To Have Towels/Linens Laundered.** Hotels, motels and other commercial lodging establishments must provide guests the option of not having their used towels and linens laundered. Lodging establishments must prominently display notice of this option in each room and/or bathroom, using clear and easily understood language.

3. **Commercial Kitchen Requirements**

    a. **Water-Efficient Pre-Rinse Kitchen Spray Valves.** Food preparation establishments, such as restaurants, cafes and hotels, are prohibited from using non-water efficient kitchen spray valves, as follows:

        1. **New** kitchen spray valves must use 1.6 gallons or less per minute.

        2. **Existing** kitchen spray valves must be retrofitted to models using 1.6 gallons of water or less per minute.

4. **Commercial Water Recirculation Requirements**

    a. **Car Wash and Laundry System Requirements:** All **new** commercial car-wash and laundry facilities and systems must re-circulate the wash water -- or secure a waiver of this requirement from the District.

    b. **No Single-Pass Cooling Systems:** Buildings requesting **new** water service or being **remodeled** are prohibited from installing single-pass systems.

5. **Indiscriminate Water Use.** Upon notice by the District, persons shall cease to cause or permit the indiscriminate use of water not otherwise prohibited above which is wasteful and without reasonable purpose.

6. **Public Health and Safety.** These regulations shall not be construed to limit water use which is immediately necessary to protect public health and safety for essential government services, such as police, fire and similar services.

## Section VII: Level 1 Water Supply Shortage Emergency Declaration *Up to 20% shortage in imported water supplied to the District and/or up to 20% reduction needed in consumer demand*

1. **Level 1 Water Supply Shortage Emergency Declaration**

    a. A Level 1 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that **a reduction in consumer demand is necessary** due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions and thereby proclaims and declares a Level 1 Water Supply Shortage Emergency.

    b. The type of event that may prompt the Board to declare a Level 1 Water Supply Shortage Emergency could include, among other factors, a finding that:

        i. its **wholesale water supplier has allocated to the District at least 80% of the District's base water supply.** "Base water supply" refers to the District's average annual water purchases from the wholesaler over a given period, as defined by the wholesaler. At this water allocation level, the District could experience a **shortage in imported supplies of up to 20%.**
        ii. State mandated reductions in water use,
        iii. Other water supply conditions,

2. **During a Level 1 Water Supply Shortage Emergency, Permanent Mandatory Water Conservation Measures** identified in Section VI of this Ordinance **remain in effect.**

3. **Level 1 Mandatory Water Conservation Measures take effect** upon the Board declaring a Level 1 Water Supply Shortage Emergency and apply for the duration of the shortage:

    a. **Limits on Outside Watering Days**

        1. No more than **three (3) days per week from April – October** and no more than **one (1) day per week from November – March.** This applies to lawns, landscaping and all other vegetated watering schedules. **Assigned watering days have been established to coincide with Municipal City Boundaries. Refer to Appendix B for assigned watering days.**

        2. The following are **exempt** from these restrictions:

            a. Watering with a hand-held bucket or similar container
            b. Watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle
            c. Irrigation systems that exclusively use very-low-flow drip type systems where emitters discharge no more than two (2) gallons of water per hour.

4. **Administrative Penalty:**

    1. During a Level 1 Water Supply Shortage Emergency, any water customer subject to water budgets who willfully use water in excess of their combined Tier I and Tier II water budgets shall be in violation of this Ordinance and, upon Board authorization and approval, will be subject to an Administrative Penalty in the range of $2.00 to $10.00 as determined by the Board by minute order (motion) or Resolution at an open and public meeting for each ccf of water used in excess of their combined Tier I and Tier II budget.
    2. Such penalty shall be in addition to the water use charge imposed by the District for Tier III and Tier IV water usage.

**5. Other Prohibited Uses:** The District may implement other prohibited water uses as deemed necessary, after notice to customers.

**Section VIII: Level 2 Water Supply Shortage Emergency Declaration** ***Up to 40% shortage in imported water supplied to the District and/or up to 40% reduction needed in consumer demand***

**1. Level 2 Water Supply Shortage Emergency Declaration**

a. A Level 2 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that **an additional reduction in consumer demand is necessary** due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to water conditions and thereby proclaim and declares a Level 2 Water Supply Shortage Emergency.

b. The type of event that **may** prompt the Board to declare a Level 2 Water Supply Shortage could include, among other factors, a finding that:

   i. its **wholesale water supplier has allocated to the District at least 60% of the District's base water supply.** "Base water supply" refers to the District's average annual water purchases from the wholesaler over a given period, as defined by the wholesaler. At this water allocation level, the District could experience a **shortage in imported supplies of up to 40%.**
   ii. State mandated reductions in water use,
   iii. Other water supply conditions,

2. The following **Mandatory Water Conservation Measures <u>remain in effect</u>** during a Level 2 Water Supply Shortage Emergency:

   a. **Permanent Water Conservation Measures** identified in Section VI
   b. **Level 1 Water Conservation Measures** identified in Section VII

3. The following **Water Conservation Measures <u>take effect</u>** upon declaration of a Level 2 Water Supply Shortage Emergency and apply for the duration of a Level 2 Water Supply Shortage Emergency:

   a. **Additional Limits on Outside Watering Days**

      1. Watering lawns, landscaping and other vegetated areas is limited to **no more than two (2) days per week from April – October.** This is one (1) day less than required during a Level 1 Water Shortage. The number of watering days permitted from November – March remains the same at no more than one (1) day per week.

      2. The District will establish and post the new watering schedule. **Assigned watering days have been established to coincide with Municipal City Boundaries. Refer to Appendix B for assigned watering days.**

      3. The following are **exempt** from these restrictions:

         a. Watering with a hand-held bucket or similar container
         b. Watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle
         c. Irrigation systems that exclusively use very-low-flow drip type systems where emitters discharge no more than two (2) gallons of water per hour.

b. **Shorter Timeframe to Fix Leaks, Breaks or Malfunctions** in water users' pipelines, fixtures or facilities.

1. Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing or distribution system must be **fixed in no more than three (3) days following notification from the District** – unless other arrangements are made with the District.

2. This shorter timeframe is two (2) days less than required under Permanent Water Conservation Measures, Section VI.

c. **No Filling or Refilling Ornamental Lakes and Ponds**

1. Filling or refilling ornamental lakes and ponds is prohibited.

2. **Exempt** are ornamental lakes and ponds that sustain aquatic life -- provided such life is of significant value and was actively managed in the water feature prior to declaring the shortage.

d. **No Filling or Refilling Residential Pools or Spas**

1. Filling residential swimming pools or outdoor spas is prohibited; refilling more than one (1) foot of water is prohibited.

2. **Exempt** are (1) individuals who, due to health reasons or medical conditions, find it necessary to fill or refill their pools or spas; or (2) Individuals who have not filled their pool in the last 24 months and who adhere to Best Practices for the construction and operation of pools and spas as defined in Appendix C.

e. **No Hosing or Washing Down Vehicles:** It is prohibited to use water to hose or wash down a motorized or non-motorized vehicle, including but not limited to automobiles, trucks, vans, buses, motorcycles, boats or trailers. The **only exemption** from this restriction is washing vehicles at a commercial car washing facility that recycles its wash water.

**4. Administrative Penalty –**

1. During a Level 2 Water Supply Shortage Emergency, any water customer subject to water budgets pursuant to the District's Tiered Conservation Rate Structure who willfully use water in excess of their combined Tier I and Tier II water budgets shall be in violation of this Ordinance and, upon Board authorization and approval will be subject to an Administrative Penalty in the range of $2.00 to $10.00 as determined by the Board by minute order (motion) or Resolution at an open and public meeting, for each ccf of water used in excess of their combined Tier I and Tier II budget.

2. Such penalty shall be in addition to the water use charge imposed by the District for Tier III and Tier IV water usage.

5. **Other Prohibited Uses:** The District may implement other prohibited water uses as deemed necessary, after notice to customers.

**Section IX. Level 3 Water Supply Shortage Emergency Declaration** ***More than 40% shortage in imported water supplied to the District and/or more than 40% reduction needed in consumer demand***

1. **Level 3 Water Supply Shortage Emergency Declaration**

   a. A Level 3 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that **a further additional reduction in consumer demand is necessary** due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions and thereby proclaims and declares a Level 3 Water Supply Shortage Emergency.

   b. The type of event that **may** prompt the Board to declare a Level 3 Water Supply Shortage Emergency could include, among other factors, a finding that:

      i. its **wholesale water supplier has allocated to the District less than 60% of the District's base water supply.** "Base water supply" refers to the District's average annual wholesale water purchases over a given period, as defined by the wholesaler. At this reduced water allocation level, the District could experience a **shortage in imported supplies of more than 40%.**
      ii. State mandated reductions in water use,
      iii. Other water supply conditions,

2. The following **Mandatory Water Conservation Measures <u>remain in effect</u>**:

   a. **Permanent Water Conservation Measures** identified in Section VI
   b. **Level 1 Water Conservation Measures** identified in Section VII
   c. **Level 2 Water Conservation Measures** identified in Section VIII

3. The following **Mandatory Water Conservation Measures <u>take effect</u>** upon declaring a Level 3 Water Emergency and apply for the duration of the Emergency:

   a. **All Outside Watering Prohibited**

      1. **Watering is prohibited on any day at any time** for lawns, landscaping and all vegetated areas.

      2. **Exempt** from this restriction are the following -- unless the District determines that recycled water is available and lawful for use:

a. Public works projects and actively-irrigated environmental mitigation projects will be allowed to operate under the Outside Watering Restrictions identified in Level II – Section VIII.
b. Maintenance of vegetation, trees and shrubs using (subject to hour restrictions in Section VI.1.a.1):
    1. A hand-held bucket or similar container
    2. A hand-held hose equipped with a positive self-closing shut off hose nozzle
    3. Irrigation systems that exclusively use very-low-flow drip type systems where emitters discharge no more than two (2) gallons of water per hour

c. Maintenance of (subject to hour restrictions, Section VI.1.a.1):
    1. Existing landscaping necessary for fire protection and/or soil erosion control. To the extent necessary, the District will utilize appropriate outside agencies to confirm exemption eligibility.
    2. Plant materials identified as rare or essential to the well being of endangered/rare species

b. **Shorter Timeframe to Fix Leaks, Breaks or Malfunctions** in pipelines, fixtures or facilities.

1. Excessive use, loss or escape of water through breaks, leaks or malfunctions in the water user's plumbing or distribution system must be fixed in **no more than two (2) days** following District notification – unless other arrangements are made with the District. The timeframe is one (1) day less than for Level 2.

c. **No Filling or Refilling Residential Pools or Spas**

3. Filling residential swimming pools or outdoor spas is prohibited; refilling more than one (1) foot of water is prohibited.

4. **Exempt** are individuals who, due to health reasons or medical conditions, find it necessary to fill or refill their pools or spas.

d. **No New Potable Water Service**

1. During a Level 3 Water Supply Shortage Emergency, the **District will not provide:**

    a. New potable water service
    b. New water meters (temporary or permanent)
    c. Will-serve letters

2. The District will **only issue** will-serve letters in the following cases:

    a. Projects necessary to protect public health, safety & welfare
    b. Projects that have a valid, unexpired city building permit

c. Projects in which applicants can provide -- to the satisfaction of the District -- substantial evidence of an enforceable commitment that water demands will be offset prior to the provision of a new water meter(s)

3. This prohibition **does not preclude** resetting or turning-on meters to restore or continue water service interrupted for one year or less.

**Discontinue Service**: Per Water Code Section 356, the District, in its sole discretion, may discontinue service to customers who willfully violate Section IX provisions.

4. **"Administrative Penalty"**

1. During a Level 3 Water Supply Shortage Emergency, any water customer subject to water budgets pursuant to the District's Tiered Conservation Rate Structure who willfully use water in excess of their combined Tier I and Tier II water budgets shall be in violation of this Ordinance and, upon Board authorization and approval will be subject to an Administrative Penalty in the range of $2.00 to $10.00 as determined by the Board by minute order (motion) or Resolution at an open and public meeting, for each ccf of water used in excess of their combined Tier I and Tier II budget.

2. Such penalty shall be in addition to the water use charge imposed by the District for Tier III and Tier IV water usage.

5. **Other Prohibited Uses:** The District may implement other prohibited water uses as deemed necessary, following notification of customers

## Section X. Other Provisions

1. **Customer Water Conservation Plans:**

a. **Customers with high annual water usage.** During Level 1, Level 2 **or** Level 3 Water Shortages Emergency, the District Board of Directors, at its sole discretion and by written request, may require residential, irrigation, commercial and/or public customers using **ten thousand (10,000) or more billing units per year** to submit a Water Conservation Plan to the District and to submit quarterly progress reports on such plan. The conservation plan must make recommendations for increased water savings, including increased use of recycled water based on feasibility. Quarterly progress reports must include status on implementation of recommendations.

2. **Recycled Water To Replace Potable Water**

a. **Future Developments.** When available, El Toro Water District requires the use of recycled water in future developments.

b. **New Water Service:** Prior to the connection of any new water service, the District will determine whether recycled water is appropriate and available to meet the requirements of the new service request. Recycled water must be utilized to the extent feasible, as determined by the District.

c. **Transition from Potable Water**: The District may prohibit the use of potable water in certain instances – if the District determines that a specified use for potable water could be achieved with recycled water as a cost-effective alternative and the customer is given a reasonable time to make the conversion, as determined by the District's General Manager.

3. **Recycled Water Construction Site Requirements**

   a. **Recycled or non-potable water** must be used, when available.

   b. **No potable water may be used for soil compaction or dust control** where there is a reasonably-available source of recycled or non-potable water approved by the Department of Public Health and appropriate for such use.

   c. **Water hoses shall be equipped with automatic shut-off nozzles,** given such devices are available for the size and type of hoses in use.

4. **Automated Irrigation Control System Requirements for Commercial, Multi-Family and Community Development/Redevelopment Projects**

   **New Commercial, Multi-Family and Community development and/or redevelopment projects that include landscaped open space, park and recreation areas** will be required to install a sensor-based or weather-based irrigation controller.

5. **A Customer Water Waste Hotline** will be established and incorporated into the District's Customer Outreach Plan.

**Section XI. Declaration & Notification of Water Supply Shortage Emergency Declarations**

1. **Declaration of a Level 1, 2 or 3 Water Supply Shortage Emergency:** The District Board of Directors may declare a Level 1, 2 or 3 Water Supply Shortage Emergency in accordance with the procedures specified in Water Code Sections 351 and 352 (Public Hearing, Notice and Publication). Thereafter, penalties and violations under Section XIII apply.

2. **Notification of Declared Water Supply Shortages Emergency**

   The District must publish a copy of the water shortage/emergency resolution in a newspaper used for the publication of official notices within the jurisdiction of the District within fifteen (15) **days** of the date that a Water Supply Shortage Emergency is declared.

**Section XII. Hardship Waiver**

1. **Undue and Disproportionate Hardship:** If, due to unique circumstances, a specific requirement of the Ordinance would result in undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water users, then the person may apply for a waiver to the requirements as provided in this section.

2. **Written Finding:** The waiver may be granted or conditionally granted only upon a written finding of the existence of facts demonstrating an undue hardship.

    a. **Application for a Waiver**: Application for a waiver must be on a form prescribed by the District.

    b. **Supporting Documentation**: The application must be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.

    c. **Required Findings for Waiver:** Based on the information and supporting documents provided in the application, additional information provided as requested, and water use information for the property as shown by the records of the District, the District **General Manager** in making the waiver determination will take into consideration the following:

        1. That the waiver does not constitute a grant of special privilege inconsistent with the limitations upon other residents and businesses;

        2. That because of special circumstances applicable to the property or its use, the strict application of this Ordinance would have a disproportionate impact on the property or use that exceeds the impacts to residents and businesses generally;

        3. That the authorizing of such waiver will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the District to effectuate the purpose of this Ordinance and will not be detrimental to the public interest; and

        4. That the condition or situation of the subject property or the intended use of the property for which the waiver is sought is not common, recurrent or general in nature.

    d. **Approval Authority**

        1. The District General Manager or his designee(s) must act upon any completed **Application for a Waiver** no later than ten (10) days after receipt by the District.

        2. The General **Manager or his designee(s) may approve, conditionally approve, or deny the waiver** and the decision will be final.

        3. The applicant requesting the waiver must be promptly notified in writing of any action taken. Unless specified otherwise, at the time a waiver is

approved, it will apply to the subject property for the duration of the water supply shortage or emergency.

**Section XIII: Non-Compliance**

1. **Non-Compliance with Permanent, Level 1 & Level 2 Mandatory Conservation Measures**

   **Non-Compliance:** The District will issue a **written warning** and provide information regarding the necessity to comply with all Water Conservation Measures.

2. **Non-Compliance with Level 3 Mandatory Conservation Measures**

   a. **Non-Compliance Charges:** The following will apply to persons or entities failing to comply with any provision of the Ordinance for Level 3 Mandatory Water Conservation Measures:

      1. **First Instance of Non-Compliance:** The District will issue a **written warning** and send it along with an explanation of the violation.

      2. **Second Instance of Non-Compliance:** A second instance of non-compliance with the Ordinance within the preceding twelve (12) calendar months is punishable by a non-compliance charge on the water bill not to exceed **two hundred and fifty dollars ($250)**.

      3. **Third Instance of Non-Compliance:** A third instance of non-compliance with the Ordinance within the preceding twelve (12) calendar months is punishable by a non-compliance charge on the water bill not to exceed **five hundred dollars ($500)**.

   b. **Water Flow Restrictor and/or Termination of Service**

      1. **Water Flow Restrictor Device.** In addition to any non-compliance charges, the District may install a water flow restrictor device. If the District determines to install a water flow restrictor, installation of the flow restrictor would follow written notice of intent to the customer and would be in place for a minimum of forty eight (48) hours.

      2. **Termination of Service:** In addition to any non-compliance charges and the installation of a water flow restrictor, the District may disconnect and/or terminate a customer's water service, pursuant to Water Code Section 356.

      3. **Costs for Water Flow Restrictors and Service Disconnection**

         a. A person or entity in non-compliance with this Ordinance is responsible for payment of the District's charges for installing and/or removing any flow restricting device and for disconnecting

and/or reconnecting service per the District's schedule of charges then in effect.

b. The charge for installing and/or removing any flow restricting device must be paid to the District before the device is removed.

c. Nonpayment will be subject to the same remedies as nonpayment of basic water rate

c. **Misdemeanor:** Pursuant to Water Code Section 377, any instance of non-compliance with the Ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding one thousand dollars ($1,000) or by both.

3. **Separate Offenses**: Each day that a person or entity is non-compliant with the Ordinance is a separate offense.

4. **Notice of Non-Compliance/ Appeal and Hearing Process**

a. The District will issue a **Notice of Non-Compliance** by mail or personal delivery at least ten (10) days before taking enforcement action. The notice will describe the violation and, if applicable, the date by which corrective action must be taken.

b. **A customer may appeal the Notice of Non-Compliance** by filing a written Notice of Appeal with the District no later than the close of business on the 10th day following receipt of the enforcement action. A customer appeal shall state the grounds for the appeal.

1. **Any Notice of Non-Compliance not timely appealed will be final.**

2. Upon receipt of a timely appeal, **the District will schedule a hearing on the appeal** and mail written notice of the hearing date to the customer at least ten (10) days before the hearing.

3. The District General Manager or his designee(s) will hear the appeal and issue a written **Notification of Decision** within ten (10) days of the hearing.

c. Pending receipt of a written appeal or pending a hearing pursuant to an appeal, the District **may take appropriate steps to prevent the unauthorized use of water** given the nature and extent of the violations and the current declared water shortage level condition, including restricting the level of water use until the appeal is heard.

**Section XIV: Administrative Penalty Provisions**

1. **Administrative Penalty.** Pursuant to the authority provided for in Government Code Section 53069.4, the District finds, adopts and determines that all penalties provided for in this Ordinance No. 2015-3, as a result of any person or entity violating various provisions set forth herein shall constitute an Administrative Penalty.

2. **Notice and Due Process.** Upon the declaration of a Water Supply Shortage Emergency and publication of the notice required herein, Proper notice shall be deemed to have been given to each and every person and/or entity supplied water within the District, and the applicable water shortage.

3. **Collection of Penalties.** Any penalty imposed pursuant to this Ordinance may be collected on a customer's water bill. Any penalty shall be applicable to water used in violation of this Ordinance during the first complete billing cycle after the declaration of the applicable water shortage stage.

4. **Notice of Violation.** The receipt of a water bill with any applicable penalties shall serve as notice of violation of this Ordinance.

5. **Appeal Procedures.** Any customer who wishes to appeal the imposition of an Administrative Penalty imposed by the District shall comply with the following procedures:

6. **Appeal Request.** An Appeal Request form shall be submitted to the District's Customer Service Department.

   (a) Appeal Request forms may be obtained at the District's Main Office or downloaded from the District's website at www.etwd.com.

   (b) An Appeal Request form shall be received by the District no later than thirty calendar days from the date that the Appellant's water bill for the four-week period in which the penalty or penalties were imposed is due.

   (c) Additional Documentation. Additional documentation may be requested at the discretion of the District. Such documentation may include, but is not limited to, school records, driver's licenses, business licenses, lease agreements.

   (d) Site Survey. After an Appeal Request form has been received, a site survey may be required by District staff to verify the irrigated square footage of the property where the water was delivered. The site survey will be at no charge to the person and will require the person who submitted the Appeal Request form to be present.

   (e) District Response. A response to an Appeal Request shall be provided by the District within thirty calendar days from receipt of the Appeal Request form.

   (f) Review of Denial of Appeal Request. If an Appeal Request is denied, the Appeal Request form may be resubmitted by the customer for review by the District's General Manager. The Decision by the District's General Manager shall be final.

7. **Use of Penalty Funds Collected.** The Board of Directors hereby declares its intent to use penalty funds collected to pay any penalties/charges that may be imposed by the State and/or wholesale water provider of the District for exceeding its baseline water budget allocation and in furtherance of conservation efforts and/or acquisition of supplemental water supplies.

**Section XV: Severability:** If any section, subsection, sentence, clause or phrase in this Ordinance is for any reason held invalid, the validity of the remainder of the Ordinance will not

be affected. The District Board of Directors hereby declares it would have passed this Ordinance and each section, subsection, sentence, clause or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses, or phrases thereof is declared invalid.

**Section XVI: Effective Date of Ordinance:** This Ordinance shall be effective immediately upon adoption.

**ADOPTED, SIGNED, AND APPROVED** by the following vote this 9th day of June, 2015.

AYES:
NOES:
ABSTAIN:
ABSENT:

**EL TORO WATER DISTRICT**

M. Scott Goldman, President
El Toro Water District and the
Board of Directors thereof

**ATTEST:**

Robert R. Hill, General Manager/Secretary
El Toro Water District and the
Board of Directors thereof

# Appendix A

## ETWD Water Conservation & Water Shortage Ordinance Provisions
## Summary Table of Mandatory Water Conservation Measures

| *Year-round* | *Water Supply Alert* | *Water Supply Warning* | *Water Emergency* |
|---|---|---|---|
| **Permanent** | **Level 1**<br>**Water Supply Shortage - Up to 20% shortage in imported supplies to District** | **Level 2**<br>**Water Supply Shortage - Up to 40% shortage in imported supplies to District** | **Level 3**<br>**Water Supply Shortage - More than 40% shortage in imported supplies to District** |
| **Ordinance Section VI** | **Ordinance Section VII**<br>**Same as Permanent Measures PLUS** | **Ordinance Section VIII**<br>**Same as Permanent & Level 1 Measures PLUS** | **Ordinance Section IX**<br>**Same as Permanent, Level 1& Level 2 Measures PLUS** |
| *General Restrictions* | | | |
| a. Prohibited any day of the week between 10 am – 5 pm PST (except using bucket or positive self closing shut-off hose nozzle or for quick system repairs) | a. Watering limited to:<br>- 3 days a week from Apr-Oct<br>- 1 day a week from Nov-Mar | a. Watering limited to;<br>- 2 days a week from April–Oct<br>- Nov-Mar remains 1 day a week | a. All watering prohibited (some exceptions) |
| b. No more than 15 minutes of watering per day, per valve on unattended automatic irrigation systems (some exemptions) | | b. Fix leaks/breaks within reasonable time or no more than 3 days of District notice | b. Fix leaks/breaks within reasonable time or no more than 2 days of District notice |
| c. No excessive water flow or runoff | | c. No filling or refilling ornamental lakes and ponds (some exceptions)<br><br>d. No filling residential swimming pools or outdoor spas or refilling more than 1 foot (some exceptions) | c. No new potable water, new water meters (temporary or permanent) or issuance of will-serve letters (some exceptions for will-serve letters) |
| d. No outside watering when it is Raining and following 48 hours of significant precipitation. | | e. Wash cars only at commercial car wash with re-circulating system | d. Option to discontinue service for customers who willfully violate provisions during water emergency |
| | | | |

# Appendix A

## ETWD Water Conservation & Water Shortage Ordinance Provisions
## Summary Table of Mandatory Water Conservation Measures

| *Year-round* | *Water Supply Alert* | *Water Supply Warning* | *Water Emergency* |
|---|---|---|---|
| **Permanent** | **Level 1**<br>Water Supply Shortage - Up to 20% shortage in imported supplies to District | **Level 2**<br>Water Supply Shortage - Up to 40% shortage in imported supplies to District | **Level 3**<br>Water Supply Shortage - More than 40% shortage in imported supplies to District |
| **Ordinance Section VI** | **Ordinance Section VII**<br>Same as Permanent Measures PLUS | **Ordinance Section VIII**<br>Same as Permanent & Level 1 Measures PLUS | **Ordinance Section IX**<br>Same as Permanent, Level 1& Level 2 Measures PLUS |
| e. Fix leaks/breaks within reasonable time or no more than 5 days of District notice | | | |
| f. No hosing or washing down hard or paved surfaces (except by hand to eliminate safety or sanitary hazards) | Optional Program at Levels 1, 2 or 3: Require Commercial, Industrial and Institutional users in District (10,000 billing units or more per year) to submit water conservation plan and reports to the District. | | |
| g. No hosing or washing down vehicles, except using a bucket or positive self closing shut-off hose nozzle or commercial car wash | | | |
| h. Decorative water fountains or features must re-circulate water | | | |
| *Commercial Food Serving/Lodging* | | | |
| a. Restaurants only serve water on request | | | |
| b. Hotels must provide guests option to not launder linens/towels | | | |

# Appendix A

## ETWD Water Conservation & Water Shortage Ordinance Provisions
## Summary Table of Mandatory Water Conservation Measures

| *Year-round* | *Water Supply Alert* | *Water Supply Warning* | *Water Emergency* |
|---|---|---|---|
| **Permanent** | **Level 1**<br>**Water Supply Shortage - Up to 20% shortage in imported supplies to District** | **Level 2**<br>**Water Supply Shortage - Up to 40% shortage in imported supplies to District** | **Level 3**<br>**Water Supply Shortage - More than 40% shortage in imported supplies to District** |
| **Ordinance Section VI** | **Ordinance Section VII**<br>**Same as Permanent Measures PLUS** | **Ordinance Section VIII**<br>**Same as Permanent & Level 1 Measures PLUS** | **Ordinance Section IX**<br>**Same as Permanent, Level 1& Level 2 Measures PLUS** |

| | | | |
|---|---|---|---|
| *Commercial Kitchens* | | | |
| a. Water-efficient pre-rinse kitchen sprayers required for:<br>- New installations & Retrofits | | | |
| *Commercial Water Re-circulation* | | | |
| a. No installation of non-re-circulating car wash or laundry facilities or systems | | | |
| b. No single-pass cooling sys. for new or remodeled buildings | | | |

# Appendix B

## ETWD Water Conservation & Water Shortage Ordinance Provisions
## Level 1, 2 & 3 Water Supply Shortage - Assigned Outside Watering Days by City Boundary

| | *Water Supply Alert* | *Water Supply Warning* | *Water Emergency* |
|---|---|---|---|
| | **Level 1**<br>Water Supply Shortage - Up to 20% shortage in imported supplies to District | **Level 2**<br>Water Supply Shortage - Up to 40% shortage in imported supplies to District | **Level 3**<br>Water Supply Shortage - More than 40% shortage in imported supplies to District |
| **City/Municipality** | **Watering Limited to:**<br>**3 days a week from April to Oct.**<br>**Nov. – Mar. 1 day a week**<br>**(Note Section VII.3.a.2 for Exemptions)** | **Watering limited to:**<br>**2 days a week from April to Oct.**<br>**Nov. – Mar. remains 1 day a week**<br>**(Note Section VIII.3.a.3 for Exemptions)** | **Watering prohibited**<br>**(Note Section IX.3.a.2 for Exemptions)** |
| City of Mission Viejo | Monday & Thursday & Saturday or Sunday | Monday or Thursday & Saturday or Sunday | Prohibited – Note Exemption |
| City of Aliso Viejo | Monday & Thursday & Saturday or Sunday | Monday or Thursday & Saturday or Sunday | Prohibited – Note Exemption |
| City of Laguna Woods | Tuesday & Friday & Saturday or Sunday | Tuesday or Friday & Saturday or Sunday | Prohibited – Note Exemption |
| City of Laguna Hills | Tuesday & Friday & Saturday or Sunday | Tuesday or Friday & Saturday or Sunday | Prohibited – Note Exemption |
| City of Lake Forest | Tuesday & Friday & Saturday or Sunday | Tuesday or Friday & Saturday or Sunday | Prohibited – Note Exemption |

# Appendix C

## ETWD Water Conservation & Water Shortage Ordinance Provisions
## Best Practices for the Construction and Operations of Pools and Spas

**Implementation of the following Best Practices is encouraged for the construction and operation of any pool or spa installation on the premises of the private residences:**

Construction:

- Installation of a pool/spa cover or use of cover elements over 75% of the pool surface to reduce evaporation

Operational:

- Installation of a cartridge filtering system to reduce the waste associated with backwash of filters
- Installation of non-mechanical, sensor-based automatic manual or timer-based fill mechanisms to prevent over-filling and waste
- Showing demonstrable off-sets to long-term water use by pool decking and surrounding landscaping compared to traditional landscape.

# Appendix C

## Notice of Public Hearing (Pending)

# El Toro Water District

"A District of Distinction"

Serving the Public - Respecting the Environment

**Board of Directors**

Mike Gaskins
*President*

Kathryn Freshley
*Vice President*

Kay Havens
*Director*

Mark L. Monin
*Director*

Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
South Orange County Wastewater Authority
Attn: Ms. Betty Burnett, General Manager
34156 Del Obispo Street
Dana Point, California 92629

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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Sincerely,

Dennis Cafferty
General Manager

# El Toro Water District

"A District of Distinction"

Serving the Public - Respecting the Environment

**Board of Directors**

Mike Gaskins
*President*

Kathryn Freshley
*Vice President*

Kay Havens
*Director*

Mark L. Monin
*Director*

Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
Municipal Water District of Orange County
Attn: Mr. Rob Hunter, General Manager
P.O. Box 20895
Fountain Valley, California 92708

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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**General Manager**

Dennis P. Cafferty


March 22, 2021
City of Mission Viejo
Attn: Mr. Dennis Wilberg, City Manager
200 Civic Center
Mission Viejo, California 92691

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
City of Lake Forest
Attn: Ms. Debra D. Rose, City Manager
100 Civic Center Drive
Lake Forest, California 92630

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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*Director*

**General Manager**
Dennis P. Cafferty


March 22, 2021
City of Laguna Woods
Attn: Mr. Christopher Macon, City Manager
24264 El Toro Road
Laguna Woods, California 92637

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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*Director*

**General Manager**
Dennis P. Cafferty


March 22, 2021
City of Laguna Hills
Attn: Mr Donald White, City Manager
24035 El Toro Road
Laguna Hills, California 92653

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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*Director*

Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
County of Orange
Attn: Mr. Hugh Nguyen, Clerk Recorder
12 Civic Center Plaza, Room 101
Santa Ana, California 92701

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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Jose F. Vergara
*Director*

**General Manager**
Dennis P. Cafferty


March 22, 2021
City of Aliso Viejo
Attn: Mr. David Doyle, City Manager
12 Journey Street, Suite 100
Aliso Viejo, California 92656

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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Sincerely,

Dennis Cafferty
General Manager

# Appendix D

## Adopted WSCP Resolution (Pending)

Arcadis U.S., Inc.
320 Commerce, Suite 200
Irvine
California 92602
Phone: 714 730 9052
www.arcadis.com

Maddaus Water Management, Inc.
Danville, California 94526
Sacramento, California 95816
www.maddauswater.com

# APPENDIX I

## Water Use Efficiency Implementation Report

# Orange County
## Water Use Efficiency Programs Savings
## and
## Implementation Report

### Retrofits and Acre-Feet Water Savings for Program Activity

| Program | Program Start Date | Retrofits Installed in | Month Indicated | | Current Fiscal Year | | Overall Program | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Interventions | Water Savings | Interventions | Water Savings | Interventions | Annual Water Savings[4] | Cumulative Water Savings[4] |
| **High Efficiency Clothes Washer Program** | 2001 | June-20 | 91 | 0.26 | 0 | 0.00 | 121,432 | 4,189 | 33,965 |
| **Smart Timer Program - Irrigation Timers** | 2004 | June-20 | 228 | 3.40 | 0 | 0.00 | 27,423 | 8,885 | 64,167 |
| **Rotating Nozzles Rebate Program** | 2007 | June-20 | 0 | 0.00 | 0 | 0.00 | 570,818 | 2,789 | 23,762 |
| **Commercial Plumbing Fixture Rebate Program** | 2002 | June-20 | 584 | 2.69 | 0 | 117.64 | 110,302 | 5,295 | 60,670 |
| **Industrial Process/Water Savings Incentive Program (WSIP)** | 2006 | July-20 | 0 | 0.00 | 3 | 0.00 | 0 | 1,257 | 5,149 |
| **Turf Removal Program[3]** | 2010 | July-20 | 87,920 | 1.03 | 87,920 | 8.20 | 23,023,586 | 3,224 | 16,549 |
| **High Efficiency Toilet (HET) Program** | 2005 | June-20 | 8 | 0.03 | 0 | 0.00 | 60,567 | 2,239 | 21,870 |
| **Water Smart Landscape Program [1]** | 1997 | | | | | | 12,677 | 10,621 | 72,668 |
| **Home Water Certification Program** | 2013 | | | | | | 312 | 7.339 | 15.266 |
| **Synthetic Turf Rebate Program** | 2007 | | | | | | 685,438 | 96 | 469 |
| **Ultra-Low-Flush-Toilet Programs [2]** | 1992 | | | | | | 363,926 | 13,452 | 162,561 |
| **Home Water Surveys [2]** | 1995 | | | | | | 11,867 | 160 | 1,708 |
| **Showerhead Replacements [2]** | 1991 | | | | | | 270,604 | 1,667 | 19,083 |
| **Total Water Savings All Programs** | | | | **7** | **87,923** | **126** | **25,258,952** | **53,882** | **482,636** |

(1) Water Smart Landscape Program participation is based on the number of water meters receiving monthly Irrigation Performance Reports.
(2) Cumulative Water Savings Program To Date totals are from a previous Water Use Efficiency Program Effort.
(3) Turf Removal Interventions are listed as square feet.
[4] Cumulative & annual water savings represents both active program savings and passive savings that continues to be realized due to plumbing code changes over time.

# HIGH EFFICIENCY CLOTHES WASHERS INSTALLED BY AGENCY

**through MWDOC and Local Agency Conservation Programs**

| Agency | FY 12/13 | FY13/14 | FY14/15 | FY15/16 | FY16/17 | FY17/18 | FY18/19 | FY19/20 | FY20/21 | Total | Current FY Water Savings Ac/Ft (Cumulative) | Cumulative Water Savings across all Fiscal Years | 15 yr. Lifecycle Savings Ac/Ft |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brea | 93 | 115 | 114 | 76 | 57 | 55 | 53 | 36 | - | 2,011 | 0.00 | 562.09 | 1,041 |
| Buena Park | 105 | 106 | 91 | 76 | 54 | 50 | 46 | 28 | - | 1,642 | 0.00 | 447.38 | 850 |
| East Orange CWD RZ | 10 | 8 | 8 | 8 | 3 | 1 | 6 | 2 | - | 201 | 0.00 | 59.47 | 104 |
| El Toro WD | 134 | 121 | 111 | 65 | 47 | 50 | 40 | 29 | - | 1,640 | 0.00 | 448.04 | 849 |
| Fountain Valley | 115 | 102 | 110 | 76 | 65 | 48 | 39 | 34 | - | 2,521 | 0.00 | 736.15 | 1,304 |
| Garden Grove | 190 | 162 | 165 | 251 | 127 | 87 | 70 | 63 | - | 3,783 | 0.00 | 1,058.84 | 1,957 |
| Golden State WC | 265 | 283 | 359 | 260 | 138 | 156 | 92 | 95 | - | 5,358 | 0.00 | 1,503.23 | 2,772 |
| Huntington Beach | 334 | 295 | 319 | 225 | 180 | 139 | 93 | 115 | - | 8,593 | 0.00 | 2,548.98 | 4,446 |
| Irvine Ranch WD | 1,763 | 1,664 | 1,882 | 1,521 | 1,369 | 1,194 | 883 | 490 | - | 27,229 | 0.00 | 7,265.10 | 14,089 |
| La Habra | 82 | 114 | 87 | 66 | 53 | 48 | 48 | 46 | - | 1,469 | 0.00 | 394.49 | 760 |
| La Palma | 34 | 25 | 34 | 29 | 10 | 14 | 7 | 12 | - | 491 | 0.00 | 135.74 | 254 |
| Laguna Beach CWD | 38 | 37 | 39 | 32 | 19 | 20 | 18 | 16 | - | 986 | 0.00 | 280.60 | 510 |
| Mesa Water | 114 | 86 | 89 | 113 | 79 | 53 | 42 | 41 | - | 2,653 | 0.00 | 783.81 | 1,373 |
| Moulton Niguel WD | 442 | 421 | 790 | 688 | 574 | 524 | 357 | 298 | - | 11,099 | 0.00 | 2,893.60 | 5,743 |
| Newport Beach | 116 | 92 | 95 | 66 | 61 | 51 | 41 | 28 | - | 2,744 | 0.00 | 824.95 | 1,420 |
| Orange | 218 | 163 | 160 | 124 | 80 | 73 | 56 | 59 | - | 4,086 | 0.00 | 1,216.88 | 2,114 |
| San Juan Capistrano | 76 | 73 | 92 | 63 | 33 | 32 | 23 | 26 | - | 1,540 | 0.00 | 436.50 | 797 |
| San Clemente | 140 | 94 | 141 | 75 | 70 | 83 | 64 | 61 | - | 2,828 | 0.00 | 792.41 | 1,463 |
| Santa Margarita WD | 553 | 662 | 792 | 466 | 367 | 271 | 213 | 251 | - | 10,251 | 0.00 | 2,785.14 | 5,304 |
| Seal Beach | 31 | 29 | 38 | 23 | 9 | 17 | 8 | 21 | - | 648 | 0.00 | 182.31 | 335 |
| Serrano WD | 13 | 10 | 26 | 8 | 11 | 8 | 2 | 7 | - | 374 | 0.00 | 110.35 | 194 |
| South Coast WD | 89 | 79 | 68 | 43 | 44 | 36 | 28 | 30 | - | 1,678 | 0.00 | 470.72 | 868 |
| Trabuco Canyon WD | 30 | 45 | 47 | 34 | 28 | 22 | 13 | 12 | - | 845 | 0.00 | 235.90 | 437 |
| Tustin | 78 | 59 | 80 | 66 | 44 | 48 | 34 | 29 | - | 1,723 | 0.00 | 497.50 | 892 |
| Westminster | 121 | 82 | 109 | 149 | 84 | 65 | 46 | 36 | - | 2,733 | 0.00 | 773.73 | 1,414 |
| Yorba Linda | 181 | 167 | 156 | 123 | 55 | 66 | 43 | 62 | - | 3,922 | 0.00 | 1,166.59 | 2,029 |
| **MWDOC Totals** | 5,365 | 5,094 | 6,002 | 4,726 | 3,661 | 3,211 | 2,365 | 1,927 | - | 103,060 | 0.00 | 28,614.91 | 19,911 |
| | | | | | | | | | | | | | |
| Anaheim | 331 | 285 | 295 | 266 | 213 | 173 | 135 | 119 | - | 11,109 | 0.00 | 3,328.69 | 5,748 |
| Fullerton | 200 | 186 | 211 | 165 | 107 | 99 | 113 | 84 | - | 3,991 | 0.00 | 1,114.54 | 2,065 |
| Santa Ana | 163 | 131 | 132 | 259 | 141 | 124 | 128 | 49 | - | 3,272 | 0.00 | 906.40 | 1,693 |
| **Non-MWDOC Totals** | 694 | 602 | 638 | 690 | 461 | 396 | 376 | 252 | - | 18,372 | 0.00 | 5,349.63 | 3,549 |
| | | | | | | | | | | | | | |
| **Orange County Totals** | 6,059 | 5,696 | 6,640 | 5,416 | 4,122 | 3,607 | 2,741 | 2,179 | - | 121,432 | 0.00 | 33,964.54 | 23,460 |

# SMART TIMERS INSTALLED BY AGENCY

**through MWDOC and Local Agency Conservation Programs**

| | FY 12/13 | | FY 13/14 | | FY 14/15 | | FY 15/16 | | FY16/17 | | FY17/18 | | FY18/19 | | FY19/20 | | FY20/21 | | Total Program | | Cumulative Water Savings across all Fiscal Years |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agency | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm. | |
| Brea | 9 | 8 | 4 | 0 | 43 | 6 | 20 | 4 | 31 | 4 | 32 | 0 | 33 | 0 | 31 | 0 | 0 | 0 | 227 | 80 | 650.09 |
| Buena Park | 3 | 0 | 0 | 0 | 4 | 10 | 7 | 4 | 10 | 7 | 15 | 3 | 17 | 7 | 22 | 1 | 0 | 0 | 85 | 52 | 225.69 |
| East Orange CWD RZ | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 11 | 1 | 6 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 33 | 1 | 34.78 |
| El Toro WD | 7 | 2 | 11 | 0 | 8 | 9 | 9 | 17 | 33 | 8 | 29 | 4 | 34 | 0 | 21 | 3 | 0 | 0 | 199 | 362 | 2,982.96 |
| Fountain Valley | 3 | 2 | 4 | 0 | 7 | 10 | 13 | 1 | 33 | 12 | 28 | 12 | 36 | 4 | 41 | (2) | 0 | 0 | 196 | 54 | 278.03 |
| Garden Grove | 5 | 2 | 9 | 0 | 10 | 14 | 13 | 11 | 28 | 0 | 27 | 2 | 36 | 3 | 31 | 0 | 0 | 0 | 195 | 43 | 249.83 |
| Golden State WC | 9 | 49 | 9 | 25 | 39 | 12 | 35 | 16 | 56 | 37 | 88 | 6 | 85 | 15 | 89 | 0 | 0 | 0 | 487 | 213 | 1,147.32 |
| Huntington Beach | 18 | 33 | 20 | 35 | 19 | 2 | 42 | 12 | 88 | 94 | 70 | 30 | 105 | 65 | 71 | 21 | 0 | 0 | 518 | 384 | 1,631.53 |
| Irvine Ranch WD | 414 | 135 | 71 | 59 | 67 | 310 | 239 | 207 | 344 | 420 | 416 | 78 | 379 | 105 | 292 | 146 | 0 | 0 | 2,856 | 2,615 | 15,058.23 |
| La Habra | 4 | 7 | 2 | 0 | 4 | 7 | 3 | 1 | 12 | 7 | 8 | 0 | 19 | 3 | 22 | (2) | 0 | 0 | 85 | 45 | 272.16 |
| La Palma | 1 | 0 | 2 | 0 | 2 | 0 | 3 | 2 | 1 | 0 | 5 | 0 | 7 | 0 | 6 | 0 | 0 | 0 | 28 | 2 | 11.21 |
| Laguna Beach CWD | 76 | 2 | 71 | 0 | 86 | 0 | 86 | 1 | 27 | 0 | 11 | 0 | 8 | 0 | 15 | 0 | 0 | 0 | 531 | 20 | 310.69 |
| Mesa Water | 10 | 2 | 15 | 2 | 17 | 28 | 36 | 12 | 149 | 41 | 49 | 0 | 34 | 55 | 31 | 3 | 0 | 0 | 432 | 212 | 1,056.92 |
| Moulton Niguel WD | 51 | 74 | 40 | 45 | 46 | 95 | 163 | 100 | 236 | 129 | 284 | 33 | 316 | 64 | 279 | 45 | 0 | 0 | 1,793 | 943 | 5,001.61 |
| Newport Beach | 242 | 26 | 168 | 75 | 11 | 9 | 28 | 43 | 30 | 12 | 24 | 0 | 21 | 0 | 11 | 32 | 0 | 0 | 1,094 | 441 | 3,288.87 |
| Orange | 20 | 24 | 13 | 9 | 18 | 31 | 51 | 13 | 69 | 10 | 61 | 13 | 93 | 26 | 99 | 15 | 0 | 0 | 538 | 219 | 1,268.69 |
| San Juan Capistrano | 14 | 18 | 6 | 11 | 6 | 19 | 20 | 8 | 22 | 8 | 23 | 5 | 20 | 1 | 24 | 9 | 0 | 0 | 289 | 140 | 854.67 |
| San Clemente | 26 | 7 | 28 | 2 | 28 | 24 | 26 | 3 | 37 | 13 | 38 | 41 | 36 | 0 | 35 | 16 | 0 | 0 | 1,160 | 431 | 3,359.54 |
| Santa Margarita WD | 53 | 171 | 64 | 93 | 53 | 321 | 189 | 136 | 326 | 221 | 273 | 220 | 222 | 37 | 223 | 31 | 0 | 0 | 1,872 | 1,660 | 8,154.35 |
| Seal Beach | 1 | 0 | 1 | 36 | 1 | 12 | 2 | 2,446 | 2 | 4 | 5 | 0 | 6 | 31 | 10 | 0 | 0 | 0 | 28 | 2,533 | 8,531.75 |
| Serrano WD | 1 | 0 | 0 | 0 | 4 | 0 | 11 | 2 | 4 | 0 | 8 | 0 | 10 | 0 | 9 | 0 | 0 | 0 | 65 | 2 | 22.60 |
| South Coast WD | 13 | 16 | 8 | 4 | 104 | 73 | 9 | 11 | 7 | 0 | 15 | 2 | 7 | 7 | 14 | 0 | 0 | 0 | 314 | 221 | 1,475.46 |
| Trabuco Canyon WD | 6 | 0 | 2 | 0 | 6 | 1 | 16 | 50 | 13 | 3 | 20 | 0 | 33 | 0 | 35 | 0 | 0 | 0 | 191 | 157 | 1,178.53 |
| Tustin | 8 | 4 | 9 | 1 | 18 | 14 | 33 | 8 | 33 | 23 | 27 | 1 | 37 | 0 | 40 | 0 | 0 | 0 | 247 | 81 | 470.96 |
| Westminster | 1 | 1 | 2 | 0 | 13 | 17 | 7 | 1 | 17 | 12 | 22 | 0 | 24 | 0 | 20 | 0 | 0 | 0 | 131 | 44 | 268.38 |
| Yorba Linda | 20 | 0 | 12 | 5 | 32 | 2 | 61 | 27 | 72 | 71 | 68 | 10 | 74 | 4 | 111 | 5 | 0 | 0 | 591 | 202 | 1,154.22 |
| **MWDOC Totals** | 1,017 | 583 | 571 | 402 | 648 | 1,026 | 1,123 | 3,136 | 1,691 | 1,137 | 1,652 | 460 | 1,693 | 427 | 1,583 | 323 | 0 | 0 | 14,185 | 11,157 | 58,939.06 |
| Anaheim | 19 | 10 | 9 | 26 | 7 | 52 | 30 | 34 | 87 | 10 | 66 | 0 | 142 | 73 | 111 | 9 | 0 | 0 | 563 | 539 | 3,375.50 |
| Fullerton | 9 | 29 | 8 | 0 | 40 | 26 | 32 | 12 | 53 | 7 | 45 | 0 | 77 | 0 | 61 | 8 | 0 | 0 | 382 | 207 | 1,241.33 |
| Santa Ana | 8 | 19 | 7 | 8 | 9 | 27 | 22 | 26 | 15 | 3 | 16 | 0 | 24 | 20 | 19 | 129 | 0 | 0 | 141 | 249 | 611.32 |
| **Non-MWDOC Totals** | 36 | 58 | 24 | 34 | 56 | 105 | 84 | 72 | 155 | 20 | 127 | 0 | 243 | 93 | 191 | 146 | 0 | 0 | 1086 | 995 | 5,228.15 |
| **Orange County Totals** | 1,053 | 641 | 595 | 436 | 704 | 1,131 | 1,207 | 3,208 | 1,846 | 1,157 | 1,779 | 460 | 1,936 | 520 | 1,774 | 469 | - | - | 15,271 | 12,152 | 64,167 |

## ROTATING NOZZLES INSTALLED BY AGENCY
## through MWDOC and Local Agency Conservation Programs

| | FY 13/14 | | | FY 14/15 | | | FY 15/16 | | | FY 16/17 | | | FY 17/18 | | | FY 18/19 | | | FY 19/20 | | | FY 20/21 | | | Total Program | | | Cumulative Water Savings across all Fiscal Years |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Small | | Large | Small | | Large | Small | | Large | Small | | Large | Small | | Large | Small | | Large | Small | | Large | Small | | Large | Small | | Large | |
| Agency | Res | Comm. | Comm. | Res | Comm. | Comm. | Res | Comm. | Comm | Res | Comm. | Comm. | Res | Comm. | Comm. | Res | Comm. | Comm. | Res | Comm. | Comm. | Res | Comm. | Comm. | Res | Comm. | Comm. | |
| Brea | 84 | 0 | 0 | 157 | 45 | 0 | 74 | 2,484 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 572 | 2,749 | 0 | 86.96 |
| Buena Park | 53 | 0 | 0 | 248 | 0 | 0 | 45 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 558 | 173 | 2,535 | 909.02 |
| East Orange | 30 | 0 | 0 | 221 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 781 | 0 | 0 | 25.10 |
| El Toro | 56 | 3,288 | 0 | 1,741 | 28,714 | 0 | 730 | 4,457 | 0 | 55 | 242 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,405 | 46,222 | 890 | 1,786.08 |
| Fountain Valley | 0 | 0 | 0 | 107 | 0 | 0 | 222 | 0 | 0 | 0 | 0 | 0 | 85 | 0 | 0 | 0 | 283 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 795 | 283 | 0 | 27.71 |
| Garden Grove | 80 | 0 | 0 | 88 | 50 | 0 | 110 | 0 | 0 | 55 | 98 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 1,057 | 299 | 0 | 43.46 |
| Golden State | 192 | 0 | 0 | 583 | 1,741 | 0 | 1,088 | 0 | 0 | 207 | 6,008 | 0 | 161 | -495 | 0 | 35 | 259 | 0 | 63 | 1,652 | 0 | 0 | 0 | 0 | 3,707 | 12,732 | 0 | 414.03 |
| Huntington Beach | 120 | 0 | 0 | 798 | 1,419 | 0 | 1,345 | 2,836 | 0 | 149 | 3,362 | 0 | -37 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 0 | 0 | 0 | 0 | 3,825 | 12,526 | 2,681 | 1,552.33 |
| Irvine Ranch | 11,010 | 4,257 | 0 | 1,421 | 632 | 0 | 1,989 | 5,047 | 0 | 335 | 9,511 | 0 | 356 | -215 | 0 | 72 | 0 | 0 | 157 | 0 | 0 | 0 | 0 | 0 | 47,722 | 94,346 | 2,004 | 5,867.21 |
| La Habra | 15 | 0 | 0 | 109 | 338 | 0 | 300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 481 | 1,236 | 900 | 410.43 |
| La Palma | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 505 | 0 | 0 | 2,385 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 2,890 | 0 | 61.87 |
| Laguna Beach | 2,948 | 878 | 0 | 2,879 | 1,971 | 0 | 1,390 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12,139 | 2,896 | 0 | 470.55 |
| Mesa Water | 361 | 0 | 0 | 229 | 0 | 0 | 166 | 0 | 0 | 113 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 2,116 | 385 | 343 | 226.89 |
| Moulton Niguel | 361 | 227 | 0 | 1,596 | 4,587 | 0 | 5,492 | 1,441 | 0 | 153 | 5,872 | 0 | 893 | 0 | 0 | 713 | 38 | 0 | 687 | 0 | 0 | 0 | 0 | 0 | 14,167 | 20,553 | 2,945 | 2,122.70 |
| Newport Beach | 19,349 | 6,835 | 0 | 460 | 3,857 | 0 | 348 | 670 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46,723 | 21,413 | 0 | 2,312.34 |
| Orange | 245 | 120 | 0 | 304 | 668 | 0 | 631 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 67 | 0 | 0 | 0 | 0 | 0 | 3,267 | 1,072 | 0 | 145.68 |
| San Juan Capistrano | 370 | 0 | 0 | 495 | 737 | 0 | 310 | 593 | 0 | 75 | 123 | 0 | 59 | 0 | 0 | 40 | 1,400 | 0 | 58 | 0 | 0 | 0 | 0 | 0 | 5,652 | 10,252 | 0 | 548.86 |
| San Clemente | 415 | 5,074 | 0 | 326 | 0 | 0 | 426 | 0 | 0 | 0 | 0 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 10,170 | 7,538 | 1,343 | 975.61 |
| Santa Margarita | 389 | 0 | 0 | 1,207 | 1,513 | 0 | 1,820 | 837 | 0 | 15 | 0 | 0 | 224 | 0 | 0 | 30 | 0 | 0 | 229 | 0 | 0 | 0 | 0 | 0 | 16,648 | 6,921 | 611 | 997.51 |
| Seal Beach | 0 | 0 | 0 | 40 | 5,261 | 0 | 0 | 2,300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 155 | 7,852 | 0 | 220.24 |
| Serrano | 105 | 0 | 0 | 377 | 0 | 0 | 695 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,405 | 0 | 0 | 117.83 |
| South Coast | 70 | 0 | 0 | 4,993 | 13,717 | 0 | 1,421 | 2,889 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8,130 | 18,870 | 0 | 768.96 |
| Trabuco Canyon | 0 | 0 | 0 | 56 | 0 | 0 | 130 | 0 | 0 | 0 | 4,339 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,086 | 5,130 | 0 | 196.90 |
| Tustin | 329 | 0 | 0 | 408 | 0 | 0 | 317 | 386 | 0 | 65 | -341 | 0 | 30 | 0 | 0 | 47 | 0 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 3,503 | 1,058 | 0 | 152.23 |
| Westminster | 0 | 0 | 0 | 54 | 0 | 0 | 73 | 0 | 0 | 105 | 0 | 0 | 50 | 0 | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 556 | 0 | 0 | 16.12 |
| Yorba Linda | 40 | 990 | 0 | 921 | 0 | 0 | 1,715 | 0 | 0 | 213 | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6,115 | 4,359 | 500 | 556.57 |
| **MWDOC Totals** | 36,622 | 21,669 | 0 | 19,818 | 65,250 | 0 | 20,883 | 24,634 | 0 | 1,556 | 31,599 | 0 | 2,199 | -710 | 0 | 1,043 | 1,980 | 0 | ### | 1,652 | 0 | 0 | 0 | 0 | 197,824 | 281,755 | 14,752 | 21,013.19 |
| Anaheim | 338 | 0 | 0 | 498 | 712 | 0 | 794 | 5,221 | 0 | 147 | 3,953 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,020 | 49,799 | 105 | 1,672.74 |
| Fullerton | 107 | 0 | 0 | 684 | 1,196 | 0 | 521 | 7,015 | 0 | 65 | 3,034 | 0 | 0 | 0 | 0 | 140 | 0 | 0 | 75 | 0 | 0 | 0 | 0 | 0 | 3,125 | 11,309 | 1,484 | 881.09 |
| Santa Ana | 86 | 2,533 | 0 | 310 | 0 | 0 | 0 | 1,420 | 0 | 0 | 1,106 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 893 | 5,752 | 0 | 195.31 |
| **Non-MWDOC Totals** | 531 | 2,533 | 0 | 1,492 | 1,908 | 0 | 1,315 | 13,656 | 0 | 212 | 8,093 | 0 | 0 | 0 | 0 | 140 | 0 | 0 | 109 | 0 | 0 | 0 | 0 | 0 | 8,038 | 66,860 | 1,589 | 2,749.14 |
| **Orange County Totals** | 37,153 | 24,202 | 0 | 21,310 | 67,158 | 0 | 22,198 | 38,290 | 0 | 1,768 | 39,692 | 0 | 2,199 | -710 | 0 | 1,183 | 1,980 | 0 | ### | 1,652 | 0 | 0 | 0 | 0 | 205,862 | 348,615 | 16,341 | 23,762.33 |

# COMMERCIAL PLUMBING FIXTURES INSTALLED BY AGENCY[1]

**through MWDOC and Local Agency Conservation Programs**

| Agency | FY 12/13 | FY 13/14 | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | FY 19/20 | FY 20/21 | Totals | Cumulative Water Savings across all Fiscal Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Brea | 234 | 0 | 10 | 91 | 734 | 242 | 0 | 74 | 0 | **1,681** | **756** |
| Buena Park | 5 | 23 | 56 | 591 | 133 | 49 | 0 | 94 | 0 | **2,632** | **1,656** |
| East Orange CWD RZ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0** |
| El Toro WD | 0 | 212 | 6 | 268 | 35 | 737 | 717 | 0 | 0 | **2,516** | **929** |
| Fountain Valley | 0 | 0 | 1 | 249 | 0 | 895 | 0 | 398 | 0 | **2,165** | **946** |
| Garden Grove | 4 | 1 | 167 | 676 | 410 | 0 | 354 | 388 | 0 | **3,193** | **2,175** |
| Golden State WC | 0 | 1 | 0 | 1,008 | 53 | 93 | 86 | 80 | 0 | **3,124** | **2,676** |
| Huntington Beach | 104 | 144 | 7 | 783 | 641 | 10 | 208 | 270 | 0 | **3,442** | **2,352** |
| Irvine Ranch WD | 1,090 | 451 | 725 | 11,100 | 5,958 | 1,599 | 1,000 | 15 | 0 | **30,480** | **12,331** |
| La Habra | 0 | 0 | 0 | 340 | 42 | 0 | 0 | 59 | 0 | **984** | **786** |
| La Palma | 0 | 0 | 0 | 0 | 509 | 0 | 0 | 0 | 0 | **675** | **215** |
| Laguna Beach CWD | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **446** | **435** |
| Mesa Water | 6 | 0 | 79 | 661 | 782 | 0 | 110 | 19 | 0 | **4,383** | **3,035** |
| Moulton Niguel WD | 0 | 0 | 3 | 413 | 281 | 506 | 4,392 | 764 | 0 | **6,939** | **1,808** |
| Newport Beach | 0 | 0 | 566 | 0 | 0 | 0 | 1,596 | 16 | 0 | **3,446** | **1,998** |
| Orange | 1 | 271 | 81 | 275 | 2,851 | 458 | 532 | 395 | 0 | **6,415** | **2,805** |
| San Juan Capistrano | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **260** | **518** |
| San Clemente | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 321 | 0 | **753** | **530** |
| Santa Margarita WD | 0 | 0 | 2 | 90 | 743 | 598 | 699 | 0 | 0 | **2,247** | **528** |
| Seal Beach | 0 | 0 | 0 | 0 | 184 | 278 | 0 | 0 | 0 | **816** | **611** |
| Serrano WD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0** |
| South Coast WD | 148 | 0 | 382 | 0 | 0 | 0 | 0 | 0 | 0 | **1,320** | **782** |
| Trabuco Canyon WD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **11** | **20** |
| Tustin | 0 | 0 | 75 | 358 | 212 | 2 | 408 | 254 | 0 | **2,066** | **1,251** |
| Westminster | 1 | 28 | 0 | 146 | 177 | 25 | 0 | 252 | 0 | **1,415** | **1,401** |
| Yorba Linda | 1 | 0 | 0 | 226 | 84 | 338 | 0 | 83 | 0 | **1,016** | **815** |
| **MWDOC Totals** | **1,594** | **1,172** | **2,161** | **17,275** | **13,829** | **5,830** | **10,102** | **3,482** | **0** | **82,425** | **41,363** |
| Anaheim | 165 | 342 | 463 | 3,072 | 309 | 1,808 | 686 | 592 | 0 | **16,839** | **10,159** |
| Fullerton | 94 | 0 | 178 | 476 | 621 | 274 | 384 | 356 | 0 | **3,792** | **2,474** |
| Santa Ana | 16 | 17 | 5 | 1,293 | 238 | 582 | 7 | 920 | 0 | **7,246** | **6,675** |
| **Non-MWDOC Totals** | **275** | **359** | **646** | **4,841** | **1,168** | **2,664** | **1,077** | **1,868** | **0** | **27,877** | **19,308** |
| **Orange County Totals** | **1,869** | **1,531** | **2,807** | **22,116** | **14,997** | **8,494** | **11,179** | **5,350** | **0** | **110,302** | **60,670** |

[1] Retrofit devices include ULF Toilets and Urinals, High Efficiency Toilets and Urinals, Multi-Family and Multi-Family 4-Liter HETs, Zero Water Urinals, High Efficiency Clothes Washers, Cooling Tower Conductivity Controllers, Ph Cooling Tower Conductivity Controllers, Flush Valve Retrofit Kits, Pre-rinse Spray heads, Hospital X-Ray Processor Recirculating Systems, Steam Sterilizers, Food Steamers, Water Pressurized Brooms, Laminar Flow Restrictors, and Ice Making Machines.

# INDUSTRIAL PROCESS/WATER SAVINGS INCENTIVE PROGRAM

## Number of Projects by Agency

| Agency | FY 11/12 | FY 12/13 | FY 13/14 | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | FY 19/20 | FY 20/21 | Overall Program Interventions | Annual Water Savings[1] | Cumulative Water Savings across all Fiscal Years[1] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brea | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buena Park | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 54 | 627 |
| East Orange | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| El Toro | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 9 | 17 |
| Fountain Valley | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 23 | 79 |
| Garden Grove | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 7 | 6 |
| Golden State | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 58 | 78 |
| Huntington Beach | 0 | 2 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 6 | 180 | 987 |
| Irvine Ranch | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 10 | 119 | 910 |
| La Habra | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| La Palma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Laguna Beach | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mesa Water | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Moulton Niguel | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Newport Beach | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 21 | 120 |
| Orange | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 5 | 97 | 723 |
| San Juan Capistrano | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| San Clemente | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Santa Margarita | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Seal Beach | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Serrano | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| South Coast | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 134 | 459 |
| Trabuco Canyon | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tustin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Westminster | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 117 | 146 |
| Yorba Linda | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 20 | 38 |
| **MWDOC Totals** | 1 | 3 | 1 | 2 | 9 | 5 | 3 | 3 | 2 | 0 | 35 | 840 | 4192 |
| Anaheim | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fullerton | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 282 | 282 |
| Santa Ana | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 135 | 675 |
| **OC Totals** | 1 | 3 | 1 | 2 | 10 | 5 | 3 | 3 | 3 | 0 | 37 | 1257 | 5149 |

[1] Acre feet of savings determined during a one year monitoring period.

If monitoring data is not available, the savings estimated in agreement is used.

# TURF REMOVAL BY AGENCY[1]

**through MWDOC and Local Agency Conservation Programs**

| Agency | FY 13/14 | | FY 14/15 | | FY 15/16 | | FY 16/17 | | FY 17/18 | | FY 18/19 | | FY 19/20 | | FY 20/21 | | Total Program | | Cumulative Water Savings across all Fiscal Years |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | |
| Brea | 5,697 | 0 | 71,981 | 30,617 | 118,930 | 404,411 | 8,354 | 479 | 9,853 | 27,234 | 3,180 | 44,733 | 8,244 | 0 | 0 | 0 | 237,241 | 516,940 | **513.87** |
| Buena Park | 0 | 0 | 11,670 | 1,626 | 77,127 | 16,490 | 3,741 | 0 | 4,586 | 0 | 1,230 | 0 | 7,222 | 0 | 0 | 0 | 105,576 | 18,116 | **82.44** |
| East Orange | 1,964 | 0 | 18,312 | 0 | 27,844 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48,120 | 0 | **36.80** |
| El Toro | 4,582 | 0 | 27,046 | 221,612 | 63,546 | 162,548 | 13,139 | 48,019 | 7,273 | 42,510 | 12,856 | 9,895 | 5,203 | 21,290 | 3,018 | 0 | 146,066 | 578,592 | **526.23** |
| Fountain Valley | 4,252 | 0 | 45,583 | 5,279 | 65,232 | 0 | 3,679 | 0 | 8,631 | 0 | 5,764 | 28,700 | 734 | 0 | 0 | 0 | 135,857 | 41,503 | **117.71** |
| Garden Grove | 8,274 | 0 | 67,701 | 22,000 | 177,408 | 49,226 | 11,504 | 0 | 4,487 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 287,921 | 117,403 | **337.17** |
| Golden State | 32,725 | 8,424 | 164,507 | 190,738 | 310,264 | 112,937 | 0 | 0 | 0 | 0 | 0 | 48,595 | 0 | 0 | 0 | 0 | 581,902 | 394,867 | **780.47** |
| Huntington Beach | 20,642 | 0 | 165,600 | 58,942 | 305,420 | 270,303 | 9,560 | 21,534 | 14,236 | 6,032 | 9,539 | 40,135 | 10,225 | 13,193 | 3,235 | 0 | 576,107 | 475,065 | **782.22** |
| Irvine Ranch | 36,584 | 76,400 | 234,905 | 317,999 | 782,844 | 2,675,629 | 231,483 | 46,725 | 86,893 | 61,037 | 55,346 | 203,014 | 23,465 | 30,267 | 1,992 | 3,164 | 1,498,269 | 3,461,079 | **3,389.45** |
| La Habra | 0 | 0 | 14,014 | 1,818 | 49,691 | 72,164 | 0 | 0 | 3,003 | 0 | 1,504 | 0 | 6,102 | 0 | 1,793 | 0 | 76,107 | 90,019 | **122.86** |
| La Palma | 0 | 0 | 4,884 | 0 | 10,257 | 59,760 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15,141 | 59,760 | **53.11** |
| Laguna Beach | 4,586 | 226 | 13,647 | 46,850 | 47,614 | 0 | 3,059 | 0 | 589 | 0 | 0 | 0 | 1,217 | 0 | 0 | 0 | 76,887 | 48,788 | **100.54** |
| Mesa Water | 22,246 | 0 | 131,675 | 33,620 | 220,815 | 106,896 | 4,173 | 77,033 | 17,373 | 77,785 | 3,023 | 0 | 16,189 | 47,075 | 0 | 0 | 432,938 | 342,409 | **492.34** |
| Moulton Niguel | 14,739 | 40,741 | 314,250 | 1,612,845 | 889,748 | 1,059,279 | 220,749 | 0 | 98,271 | 0 | 106,574 | 0 | 81,778 | 18,951 | 3,052 | 61,129 | 1,746,138 | 2,920,134 | **3,403.10** |
| Newport Beach | 894 | 0 | 33,995 | 65,277 | 76,675 | 375,404 | 2,924 | 0 | 5,938 | 6,499 | 0 | 90,403 | 1,294 | 0 | 455 | 0 | 129,177 | 539,929 | **442.28** |
| Orange | 11,244 | 0 | 120,093 | 281,402 | 289,990 | 106,487 | 12,847 | 2,366 | 11,956 | 0 | 13,645 | 1,798 | 2,190 | 0 | 0 | 0 | 490,887 | 400,776 | **686.27** |
| San Clemente | 18,471 | 13,908 | 90,349 | 1,137 | 215,249 | 438,963 | 4,267 | 0 | 33,083 | 7,098 | 6,500 | 0 | 6,420 | 13,719 | 5,213 | 0 | 417,116 | 487,990 | **644.62** |
| San Juan Capistrano | 12,106 | 0 | 101,195 | 32,366 | 197,290 | 143,315 | 2,624 | 40,748 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 365,415 | 347,277 | **609.46** |
| Santa Margarita | 17,778 | 48,180 | 211,198 | 514,198 | 534,048 | 550,420 | 17,010 | 28,094 | 62,706 | 25,000 | 24,616 | 23,198 | 11,357 | 51,999 | 2,542 | 0 | 897,853 | 1,269,650 | **1,560.40** |
| Seal Beach | 0 | 0 | 15,178 | 504 | 17,349 | 15,911 | 1,234 | 0 | 752 | 0 | 0 | 0 | 996 | 0 | 0 | 0 | 39,120 | 16,415 | **41.54** |
| Serrano | 2,971 | 0 | 41,247 | 0 | 127,877 | 4,403 | 5,450 | 0 | 555 | 0 | 4,000 | 0 | 840 | 0 | 0 | 0 | 182,940 | 4,403 | **134.60** |
| South Coast | 15,162 | 116,719 | 84,282 | 191,853 | 181,102 | 128,290 | 14,967 | 0 | 13,319 | 7,806 | 7,574 | 0 | 25,465 | 50,879 | 0 | 0 | 358,106 | 516,266 | **651.77** |
| Trabuco Canyon | 2,651 | 0 | 14,771 | 0 | 42,510 | 88,272 | 1,465 | 0 | 4,788 | 0 | 1,536 | 0 | 4,752 | 49,533 | 0 | 0 | 74,287 | 160,245 | **143.94** |
| Tustin | 1,410 | 0 | 71,285 | 14,137 | 232,697 | 33,362 | 11,173 | 0 | 16,926 | 0 | 13,189 | 6,894 | 15,343 | 6,936 | 1,613 | 0 | 373,616 | 61,329 | **290.29** |
| Westminster | 0 | 0 | 14,040 | 34,631 | 71,833 | 23,902 | 11,112 | 0 | 10,033 | 0 | 5,924 | 0 | 1,962 | 0 | 0 | 0 | 114,904 | 58,533 | **118.86** |
| Yorba Linda | 0 | 0 | 112,136 | 12,702 | 360,279 | 116,985 | 19,420 | 0 | 9,529 | 3,696 | 12,590 | 12,020 | 7,773 | 0 | 714 | 0 | 533,790 | 145,403 | **477.38** |
| **MWDOC Totals** | **238,978** | **304,598** | **2,195,544** | **3,692,153** | **5,493,639** | **7,015,357** | **613,934** | **264,998** | **424,780** | **264,697** | **288,590** | **509,385** | **238,771** | **303,842** | **23,627** | **64,293** | **9,941,481** | **13,072,891** | **16,539.75** |
| Anaheim | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **-** |
| Fullerton | 0 | 9,214 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9,214 | **9.03** |
| Santa Ana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **-** |
| **Non-MWDOC Totals** | **0** | **9,214** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **9,214** | **9.03** |
| **Orange County Totals** | **238,978** | **313,812** | **2,195,544** | **3,692,153** | **5,493,639** | **7,015,357** | **613,934** | **264,998** | **424,780** | **264,697** | **288,590** | **509,385** | **238,771** | **303,842** | **23,627** | **64,293** | **9,941,481** | **13,082,105** | **16,549** |

[1]Installed device numbers are listed as square feet

# HIGH EFFICIENCY TOILETS (HETs) INSTALLED BY AGENCY

### through MWDOC and Local Agency Conservation Programs

| Agency | FY 12-13 | FY 13-14 | FY 14-15 | FY 15-16 | FY 16-17 | FY 17-18 | FY 18-19 | FY 19-20 | FY 20-21 | Total | Cumulative Water Savings across all Fiscal Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Brea | 0 | 38 | 146 | 154 | 4 | 6 | 1 | 0 | 0 | **457** | **135.98** |
| Buena Park | 0 | 96 | 153 | 112 | 13 | 3 | 0 | 2 | 0 | **689** | **244.67** |
| East Orange CWD RZ | 0 | 13 | 26 | 24 | 0 | 0 | 0 | 2 | 0 | **88** | **27.92** |
| El Toro WD | 133 | 218 | 869 | 264 | 12 | 6 | 10 | 5 | 0 | **2,058** | **699.67** |
| Fountain Valley | 0 | 41 | 132 | 220 | 7 | 8 | 1 | 3 | 0 | **835** | **314.34** |
| Garden Grove | 0 | 63 | 350 | 363 | 7 | 4 | 5 | 3 | 0 | **1,496** | **538.88** |
| Golden State WC | 2 | 142 | 794 | 512 | 9 | 11 | 5 | 7 | 0 | **2,813** | **997.71** |
| Huntington Beach | 0 | 163 | 1,190 | 628 | 4 | 3 | 4 | 2 | 0 | **2,910** | **946.09** |
| Irvine Ranch WD | 1,449 | 810 | 1,777 | 2,798 | 638 | 239 | 162 | 66 | 0 | **17,376** | **6,772.94** |
| Laguna Beach CWD | 0 | 45 | 112 | 81 | 1 | 4 | 0 | 2 | 0 | **394** | **134.95** |
| La Habra | 0 | 37 | 94 | 83 | 5 | 1 | 0 | 0 | 0 | **591** | **241.01** |
| La Palma | 0 | 21 | 59 | 52 | 4 | 2 | 4 | 3 | 0 | **231** | **76.14** |
| Mesa Water | 0 | 147 | 162 | 162 | 7 | 3 | 3 | 15 | 0 | **1,639** | **720.61** |
| Moulton Niguel WD | 0 | 400 | 2,497 | 1,939 | 49 | 38 | 21 | 17 | 0 | **5,766** | **1,591.16** |
| Newport Beach | 0 | 49 | 168 | 243 | 11 | 6 | 0 | 0 | 0 | **731** | **239.39** |
| Orange | 1 | 142 | 978 | 416 | 17 | 10 | 5 | 4 | 0 | **2,198** | **702.74** |
| San Juan Capistrano | 0 | 35 | 140 | 202 | 3 | 9 | 4 | 0 | 0 | **536** | **162.75** |
| San Clemente | 0 | 72 | 225 | 246 | 11 | 6 | 10 | 1 | 0 | **889** | **294.17** |
| Santa Margarita WD | 0 | 528 | 997 | 1,152 | 114 | 33 | 11 | 18 | 0 | **3,371** | **938.51** |
| Seal Beach | 2 | 17 | 50 | 69 | -1 | 0 | 0 | 0 | 0 | **857** | **458.19** |
| Serrano WD | 0 | 2 | 40 | 55 | 3 | 0 | 3 | 0 | 0 | **124** | **34.09** |
| South Coast WD | 64 | 102 | 398 | 235 | 11 | 7 | 0 | 0 | 0 | **1,028** | **310.30** |
| Trabuco Canyon WD | 0 | 10 | 108 | 169 | 2 | 3 | 2 | 0 | 0 | **344** | **92.74** |
| Tustin | 0 | 64 | 132 | 201 | 12 | 10 | 4 | 7 | 0 | **1,527** | **654.64** |
| Westminster | 0 | 35 | 161 | 359 | 3 | 4 | 0 | 0 | 0 | **1,335** | **517.43** |
| Yorba Linda WD | 0 | 40 | 280 | 379 | 12 | 8 | 2 | 6 | 0 | **1,267** | **442.95** |
| **MWDOC Totals** | 1,651 | 3,330 | 12,038 | 11,118 | 958 | 424 | 257 | 163 | 0 | **51,550** | **18,289.97** |
| Anaheim | 0 | 156 | 1,188 | 614 | 70 | 19 | 5 | 11 | 0 | **5,900** | **2,444.76** |
| Fullerton | 0 | 61 | 293 | 286 | 14 | 9 | 8 | 7 | 0 | **1,079** | **360.48** |
| Santa Ana | 0 | 33 | 602 | 293 | 20 | 0 | 4 | 8 | 0 | **2,033** | **774.58** |
| **Non-MWDOC Totals** | 0 | 250 | 2,083 | 1,193 | 104 | 28 | 17 | 26 | 0 | **9,012** | **3,579.81** |
| **Orange County Totals** | **1,651** | **3,580** | **14,121** | **12,311** | **1,062** | **452** | **274** | **189** | **0** | **60,562** | **21,869.79** |

# APPENDIX J

## Demand Management Measures

# 1 WHOLESALE SUPPLIER ASSISTANCE PROGRAMS

As described in the 2020 UWMP Section 9, MWDOC provides financial incentives, conservation-related technical support, and regional implementation of a variety of demand management programs. In addition, MWDOC is providing assistance with compliance of the Conservation Framework and conducts research projects to evaluate implementation of both existing programs and new pilot programs. On behalf of its member agencies, MWDOC also organizes and provides the following:

- Monthly coordinator meetings
- Marketing materials
- Public speaking
- Community events
- Legislation compliance assistance

The many programs that MWDOC offers to Orange County on behalf of retail water agencies is described in detail in the following sections.

## 1.1 Landscape Ordinance

The Water Conservation in Landscaping Act (Assembly Bill 1881, Laird) was passed in 2006 to increase outdoor water use efficiency. Governor Brown's Drought Executive Order of April 1, 2015 (EO B-29-15) directed DWR to update the State's Model Water Efficient Landscape Ordinance (Ordinance) through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015.

This legislation required cities and counties to adopt a Water Efficient Landscape Ordinance by December 1, or adopt their own ordinance, which must be at least as effective in conserving water as the State's Ordinance. Local agencies working together to develop a regional ordinance had until February 1, 2016. MWDOC worked in partnership with the Orange County Division of the League of Cities, the County of Orange, Orange County cities, retail water providers, building industry, landscape architects, and irrigation consultants to develop an Orange County Model Water Efficient Landscape Ordinance specific to the needs of Orange County. The foundation of the Orange County Model Ordinance was based on the State Model Ordinance.

This collaborative, regional approach has ensured that local ordinances are consistent from city to city, and has limited the cost and complexity of implementing the mandate. Based on the Orange County model ordinance, cities and unincorporated areas have adopted local ordinances that set guidelines for designing and approving landscape projects. The new ordinance imposes a lower Maximum Applied Water Allowance (MAWA) that new and rehabilitated landscapes must be designed to meet.

Through this effort, cities throughout Orange County have adopted and are implementing landscape ordinances that are consistent with the requirements of the updated Water Conservation in the Landscape Act.

Today, MWDOC continues to provide the County and city planning departments with training on administering the Landscape Ordinance. This is done in partnership with the California Department of Water Resources, Metropolitan Water District of Southern California and California Landscape Contractors Association (Orange County Chapter). Additionally, MWDOC acts as a communication channel to disseminate reporting requirements and workshop notices from DWR to local ordinance administrators.

## 1.2 Metering

Metering with commodity rates by wholesale and retail agencies has been an industry standard throughout Orange County for many years. All customers are metered and billed based on commodity rates either monthly or bi-monthly.

With the sale of the Allen-McColloch Pipeline to Metropolitan in 1995, MWDOC no longer owns or operates a distribution system. Water purchased and sold by MWDOC is distributed through Metropolitan's system to the MWDOC retail agencies.

## 1.3 Conservation Pricing

MWDOC promotes conservation pricing and has helped water retailers shift away from uniform rates in Orange County. In 2008, MWDOC was awarded an Urban Drought Assistance grant from Department of Water Resources to assist Orange County retailers examine and implement budget-based tiered rates. This included assistance with irrigable area mapping, rate stud development, billing system modifications, and more. Progress and results from this project have been monitored up to the present. Table 1-1 shows the progression of agencies shift away from uniform rates towards conservation-based pricing, such as budget-based tiered rates.

**Table 1-1: Summary of Rate Structure Types Used in Orange County**

| Types of Rate Structure | Number of Agencies Utilizing Different Rate Structure Types | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 1995 | 2000 | 2005 | 2010 | 2015 | 2020 |
| Declining Block | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Uniform or Flat | 22 | 23 | 19 | 16 | 8 | 9 | 10 |
| Inclined Block | 13 | 9 | 10 | 12 | 14 | - | 12 |
| Seasonal Inclined Block | 1 | 2 | 3 | 3 | 6 | - | 1 |
| Seasonal Flat | - | - | - | - | - | - | 1 |
| Budget Based Tiered Rate | 0 | 1 | 1 | 1 | 2 | - | 5 |

## 1.4 Public Information, Education, and Outreach

Municipal Water District of Orange County (MWDOC or District) develops, coordinates, and delivers a substantial number of public information, education, and outreach programs aimed at elevating water agency and consumer awareness and understanding of current water issues as well as efficient water use and water-saving practices, sound policy, and water reliability investments that are in the best interest of the region. As water is a necessary resource to all life, these efforts encourage good water stewardship that benefit all Orange County residents, businesses, and industries across all demographics.

MWDOC is steadfast in its mission to keep Orange County involved and up to date on current water news, water-saving opportunities, and pending policy matters through its award-winning public information programs and activities. A few examples are described below.

**Print and Electronic Materials**

MWDOC offers a variety of print and electronic materials that are designed to assist Orange County water users of all ages in discovering where their water comes from, what the District and other water industry professionals are doing to address water challenges, how to use water most efficiently, and more. Through the District's robust social media presence, award-winning website, eCurrents newsletter, media tool kits, public service announcements, flyers, brochures, and other outreach materials, MWDOC ensures that stakeholders are equipped with sufficient information and subject knowledge to assist them in making good behavioral and civic choices that ultimately affect the quality and quantity of the region's water supply.


Figure 1-1: Samples of Print and Electronic Outreach Materials

**Public Events**

Each year, MWDOC hosts an array of public events intended to engage a diverse range of water users in targeted discussions and actions that homes in on their specific interests or needs. Some of these public events include:

**MWDOC Water Policy Forums and Orange County Water Summit** are innovative and interactive symposiums that bring together hundreds of business professionals, elected officials, water industry stakeholders, and community leaders from throughout the state for a discussion on new and ongoing water supply challenges, water policy issues, and other important topics that impact our water supply, economy, and public health.

**Inspection Trips** of the state's water supply systems are sponsored each year by MWDOC and Metropolitan Water District of Southern California. Orange County elected officials, residents,

business owners, and community leaders are invited to tour key water facilities throughout the state and learn more about the critical planning, procurement, and management of southern California's water supply, as well as the issues surrounding delivery and management of our most precious natural resource – water.

**Community Events and Events Featuring MWDOC Mascot Ricky the Rambunctious Raindrop** provide opportunities to interact with Orange County water users in a fun and friendly way, offer useful water-related information or education, and engage them in important discussions about the value of water and how their decisions at home, at work, and as tax- or ratepayers may impact Orange County's quality and quantity of water for generations to come.


**Figure 1-2: Left to Right - MWDOC Water Policy Forum | Inspection Trip of Hoover Dam | Ricky the Rambunctious Raindrop at a Water Smart Community Event**

**Education Programs and Initiatives**

Over the past several years, MWDOC has amplified its efforts in water education programs and activities for Orange County's youngest water users. This is accomplished by continuing to grow professional networks and partnerships that consist of leading education groups, advisors, and teachers, and by leading the way for the District and its 28 member agencies to be key contributors of both southern California and Orange County water-centric learning. Several key water education programs and initiatives include:

**Environmental Literacy** is an individual's awareness of the interconnectedness and interdependency between people and natural systems, being able to identify patterns and systems within their communities, while also gathering evidence to argue points and solve problems. By using the environment as the context for learning, K-12 students gain real-world knowledge by asking questions and solving problems that directly affect them, their families, and their communities. This approach to K-12 education builds critical thinking skills and promotes inquiry, and is the foundation for all MWDOC education programs, initiatives, and activities.

**MWDOC Choice School Programs** have provided Orange County K-12 students water-focused learning experiences for nearly five (5) decades. Interactive, grade-specific lessons invite students to connect with, and learn from, their local ecosystems, guiding them to identify and solve local water-related environmental challenges affecting their communities. Choice School Programs are aligned with state standards, and participation includes a dynamic in-class or virtual presentation, and pre- and post-activities that encourage and support Science

Technology Engineering Arts and Mathematics (STEAM)-based learning and good water stewardship.

**Water Energy Education Alliance (WEEA)** is a coalition of education and water and energy industry professionals led by MWDOC that works together to build and bolster Career Technical Education programs (CTE) for southern California high school students. These CTEs focus on workforce pathways in the Energy, Environment, and Utility Sectors, and connections established through this powerful southern California alliance assist stakeholders as they thoughtfully step up their investment in the education and career success of California's future workforce.

**MWDOC Water Awareness Poster Contest** is an annual activity developed to encourage Orange County's K-12 students to investigate and explore their relationship to water, connect the importance of good water stewardship to their daily lives, and express their conclusions creatively through art. Each year, MWDOC receives hundreds of entries, and 40 winners from across Orange County are invited to attend a special awards ceremony with their parents and teachers, and Ricky the Rambunctious Raindrop.

**Boy Scouts Soil and Water Conservation Merit Badge and Girl Scouts Water Resources and Conservation Patch Programs** guide Orange County Scouts on a learning adventure of where their water comes from, the importance of Orange County water resources, and how to be water efficient. These STEAM-based clinics are hosted by MWDOC and include interactive learning stations, hands-on activities, and a guided tour of an Orange County water source, water treatment facility, or ecological reserve

**Figure 1-3: Left to Right - MWDOC Choice School Program Assembly | Girl Scouts Water Resources and Conservation Patch Clinic - Soil and Water Testing | Boy Scouts Soil and Water Conservation Merit Badge Clinic - Tour of a Water Treatment Plant**

**Partnerships** are an integral part of achieving water-related goals that impact all Orange County water users. MWDOC's partner list is extensive, and acts as a collective catalyst for all those involved to grow and prosper. Some of the District's most recognized partners include local, regional, state, and federal legislators, educators, water and energy industry leaders, environmental groups, media, and business associations all focused on the common goals of water education, water use efficiency, and advocacy on behalf of the region.


**Figure 1-4: Left to Right - MWDOC/Wyland Public Service Announcement | California Next Generation Science Standards State Rollout – Panel Participation with Local and State Education Partners | Orange County Department of Education and Bioneers STEM Symposium – Co-Presentation with Metropolitan Water District of Southern California**

## 1.5 Programs to Assess and Manage Distribution System Real Loss

With the sale of the Allen-McColloch Pipeline to Metropolitan in 1995, MWDOC no longer owns or operates a distribution system. Water purchased and sold by MWDOC is distributed directly from Metropolitan's system into the MWDOC retail agency systems. However, MWDOC does help member agencies evaluate and reduce their distribution systems' real and apparent losses through comprehensive Water Loss Control Programs.

In October 2015, the MWDOC Board of Directors authorized staff to begin implementing a Water Loss Control Technical Assistance Program (TAP) to support member agency compliance with Senate Bills 1420 and 555, both of which address distribution system Water Loss. The TAP program established a menu of technical assistance that water retailers can elect to participate in. These programs connect water retailers with industry experts who provide one on one technical assistance through data analysis, agency specific advising and assessment. The TAP services include:

- Water Balance Compilation
- Component Analysis of Real and Apparent Losses
- Source/Production Meter Accuracy Testing
- Billing Data Chain Assessment
- Internal Water Loss Committee Planning

MWDOC's Water Loss Control TAP has a very positive impact on building knowledge of water loss recovery strategies by all retail water agencies in the County and implementation of those strategies. To date MWDOC has hosted 30 Water Loss Work Group Meetings with approximately 35 agency representatives' attending each meeting. A total of 137 Annual Water Balances have been compiled and validated over the last five years, vastly improving water agency understanding of volumes of real and apparent losses, strategies to recovery losses and value of losses.

Because the OC area retailers were so receptive to the TAP, MWDOC began to consider other services that would assist in controlling water loss. MWDOC sent out a survey to OC retailers in 2018 to collect information on what services were most needed and would be the most beneficial. In 2019, the MWDOC Board authorized the implementation of a Water Loss Control Shared Services Business Plan (Business Plan) based on the needs outlined in the survey and the direction of the Water Loss Control Performance Standards currently in development.

The following are guiding tenets of MWDOC's Water Loss Control Shared Services:

- Offer shared services at a competitive or lower cost than the same services provided by the private sector
- Provide quality shared services on par with or better than the same services provided by the private sector
- Realize economies of scale for these services by providing services at a regional level that cannot be justified at many local levels
- Continue collaboration and shared learning among all agencies throughout this process
- Phase implementation of new shared services over time, starting with the services that have the highest level of interest or demand by water agencies
- Integrate program administration and data management to share results and customize program offerings to the unique conditions of each member agency

The Business plan included hiring specialized MWDOC staff to provide services directly to retail water suppliers in OC. These services include:

- Water Balance Validation
- Customer Meter Accuracy Testing
- Distribution System Pressure Surveys
- Distribution System Leak Detection
- Suspected Leak Investigations
- No Discharge Distribution System Flushing

Since the start of the shared services program in August 2019, more than 780 miles of distribution system leak detection has been completed which resulted in discovery of 373 hidden leaks that have been repaired or are in the process of being repaired. These leak repairs result in recovering more than 84.5 million gallons of water valued at more than $300,000 per year. A total of 1,439 water meter accuracy tests have been completed by 6 agencies improving agency knowledge of meter performance and accuracy of water balance results. A total of thirty-two sites have been monitored during pressure surveys for three agencies that were used to calculate average system pressure, calibrate hydraulic models and investigate pressure anomalies. And lastly, 12 miles of distribution system mains have been flushed resulting in improved water quality for consumers and recovery of 176,200 gallons of water that was filtered and returned to the distribution system for beneficial use.

## 1.6 Water Conservation Program Coordination and Staffing Support

MWDOC's Water Use Efficiency Department is comprised of five (5) full time equivalent (FTE) positions and three (3) student intern positions. Heading the department is the Water Use Efficiency (WUE) Director. Beneath him on the department organizational chart are Water Use Efficiency Supervisor, Senior Water Use Efficiency Analyst, Water Use Efficiency Analyst II, and Water Use Efficiency Analyst I. The department also employs three part-time student interns who function in a support role to the full time staff. The department works together in a collaborative nature, assisting one another in the implementation of the many Water Use Efficiency Programs.

MWDOC's WUE Department has a rich history of writing successful grant proposal from both State and Federal sources. State granting agencies include the SWRCB, DWR, and Natural Resource Conservation

Service (NRCS); most state funding is procured through IRWM processes. Federal granting agencies include the United States Bureau of Reclamation (USBR). Local Funding is also a core component of MWDOC's WUE programs. This funding comes from two sources: Metropolitan Water District of Southern California and MWDOC's retail water agencies. MWDOC, as a regional wholesaler of imported water, is one of Metropolitans member agencies, and through water rates paid to Metropolitan, MWDOC recoups funding for water efficiency programs through Metropolitan's Conservation Credits program. Metropolitan establishes a bi-yearly funding budget for both WUE programs and devices, and MWDOC, in turn, establishes its own WUE programs using Conservation Credit funds. MWDOC assists Orange County retail agencies by implementing an array of regional and local water use efficiency programs and projects. All retail agencies elect to participate in the MWDOC programs and several provide funding of their own for select devices or services.

MWDOC's WUE department has a long standing practice of conducting regular investigations of program effectiveness via statistical program process and impact evaluations. The process evaluations are utilized to ensure administrative quality control and ease of access to consumers. An adaptive management approach is taken to implement efficiency practices or to correct for identified process deficiencies. The impact evaluations utilize robust statistical methodologies to measure the actual water saving achieved in comparison to the expected industry water savings estimates. Results from impact evaluations have provided insight relating to those devices and programs that yield the best water savings in relationship to program administrative effort, cost effectiveness, and appropriate rebate levels.

### 1.6.1 Residential Conservation Implementation (non-landscape)

MWDOC assists its retail water agencies to implement residential DMMs by making available the following programs aimed at increasing landscape and indoor water use efficiency for residential customers. MWDOC has implemented successful water use efficiency programs for residential customers for over 30 years. This began with our highly successful Ultra-Low-Flush Toilet Rebate Program, continued on through the High Efficiency Washer Program, and now continues with the High Efficiency Toilet Programs and more.

**High Efficiency Clothes Washer Rebate Program**

The High Efficiency Clothes Washer (HECW) Rebate Program provides residential customers with rebates for purchasing and installing HECWs that. Approximately 15% of home water use goes towards laundry, and HECWs use 35-50 percent less water than standard washer models, with savings of approximately 10,500 gallons per year, per device. Devices must meet or exceed the Consortium for Energy Efficiency (CEE) Tier 1 Standard, and a listing of qualified products can be found at ocwatersmart.com. There is a maximum of one rebate per home. Since 2011, MWDOC has facilitated the installation of over 122,000 high efficiency clothes washers saving over 4,220 AFY. Funding for this rebate comes from Metropolitan and Orange County retailers.

| | |
|---|---|
|  High Efficiency Clothes Washers | Standard Incentive: $85 per washer<br>Enhanced Incentive: up to $285<br>Per Unit Savings:<br>29 gallons per day (GPD)<br>14 year useful life<br>.46 AF lifetime savings<br>Cost per AF: **$185 with base rebate; $621with enhanced rebate** |

**Premium High Efficiency Toilet Rebate Program**

The largest amount of water used inside a home, 30 percent, goes toward flushing the toilet. The Premium High Efficiency Toilet (HET) Rebate Program offers incentives to residential customers for replacing their toilets using 1.6 gallons per flush or more. Premium HETs use just 1.1 gallons of water or less per flush, which is 20 percent less water than WaterSense standard toilets. In addition, Premium HETS save an average of 9 gallons of water per day while maintaining high performance standards. Since 2005, MWDOC has facilitated the installation of over 60,000 high efficiency toilets saving more than 2,240 AFY. Funding for this rebate comes from Metropolitan and Orange County retailers.

| | |
|---|---|
|  Premium High Efficiency Toilets | Standard Incentive: $40 per toilet<br>Enhanced Incentive: up to $100 per toilet<br>Per Unit Savings:<br>9 GPD<br>20 year useful life<br>.21 AF lifetime savings<br>Cost per AF: **$190** per AF |

**Pressure Regulating Valve Pilot Program**

The Pressure Regulating Valve (PRV) Pilot Program seeks to test and replace broken residential PRVs. A PRV is a plumbing device typically installed on the intake pipe between the street and the front hose bib in homes in high pressure zones and is used to moderate high water pressure coming into the home. A failed PRV allows water to enter a home at a higher rate may increase the rate of leaks and cause appliances and fixtures to use more water when operated. This pilot will be used to determine the potential water savings associated with replacing failed PRVs. To date 135 PRVs have been assessed. Funding for this pilot comes from Metropolitan and DWR.

| | |
|---|---|
|  Pressure Regulation Valve Pilot Program | Standard Incentive: Test & Replacement free to public<br>Enhanced Incentive: none<br>Per Unit Savings:<br>To be determined by Pilot Study<br>20 year useful life<br>.21 AF lifetime savings<br>Cost per AF: **$190** per AF |

### 1.6.2 Conservation Programs for Commercial, Industrial and Institutional Accounts (non-landscape)

MWDOC provides a variety of financial incentives to help Orange County businesses, restaurants, institutions, hotels, hospitals, industrial facilities, and public sector sites achieve their efficiency goals. Water users in these sectors have options to choose from a standardized list of water efficient equipment/devices or may complete customized projects through a pay-for-performance where the incentive is proportional to the amount of water saved. Such projects include high efficiency commercial equipment installation and manufacturing process improvements.

**Water Savings Incentive Program**

The Water Savings Incentive Program (WSIP is designed for non-residential customers to improve their water efficiency through upgraded equipment or services that do not qualify for standard rebates. WSIP is unique because it provides an incentive based on the amount of water customers actually save. This "pay-for-performance" design lets customers implement custom projects for their sites.

Projects must save at least 10 million gallons of water to qualify for the Program and are offered from $195 to $390 per acre foot of water saved. Examples of successfully projects include but are not limited to changing industrial process system water, capturing condensation and using it to supplement cooling tower supply, and replacing water-using equipment with more efficient products. Thirty-eight customized water efficiency improvements have been completed since 2008 saving more than 1,280 AFY. This Program is funded by Metropolitan and supplemental funding is provided by DWR, Orange County retailers and US Bureau of Reclamation.

**On-site Retrofit Program**

The On-site Retrofit Program provides another pay-for-performance financial incentive to commercial, industrial and institutional property owners, including Homeowner Associations, who convert potable water irrigation or industrial water systems to recycled water use.

Projects commonly include the conversion of mixed or dedicated irrigation meters using potable water to irrigate with reclaimed water, or convert industrial processes use to recycled water, such as a cooling towers. Financial incentives of up to $1,300 per AF of potable water saved are available for customer-side on the meter retrofits. Funding is provided by Metropolitan, USBR, and DWR. Since 2015, 166 projects have been completed saving 3,489 AFY.

**Multi-Family Premium High Efficiency Toilet Incentive Program**

MWDOC makes an effort to reach all water-users in Orange County. For the Multi-Family Premium High Efficiency Toilet Rebate Program, MWDOC targets multi-family buildings in both disadvantaged communities (DAC) and non-DAC communities, in addition to targeting all commercial buildings, and single-family residential homes through Premium HET device rebates.

MWDOC offers the DAC Multi-Family HET Program, a special version of the High Efficiency Toilet Program, to ensure regardless of economic status all water-users in Orange County can benefit from the rebate. This Program targets 3.5 gallon per flush (gpf) or greater toilets to replace them with WaterSense Labeled 1.1 gpf or less. For this purpose, DAC are referenced as communities facing economic hardship. This is defined using criteria established by DWR and the County of Orange, which includes communities where the median household income (MHI) is less than 85% of the Orange County MHI.

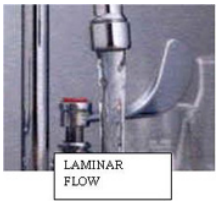
The DAC Multi-Family Program is contractor-driven, where a contractor works with building owners to replace all of the toilets in the building(s). To avoid any cost to tenants, the rebate is $200 per toilet paid to the contractor, essentially covering the contractor's cost; therefore, there is little to no charge to the building owners that may be passed through to tenants. This process was formed after consulting contractors and multi-family building owners in Orange County. To serve those in multi-family buildings outside of designated DAC locations, MWDOC offers $75 per toilet through the same contractor-driven format. An additional option is available through SoCalWater$mart, which offers up to $250 per toilet to multi-family buildings that were built before 1994, therefore targeting buildings built before legislation required low-flow plumbing fixtures in new construction.

**Device Retrofits**

MWDOC offers additional financial incentives under the Socal Water$mart Rebate Program which offers rebates for various water efficient devices to CII customers. Core funding is provided by Metropolitan and supplemental funding is sourced from MWDOC via grant funds and/or retail water agencies.

| | |
|---|---|
|  Ultra Low Water / Zero Water Urinals | Standard Incentive: $200<br>Enhanced Incentive: up to $310<br>Per Unit Savings: 110 GPD<br>20 year useful life<br>2.45 AF lifetime savings<br>Cost per AF:<br>Standard Incentive: $81–$127 per AF |

| | |
|---|---|
|  High Efficiency Toilet *(HETs)* | Standard Incentive: $40<br>Enhanced Incentive: up to $150<br>Per Unit Savings:<br>9 GD<br>20 year useful life<br>0.21 lifetime savings<br>Cost per AF: $190–$750 per AF |
|  Connectionless Food Steamers (aka Boiler-less) | Standard Incentive: $485 per compartment<br>Enhanced Incentive: up to $985<br>Per Unit Savings:<br>223 GPD<br>10 year useful life<br>2.5 AF lifetime savings<br>Cost per AF: $194–$394 per AF |
|  Air-Cooled Ice Machines | Standard Incentive: $300 per machine<br>Enhanced Incentive: Up to $1,050<br>Per Unit Savings:<br>137 GPD<br>10 year useful life<br>1.54 AF lifetime savings<br>Cost per AF: $195–$682 per AF |
|  Standard Cooling Tower Conductivity Controller | Standard Incentive: $625 per controller<br>Enhanced Incentive: up to $1,325<br>Per Unit Savings:<br>575 GPD<br>5 year useful life<br>3.22 AF lifetime savings<br>Cost per AF: $195–$411 per AF |
|  pH-Cooling Tower Controller | Standard Incentive: $1,750 per controller<br>Enhanced Incentive: up to $2,750<br>Per Unit Savings:<br>1,735 GPD<br>5 year useful life<br>9.72 AF lifetime savings<br>Cost per AF: $180–$283 per AF |

| | | |
|---|---|---|
|  | Laminar Flow Restrictors | Incentive: $10 per restrictor<br>Per Unit Savings:<br>21 GPD<br>5 year useful life<br>0.115 AF lifetime savings<br>Cost per AF: $86 per AF |
|  | Dry Vacuum Pumps | Incentive: $125 per 0.5 Horse Power<br>Per Unit Savings:<br>82 GPD<br>7 year useful life<br>0.64 AF lifetime savings<br>Cost per AF: $195 per AF |

### 1.6.3 Residential and CII Landscape Conservation Programs and Incentives

One of the most active and exciting water use efficiency sectors MWDOC provides services for are those programs that target the reduction of outdoor water use. With close to 60 percent of water consumed outdoors, this sector has been and will continue to be a focus for MWDOC. MWDOC has pioneered numerous landscape water use efficiency programs aimed at both residential, commercial, and public agency water users that takes a holistic, sustainable approach to saving water that produces additional benefits to the watershed. Such benefits include reductions in dry and wet weather runoff and associated non-point source pollution, energy savings, green-waste reductions, and increases in biomass and carbon sequestration.

#### *Water Efficiency Programs*

**Turf Removal Program**

The Orange County Turf Removal Program offers incentives to remove turf grass from residential, commercial, and public properties throughout the County. This program is a partnership between MWDOC, Metropolitan, and local retail water agencies. The goals of this program are to increase water use efficiency through sustainable landscaping practices that result in multi-benefit projects across Orange County. Participants replace their turf grass with drought-tolerant, CA Friendly, or CA Native landscaping, and retrofit their irrigation systems to high efficiency equipment, such as drip, or remove it entirely, and are encouraged to utilize smart irrigation timers. Furthermore, projects are required to include a stormwater capture feature, such as a rain garden or dry stream bed, and have a minimum of three plants per 100 square feet to increase plant density and promote healthy soils. These projects save water and also reduce dry and wet weather runoff, increase urban biomass, and sequester more carbon than turf landscapes. Examples of projects are listed in Figure 1-5 below. Through December 2020, Orange County residents and commercial properties removed 23.2 million square feet of turf,

resulting in approximately 3,245 AFY of water savings. This Program is funded by Metropolitan, DWR, USBR, and retail water agencies.

**Figure 1-5: Examples of completed Turf Removal Projects as a residential home (left) and a City center median strip (right).**

| | |
|---|---|
|  Turf Removal Program | Standard **Residential & Commercial** Incentive:<br>$2 per $ft^2$<br>Enhanced **Residential & Commercial** Incentive:<br>up to $4 per $ft^2$<br>Per Unit **Residential & Commercial** Savings:<br>0.121 GPD per square foot<br>10 year useful life<br>0.001 AF lifetime savings per square foot<br>Cost per AF:<br>Residential $1,538–$3,077per AF |

**Landscape Design and Maintenance Plan Assistance Programs**

To maximize the water efficiency and quality of Orange County's Turf Removal Program Projects, MWDOC offers free landscape designs and free landscape maintenance plans to participating residential customers. The Landscape Design Assistance Program is offered at the beginning stages of their turf removal project so that customers may receive a customized, professionally designed landscape to replace their turf. Landscape designs include plant selection, layout, irrigation plans, and a stormwater capture feature. These designs help ensure climate appropriate plants are chosen and planted by hydrozone, that appropriate high efficiency irrigation is properly utilized, that water savings are maximized as a result of the transformation. An example design is shown in Figure 1-6. Additionally, generic designs are available for free on MWDOC's website as an additional landscape resources. The Landscape Maintenance Assistance Plan provides a post-installation care plan to help ensure that the new landscape is properly cared for and is not overwatered. Approximately 375 participants have

received customized Design templates and 87 participants have received customized maintenance plans.

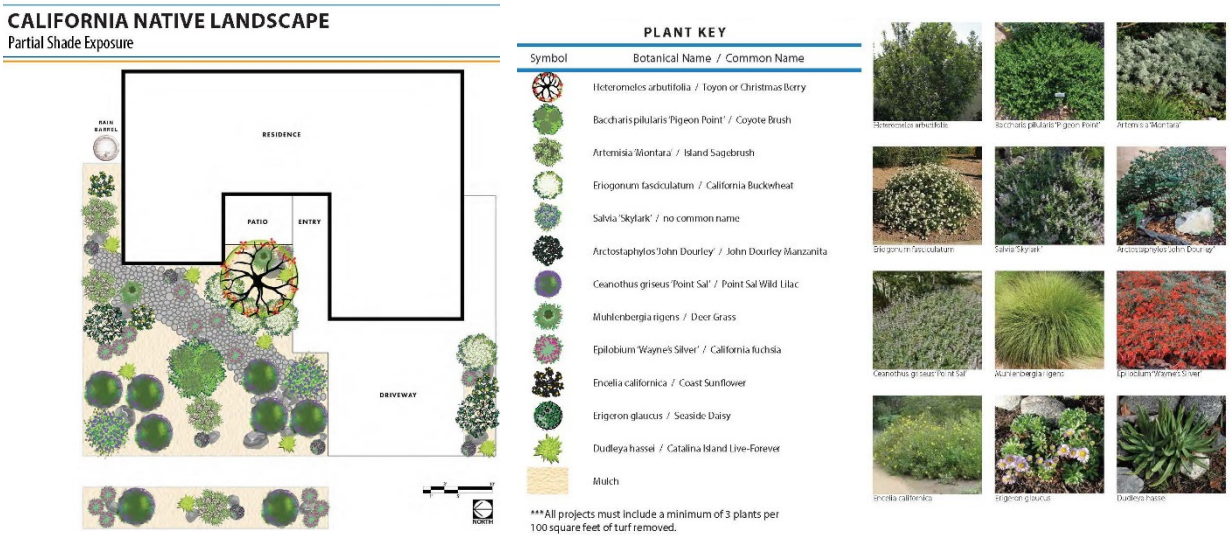



**Figure 1-6: Examples of completed Turf Removal Projects as a residential home (left) and a City center median strip (right).**

**Spray-to-Drip Rebate Program**

The Spray to Drip Rebate Program offers residential, commercial, and public agency customers rebates for converting areas irrigated by traditional high-precipitation rate spray heads to low-precipitation rate drip irrigation. Drip irrigation systems are extremely water-efficient. Rather than spraying wide areas subject to wind drift, overspray and runoff, drip systems use point emitters to deliver water to specific locations at or near plant root zones. Water drips slowly from the emitters either onto the soil surface or below ground. As a result, less water is lost to wind, evaporation, and overspray, saving water and reducing irrigation runoff and non-point source pollution.

MWDOC pioneered drip conversion programs with the start of the Spray to Drip Pilot Program in 2012. In 2017, MWDOC evaluated its Spray-to-Drip Pilot Program through a processes and impact evaluation. Over 70% of survey participants reported observed water savings and positive impacts to their landscape since completing their project. The statistical impact analysis found that the average residential project saved over 31,000 gallons saved per site annually and 44 gallons per year to square foot of irrigated area converted. Commercial projects, on average, saved more than 4 million gallons per site annually and 35 gallons per year per square foot. Based on the positive pilot program results, MWDOC has continued to offer the successful Spray-to-Drip Program to Orange County and through December 2020 has converted 1.1 million square feet of inefficiently irrigated landscapes to drip irrigation saving approximately 132 AFY. Based on MWDOC's positive results, drip conversion programs are now becoming an industry standard landscape rebate with quantifiable and reliable water savings. See Figure 1-7 for projects installing dripline before being covered with mulch. Funding for this Program is provided by Metropolitan, DWR, USBR, and Orange County Retailers.

**Figure 1-7: Examples of completed drip line installed through the Spray-to-Drip Program.**

| | |
|---|---|
|  Spray-to-Drip Irrigation | Standard **Residential** Incentive: $0.25 per ft$^2$<br>Standard **Commercial** Incentive: $0.20 per ft$^2$<br>Enhanced **Residential & Commercial** Incentive: up to $0.70 per ft$^2$<br>Per Unit **Residential** Savings:<br>0.121 GPD per square foot<br>10 year useful life<br>0.001 AF lifetime savings per square foot<br>Per Unit **Commercial** Savings:<br>0.095 GPD per square foot<br>10 year useful life<br>0.001 AF lifetime savings per station<br>Cost per AF:<br>Residential $188–$368 per AF<br>Commercial $195–$470 per AF |

**Smart Timer Rebate Program**

Smart Timers are irrigation clocks that are either weather-based irrigation controllers (WBIC) or soil moisture sensor systems. WBICs adjust the irrigation schedule automatically (usually daily) to reflect changes in local weather and site-specific landscape needs, such as sun exposure, soil type, slopes, and plant material, prompting turf and plants to receive the proper amount of water throughout the year. During the fall months, when property owners and landscape professionals often overwater, Smart Timers can save significant amounts of water. Soil moisture sensors determine the amount of water in the soil by way of sensors placed in the actual root zone of a given landscape area. This measurement of water is then relayed back to the controller and through the controller's programming, and the correct amount of water is then applied. MWDOC has been a pioneer of smart irrigation technology, which is

not an industry standard landscape program that is associated with quantifiable and reliable water savings. MWDOC has conducted and disseminated several water savings research studies of Smart Timer Programs over the last sixteen years. Water savings predicative ellipses based on MWDOC's numerous research studies are shown in Figure 1-8. This representation is useful to visualize the correlation between water savings in gallons per day and savings as a percent of the site's overall water use, and also the mean of residential and commercial studies. Since 2004, MWDOC has facilitated the installation of close to 30,000 timers saving over 9,000 AFY.

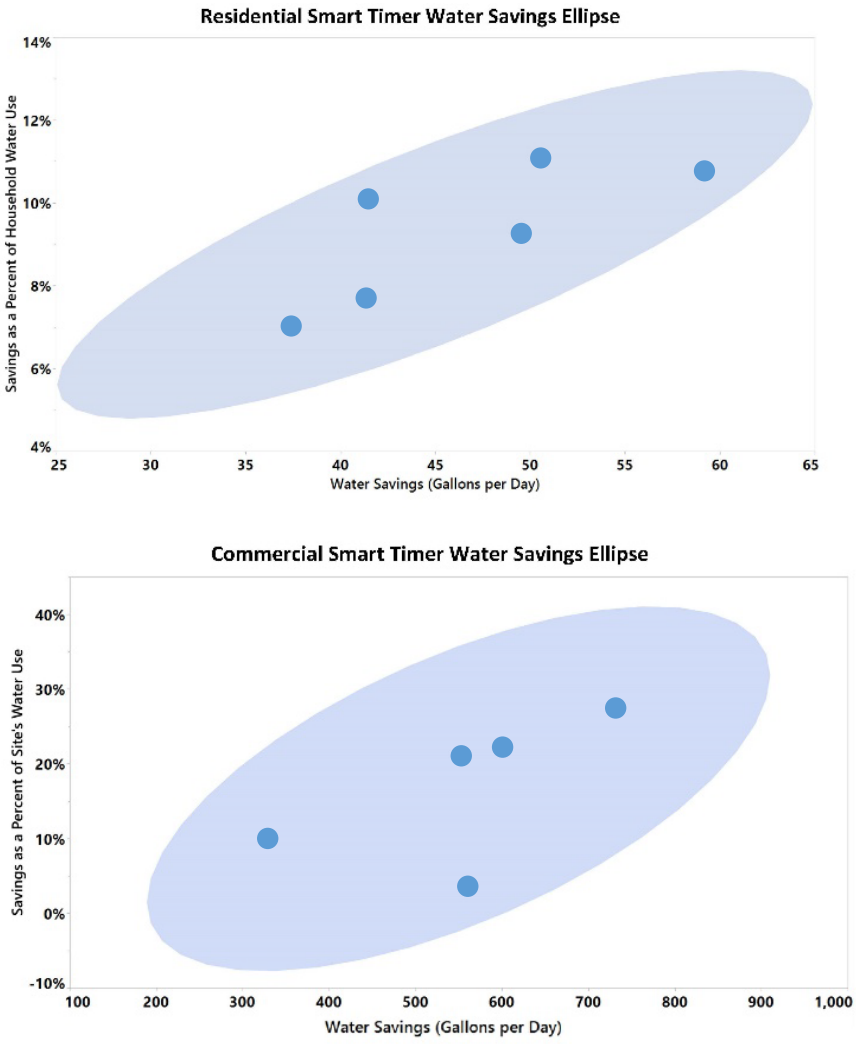



**Figure 1-8: Water savings predictive ellipses based on MWDOC's smart irrigation timer research. Dark blue points represent results from MWDOC studies, the light blue ellipses represent the predicted location of a new observation, at 95% confidence.**

| | | |
|---|---|---|
|  | Smart Controllers (Weather-Based Irrigation Controllers and<br>Soil Moisture Sensor Systems) | Standard **Residential** Incentive: $80 per controller<br>Enhanced **Residential** Incentive: Up to $330 per controller<br>Standard **Commercial** Incentive: $35 per station<br>Enhanced **Commercial** Incentive: $75 per station<br>Per Unit **Residential** Savings:<br>37 GPD<br>10 year useful life<br>0.41<br>Per Unit **Commercial** Savings:<br>16 GPD per station<br>10 year useful life<br>0.179 AF lifetime savings per station<br>Cost per AF:<br>Residential $193–$1,844 per AF<br>Commercial $195–$419 per AF |

**Rotating Nozzles Rebate Program**

The Rotating Nozzle Rebate Program provides incentives to residential and commercial properties for the replacement of high-precipitation rate spray nozzles with low-precipitation rate multi-stream, multi-trajectory rotating nozzles. The rebate offered through this Program aims to offset the cost of the device and installation. MWDOC has pioneered high efficiency rotating nozzle programs, which are now an industry standard landscape program associated with quantifiable and reliable water savings. Since 2007, MWDOC has facilitated the installation of over 570,000 high efficiency rotating nozzles, savings approximately 2,790 AFY. This Program is funded by Metropolitan and Orange County retailers.

| | | |
|---|---|---|
|  | High Efficiency Rotating Nozzles | Incentive: $2 per nozzle for residential, commercial<br>Enhanced Incentive: up to $6 per nozzle for residential, commercial<br>Per Unit Savings:<br>2.36 GPD per nozzle<br>5 year useful life<br>0.013 AF lifetime savings<br>Cost per AF: **$152** per AF |

**Additional Device Retrofits**

MWDOC also offers additional financial incentives under the SoCal Water$mart Rebate Program for a variety of other water efficient landscape devices.

| | |
|---|---|
|  Central Computer Irrigation Controllers | Standard Incentive: $35 per station<br>Per Unit Savings:<br>Same as standalone smart controllers<br>16 GPD per station<br>10 year useful life<br>0.179 AF lifetime savings per station<br>Cost per AF: $196 per AF |
|  Large Rotary Nozzles | Standard Incentive:<br>$13 per set of two nozzles<br>Per Unit Savings:<br>16 GPD per set of two nozzles<br>10 year useful life<br>0.18 AF lifetime savings per set of two nozzles<br>Cost per AF: $72 per AF. |
|  In-Stem Flow Regulators | Standard Incentive:<br>$1 per flow regulator<br>Per Unit Savings:<br>2.7 GPD per device<br>5 year useful life<br>0.015 AF lifetime savings per station<br>Cost per AF: $67 per AF. |
|  Rain Barrels (50-99 gall.)<br>Cisterns Small (200-500 gal.)<br>Cistern Medium (501-999 gal.)<br>Cistern Large (1,000+ gal.) | Standard Incentive:<br>Rain Barrel: $35 per barrel<br>Cistern Small: $250 per cistern<br>Cistern Medium: $300 per cistern<br>Cistern Large: $350 per cistern<br><br>Enhanced Incentive:<br>Rain Barrel: $75 per barrel<br><br>Per Unit Rain Barrel Savings:<br>1.7 GPD per barrel<br>10 year useful life<br>0.010 AF Saved |

| | |
|---|---|
| | Per Unit Cistern Small Savings:<br>6.8 GPD per cistern<br>10 year useful life<br>0.076 AF Saved<br><br>Per Unit Cistern Medium Savings:<br>8.4 GPD per cistern<br>10 year useful life<br>0.094 AF saved<br><br>Per Unit Cistern Large Savings:<br>9.6 GPD per cistern<br>10 year useful life<br>0.108 AF Saved<br><br>Cost Per AF:<br>Rain Barrel: $1,837-$3,947<br>Cistern Small: $3,289<br>Cistern Medium: $3,191<br>Cistern Large: $3,241 |

## *Water Efficiency Landscape Classes, Certifications, and Resources*

**Landscape Training Classes**

The California Friendly and Native Landscape Training and the Turf Removal and Garden Transformation Workshop provide education to residential homeowners, property managers, and professional landscape contractors on a variety of landscape water efficiency practices that they can employ and use to help design a beautiful garden using California Friendly and native plant landscaping principles. The California Friendly and Native Landscape Class demonstrates how to: implement storm water capture features in the landscape; create a living soil sponge that holds water; treat rainwater by a resource; select and arrange plants to maximize biodiversity and minimize water use; and control irrigation to minimize water waste, runoff and non-point source pollution.

The Turf Removal and Garden Transformation Workshop teaches participants how to transform thirsty turfgrass into a beautiful, climate-appropriate water efficient garden. This class teaches how to: evaluate the landscape's potential; plan for garden transformation; identify the type of turfgrass in the yard; remove grass without chemicals; build healthy, living soils; select climate-appropriate plants that minimize water use and maximize beauty and biodiversity; and implement a maintenance schedule to maintain the garden.

**Qualified Water Efficient Landscape Certification (Commercial)**

Since 2018, the Municipal Water District of Orange County (MWDOC), along with participating MWDOC member agencies, has offered free Qualified Water Efficient Landscaper (QWEL) certification classes designed for landscape professionals. Classes are open to any city staff, professional landscaper, water district employee, or maintenance personnel that would like to become a Qualified Water Efficient Landscaper. The QWEL certification program provides 20 hours of instruction on water efficient areas of

expertise such as local water supply, sustainable landscaping, soil types, irrigation systems and maintenance, as well as irrigation controller scheduling and programing. QWEL has received recognition from EPA WaterSense for continued promotion of water use efficiency. To earn the QWEL certification, class participants must demonstrate their ability to perform an irrigation audit as well as pass the QWEL exam. Successful graduates will be listed as a Certified Professional on the WaterSense website as well as on MWDOC's landscape resources page, to encourage Turf Removal participants or those making any landscape improvements to hire a QWEL certified professional.

Started in December 2020, a hybrid version of QWEL is available in conjunction with the California Landscape Contractors Association's Water Management Certification Program. This joint effort allows landscape industry an opportunity to obtain two nationally recognized EPA WaterSense Professional Certifications with one course and one written test. This option is offered through Metropolitan Water District of Southern California.

**OC Water Smart Gardens Resource Page**

MWDOC's OC Water Smart Gardens webpage provides a surplus of helpful guides and fact sheets, as well as an interactive photo gallery of water-saving landscape ideas. The purpose of this resource is to help Orange County residents find a broad variety of solutions for their water efficient landscaping needs. This includes a detailed plant database with advanced to search features; photo and/or video-based garden tours; garden gallery with images organized into helpful landscape categories such as back yards, hillsides, full sun, and/or shade with detailed plant information; and the ability to select and store plants in a list that the user can print for use when shopping.

Additional technical resources are available such as a watering calculator calibrated for local evapotranspiration rates, and a garden resources section with fact sheets on sustainable landscape fundamentals, water and soil management, composting, solving run-off, and other appropriate topics. Web page is accessible through mwdoc.com and directly at www.ocwatersmartgardens.com.

# APPENDIX K

## Notice of Public Hearing (Pending)

# El Toro Water District

"A District of Distinction"

Serving the Public - Respecting the Environment

**Board of Directors**

Mike Gaskins
*President*

Kathryn Freshley
*Vice President*

Kay Havens
*Director*

Mark L. Monin
*Director*

Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
South Orange County Wastewater Authority
Attn: Ms. Betty Burnett, General Manager
34156 Del Obispo Street
Dana Point, California 92629

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

Water Code section 10621(b) requires an urban water supplier updating its UWMP to notify cities and counties within its service area of the update at least sixty (60) days prior to holding a public hearing. This letter serves as ETWD's notice that it is preparing and updating its 2020 UWMP, to be adopted and submitted to the California Department of Water Resources before the July 1, 2021 deadline. ETWD will be adopting its Water Shortage Contingency Plan as part of the 2020 UWMP.

ETWD is also considering an Addendum to the 2015 UWMP to demonstrate consistency with the Delta Plan Policy to Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit. 23, § 5003). The 2015 UWMP Addendum and a copy of ETWD's draft 2020 UWMP will be available for review on the ETWD website (www.etwd.com) in spring of 2021, and ETWD will subsequently hold noticed public hearings on the 2020 UWMP, Water Shortage Contingency Plan, and 2015 UWMP Addendum in advance of their proposed adoption.

ETWD invites you to submit comments and consult with ETWD regarding its 2020 UWMP update and 2015 UWMP Addendum. ETWD anticipates holding a public comment period in spring 2021, with a public hearing planned during that time.

If you have any input for the matters contained in this notice letter, require additional information, or would like to set up a meeting to discuss ETWD's 2020 UWMP update, please contact me at (949) 837-7050 ext. 223, or by email at dcafferty@etwd.com.

Sincerely,

Dennis Cafferty
General Manager

# El Toro Water District

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Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
Municipal Water District of Orange County
Attn: Mr. Rob Hunter, General Manager
P.O. Box 20895
Fountain Valley, California 92708

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

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Sincerely,

Dennis Cafferty
General Manager

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*Director*

Mark L. Monin
*Director*

Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
City of Mission Viejo
Attn: Mr. Dennis Wilberg, City Manager
200 Civic Center
Mission Viejo, California 92691

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

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If you have any input for the matters contained in this notice letter, require additional information, or would like to set up a meeting to discuss ETWD's 2020 UWMP update, please contact me at (949) 837-7050 ext. 223, or by email at dcafferty@etwd.com.

Sincerely,

Dennis Cafferty
General Manager

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Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
City of Lake Forest
Attn: Ms. Debra D. Rose, City Manager
100 Civic Center Drive
Lake Forest, California 92630

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

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Sincerely,

Dennis Cafferty
General Manager

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*Vice President*
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Mark L. Monin
*Director*
Jose F. Vergara
*Director*

**General Manager**
Dennis P. Cafferty


March 22, 2021
City of Laguna Woods
Attn: Mr. Christopher Macon, City Manager
24264 El Toro Road
Laguna Woods, California 92637

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

Water Code section 10621(b) requires an urban water supplier updating its UWMP to notify cities and counties within its service area of the update at least sixty (60) days prior to holding a public hearing. This letter serves as ETWD's notice that it is preparing and updating its 2020 UWMP, to be adopted and submitted to the California Department of Water Resources before the July 1, 2021 deadline. ETWD will be adopting its Water Shortage Contingency Plan as part of the 2020 UWMP.

ETWD is also considering an Addendum to the 2015 UWMP to demonstrate consistency with the Delta Plan Policy to Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit. 23, § 5003). The 2015 UWMP Addendum and a copy of ETWD's draft 2020 UWMP will be available for review on the ETWD website (www.etwd.com) in spring of 2021, and ETWD will subsequently hold noticed public hearings on the 2020 UWMP, Water Shortage Contingency Plan, and 2015 UWMP Addendum in advance of their proposed adoption.

ETWD invites you to submit comments and consult with ETWD regarding its 2020 UWMP update and 2015 UWMP Addendum. ETWD anticipates holding a public comment period in spring 2021, with a public hearing planned during that time.

If you have any input for the matters contained in this notice letter, require additional information, or would like to set up a meeting to discuss ETWD's 2020 UWMP update, please contact me at (949) 837-7050 ext. 223, or by email at dcafferty@etwd.com.

Sincerely,

Dennis Cafferty
General Manager

# El Toro Water District

"A District of Distinction"

Serving the Public - Respecting the Environment

**Board of Directors**
Mike Gaskins
*President*
Kathryn Freshley
*Vice President*
Kay Havens
*Director*
Mark L. Monin
*Director*
Jose F. Vergara
*Director*

**General Manager**
Dennis P. Cafferty


March 22, 2021
City of Laguna Hills
Attn: Mr Donald White, City Manager
24035 El Toro Road
Laguna Hills, California 92653

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
County of Orange
Attn: Mr. Hugh Nguyen, Clerk Recorder
12 Civic Center Plaza, Room 101
Santa Ana, California 92701

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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Sincerely,

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Jose F. Vergara
*Director*

**General Manager**
Dennis P. Cafferty


March 22, 2021
City of Aliso Viejo
Attn: Mr. David Doyle, City Manager
12 Journey Street, Suite 100
Aliso Viejo, California 92656

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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Sincerely,

Dennis Cafferty
General Manager

# APPENDIX L

## Adopted UWMP Resolution (Pending)

**RESOLUTION NO. 21-5-4**

**RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING THE DISTRICT'S
REVISED WATER SHORTAGE CONTINGENCY PLAN**

**WHEREAS**, the general welfare of the people in the El Toro Water District ("District") requires that the water available to the District be utilized in a manner which maximizes beneficial use and that the waste and unreasonable use, or unreasonable method of use of water be prevented;

**WHEREAS**, pursuant to Section 34000 *et seq.* of the Water Code of the State of California, the District has the authority to adopt rules and regulations for the provision of water service and facilities;

**WHEREAS**, Section 375 *et seq.* of the Water Code of the State of California permits public entities which supply water at retail or wholesale to adopt and enforce a water conservation program to reduce the quantity of water used by the people therein for the purpose of conserving the water supplies of such public entity;

**WHEREAS**, Section 350 *et seq.* of the Water Code of the State of California permits the governing body of a distributor of a public water supply to declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent there would be insufficient water for human consumption, sanitation, and fire protection;

**NOW, THEREFORE, BE IT RESOLVED,** that the El Toro Water District hereby adopts the Revised Water Shortage Contingency Plan which is attached hereto, marked Exhibit "A", and by this reference is incorporated herein as though set forth in full.

**ADOPTED, SIGNED AND APPROVED** this 27th day of May, 2021.

_____
MIKE GASKINS, President
El Toro Water District and of the
Board of Directors thereof

ATTEST

_____
DENNIS P. CAFFERTY, Secretary
El Toro Water District and of the
Board of Directors thereof

May 2021

# 2020 Water Shortage Contingency Plan

## Final Draft

# 2020 Water Shortage Contingency Plan

May 2021

**Prepared By:**
Arcadis U.S., Inc.
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**Our Ref:**
30055240

_____

Lisa Maddaus, PE
Technical Lead
Maddaus Water Management, Inc.

_____

Sarina Sriboonlue, PE
Project Manager
Arcadis U.S., Inc.

# Contents

# Tables



# Figures

# Appendices

# Acronyms and Abbreviations

| | |
|---|---|
| % | Percent |
| AF | Acre-Feet |
| Annual Assessment | Annual Water Supply and Demand Assessment |
| CRA | Colorado River Aqueduct |
| District | El Toro Water District |
| DRA | Drought Risk Assessment |
| DVL | Diamond Valley Lake |
| DWR | California Department of Water Resources |
| EAP | Emergency Operations Center Actions Plan |
| EOC | Emergency Operation Center |
| EOP | Emergency Operations Plan |
| ERP | Emergency Response Plan |
| FY | Fiscal Year |
| HMP | Hazard Mitigation Plan |
| IRP | Integrated Water Resource Plan |
| M&I | Municipal and Industrial |
| MCL | Maximum Contaminant Level |
| MET | Metropolitan Water District of Southern California |
| Metropolitan Act | Metropolitan Water District Act |
| MWDOC | Municipal Water District of Orange County |
| NIMS | National Incident Management System |
| OCWD | Orange County Water District |
| SEMS | California Standardized Emergency Management System |
| Supplier | Urban Water Supplier |
| SOCWA | South Orange County Wastewater Authority |
| SWP | State Water Project |
| UWMP | Urban Water Management Plan |
| Water Code | California Water Code |
| WEROC | Water Emergency Response Organization of Orange County |
| WSAP | Water Supply Allocation Plan |
| WSCP | Water Shortage Contingency Plan |
| WSDM | Water Surplus and Drought Management Plan |

# 1 INTRODUCTION AND WSCP OVERVIEW

The Water Shortage Contingency Plan (WSCP) is a strategic planning document designed to prepare for and respond to water shortages. This WSCP complies with California Water Code (Water Code) Section 10632, which requires that every urban water supplier (Supplier) shall prepare and adopt a WSCP as part of its Urban Water Management Plan (UWMP). This level of detailed planning and preparation is intended to help maintain reliable supplies and reduce the impacts of supply interruptions.

The WSCP is El Toro Water District (District)'s operating manual that is used to prevent catastrophic service disruptions through proactive, rather than reactive, management. A water shortage, when water supply available is insufficient to meet the normally expected customer water use at a given point in time, may occur due to a number of reasons, such as drought, climate change, and catastrophic events. This WSCP provides a structured guide for the District to deal with water shortages, incorporating prescriptive information and standardized action levels, along with implementation actions in the event of a catastrophic supply interruption. This way, if and when shortage conditions arise, the District's governing body, its staff, and the public can easily identify and efficiently implement pre-determined steps to manage a water shortage. A well-structured WSCP allows real-time water supply availability assessment and structured steps designed to respond to actual conditions, to allow for efficient management of any shortage with predictability and accountability.

The WSCP also describes the District's procedures for conducting an Annual Water Supply and Demand Assessment (Annual Assessment) that is required by Water Code Section 10632.1 and is to be submitted to the California Department of Water Resources (DWR) on or before July 1 of each year, or within 14 days of receiving final allocations from the State Water Project (SWP), whichever is later. The District's 2020 WSCP is included as an appendix to its 2020 UWMP which will be submitted to DWR by July 1, 2021. However, this WSCP is created separately from the District's 2020 UWMP and can be amended, as needed, without amending the UWMP. Furthermore, the Water Code does not prohibit a Supplier from taking actions not specified in its WSCP, if needed, without having to formally amend its UWMP or WSCP.

## 1.1 Water Shortage Contingency Plan Requirements and Organization

The WSCP provides the steps and water shortage response actions to be taken in times of water shortage conditions. The WSCP has prescriptive elements, such as an analysis of water supply reliability; the water shortage response actions for each of the six standard water shortage levels that correspond to water shortage percentages ranging from 10% to greater than 50%; an estimate of potential to close supply gap for each measure; protocols and procedures to communicate identified actions for any current or predicted water shortage conditions; procedures for an Annual Assessment; monitoring and reporting requirements to determine customer compliance; and reevaluation and improvement procedures for evaluating the WSCP.

This WSCP is organized into three main sections, with Section 3 aligned with Water Code Section 16032 requirements.

**Section 1 Introduction and WSCP Overview** gives an overview of the WSCP fundamentals.

**Section 2 Background** provides a background on the District's water service area.

**Section 3 Water Shortage Contingency Preparedness and Response Planning**

**Section 3.1 Water Supply Reliability Analysis** provides a summary of the water supply analysis and water reliability findings from the 2020 UWMP.

**Section 3.2 Annual Water Supply and Demand Assessment Procedures** provide a description of procedures to conduct and approve the Annual Assessment.

**Section 3.3 Six Standard Water Shortage Stages** explains the WSCP's six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, 50, and more than 50% shortages.

**Section 3.4 Shortage Response Actions** describes the WSCP's shortage response actions that align with the defined shortage levels.

**Section 3.5 Communication Protocols** addresses communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding any current or predicted shortages and any resulting shortage response actions.

**Section 3.6 Compliance and Enforcement** describes customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions.

**Section 3.7 Legal Authorities** is a description of the legal authorities that enable the District to implement and enforce its shortage response actions.

**Section 3.8 Financial Consequences of the WSCP** provides a description of the financial consequences of and responses for drought conditions.

**Section 3.9 Monitoring and Reporting** describes monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements**.**

**Section 3.10 WSCP Refinement Procedures** addresses reevaluation and improvement procedures for monitoring and evaluating the functionality of the WSCP.

**Section 3.11 Special Water Feature Distinction** is a required definition for inclusion in a WSCP per the Water Code.

**Section 3.12 Plan Adoption, Submittal, and Implementation** provides a record of the process the District followed to adopt and implement its WSCP.

## 1.2 Integration with Other Planning Efforts

As a retail water supplier in Orange County, the District considered other key entities in the development of this WSCP, including the Municipal Water District of Orange County ([MWDOC] (regional wholesale supplier)), the Metropolitan Water District of Southern California ([MET] (regional wholesaler for Southern California and the direct supplier of imported water to MWDOC)), and the Baker Water Treatment Plant. As a MWDOC member agency, the District also developed this WSCP with input from several coordination efforts led by MWDOC.

Some of the key planning and reporting documents that were used to develop this WSCP are:

- **MWDOC's 2020 UWMP** provides the basis for the projections of the imported supply availability over the next 25 years for the District's service area.

- **MWDOC's 2020 WSCP** provides a water supply availability assessment and structured steps designed to respond to actual conditions that will help maintain reliable supplies and reduce the impacts of supply interruptions.
- **2021 Orange County Water Demand Forecast for MWDOC and Orange County Water District (OCWD) Technical Memorandum (Demand Forecast TM)** provides the basis for water demand projections for MWDOC's member agencies as well as Anaheim, Fullerton, and Santa Ana.
- **MET's 2020 Integrated Water Resources Plan (IRP)** is a long-term planning document to ensure water supply availability in Southern California and provides a basis for water supply reliability in Orange County.
- **MET's 2020 UWMP** was developed as a part of the 2020 IRP planning process and was used by MWDOC as another basis for the projections of supply capability of the imported water received from MET.
- **MET's 2020 WSCP** provides a water supply assessment and guide for MET's intended actions during water shortage conditions.
- **2020 Local Hazard Mitigation Plan (HMP)** provides the basis for the seismic risk analysis of the water system facilities.
- **Orange County Local Agency Formation Commission's 2020 Municipal Service Review for MWDOC Report** provides a comprehensive service review of the municipal services provided by MWDOC.
- **Water Master Plan and Sewer Master Plan** of the District provide information on water infrastructure planning projects and plans to address any required water system improvements.

# 2 BACKGROUND INFORMATION

Currently governed by a five-member Board of Directors, the District was formed in 1960 under provisions of California Water District Law, Division 13 of the Water Code of the State of California, commencing with Section 34000 for the purpose of providing water supply for the service area.

## 2.1 District Service Area

The District encompasses approximately 5,430 acres and is almost entirely developed and encompasses all of the City of Laguna Woods and portions of four other cities: Lake Forest, Aliso Viejo, Laguna Hills, and Mission Viejo.

The District service area ranges in elevation between 230 feet above sea level at its lowest point to 904 feet at its highest. In general, elevations increase from west to east. Interstate 5 bisects the District from north to south, with the higher elevations located on the east side. The District is bordered by the Irvine Ranch Water District to the north, the Laguna Beach County Water District to the west, the Moulton Niguel Water District to the west and south, and the Santa Margarita Water District to the south and east. The District also shares a small border with the Trabuco Canyon Water District in the north.

The District operates and maintains a system that has approximately 9,500 service connections, 12 different pressure zones, 6 reservoirs, 8 pump stations, 19 pressure reducing stations and approximately 180 miles of transmission and distribution pipelines of varying diameters between four inches and 24 inches.

A map of the District's water service area is shown in Figure 2-1.

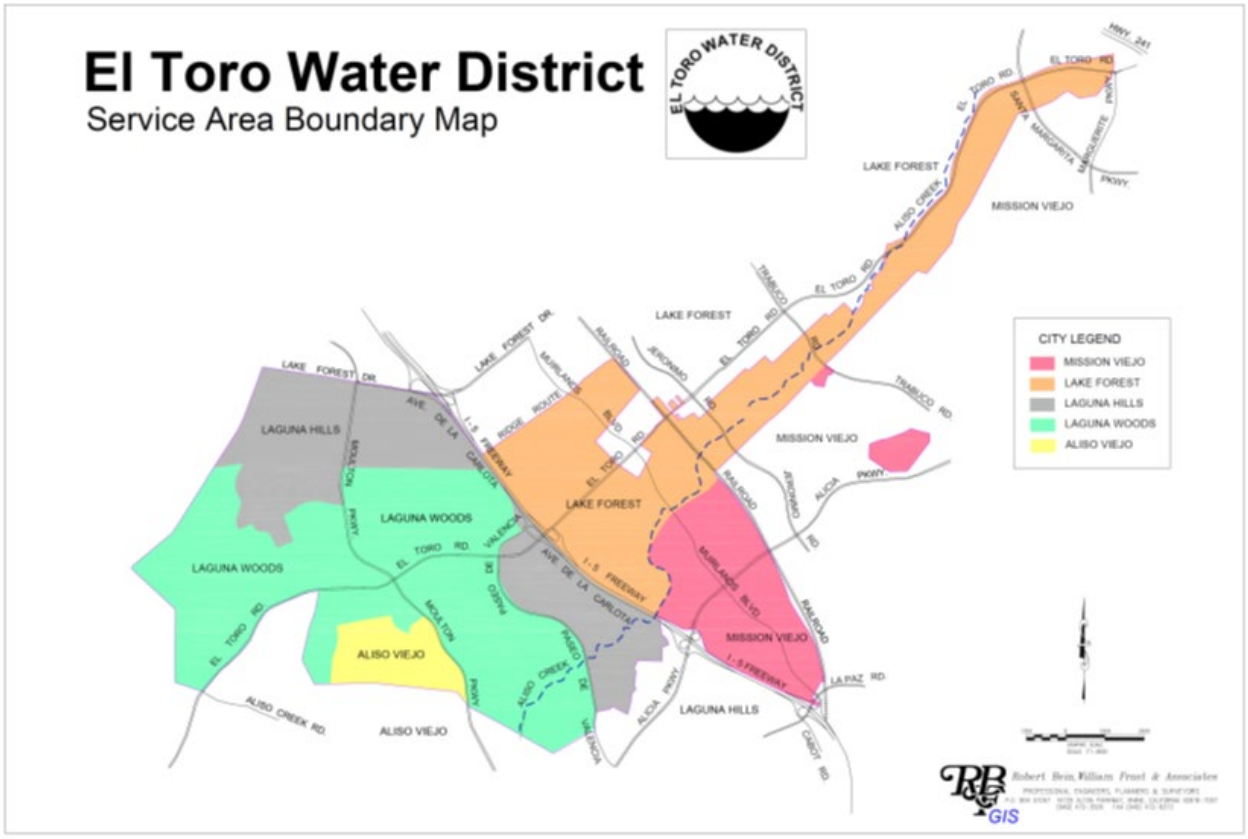


**Figure 2-1: District Service Area**

Although the District supplements it water supply portfolio with recycled water, the WSCP only applies to its potable water supply. The District is directly involved in wastewater services through its ownership and operation of the wastewater treatment facilities and collection system in its service area. The District operates wastewater treatment facilities and is part of the regional South Orange County Wastewater Authority (SOCWA). Almost all of the wastewater generated within the District's service area is conveyed to its Water Recycling Plant, where it is treated and either used for irrigation or disposed of through SOCWA's effluent transmission main and ocean outfall (ETWD, 2021). The District will determine the recycled water demand reduction actions for recycled water based on the availability of supply and to meet necessary wastewater discharge permit requirements.

## 2.2 Relationship to Wholesalers

**MET**: MET is the largest water wholesaler for domestic and municipal uses in California, serving approximately 19 million customers. MET wholesales imported water supplies to 26 member cities and water districts in six Southern California counties. Its service area covers the Southern California coastal plain, extending approximately 200 miles along the Pacific Ocean from the City of Oxnard in the north to the international boundary with Mexico in the south. This encompasses 5,200 square miles and includes portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties. Approximately 85% of the population from the aforementioned counties reside within MET's boundaries.

MET is governed by a Board of Directors comprised of 38 appointed individuals with a minimum of one representative from each of MET's 26 member agencies. The allocation of directors and voting rights are determined by each agency's assessed valuation. Each member of the Board shall be entitled to cast one vote for each ten million dollars ($10,000,000) of assessed valuation of property taxable for district purposes, in accordance with Section 55 of the Metropolitan Water District Act (Metropolitan Act). Directors can be appointed through the chief executive officer of the member agency or by a majority vote of the governing board of the agency. Directors are not compensated by MET for their service.

MET is responsible for importing water into the region through its operation of the Colorado River Aqueduct (CRA) and its contract with the State of California for SWP supplies. Member agencies receive water from MET through various delivery points and pay for service through a rate structure made up of volumetric rates, capacity charges and readiness to serve charges. Member agencies provide estimates of imported water demand to MET annually in April regarding the amount of water they anticipate they will need to meet their demands for the next five years.

**MWDOC:** In Orange County, MWDOC and the cities of Anaheim, Fullerton, and Santa Ana are MET member agencies that purchase imported water directly from MET. Furthermore, MWDOC purchases both treated potable and untreated water from MET to supplement its retail agencies' local supplies.

The District is one of MWDOC's 28 member agencies receiving imported water from MWDOC. The District's location within MWDOC's service area is shown on Figure 2-2.

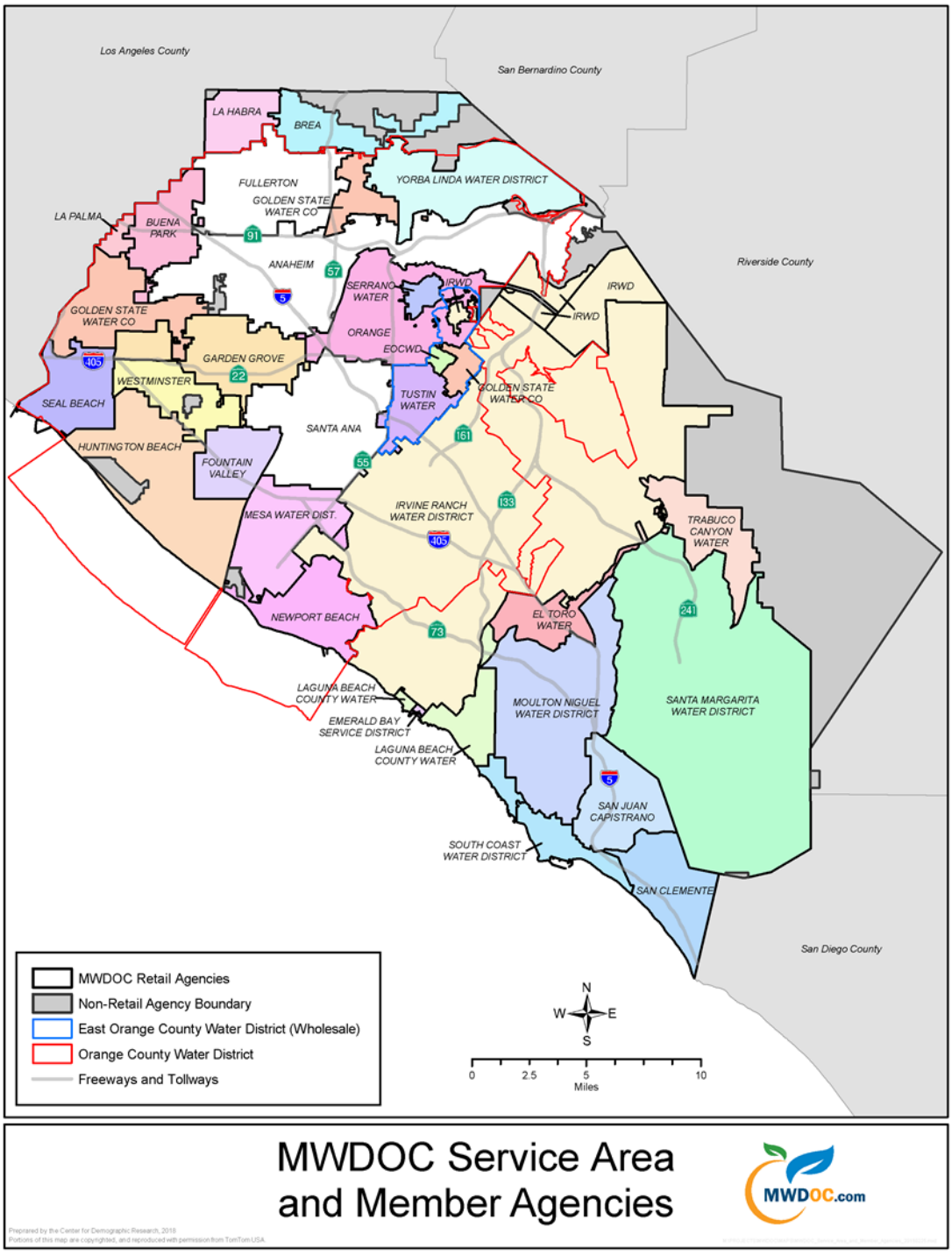


**Figure 2-2: Regional Location of the District and Other MWDOC Member Agencies**

## 2.3 Relationship with Wholesaler Water Shortage Planning

The WSCP is designed to be consistent with MET's Water Shortage and Demand Management (WSDM) Plan, MWDOC's Water Supply Allocation Plan (WSAP), and other emergency planning efforts as described below. MWDOC's WSAP is integral to the WSCP's shortage response strategy in the event that MET or MWDOC determines that supply augmentation (including storage) and lesser demand reduction measures would not be sufficient to meet a projected shortage levels needed to meet demands.

### 2.3.1 MET Water Surplus and Drought Management Plan

MET evaluates the level of supplies available and existing levels of water in storage to determine the appropriate management stage annually. Each stage is associated with specific resource management actions to avoid extreme shortages to the extent possible and minimize adverse impacts to retail customers should an extreme shortage occur. The sequencing outlined in the WSDM Plan reflects anticipated responses towards MET's existing and expected resource mix.

Surplus stages occur when net annual deliveries can be made to water storage programs. Under the WSDM Plan, there are four surplus management stages that provides a framework for actions to take for surplus supplies. Deliveries in Diamond Valley Lake (DVL) and in SWP terminal reservoirs continue through each surplus stage provided there is available storage capacity. Withdrawals from DVL for regulatory purposes or to meet seasonal demands may occur in any stage.

The WSDM Plan distinguishes between shortages, severe shortages, and extreme shortages. The differences between each term are listed below.

- Shortage: MET can meet full-service demands and partially meet or fully meet interruptible demands using stored water or water transfers as necessary.
- Severe Shortage: MET can meet full-service demands only by using stored water, transfers, and possibly calling for extraordinary conservation.
- Extreme Shortage: MET must allocate available supply to full-service customers.

There are six shortage management stages to guide resource management activities. These stages are defined by shortfalls in imported supply and water balances in MET's storage programs. When MET must make net withdrawals from storage to meet demands, it is considered to be in a shortage condition. Figure 2-3 gives a summary of actions under each surplus and shortage stages when an allocation plan is necessary to enforce mandatory cutbacks. The goal of the WSDM plan is to avoid Stage 6, an extreme shortage (MET, 1999).

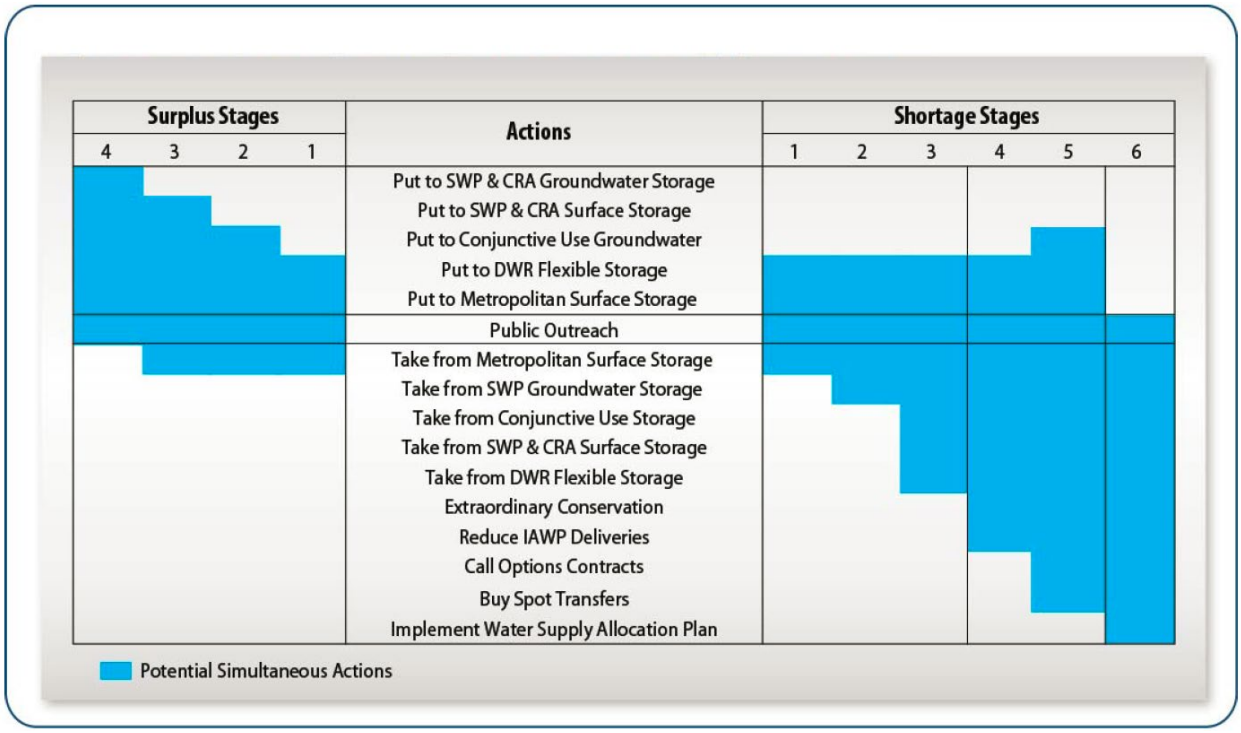


**Figure 2-3: Resource Stages, Anticipated Actions, and Supply Declarations**

MET's Board of Directors adopted a Water Supply Condition Framework in June 2008 in order to communicate the urgency of the region's water supply situation and the need for further water conservation practices. The framework has four conditions, each calling increasing levels of conservation. Descriptions for each of the four conditions are listed below:

- Baseline Water Use Efficiency: Ongoing conservation, outreach, and recycling programs to achieve permanent reductions in water use and build storage reserves.
- Condition 1 Water Supply Watch: Local agency voluntary dry-year conservation measures and use of regional storage reserves.
- Condition 2 Water Supply Alert: Regional call for cities, counties, member agencies, and retail water agencies to implement extraordinary conservation through drought ordinances and other measures to mitigate use of storage reserves.
- Condition 3 Water Supply Allocation: Implement MET's WSAP.

As noted in Condition 3, should supplies become limited to the point where imported water demands cannot be met, MET will allocate water through the WSAP (MET, 2021a).

### 2.3.2 MET Water Supply Allocation Plan

MET's imported supplies have been impacted by a number of water supply challenges as noted earlier. In case of extreme water shortage within the MET service area is the implementation of its WSAP.

MET's Board of Directors originally adopted the WSAP in February 2008 to fairly distribute a limited amount of water supply and applies it through a detailed methodology to reflect a range of local conditions and needs of the region's retail water consumers (MET, 2021a).

The WSAP includes the specific formula for calculating member agency supply allocations and the key implementation elements needed for administering an allocation. MET's WSAP is the foundation for the urban water shortage contingency analysis required under Water Code Section 10632 and is part of MET's 2020 UWMP.

MET's WSAP was developed in consideration of the principles and guidelines in MET's 1999 WSDM Plan with the core objective of creating an equitable "needs-based allocation." The WSAP's formula seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level for shortages of MET supplies of up to greater than 50%. The formula takes into account a number of factors, such as the impact on retail customers, growth in population, changes in supply conditions, investments in local resources, demand hardening aspects of water conservation savings, recycled water, extraordinary storage and transfer actions, and groundwater imported water needs.

The formula is calculated in three steps: 1) based period calculations, 2) allocation year calculations, and 3) supply allocation calculations. The first two steps involve standard computations, while the third step contains specific methodology developed for the WSAP.

**Step 1: Base Period Calculations –** The first step in calculating a member agency's water supply allocation is to estimate their water supply and demand using a historical based period with established water supply and delivery data. The base period for each of the different categories of supply and demand is calculated using data from the two most recent non-shortage years.

**Step 2: Allocation Year Calculations –** The next step in calculating the member agency's water supply allocation is estimating water needs in the allocation year. This is done by adjusting the base period estimates of retail demand for population growth and changes in local supplies.

**Step 3: Supply Allocation Calculations –** The final step is calculating the water supply allocation for each member agency based on the allocation year water needs identified in Step 2.

In order to implement the WSAP, MET's Board of Directors makes a determination on the level of the regional shortage, based on specific criteria, typically in April. The criteria used by MET includes current levels of storage, estimated water supplies conditions, and projected imported water demands. The allocations, if deemed necessary, go into effect in July of the same year and remain in effect for a 12-month period. The schedule is made at the discretion of the Board of Directors (MET, 2021b).

As demonstrated by the findings in MET's 2020 UWMP both the Water Reliability Assessment and the Drought Risk Assessment (DRA) demonstrate that MET is able to mitigate the challenges posed by hydrologic variability, potential climate change, and regulatory risk on its imported supply sources through the significant storage capabilities it has developed over the last two decades, both dry-year and emergency storage (MET, 2021a).

Although MET's 2020 UWMP forecasts that MET will be able to meet projected imported demands throughout the projected period from 2025 to 2045, uncertainty in supply conditions can result in MET needing to implement its WSAP to preserve dry-year storage and curtail demands (MET, 2021b).

### 2.3.3 MWDOC Water Supply Allocation Plan

To prepare for the potential allocation of imported water supplies from MET, MWDOC worked collaboratively with its 28 retail agencies to develop its own WSAP that was adopted in January 2009 and amended in 2016. The MWDOC WSAP outlines how MWDOC will determine and implement each of its retail agency's allocation during a time of shortage.

The MWDOC WSAP uses a similar method and approach, when reasonable, as that of the MET's WSAP. However, MWDOC's plan remains flexible to use an alternative approach when MET's method produces a significant unintended result for the member agencies. The MWDOC WSAP model follows five basic steps to determine a retail agency's imported supply allocation.

**Step 1: Determine Baseline Information –** The first step in calculating a water supply allocation is to estimate water supply and demand using a historical based period with established water supply and delivery data. The base period for each of the different categories of demand and supply is calculated using data from the last two non-shortage years.

**Step 2: Establish Allocation Year Information –** In this step, the model adjusts for each retail agency's water need in the allocation year. This is done by adjusting the base period estimates for increased retail water demand based on population growth and changes in local supplies.

**Step 3: Calculate Initial Minimum Allocation Based on MET's Declared Shortage Level –** This step sets the initial water supply allocation for each retail agency. After a regional shortage level is established, MWDOC will calculate the initial allocation as a percentage of adjusted Base Period Imported water needs within the model for each retail agency.

**Step 4: Apply Allocation Adjustments and Credits in the Areas of Retail Impacts and Conservation**– In this step, the model assigns additional water to address disparate impacts at the retail level caused by an across-the-board cut of imported supplies. It also applies a conservation credit given to those agencies that have achieved additional water savings at the retail level as a result of successful implementation of water conservation devices, programs and rate structures.

**Step 5: Sum Total Allocations and Determine Retail Reliability –** This is the final step in calculating a retail agency's total allocation for imported supplies. The model sums an agency's total imported allocation with all of the adjustments and credits and then calculates each agency's retail reliability compared to its Allocation Year Retail Demand.

The MWDOC WSAP includes additional measures for plan implementation, including the following (MWDOC, 2016):

- **Appeal Process –** An appeals process to provide retail agencies the opportunity to request a change to their allocation based on new or corrected information. MWDOC anticipates that under most circumstances, a retail agency's appeal will be the basis for an appeal to MET by MWDOC.
- **Melded Allocation Surcharge Structure –** At the end of the allocation year, MWDOC would only charge an allocation surcharge to each retail agency that exceeded their allocation if MWDOC exceeds its total allocation and is required to pay a surcharge to MET. MET enforces allocations to retail agencies through an allocation surcharge to a retail agency that exceeds its total annual allocation at the end of the 12-month allocation period. MWDOC's surcharge would be assessed according to the retail agency's prorated share (acre-feet over usage) of MWDOC amount with MET. Surcharge funds collected by MET will be invested in its

Water Management Fund, which is used to in part to fund expenditures in dry-year conservation and local resource development.

- **Tracking and Reporting Water Usage –** MWDOC will provide each retail agency with water use monthly reports that will compare each retail agency's current cumulative retail usage to their allocation baseline. MWDOC will also provide quarterly reports on its cumulative retail usage versus its allocation baseline.
- **Timeline and Option to Revisit the Plan –** The allocation period will cover 12 consecutive months and the Regional Shortage Level will be set for the entire allocation period. MWDOC only anticipates calling for allocation when MET declares a shortage; and no later than 30 days from MET's declaration will MWDOC announce allocation to its retail agencies.

# 3 WATER SHORTAGE CONTINGENCY PREPAREDNESS AND RESPONSE PLANNING

The District's WSCP is a detailed guide of how the District intends to act in the case of an actual water shortage condition. The WSCP anticipates a water supply shortage and provides pre-planned guidance for managing and mitigating a shortage. Regardless of the reason for the shortage, the WSCP is based on adequate details of demand reduction and supply augmentation measures that are structured to match varying degrees of shortage will ensure the relevant stakeholders understand what to expect during a water shortage situation.

## 3.1 Water Supply Reliability Analysis

Per Water Code Section 10632 (a)(1), the WSCP shall provide an analysis of water supply reliability conducted pursuant to Water Code Section 10635, and the key issues that may create a shortage condition when looking at the District's water asset portfolio.

Understanding water supply reliability, factors that could contribute to water supply constraints, availability of alternative supplies, and what effect these have on meeting customer demands provides the District with a solid basis on which to develop appropriate and feasible response actions in the event of a water shortage. In the 2020 UWMP, the District conducted a Water Reliability Assessment to compare the total water supply sources available to the water supplier with long-term projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years (ETWD, 2021).

The District also conducted a DRA to evaluate a drought period that lasts five consecutive water years starting from the year following when the assessment is conducted. An analysis of both assessments determined that the District is capable of meeting all customers' demands from 2021 through 2045 for a normal year, a single dry year, and a drought lasting five consecutive years with significant imported water supplemental drought supplies from MWDOC/MET and ongoing conservation program efforts. The District receives the majority of its water supply from imported water from MWDOC, as well as supplemental supplies from local recycled water from the District's Water Recycling Plant that add reliability for non-potable demand.

As a result, there is no projected shortage condition due to drought that will trigger customer demand reduction actions until MWDOC notifies the District of insufficient imported supplies. More information is available in the District's 2020 UWMP Sections 6 and 7 (ETWD, 2021).

## 3.2 Annual Water Supply and Demand Assessment Procedures

Per Water Code Section 10632.1, the District will conduct an Annual Assessment pursuant to subdivision (a) of Section 10632 and by July 1st of each year, beginning in 2022, submit an annual water shortage assessment with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the Supplier's WSCP.

The District must include in its WSCP the procedures used for conducting an Annual Assessment. The Annual Assessment is a determination of the near-term outlook for supplies and demands and how a perceived shortage may relate to WSCP shortage stage response actions in the current calendar year. This determination is based

on information available to the District at the time of the analysis. Starting in 2022, the Annual Assessment will be due by July 1 of every year.

This section documents the decision-making process required for formal approval of the District's Annual Assessment determination of water supply reliability each year and the key data inputs and the methodologies used to evaluate the water system reliability for the coming year, while considering that the year to follow would be considered dry.

### 3.2.1 Decision-Making Process

The following decision-making process describes the functional steps that the District will take to formally approve the Annual Assessment determination of water supply reliability each year.

#### 3.2.1.1 District Steps to Approve the Annual Assessment Determination

The Annual Assessment will be predicated on the MWDOC Annual Assessment outcomes.

MWDOC surveys its member agencies annually for anticipated water demands and supplies for the upcoming year. MWDOC utilizes this information to plan for the anticipated imported water supplies for the MWDOC service area. This information is then shared and coordinated with MET and is incorporated into their analysis of their service area's annual imported water needs. Based on the year's supply conditions and WSDM actions, MET will present a completed Annual Assessment for its member agencies' review from which they will then seek Board approval in April of each year. Additionally, MET expects that any triggers or specific shortage response actions that result from the Annual Assessment would be approved by their Board at that time. Based upon MET's Assessment and taking into consideration information provided to MWDOC through the annual survey, MWDOC will provide an anticipated estimate of imported supplies for ETWD to incorporate into the annual supply and demand assessment.

The Annual Assessment findings will determine the approval process. If a shortage is identified, the Annual Assessment will be taken to the ETWD Board of Directors for approval and formally submitted to DWR prior to the July 1 deadline. If no shortage is identified, the Annual Assessment will be approved by the General Manager, or designee, and submitted to DWR prior to the July 1 deadline.

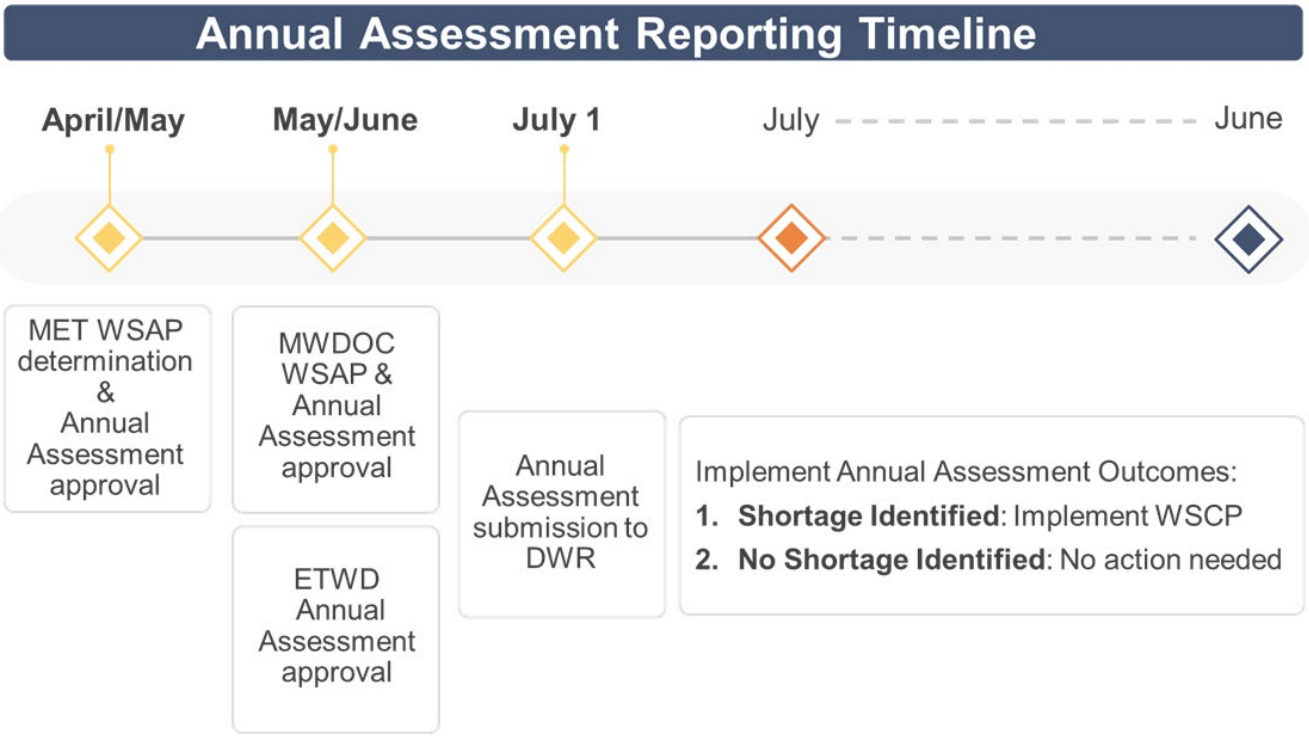


**Figure 3-1: Annual Assessment Reporting Timeline**

### 3.2.2 Data and Methodologies

The following paragraphs document the key data inputs and methodologies that are used to evaluate the water system reliability for the coming year, while considering that the year to follow would be considered dry.

#### 3.2.2.1 Assessment Methodology

The District will evaluate water supply reliability for the current year and one dry year for the purpose of the Annual Assessment. The Annual Assessment determination will be based on considerations of unconstrained water demand, local water supplies, MWDOC/MET imported water supplies, planned water use, and infrastructure considerations. The balance between projected local supplies coupled with MET imported supplies and anticipated unconstrained demand will be used to determine what, if any, shortage stage is expected under the WSCP framework as presented in Figure 3-2. The WSCP's standard shortage stages are defined in terms of shortage percentages. Shortage percentages will be calculated by dividing the difference between water supplies and unconstrained demand by total unconstrained demand. This calculation will be performed separately for anticipated current year conditions and for assumed dry year conditions.

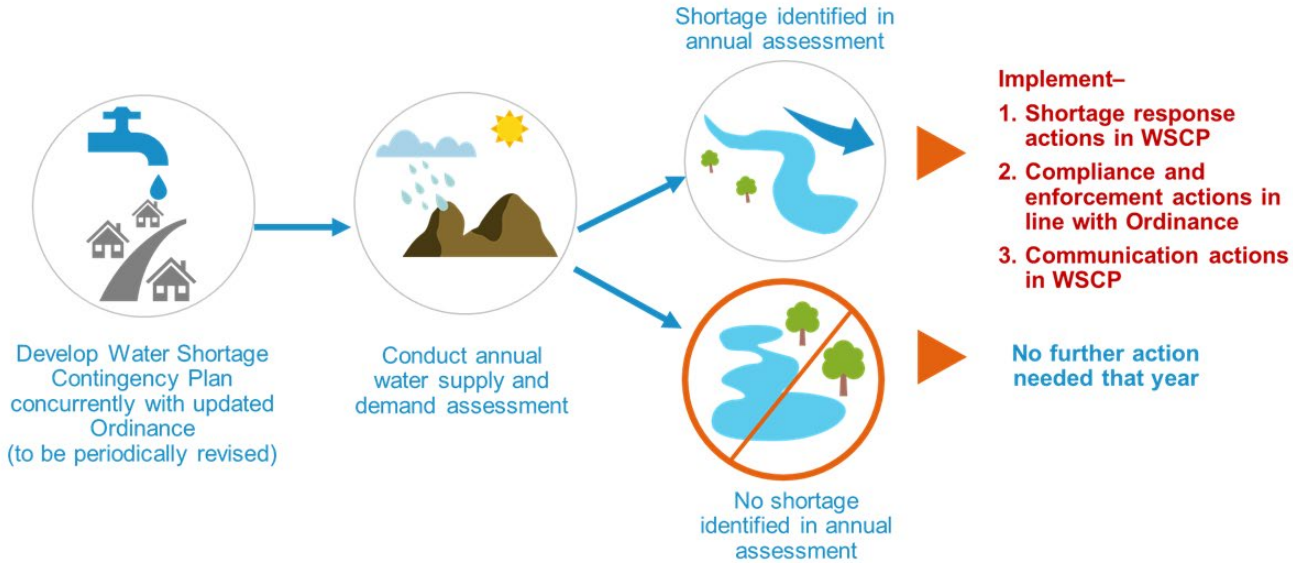


**Figure 3-2: Water Shortage Contingency Plan Annual Assessment Framework**

### 3.2.2.2 Locally Applicable Evaluation Criteria

Within Orange County, there are no significant local applicable criteria that directly affect reliability. Through the years, the water agencies in Orange County have made tremendous efforts to integrate their systems to provide flexibility to interchange with different sources of supplies. There are emergency agreements in place to ensure all parts of the County have an adequate supply of water. For the agencies in southern Orange County, most of their demands are met with imported water where their limitation is based on the capacity of their system, which is considered sufficient to meet anticipated demands.

The District will also continue to monitor emerging supply and demand conditions related to supplemental imported water from MWDOC/MET and take appropriate actions consistent with the flexibility and adaptiveness inherent to the WSCP. The District's Annual Assessment was based on the District's service area, water sources, water supply reliability, and water use as described in Water Code Section 10631, including available data from state, regional, or local agency population, land use development, and climate change projections within the service area of the District. Some conditions that affect MWDOC's wholesale supply and demand, such as groundwater replenishment, surface water and local supply production, can differ significantly from earlier projections throughout the year.

However, if a major earthquake on the San Andreas Fault occurs, it will damage all three key regional water aqueducts and disrupt imported supplies for up to six months. The region would likely impose a water use reduction ranging from 10-25% until the system is repaired. However, MET and MWDOC have taken proactive steps to handle such disruption, such as constructing DVL, which mitigates potential impacts. DVL, along with other local reservoirs, can store a six to twelve-month supply of emergency water (MET, 2021b).

### 3.2.2.3 Water Supply

As detailed in the Districts 2020 UWMP, the District meets all of its customers' demands with a combination of treated and untreated imported water from MWDOC/MET, local recycled water, and local surface water from Irvine Lake. The District's main source of water supply is imported water, with recycled water and surface water making up the rest of the District's water supply portfolio. In fiscal year (FY) 2019-20, the District relied on 50%

treated imported water, 32% untreated imported water, 14% recycled water, and 4% surface water. It is projected that by 2045, the District's water supply portfolio will change to approximately 45% treated imported water, 39% untreated imported water, and 16% recycled water (ETWD, 2021).

#### 3.2.2.4 Unconstrained Customer Demand

The WSCP and Annual Assessment define unconstrained demand as expected water use prior to any projected shortage response actions that may be taken under the WSCP. Unconstrained demand is distinguished from observed demand, which may be constrained by preceding, ongoing, or future actions, such as emergency supply allocations during a multi-year drought. WSCP shortage response actions to constrain demand are inherently extraordinary; routine activities such as ongoing conservation programs and regular operational adjustments are not considered as constraints on demands.

The District's DRA reveals that its supply capabilities are expected to balance anticipated total water use and supply, assuming a five-year consecutive drought from FY 2020-21 through FY 2024-25 (ETWD, 2021). Water demands in a five-year consecutive drought are calculated as a six percent increase in water demand above a normal year for each year of the drought (CDM Smith, 2021).

#### 3.2.2.5 Planned Water Use for Current Year Considering Dry Subsequent Year

Water Code Section 10632(a)(2)(B)(ii) requires the Annual Assessment to determine "current year available supply, considering hydrological and regulatory conditions in the current year and one dry year."

The Annual Assessment will include two separate estimates of the District's annual water supply and unconstrained demand using: 1) current year conditions, and 2) assumed dry year conditions. Accordingly, the Annual Assessment's shortage analysis will present separate sets of findings for the current year and dry year scenarios. The Water Code does not specify the characteristics of a dry year, allowing discretion to the Supplier. The District will use its discretion to refine and update its assumptions for a dry year scenarios in each Annual Assessment as information becomes available and in accordance with best management practices.

Supply and demand analyses for the single-dry year case was based on conditions affecting the SWP as this supply availability fluctuates the most among MET's, and therefore MWDOC and the District's, sources of supply. FY 2013-14 was the single driest year for SWP supplies with an allocation of 5% to Municipal and Industrial (M&I) uses. Unique to this year, the 5% SWP allocation was later reduced to 0%, before ending up at its final allocation of 5%, highlighting the stressed water supplies for the year. Furthermore, on January 17, 2014 Governor Brown declared the drought State of Emergency citing 2014 as the driest year in California history. Additionally, within MWDOC's service area, precipitation for FY 2013-14 was the second lowest on record, with 4.37 inches of rain, significantly impacting water demands.

The water demand forecasting model developed for the Demand Forecast TM isolated the impacts that weather and future climate can have on water demand through the use of a statistical model. The impacts of hot/dry weather conditions are reflected as a percentage increase in water demands from the normal year condition (average of FY 2017-18 and FY 2018-19). For a single dry year condition (FY 2013-14), the model projects a 6% increase in demand for the Orange County Groundwater Basin area where the District's service area is located (CDM Smith, 2021). Detailed information of the model is included in the District's 2020 UWMP.

The District has documented that it is 100% reliable for single dry year demands from 2025 through 2045 with a demand increase of 6% from normal demand with significant reserves held by MET, local groundwater supplies, and water use efficiency (ETWD, 2021).

#### 3.2.2.6 Infrastructure Considerations

The Annual Assessment will include consideration of any infrastructure issues that may pertain to near-term water supply reliability, including repairs, construction, and environmental mitigation measures that may temporarily constrain capabilities, as well as any new projects that may add to system capacity. MWDOC closely coordinates with MET and its member agencies, including the District, on any planned infrastructure work that may impact water supply availability. Throughout each year, MET regularly carries out preventive and corrective maintenance of its facilities within the MWDOC service area that may require shutdowns to inspect and repair pipelines and facilities and support capital improvement projects. These shutdowns involve a high level of planning and coordination between MWDOC, MWDOC's member agencies, and MET to ensure that major portions of the distribution system are not out of service at the same time. Operational flexibility within MET's system and the cooperation of member agencies allow shutdowns to be successfully completed while continuing to meet all system demands.

Specifically for the District, the Capital Improvement Program is updated annually to maintain existing infrastructure rather than expand to new water supply sources.

#### 3.2.2.7 Other Factors

For the Annual Assessment, any known issues related to water quality would be considered for their potential effects on water supply reliability.

## 3.3 Six Standard Water Shortage Levels

Per Water Code Section 10632 (a)(3)(A), the District must define the water shortage levels that represent shortages from the normal reliability as determined in the Annual Assessment. The Water Code provides an option for suppliers to align with six standard water shortage levels; however, the District has selected to retain its existing water shortage levels as defined in District Code (Table 3-1). Table 3-2 shows the District's water shortage levels in relationship to the six standard water shortage levels prescribed by statute. This crosswalk is intended to clearly translate the District's water shortage levels to those mandated by statute.

**Table 3-1: Water Shortage Contingency Plan Levels**

| **Submittal Table 8-1**<br>**Water Shortage Contingency Plan Levels** | | |
|---|---|---|
| **Shortage Level** | **Percent Shortage Range** | **Shortage Response Actions** |
| 1 | Up to 20% | A Level 1 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 2 | Up to 40% | A Level 2 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 3 | Greater than 40% | A Level 3 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| NOTES: | | |

Table 3-2: Relationship Between the District's Water Shortage Levels and Mandated Shortage Levels

| Relationship Between ETWD's Water Shortage Levels and Mandated Shortage Levels (DWR Table 8-1) | | | |
|---|---|---|---|
| **El Toro Water District Water Shortage Levels** | | **Mandated Shortage Levels** | |
| **Shortage Level** | **Percent Shortage Range** | **Shortage Level** | **Percent Shortage Range** |
| **Permanent Water Conservation Requirements** | 0% | **N/A** | 0% |
| **1** | Up to 20% | **1**<br>**2** | Up to 10%<br>10-20% |
| **2** | 20-40% | **3**<br>**4** | 20 – 30%<br>30 - 40% |
| **3** | >40% | **5**<br>**6** | 40 - 50%<br>>50% |

## 3.4 Shortage Response Actions

Water Code Section 10632 (a)(4) requires the WSCP to specify shortage response actions that align with the defined shortage levels. The District has defined specific shortage response actions that align with the defined shortage levels in DWR Tables 8-2 and 8-3 (Appendix A). These shortage response actions were developed with consideration to the system infrastructure and operations changes, supply augmentation responses, customer-class or water use-specific demand reduction initiatives, and increasingly stringent water use prohibitions.

### 3.4.1 Demand Reduction

The demand reduction measures that would be implemented to address shortage levels are described in DWR Table 8-2 (Appendix A). This table indicates which actions align with specific defined shortage levels and estimates the extent to which that action will reduce the gap between supplies and demands. DWR Table 8-2 (Appendix A) demonstrates to the that choose suite of shortage response actions can be expected to deliver the expected outcomes necessary to meet the requirements of a given shortage level (e.g., target of an additional 10% water savings). This table also identifies the enforcement action, if any, associated with each demand reduction measure.

### 3.4.2 Supply Augmentation

The supply augmentation actions are described in DWR Table 8-3 (Appendix A). These augmentations represent short-term management objectives triggered by the MET's WSDM Plan and do not overlap with the long-term new water supply development or supply reliability enhancement projects. Supply Augmentation is made available to the District through MWDOC and MET. The District relies on MET's reliability portfolio of water supply programs including existing water transfers, storage and exchange agreements to supplement gaps in the District's supply/demand balance. MET has developed significant storage capacity (over 5 million AF) in reservoirs and groundwater banking programs both within and outside of the Southern California region. Additionally, MET can pursue additional water transfer and exchange programs with other water agencies to help mitigate supply/demand imbalances and provide additional dry-year supply sources.

MWDOC, and in turn its retail agencies, including the District, has access to supply augmentation actions through MET. MET may exercise these actions based on regional need, and in accordance with their WSCP, and may include the use of supplies and storage programs within the Colorado River, SWP, and in-region storage. The District has the ability to augment its supply to reduce the shortage gap by up to 100% by purchasing additional imported water through MWDOC; however, this is subject to rate penalties from MWDOC.

### 3.4.3 Operational Changes

During shortage conditions, operations may be affected by supply augmentation or demand reduction responses. The District will consider their operational procedures when it completes its Annual Assessment or as needed to identify changes that can be implemented to address water shortage on a short-term basis, such as suspending normal system flushing procedures or other minor changes to increase efficiency and to more effectively distribute available supply across the service area.

### 3.4.4 Additional Mandatory Restrictions

California Water Code Section 10632(a)(4)(D) calls for "additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions" to be included among the WSCP's shortage response actions. The District has identified additional mandatory restrictions in the Water Conservation and Water Supply Shortage Ordinance 2015-3 (Appendix B).

### 3.4.5 Emergency Response Plan (Hazard Mitigation Plan)

A catastrophic water shortage would be addressed according to the appropriate water shortage level and response actions. It is likely that a catastrophic shortage would immediately trigger Shortage Level 3 (equivalent to mandated Level 6) and response actions have been put in place to mitigate a catastrophic shortage. In addition, there are several plans that address catastrophic failures and align with the WSCP, including MET's WSDM and WSAP and the Water Emergency Response Organization of Orange County (WEROC)'s Emergency Operations Plan (EOP).

#### 3.4.5.1 MET's WSDM and WSAP

MET has comprehensive plans for stages of actions it would undertake to address a catastrophic interruption in water supplies through its WSDM and WSAP. MET also developed an Emergency Storage Requirement to mitigate against potential interruption in water supplies resulting from catastrophic occurrences within the

Southern California region, including seismic events along the San Andreas Fault. In addition, MET is working with the state to implement a comprehensive improvement plan to address catastrophic occurrences outside of the Southern California region, such as a maximum probable seismic event in the Sacramento-San Joaquin River Delta that would cause levee failure and disruption of SWP deliveries.

#### 3.4.5.2 Water Emergency Response Organization of Orange County Emergency Operations Plan

In 1983, the Orange County water community identified a need to develop a plan on how agencies would respond effectively to disasters impacting the regional water distribution system. The collective efforts of these agencies resulted in the formation of the Water Emergency Response Organization of Orange County (WEROC) to coordinate emergency response on behalf of all Orange County water and wastewater agencies, develop an emergency plan to respond to disasters, and conduct disaster training exercises for the Orange County water community. WEROC was established with the creation of an indemnification agreement between its member agencies to protect each other against civil liabilities and to facilitate the exchange of resources. WEROC is unique in its ability to provide a single point of contact for representation of all water and wastewater utilities in Orange County during a disaster. This representation is to the county, state, and federal disaster coordination agencies. Within the Orange County Operational Area, WEROC is the recognized contact for emergency response for the water community, including the District.

As a member of WEROC, the District will follow WEROC's EOP in the event of an emergency and coordinate with WEROC to assess damage, initiate repairs, and request and coordinate mutual aid resources in the event that the District is unable to provide the level of emergency response support required by the situation.

The EOP defines the actions to be taken by WEROC Emergency Operations Center (EOC) staff to reduce the loss of water and wastewater infrastructure; to respond effectively to a disaster; and to coordinate recovery operations in the aftermath of any emergency involving extensive damage to Orange County water and wastewater utilities. The EOP includes activation notification protocol that will be used to contact partner agencies to inform them of the situation, activation status of the EOC, known damage or impacts, or resource needs. The EOP is a standalone document that is reviewed annually and approved by the Board every three years.

WEROC is organized on the basis that each member agency is responsible for developing its own EOP in accordance with the California Standardized Emergency Management System (SEMS), National Incident Management System (NIMS), and Public Health Security and Bioterrorism Preparedness and Response Act of 2002 to meet specific emergency needs within its service area.

The WEROC EOC is responsible for assessing the overall condition and status of the Orange County regional water distribution and wastewater collection systems including MET facilities that serve Orange County. The EOC can be activated during an emergency situation that can result from both natural and man-made causes, and can be activated through automatic, manual, or standby for activation.

WEROC recognized four primary phases of emergency management, which include:

- **Preparedness:** Planning, training, and exercises that are conducted prior to an emergency to support and enhance response to an emergency or disaster.
- **Response:** Activities and programs designed to address the immediate and short-term effects of the onset of an emergency or disaster that helps to reduce effects to water infrastructure and speed recovery. This includes alert and notification, EOC activation, direction and control, and mutual aid.

- **Recovery:** This phase involved restoring systems to normal, in which short-term recovery actions are taken to assess the damage and return vital life-support systems to minimum operating standards, while long-term recovery actions have the potential to continue for many years.
- **Mitigation/Prevention:** These actions prevent the occurrence of an emergency or reduce the area's vulnerability in ways that minimize the adverse impacts of a disaster or emergency. MWDOC's HMP outlines threats and identifies mitigation projects.

The EOC Action Plans (EAP) provide frameworks for EOC staff to respond to different situations with the objectives and steps required to complete them, which will in turn serve the WEROC member agencies. In the event of an emergency which results in a catastrophic water shortage, the District will declare a water shortage condition of Level 2 or 3 for the impacted area depending on the severity of the event, and coordination with WEROC is anticipated to begin at Level 2 (standardized Level 4) or greater (WEROC, 2018).

#### 3.4.5.3 El Toro Water District Emergency Response Plan

The District will also refer to its current American Water Infrastructure Act Risk and Resilience Assessment and Emergency Response Plan in the event of a catastrophic supply interruption.

### 3.4.6 Seismic Risk Assessment and Mitigation Plan

Per the Water Code Section 10632.5, Suppliers are required to assess seismic risk to water supplies as part of their WSCP. The plan also must include the mitigation plan for the seismic risk(s). Given the great distances that imported supplies travel to reach Orange County, the region is vulnerable to interruptions along hundreds of miles of aqueducts, pipelines and other facilities associated with delivering the supplies to the region. Additionally, the infrastructure in place to deliver supplies are susceptible to damage from earthquakes and other disasters.

In lieu of conducting a seismic risk assessment specific to the District's 2020 UWMP, the District has included the previously prepared regional HMP by MWDOC as the regional imported water wholesaler that is required under the federal Disaster Mitigation Act of 2000 (Public Law 106-390).

MWDOC's HMP identified that the overarching goals of the HMP were the same for all of its member agencies, which include:

- Goal 1: Minimize vulnerabilities of critical infrastructure to minimize damages and loss of life and injury to human life caused by hazards.
- Goal 2: Minimize security risks to water and wastewater infrastructure.
- Goal 3: Minimize interruption to water and wastewater utilities.
- Goal 4: Improve public outreach, awareness, education, and preparedness for hazards in order to increase community resilience.
- Goal 5: Eliminate or minimize wastewater spills and overflows.
- Goal 6: Protect water quality and supply, critical aquatic resources, and habitat to ensure a safe water supply.
- Goal 7: Strengthen Emergency Response Services to ensure preparedness, response, and recovery during any major or multi-hazard event.

MWDOC's HMP evaluates hazards applicable to all jurisdictions in its entire planning area, prioritized based on probability, location, maximum probable extent, and secondary impacts. The identification of hazards is highly

dependent on the location of facilities within the District's jurisdiction and takes into consideration the history of the hazard and associated damage, information provided by agencies specializing in a specific hazard, and relies upon the District's expertise and knowledge.

Earthquake fault rupture and seismic hazards, including ground shaking and liquefaction, are among the highest ranked hazards to the region as a whole because of its long history of earthquakes, with some resulting in considerable damage. A significant earthquake along one of the major faults could cause substantial casualties, extensive damage to infrastructure, fires, damages and outages of water and wastewater facilities, and other threats to life and property.

Nearly all of Orange County is at risk of moderate to extreme ground shaking, with liquefaction possible throughout much of Orange County but the most extensive liquefaction zones occur in coastal areas. Based on the amount of seismic activity that occurs within the region, there is no doubt that communities within Orange County will continue to experience future earthquake events, and it is a reasonable assumption that a major event will occur within a 30-year timeframe.

The mitigation actions identify the hazard, proposed mitigation action, location/facility, local planning mechanism, risk, cost, timeframe, possible funding sources, status, and status rationale, as applicable. Mitigation actions for MWDOC's member agencies for seismic risks may include (MWDOC, 2019):

- Secure above ground assets in all buildings, booster stations, pressure reducing stations, emergency interties, water systems, and pipelines.
- Conduct assessment of infrastructure to ensure seismic retrofitting is in place.
- Replace aging infrastructure throughout the District.
- Install backup power for critical facilities to ensure operability during emergency events. Enhance emergency operability by implementing communication infrastructure improvements.

### 3.4.7 Shortage Response Action Effectiveness

For each specific Shortage Response Action identified in the plan, the WSCP also estimates the extent to which that action will reduce the gap between supplies and demands identified in DWR Table 8-2 (Appendix A). To the extent feasible, the District has estimated percentage savings for the chosen suite of shortage response actions, which can be anticipated to deliver the expected outcomes necessary to meet the requirements of a given shortage level.

## 3.5 Communication Protocols

Timely and effective communication is a key element of the WSCP implementation. In the context of water shortage response, the purpose may be an immediate emergency water shortage situation, such as may result from an earthquake, or a longer-term shortage condition, such as may result from a drought. In an immediate emergency, the District will activate the communication protocol detailed in the Emergency Response Plan. In a longer-term water shortage situation, the District will implement follow the communication protocols described below.

Per the Water Code Section 10632 (a)(5), the District has established communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments regarding any current or predicted shortages as determined by the Annual Assessment described pursuant to Section 10632.1;

any shortage response actions triggered or anticipated to be triggered by the Annual Assessment described pursuant to Section 10632.1; and any other relevant communications.

Longer-term water shortage communication protocols are focused on communicating the water shortage contingency planning actions that can be derived from the results of the Annual Assessment, and it would likely trigger based upon the decision-making process in Section 3.2. Prior to water shortage level declaration, the District will pursue outreach to inform customers of water shortage levels and definitions, targeted water savings for each drought stage, guidelines that customers are to follow during each stage, and sources of current information on the District's supply and demand response status.

The type and degree of communication will vary with each shortage level in order to inform stakeholders of the current water shortage level status and associated shortage response actions, as defined in Section 3.4.1. Predefined communication objectives and tools will ensure the District's ability to message necessary events and information to ensure compliance with shortage response actions. These communication objectives and tools are summarized in Table 3-3.

The District's Public Relations department will lead public information and outreach efforts in close coordination with other MWDOC and MET. The District will share information and provide guidance to its customers as well as monitor the customer response and attitude toward both voluntary and mandatory customer response guidelines. The District's customer outreach is required to successfully achieve targeted water savings during each drought stage.

**Table 3-3: Communication Procedures**

| Shortage level | Communication Objectives | Communication Tools |
|---|---|---|
| **1** | Compliance with shortage response actions, 20% reduction in water use | Water Bill Communications<br>Water Bill Insert Communication<br>Water Bill Pay Portal Communication<br>Information on Website Homepage<br>Social Media Outreach<br>Educational Outreach – Local Events, Laguna Woods Television Director Interviews, ETWD Community Advisory Group Meetings, Regional School Program and Laguna Woods Village Direct Email Communications |

| Shortage level | Communication Objectives | Communication Tools |
|---|---|---|
| **2** | Compliance with storage response actions, 40% reduction in water use | Presence at Local Events<br>Direct Mailings to Homes and Businesses<br>Direct Communication with High Water Users<br>Communication with Commercial Users<br>Local Media Coverage (print and electronic)<br>Public Service Announcements |
| **3** | Compliance with shortage response actions, >40% reduction in water use | Water Waste Patrols<br>Neighborhood Canvasing<br>Partnerships/Regional Initiatives |

## 3.6 Compliance and Enforcement

Per the Water Code Section 10632 (a)(6), the District has defined customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions. Communication procedures to ensure customer compliance are described in Section 3.5 and customer enforcement, appeal, and exemption procedures are defined in the District's existing Water Conservation and Water Supply Shortage Ordinance 2015-3 (Appendix B). The District intends to update any enforcement procedures in a subsequently adopted ordinance which will supersede the existing ordinance.

## 3.7 Legal Authorities

Per Water Code Section 10632 (a)(7)(A), the District has provided a description of the legal authorities that empower the District to implement and enforce its shortage response in its Water Conservation and Water Supply Shortage Ordinance 2015-3 (Appendix B).

Per Water Code Section 10632 (a)(7) (B), the District shall declare a water shortage emergency condition to prevail within the area served by such wholesaler whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

Per Water Code Section 10632 (a)(7)(C), the District shall coordinate with any agency or county within which it provides water supply services for the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558). Table 3-4 identifies the contacts for all cities or counties for which the Supplier provides service in the WSCP, along with developed coordination protocols, can facilitate compliance with this section of the Water Code in the event of a local emergency as defined in subpart (c) of Government Code Section 8558.

Table 3-4: Agency Contacts and Coordination Protocols

| Contact | Agency | Coordination Protocols |
|---|---|---|
| Dennis Wilberg | City of Mission Viejo | call/email |
| Chris Macon | City of Laguna Woods | call/email |
| Debra Rose | City of Lake Forest | call/email |
| Donald White | City of Laguna Hills | call/email |
| David Doyle | City of Aliso Viejo | call/email |

## 3.8 Financial Consequences of WSCP

Per Water Code Section 10632(a)(8), Suppliers must include a description of the overall anticipated financial consequences to the Supplier of implementing the WSCP. This description must include potential reductions in revenue and increased expenses associated with implementation of the shortage response actions. This should be coupled with an identification of the anticipated mitigation actions needed to address these financial impacts.

During a catastrophic interruption of water supplies, prolonged drought, or water shortage of any kind, the District will experience a reduction in revenue due to reduced water sales. Throughout this period of time, expenditures may increase or decrease with varying circumstances. Expenditures may increase in the event of significant damage to the water system, resulting in emergency repairs. Expenditures may also decrease as less water is pumped through the system, resulting in lower power costs. Water shortage mitigation actions will also impact revenues and require additional costs for drought response activities such as increased staff costs for tracking, reporting, and communications.

The District receives water revenue from a service charge and a commodity charge based on consumption. The service charge recovers costs associated with providing water to the serviced property. The service charge does not vary with consumption and the commodity charge is based on water usage. Rates have been designed to recover the full cost of water service in the charges. Therefore, the total cost of purchasing water would decrease as the usage or sale of water decreases. In the event of a drought emergency, the Water Budget will be raised to a higher tier and the District will impose excessive water use penalties on its customers, which may include an additional administrative penalty or additional costs associated with reduced water revenue, staff time taken for penalty enforcement, and advertising the excessive use penalties. The excessive water use penalties are further described in the District's Water Conservation and Water Supply Shortage Ordinance 2015-3 (Appendix B).

However, there are significant fixed costs associated with maintaining a minimal level of service. The District will monitor projected revenues and expenditures should an extreme shortage and a large reduction in water sales occur for an extended period of time. To overcome these potential revenue losses and/or expenditure impacts, the District may use reserves. If necessary, the District may reduce expenditures by delaying implementation of its Capital Improvement Program and equipment purchases to reallocate funds to cover the cost of operations

and critical maintenance, adjust the work force, implement a drought surcharge, and/or make adjustments to its water rate structure.

Based on current water rates, a volumetric cutback of 50% and above of water sales may lead to a range of reduction in revenues. The impacts to revenues will depend on a proportionate reduction in variable costs related to supply, pumping, and treatment for the specific shortage event. The District could mitigate these impacts by increasing water rate revenues and/or increasing fixed charges.

## 3.9 Monitoring and Reporting

Per Water Code Section 10632(a)(9), the District is required to provide a description of the monitoring and reporting requirements and procedures that have been implemented to ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.

Monitoring and reporting key water use metrics is fundamental to water supply planning and management. Monitoring is also essential in times of water shortage to ensure that the response actions are achieving their intended water use reduction purposes, or if improvements or new actions need to be considered (see Section 3.10). Monitoring for customer compliance tracking is also useful in enforcement actions.

Under normal water supply conditions, potable water import data is reviewed daily. Weekly and monthly reports are prepared and monitored. This data will be used to measure the effectiveness of any water shortage contingency level that may be implemented. As levels of water shortage are declared by MET and MWDOC, the District will follow implementation of those levels as appropriate based on the District's risk profile provided in UWMP Chapter 6 and continue to monitor water demand levels. When MET calls for extraordinary conservation, MET's Drought Program Officer will coordinate public information activities with MWDOC and monitor the effectiveness of ongoing conservation programs.

The District will participate in monthly member agency manager meetings with MWDOC to monitor and discuss monthly water allocation charts. This will enable the District to be aware of import use on a timely basis as a result of specific actions taken responding to the District's WSCP.

## 3.10 WSCP Refinement Procedures

Per Water Code Section 10632 (a)(10), the District must provide reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.

The District's WSCP is prepared and implemented as an adaptive management plan. The District will use the monitoring and reporting process defined in Section 3.9 to refine the WSCP. In addition, if certain procedural refinements or new actions are identified by District staff, or suggested by customers or other interested parties, the District will evaluate their effectiveness, incorporate them into the WSCP, and implement them quickly at the appropriate water shortage level.

It is envisioned that the WSCP will be periodically re-evaluated to ensure that its shortage risk tolerance is adequate and the shortage response actions are effective and up to date based on lessons learned from implementing the WSCP. The WSCP will be reviewed during the UWMP update cycle to incorporate any updated and potential new information. For example, new supply augmentation actions may be added, and actions that

are no longer applicable for reasons such as program expiration will be removed. However, if revisions to the WSCP are warranted before the UWMP is updated, the WSCP will be updated outside of the UWMP update cycle. In the course of preparing the Annual Assessment each year, District staff may consider the functionality of the overall WSCP and may prepare recommendations for the District General Manager, or designee, if changes are found to be needed.

## 3.11 Special Water Feature Distinction

Per Water Code Section 10632 (b), the District has defined water features in that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code, in the Water Conservation and Water Supply Shortage Ordinance 2015-3 (Appendix B).

## 3.12 Plan Adoption, Submittal, and Availability

Per Water Code Section 10632 (a)(c), the District provided notice of the availability of the draft 2020 UWMP and draft 2020 WSCP and notice of the public hearing to consider adoption of the WSCP. The public review drafts of the 2020 UWMP and the 2020 WSCP were posted prominently on the District's website in advance of the public hearing on May 27, 2021. Copies of the draft WSCP were also made available for public inspection at the District Clerk's and Utilities Department offices and public hearing notifications were published in local newspapers. A copy of the published Notice of Public Hearing is included in Appendix C.

The District held the public hearing for the draft 2020 UWMP and draft WSCP on May 27, 2021 at the District Board meeting. The District Board reviewed and approved the 2020 UWMP and the WSCP at its May 27, 2021 meeting after the public hearing. See Appendix D for the resolution approving the WSCP.

By July 1, 2021, the District's adopted 2020 UWMP and WSCP was filed with DWR, California State Library, and the County of Orange. The District will make the WSCP available for public review on its website no later than 30 days after filing with DWR.

Based on DWR's review of the WSCP, the District will make any amendments in its adopted WSCP, as required and directed by DWR.

If the District revises its WSCP after UWMP is approved by DWR, then an electronic copy of the revised WSCP will be submitted to DWR within 30 days of its adoption.

# 4 REFERENCES

CDM Smith. (2021, March 30). *Orange County Water Demand Forecast for MWDOC and OCWD Technical Memorandum.*

El Toro Water District (ETWD). (2021, July). *2020 Urban Water Management Plan*.

Metropolitan Water District of Southern California (MET). (2021a, March). *Water Shortage Contingency Plan*. http://www.mwdh2o.com/PDF_About_Your_Water/Draft_Metropolitan_WSCP_March_2021.pdf

Metropolitan Water District of Southern California (MET). (2021b, June). *2020 Urban Water Management Plan.*

Metropolitan Water District of Southern California (MET). (1999, August). *Water Surplus and Drought Management Plan*. http://www.mwdh2o.com/PDF_About_Your_Water/2.4_Water_Supply_Drought_Management_Plan.pdf

Municipal Water District of Orange County (MWDOC). (2016). *Water Supply Allocation Plan*.

Municipal Water District of Orange County (MWDOC). (2019, August). *Orange County Regional Water and Wastewater Hazard Mitigation Plan*.

Water Emergency Response Organization of Orange County (WEROC). (2018, March). *WEROC Emergency Operations Plan (EOP).*

# APPENDICES

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# Appendix A

## DWR Submittal Tables

### Table 8-1: Water Shortage Contingency Plan Levels

### Table 8-2: Demand Reduction Actions

### Table 8-3: Supply Augmentation and Other Actions

| Submittal Table 8-1<br>Water Shortage Contingency Plan Levels | | |
|---|---|---|
| **Shortage Level** | **Percent Shortage Range** | **Shortage Response Actions**<br>**(*Narrative description)*** |
| 1 | Up to 20% | A Level 1 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 2 | Up to 40% | A Level 2 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| 3 | Greater than 40% | A Level 3 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that a further additional reduction in consumer demand is necessary due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions. |
| NOTES: | | |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| Permanent Year-Round | Other - Prohibit use of potable water for construction and dust control | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |
| Permanent Year-Round | Other - Require automatic shut of hoses | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |
| Permanent Year-Round | Landscape - Other landscape restriction or prohibition | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Commercial and multifamily and community development or redevelopment are required to install a sensor-based or weather-based irrigation controller. | No |
| Permanent Year-Round | Landscape - Limit landscape irrigation to specific times | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Watering or irrigating of lawns, landscaping, and other vegetated areas are prohibited any day of the week between 10:00 a.m. and 5:00 p.m. This does not apply to watering with a hand-held bucket or similar container, watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle, or adjusting or repairing an irrigation system for very short periods of time. | No |
| Permanent Year-Round | Landscape - Other landscape restriction or prohibition | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Watering or irrigating of lawns, landscaping, and other vegetated areas that is not continuously attended to is limited to no more than fifteen (15) minutes per day per valve. This does not apply to irrigation systems that use very low-flow drip-type systems where no emitter discharges more than two (2) gallons of water per hour and systems equipped with sensor or weather-based controllers. | No |
| Permanent Year-Round | Landscape - Restrict or prohibit runoff from landscape irrigation | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| Permanent Year-Round | Landscape - Limit landscape irrigation to specific times | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Watering or irrigating of lawns, landscaping, and other vegetated areas is prohibited during rain events and following 48 hours of significant precipitation. | No |
| Permanent Year-Round | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Leaks, breaks, and other malfunctions must be corrected in no more than five (5) days of District notification. | No |
| Permanent Year-Round | Other - Prohibit use of potable water for washing hard surfaces | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | | No |
| Permanent Year-Round | Other - Prohibit vehicle washing except at facilities using recycled or recirculating water | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | Other water feature or swimming pool restriction | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | All decorative water fountains and features must recirculate water or users must secure a waiver from the District. | No |
| Permanent Year-Round | CII - Restaurants may only serve water upon request | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | CII - Lodging establishment must offer opt out of linen service | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | CII - Commercial kitchens required to use pre-rinse spray valves | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | - | No |
| Permanent Year-Round | Other | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | All new commercial car-wash and laundry facilities and systems must recirculate the wash water or secure a waiver of this requirement from the District. | No |
| Permanent Year-Round | CII - Other CII restriction or prohibition | On-going Long Term-Conservation Savings Measure. Not applicable to Water Shortage Contingency Plan quantifiable savings. | Buildings requesting new water service or that are being remodeled are prohibited from installing single-pass systems. | No |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| 1 | Landscape - Limit landscape irrigation to specific days | 15% | Watering or irrigating of lawns, landscaping, and other vegetated areas may only take place no more than three (3) days per week from April to October and no more than one (1) day per week from November to March. This does not apply to watering with a hand-held bucket or similar container, watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle, or irrigation systems that exclusively use very-low flow drip type systems where emitters discharge no more than two (2) gallons of water per hour. | Yes |
| 1 | Implement or Modify Drought Rate Structure or Surcharge | 5% | Assign financial penalty for failure to comply with water budget allocation. | Yes |
| 1 | Expand Public Information Campaign | 3% | Community Outreach and Messaging. Expand Public Information Campaign to include Level 1 demand reduction actions, increase messaging frequency, increase public outreach. | Yes |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| 2 | Landscape - Limit landscape irrigation to specific days | 15% | Watering or irrigating of lawns, landscaping, and other vegetated areas may only take place no more than two (2) days per week from April to October and no more than one (1) day per week from November to March. This does not apply to watering with a hand-held bucket or similar container, watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle, or irrigation systems that exclusively use very-low flow drip type systems where emitters discharge no more than two (2) gallons of water per hour. | Yes |
| 2 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | 2% | Leaks, breaks, and other malfunctions must be corrected in no more than three (3) days of District notification. | Yes |
| 2 | Water Features - Restrict water use for decorative water features, such as fountains | 1% | Filling or refilling of ornamental lakes and ponds is prohibited except for those that sustain aquatic life provided that such life is of significant value and was actively managed in the water feature prior to declaring the shortage. | Yes |
| 2 | Other water feature or swimming pool restriction | 2% | Filling residential swimming pools or outdoor spas is prohibited; refilling more than one (1) foot of water is prohibited. This does not apply to individuals who, due to health reasons or medical conditions, find it necessary to fill or refill their pools or spas or individuals who have not filled their pool in the last 24 months and who adhere to Best Practices for the construction and operation of pools and spas. | Yes |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| 2 | Implement or Modify Drought Rate Structure or Surcharge | 5% | Impose 'drought factor' on existing tiered rate structure to achieve Shortage Level 2 demand reduction. | Yes |
| 2 | Expand Public Information Campaign | 3% | Community Outreach and Messaging. Expand Public Information Campaign to include Level 2 demand reduction actions, increase messaging frequency, increase public outreach. | Yes |
| 2 | Other | 0-1% | The District may reduce non-potable water allocations in all categories to meet the available water supply. | Yes |
| 3 | Other - Prohibit vehicle washing except at facilities using recycled or recirculating water | 1% | - | Yes |
| 3 | Landscape - Prohibit all landscape irrigation | 15% | This does not apply towards the following circumstances: 1) maintenance of vegetation that are watered using a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, 2) maintenance of existing landscape necessary for fire protection, 3) maintenance of existing landscape for soil erosion, and 4) public works projects and actively-irrigated environmental mitigation projects. | Yes |
| 3 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | 2% | Leaks, breaks, and other malfunctions must be corrected in no more than two (2) days of District notification. | Yes |
| 3 | Other water feature or swimming pool restriction | 1% | Filling residential swimming pools or outdoor spas is prohibited; refilling more than one (1) foot of water is prohibited. This does not apply to individuals who, due to health reasons or medical conditions, find it necessary to fill or refill their pools or spas. | Yes |

| Submittal Table 8-2: Demand Reduction Actions | | | | |
|---|---|---|---|---|
| Shortage Level | Demand Reduction Actions<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.* | How much is this going to reduce the shortage gap?<br>*Include units used (volume type or percentage)* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>***For Retail Suppliers Only*** *Drop Down List* |
| 3 | Landscape - Other landscape restriction or prohibition | 2% | No new potable water service, new temporary meters, and statement of immediate ability to serve or provide water service will be issued except under the following circumstances: 1) a valid, unexpired building permit has been issued for the project, 2) the project is necessary to protect the public health, safety, and welfare, or the applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the District. | Yes |
| 3 | Other | 5% | Customers using over 10,000 units per year are required to submit a Water Conservation Plan and report quarterly progress. | Yes |
| 3 | Expand Public Information Campaign | 3% | Community Outreach and Messaging. Expand Public Information Campaign to include Level 3 demand reduction actions, increase messaging frequency, increase public outreach. | Yes |
| 3 | Implement or Modify Drought Rate Structure or Surcharge | 5% | Impose 'drought factor' on existing tiered rate structure to achieve Shortage Level 3 demand reduction. | Yes |
| 3 | Other | 0-70% | Water use for public health and safety purposes only. Customer rationing may be implemented. | Yes |
| NOTES: | | | | |

| Submittal Table 8-3: Supply Augmentation and Other Actions | | | |
|---|---|---|---|
| Shortage Level | Supply Augmentation Methods and Other Actions by Water Supplier<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool* | How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)* | Additional Explanation or Reference *(optional)* |
| 1 through 6 | Other Purchases | 0 - 100% | Additional imported water purchase through MWDOC |
| NOTES:<br>Additional Imported Water Purchases to meet the supply gap may have financial ramifications per the MWDOC Water Supply Allocation Plan. | | | |

# Appendix B

## Water Conservation and Water Supply Shortage Ordinance 2015-3

RESOLUTION NO. 15-6-1

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING WATER CONSERVATION &
WATER SUPPLY SHORTAGE ORDINANCE NO. 2015-3
WHICH AMENDS EL TORO WATER DISTRICT'S
WATER CONSERVATION & WATER SUPPLY SHORTAGE ORDINANCE NO. 2015-1
IN ITS ENTIRETY

**WHEREAS,** the general welfare of the people in the El Toro Water District ("District") requires that the water available to the District be utilized in a manner which maximizes beneficial use and that the waste and unreasonable use, or unreasonable method of use of water be prevented;

**WHEREAS,** pursuant to Section 34000 *et seq.* of the Water Code of the State of California, the District has the authority to adopt rules and regulations for the provision of water service and facilities;

**WHEREAS,** Section 375 *et seq.* of the Water Code of the State of California permits public entities which supply water at retail or wholesale to adopt and enforce a water conservation program to reduce the quantity of water used by the people therein for the purpose of conserving the water supplies of such public entity;

**WHEREAS,** Section 350 *et seq.* of the Water Code of the State of California permits the governing body of a distributor of a public water supply to declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent there would be insufficient water for human consumption, sanitation, and fire protection;

**WHEREAS,** on March 26, 2009, the District adopted Ordinance No. 2009-1 which addressed, among other things, Permanent Mandatory Water Conservation Measures as prescribed by the Metropolitan Water District of Southern California, along with Declarations for Level I, II, and III Water Shortage enforcement measures;

**WHEREAS,** on May 28, 2009, the District declared a Level I Water Supply Shortage, in response to Municipal Water District of Orange County's Stage II Water Supply Shortage Declaration. The declaration included initiation of a water allocation program and the requirement for notices, fines, and monetary penalties for the violation of Permanent Conservation Measures and expanded Level I Conservation Measures;

**WHEREAS,** on February 25, 2010, the District adopted Resolution No. 10-2-1 which Resolution amended the District's Level I Water Supply Shortage Implementation Provisions which, among other things, added a provision that, subject to the results of a 2009/10 year-end reconciliation of Wholesale Water Supplier penalty assessments imposed upon the District and costs incurred for the District's 2009/10 allocation/conservation efforts, provided for the Board of Directors to utilize remaining penalty funds to accommodate a year-end prorate annualized penalty credit;

**WHEREAS,** effective July 1, 2010, the District implemented a Water Budget Based Tiered Conservation Rate Structure (Tiered Conservation Rates Structure) which replaced the single tier water allocation program administered during fiscal year 2009/10;

**WHEREAS,** on November 23, 2010, the District adopted Ordinance No. 2010-1 which amended and replaced in its entirety, Ordinance No. 2009-1 in order to: (1) incorporate the District's recently implemented Water Budget Based Tiered Rate Structure (WBBTRS) inclusive of the Drought Factor which could be applied during local, regional, and statewide water shortage situations; and (2) recognize that the WBBTRS serves as the primary water reduction monitoring and enforcement mechanism for Permanent Mandatory Conservation Measures and Water Supply Shortage Declarations;

**WHEREAS,** Ordinance No. 2010-1 identified the "Drought Factor" as a component of water budget calculations that modifies (reduces) the indoor and/or outdoor budget of residential and irrigation customers to further encourage conservation in times of water supply shortage and provides a financial incentive for adhering to budgeted amounts;

**WHEREAS,** on January 17, 2014, Governor Brown declared a drought state of emergency and on April 25, 2014, the Governor signed an Executive Order ("Executive Order") calling on the State Water Resources Control Board ("State Water Board") to adopt emergency regulations to ensure that urban water suppliers implement drought response plans to limit outdoor potable water irrigation and prohibit other wasteful water practices; and

**WHEREAS,** on July 15 2014, the State Water Board adopted Emergency Regulations ("State Regulations") effective July 29, 2014 that mandate that urban water suppliers take action implementing the stage of its water conservation and water shortage plan that imposes mandatory restrictions on outdoor irrigation; and

**WHEREAS,** on August 15, 2014, the District held a Public Hearing and declared a Level 1 Water Supply Shortage in response to the State Water Board's Emergency Regulations of July 15, 2014. The declaration included the adoption of Permanent Water Conservation Measures as summarized in Resolution No. 14-8-1 inclusive of Ordinance No. 2010-1; and

**WHEREAS,** on March 26, 2015, the District adopted Ordinance No. 2015-1, which amended and replaced Ordinance No. 2010-1 in its entirety in furtherance of the District's Water

Conservation program and to harmonize same with the District's Water Budget Based Tiered Conservation Rate Structure; and

**WHEREAS,** on April 1, 2015, Governor Brown issued Executive Order B-29-15, the fourth in a series of Executive Orders that called upon the State Water Resource Control Board to adopt and enforce Emergency Regulations that would achieve a statewide 25% reduction in potable water production/usage June 1, 2015 through February 28, 2016; and

**WHEREAS,** on May 5, 2015, in compliance with Executive Order B-29-15, the State Water Resources Control Board adopted Emergency Water Conservation Regulations (California Code of Regulations, Title 23, Sections 863-865) that, among other conservation measures, mandates that Urban Water Suppliers as a whole, reduce by 25% the total potable water production/usage (relative to the amount produced/used in 2013) June 1, 2015 through February 28, 2016; and

**WHEREAS,** on May 18, 2015, the Office of Administrative Law approved the Emergency Water Conservation Regulation that the State Water Resources Control Board adopted on May 5, 2015; and

**WHEREAS,** pursuant to the Regulatory Framework (and the apportioned water reductions applicable therein), adopted by the State Water Resources Control Board, the District is mandated to achieve a 24% reduction in water production/usage relative to the District's 2013 production/usage; and

**WHEREAS,** due to the prevailing drought in the State and the Declared Emergency by the Governor and the resulting Emergency Regulations adopted by the State Water Resources Control Board, it is necessary for the District to adopt, implement, and enforce a water conservation program in the form and content contained in proposed Ordinance No. 2015-3, attached hereto marked Exhibit "A", in order to advance compliance with the Governor's Proclamation and the Regulatory mandates promulgated thereunder; and

**WHEREAS,** the District's Board of Directors desires to make a violation of proposed Ordinance No. 2015-3, subject to an "Administrative Penalty" as authorized by California Government Code Section 53069.4; and

**WHEREAS,** the District's Board of Directors desires to reaffirm and maintain its declaration of a Level I Water Supply Shortage;

**NOW, THEREFORE, BE IT RESOLVED,** that the Board of Directors of the El Toro Water District hereby determines and finds that the above recitals, determinations, and findings are true and correct statements and are fully incorporated herein;

**RESOLVED FURTHER,** that the maintenance of the general welfare of the District's customers necessitates the adoption of Ordinance No. 2015-3 in the form and content set forth in Exhibit "A" attached hereto, which exhibit, by this reference, is fully incorporated herein;

**RESOLVED FURTHER,** that Ordinance No. 2015-3 in the form and content set forth in Exhibit "A" attached hereto, is adopted, effective June 9, 2015;

**RESOLVED FURTHER,** that a Level I Water Shortage Emergency is hereby reaffirmed and re-declared pursuant to Ordinance No. 2015-3 (as set forth and attached to this Resolution marked Exhibit "A") and all Level 1 conservation measures and applicable Administrative Penalties set forth therein shall become operative, effective June 9, 2015;

**RESOLVED FURTHER,** that the District's General Manager is hereby directed to publish this Resolution within fifteen (15) days of June 9, 2015, in conformance with Section 376(b)(2) of the Water Code of the State of California.

**ADOPTED, SIGNED, AND APPROVED** by the following vote this 9th day of June, 2015.

AYES:
NOES:
ABSTAIN:
ABSENT:

**EL TORO WATER DISTRICT**

M. Scott Goldman, President
El Toro Water District and the
Board of Directors thereof

ATTEST:

Robert R. Hill, General Manager/Secretary
El Toro Water District and the
Board of Directors thereof

STATE OF CALIFORNIA )
)
COUNTY OF ORANGE )

I, ROBERT R. HILL, Secretary of the Board of Directors of the El Toro Water District, do hereby certify that the above and foregoing is a full, true and correct copy of Resolution No. 15-6-1 of said Board, and that the same has not been amended or repealed.

DATED: June 9, 2015

ROBERT R. HILL, Secretary
El Toro Water District and of
the Board of Directors thereof

(SEAL)

# EL TORO WATER DISTRICT

# WATER CONSERVATION & WATER SUPPLY SHORTAGE ORDINANCE 2015 – 3

## (effective June 9, 2015)

# Table of Contents

# ORDINANCE NO. 2015 - 3

## AN ORDINANCE OF THE BOARD OF DIRECTORS OF EL TORO WATER DISTRICT ESTABLISHING A WATER CONSERVATION & WATER SUPPLY SHORTAGE PROGRAM FOR USERS OF POTABLE WATER PROVIDED BY THE DISTRICT

### Section I. Title

**El Toro Water District Water Conservation & Water Supply Shortage Ordinance ("Ordinance No. 2015-3")**

### Section II. Findings, Determinations and Authority

1. **Resolution No. 15-6-1** – The recitals, finding and determinations set forth in Resolution No. 15-6-1 are fully incorporated herein as though set forth in full.

2. **A reliable minimum supply of potable water is essential** to the public health, safety and welfare of the people and economy of Southern California.

3. **Southern California is a semi-arid region, largely dependent on imported water** supplies from Northern California and the Colorado River. Population growth, drought, climate change, environmental concerns, government policy changes, restrictions on pumping and other factors in our region, in other parts of the State and in the western U.S. make Southern California highly-susceptible to water supply reliability issues.

4. **Careful water management requires active conservation measures** not only in times of drought but at all times. It is essential to ensure a reliable minimum supply of water to meet current and future water supply needs.

5. **California Constitution Article X, Section 2 and California Water Code Section 100** provide that because of conditions prevailing in the state of California, it is the declared policy of the State that the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable and that the waste or unreasonable us or unreasonable method of water be prevented, and that the conservation of such water is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.

6. **California Water Code Section 375** authorizes water suppliers to adopt and enforce a comprehensive water conservation program to reduce water consumption and conserve supplies.

7. **California Water Code Sections 350, et. seq.,** sets forth the determination and notification procedures for water suppliers seeking to declare a water shortage or a water emergency.

**8. California Water Code Section 356** allows for the adoption of regulations and restrictions that include discontinuance of service as an enforcement option where a water shortage emergency condition has been declared.

**9. California Water Code Section 370, et. seq.,** authorizes water suppliers to adopt water allocation programs for water users and allocation-based conservation water conservation pricing.

**10. California Water Code Section 375 et seq.,** authorizes public water suppliers to establish by Ordinance, the maximum levels of water to be used by customers under emergency supply conditions (which give rise to the utilization of the Drought Factor), and declaring that the customer's excess usage, to be a violation of this Ordinance.

**11. California Water Code Sections 13550 and 13551** declare a statewide policy that the use of potable domestic water for irrigation purposes when reclaimed (recycled) water is available constitutes a waste or unreasonable use of water within the meaning of the State Constitution.

**12. El Toro Water District's Rules and Regulations** requires that future developments utilize reclaimed (recycled) water wherever economically and technically feasible within the boundaries of the District in order to conserve potable water for the purposes of human consumption and fire protection.

**13. The adoption and enforcement of a Water Conservation & Water Supply Shortage Ordinance is necessary to manage the District's potable water supply** short- and long-term and to minimize and/or avoid the effects of drought and water shortage within the District. Such a program is essential to ensure a reliable and sustainable minimum supply of water for public health, safety and welfare.

14. California Government Code Section 53069.4 authorizes a local public agency to make a violation of an Ordinance, subject to an "administrative fine or penalty". "Penalty", as used throughout this Ordinance is an "Administrative Penalty", authorized pursuant to this section.

## Section III. Declaration of Purpose and Intent

1. To minimize or avoid the effect and hardship of potential shortages of **potable water** to the greatest extent possible, this Ordinance establishes a Water Conservation & Water Supply Shortage Program designed to:

    a. Enable effective potable water supply planning

    b. Assure reasonable and beneficial use of potable water

    c. Prevent waste of potable water and maximize efficient use in the District

2. **This Ordinance in conjunction with the District's Water Budget Based Tiered Conservation Rate Structure (which is subject to the provisions of Proposition 218 and is incorporated into the Cost of Service Rate Study) establishes**:

a. **Permanent Mandatory Water Conservation Measures** are designed to alter behaviors related to potable water-use efficiency during non-shortage conditions

b. **Three levels of potential response to escalating water supply shortages** which the El Toro Water District Board may implement during times of declared water shortage or water emergency. The three levels of response consist of expanded water use restrictions and the possible imposition of water supply shortage allocations through the use of a "drought factor" in conjunction with the District's Water Budget Based Tiered Conservation Rate Structure which is a component of the water budget calculation that is an integral part of the District's Water Budget Based Tiered Conservation Rate Structure, which modifies (reduces) the indoor and/or outdoor budget to further encourage conservation in times of water supply shortage emergencies and Administrative Penalties imposed on designated customer categories who exceed their revised water budget.

## Section IV. Definitions

1. **General**

a. **"The District"** means El Toro Water District.

b. **"The Board"** means the El Toro Water District Board of Directors.

c. **"Person"** means any person or persons, corporation, public or private entity, governmental agency or institution, or any other user of water provided by the District.

d. **"Potable Water"** means water that is suitable for drinking.

e. **"Recycled Water"** means the reclamation and reuse of non-potable water and/or wastewater for beneficial use, such as irrigation. Also known as "Reclaimed Water."

f. **"Water Waste"** refers to uses of water that are limited or prohibited under the Ordinance because they exceed necessary or intended use and could reasonably be prevented, such as runoff from outdoor watering.

g. **"Billing Unit"** is equal to 100 cubic feet (1 CCF) of water, which is 748 gallons. Water use is measured in units of 100-cubic-feet and multiplied by applicable water usage rates for billing. Also known as a "Unit of Water."

h. **"Undue Hardship"** is a unique circumstance in which a requirement of the Ordinance would result in a disproportionate impact on a water user or property upon which water is used compared to the impact on water users generally or similar properties or classes of water use.

i. **"Safety and Sanitary Hazard"** is one which presents an immediate and imminent threat to human health (injury).

j. "**Water Budget Based Tiered Conservation Rate Structure**" ("Tiered Conservation Rate Structure") is a rate structure which provides "water budgets" to each customer based on efficient indoor and outdoor need. Water used in excess of the combined indoor and outdoor budget is billed at a progressively higher rate which is designed to recover the increased cost associated with providing such water and provides a clear indicator regarding inefficient use of potable water. The increased rates and potential Administrative Penalties for utilization of water in excess of budgeted amounts provide financial incentive to stay within assigned budgets and to comply with Permanent Mandatory Water Conservation Measures.

k. **"Water Supply Shortage Emergency"** means a condition existing within the State, Region and/or the District in which the ordinary water demands and requirements of persons within the District cannot be satisfied without depleting the water supply of the District to the extent that there would be insufficient water for human consumption, sanitation, and fire protection. A water shortage emergency includes both an immediate emergency, in which the District is unable to meet current water needs of persons within the District, as well as a threatened water shortage, in which the District determines that its future supply of water may not meet an anticipated future demand.

l. **"Administrative Penalty"** means a financial penalty as authorized by Government Code Section 53069.4 as a result of any person or entity violating the provisions of this Ordinance.

2. **Irrigation**

a. **"Irrigation Controller"** is the part of an automated irrigation system that instructs the valves to open and close to start or stop the flow of water.

1. **"Sensor-based irrigation controller"** operates based on input from a combination of sensors (rain, solar, soil moisture) installed in or around the landscaped area.

2. **"Weather-based irrigation controller"** operates automatically based on evapo-transpiration rates and historic or real-time weather data.

b. **"Irrigation System"** refers to a manual or automated watering system consisting of pipes, hoses, spray heads and/or sprinkler devices or valves. Also known as a "Landscape Irrigation System."

c. **"Positive Self-Closing Shut-Off Hose Nozzle"** refers to a water-efficient hose nozzle for residential or commercial hoses that users must press or release to start or stop the flow of water. Also known as an "Automatic Shut-Off Nozzle."

d. **"Valves"** refer to the part of an irrigation system that opens and closes manually or electronically to start or stop the flow of water.

3. Other

   a. **"Pre-Rinse Kitchen Spray Valves"** refer to highly water-efficient sprayers that commercial kitchens use to rinse dishes in the sink before washing and for other preliminary cleaning purposes.

   b. **"Single-Pass Cooling System"** refers to an air conditioning, refrigeration or other cooling system that removes heat by transferring it to a supply of clean water and dumping the water down the drain – after a single use. This type of cooling system is extremely water-inefficient compared to systems that re-circulate the water.

## Section V. Application of Ordinance

1. **The provisions of this Ordinance apply to any person or entity using potable water provided by the District.** This includes individuals, persons, corporations, public or private entities, governmental agencies or institutions, or any other users of District water.

2. **In addition, the provisions of this Ordinance do not apply to the following:**

   a. **Water use which is immediately necessary to protect public health and safety** or for essential government services, such as police, fire and similar services.

   b. **Recycled water use for irrigation.** Use of recycled water requires a permit that has specific use restrictions, many of which focus on water efficiency. Given such permits and the interest in promoting the use of recycled water as a means to preserve potable, recycled water is exempt from all requirements of this Ordinance.

   c. **Water used by nurseries and growers** to sustain plants, trees, shrubs, crops, compost or other landscape vegetation material intended for distribution or commercial sale.

3. **This Ordinance is intended solely to further the conservation of potable water.** It is not intended to implement any provision of federal, state or local statutes, ordinances or regulations relating to protection of water quality or control of drainage or runoff. Refer to the local jurisdiction or Regional Water Quality Control Board for information on storm water ordinances or management plans.

## Section VI: Permanent Mandatory Water Conservation Measures (Refer to Appendix A Summary Table)

The following Permanent Mandatory Water Conservation Measures for potable water are in effect at all times.

1. **General Restrictions – Residential, Irrigation, Commercial and Public Customers**

   a. **Limits on Outside Watering Hours**

      1. **Watering or irrigating is prohibited any day of the week between 10:00 a.m. and 5:00 p.m..**

      2. The week includes weekdays and weekends, seven (7) days

      3. This applies to lawns, landscaping and all other vegetated areas.

      4. The following are **exempt** from this restriction:

         a. Watering with a hand-held bucket or similar container
         b. Watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle
         c. Adjusting or repairing an irrigation system for very short periods of time

   b. **Limits on Outside Watering Duration**

      1. **Watering or irrigating with a device or system that is not continuously attended is limited to no more than 15 minutes per day per valve.**

      2. This applies to lawns, landscaping and all other vegetated areas.

      3. The following irrigation systems are **exempt:**

         a. Very low-flow drip-type systems where no emitter discharges more than two (2) gallons of water per hour
         b. Systems equipped with sensor or weather-based controllers.

   c. **No Excessive Water Flow or Runoff:** It is prohibited to water lawns, landscaping and vegetated areas in a manner that causes or allows excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter or ditch.

   d. **No Outside Watering when it is Raining:** During rain events and following 48 hours of significant precipitation, outside watering must be manually terminated or automatically terminated using sensor-based or weather-based irrigation controllers.

   e. **Obligation to Fix Leaks, Breaks or Malfunctions in lines, fixtures or facilities**

      1. Excessive use, loss or escape of water through breaks, leaks or malfunctions in the water user's plumbing or distribution system:

         a. Is prohibited for any period of time after such water waste should have reasonably been discovered and corrected

b. Must be corrected in **no more than five (5) days of District notification**

f. **No Hosing or Washing Down Hard or Paved Surfaces**

1. It is prohibited to hose or wash down hard or paved surfaces, such as sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys.

2. When it is necessary to hose or wash down hard or paved surfaces to alleviate safety or sanitary hazards, the following may be used:

a. Hand-held bucket or similar container
b. Hand-held hose equipped with a positive self-closing shut off hose nozzle
c. Low-volume high-pressure cleaning machine equipped to recycle used water

g. **No Hosing or Washing Down Vehicles**

1. It is prohibited to use water to hose or wash down a motorized or non-motorized vehicle, including but not limited to automobiles, trucks, vans, buses, motorcycles, boats or trailers.

2. The following are **exempt** from this restriction:

a. Use of a hand-held bucket or similar container
b. Use of a hand-held hose equipped with a positive self-closing shut off hose nozzle
c. Commercial car washing facility

h. **Re-Circulating Decorative Water Fountains and Features** All decorative water fountains and water features must re-circulate water -- or users must secure a waiver from the District.

2. **Commercial Food-Serving & Lodging Requirements**

a. **Water Served Only Upon Request.** Eating or drinking establishments, including but not limited to restaurants, hotels, cafes, bars or other public places where food or drinks are sold, or served or offered for sale, are prohibited from providing drinking water to any person unless requested.

b. **Option Not To Have Towels/Linens Laundered.** Hotels, motels and other commercial lodging establishments must provide guests the option of not having their used towels and linens laundered. Lodging establishments must prominently display notice of this option in each room and/or bathroom, using clear and easily understood language.

3. **Commercial Kitchen Requirements**

    a. **Water-Efficient Pre-Rinse Kitchen Spray Valves.** Food preparation establishments, such as restaurants, cafes and hotels, are prohibited from using non-water efficient kitchen spray valves, as follows:

        1. **New** kitchen spray valves must use 1.6 gallons or less per minute.

        2. **Existing** kitchen spray valves must be retrofitted to models using 1.6 gallons of water or less per minute.

4. **Commercial Water Recirculation Requirements**

    a. **Car Wash and Laundry System Requirements:** All **new** commercial car-wash and laundry facilities and systems must re-circulate the wash water -- or secure a waiver of this requirement from the District.

    b. **No Single-Pass Cooling Systems:** Buildings requesting **new** water service or being **remodeled** are prohibited from installing single-pass systems.

5. **Indiscriminate Water Use.** Upon notice by the District, persons shall cease to cause or permit the indiscriminate use of water not otherwise prohibited above which is wasteful and without reasonable purpose.

6. **Public Health and Safety.** These regulations shall not be construed to limit water use which is immediately necessary to protect public health and safety for essential government services, such as police, fire and similar services.

## Section VII: Level 1 Water Supply Shortage Emergency Declaration *Up to 20% shortage in imported water supplied to the District and/or up to 20% reduction needed in consumer demand*

1. **Level 1 Water Supply Shortage Emergency Declaration**

    a. A Level 1 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that **a reduction in consumer demand is necessary** due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions and thereby proclaims and declares a Level 1 Water Supply Shortage Emergency.

    b. The type of event that may prompt the Board to declare a Level 1 Water Supply Shortage Emergency could include, among other factors, a finding that:

        i. its **wholesale water supplier has allocated to the District at least 80% of the District's base water supply.** "Base water supply" refers to the District's average annual water purchases from the wholesaler over a given period, as defined by the wholesaler. At this water allocation level, the District could experience a **shortage in imported supplies of up to 20%.**
        ii. State mandated reductions in water use,
        iii. Other water supply conditions,

2. **During a Level 1 Water Supply Shortage Emergency, Permanent Mandatory Water Conservation Measures** identified in Section VI of this Ordinance **remain in effect.**

3. **Level 1 Mandatory Water Conservation Measures take effect** upon the Board declaring a Level 1 Water Supply Shortage Emergency and apply for the duration of the shortage:

    a. **Limits on Outside Watering Days**

        1. No more than **three (3) days per week from April – October** and no more than **one (1) day per week from November – March.** This applies to lawns, landscaping and all other vegetated watering schedules. **Assigned watering days have been established to coincide with Municipal City Boundaries. Refer to Appendix B for assigned watering days.**

        2. The following are **exempt** from these restrictions:

            a. Watering with a hand-held bucket or similar container
            b. Watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle
            c. Irrigation systems that exclusively use very-low-flow drip type systems where emitters discharge no more than two (2) gallons of water per hour.

4. **Administrative Penalty:**

    1. During a Level 1 Water Supply Shortage Emergency, any water customer subject to water budgets who willfully use water in excess of their combined Tier I and Tier II water budgets shall be in violation of this Ordinance and, upon Board authorization and approval, will be subject to an Administrative Penalty in the range of $2.00 to $10.00 as determined by the Board by minute order (motion) or Resolution at an open and public meeting for each ccf of water used in excess of their combined Tier I and Tier II budget.
    2. Such penalty shall be in addition to the water use charge imposed by the District for Tier III and Tier IV water usage.

**5. Other Prohibited Uses:** The District may implement other prohibited water uses as deemed necessary, after notice to customers.

**Section VIII: Level 2 Water Supply Shortage Emergency Declaration** ***Up to 40% shortage in imported water supplied to the District and/or up to 40% reduction needed in consumer demand***

**1. Level 2 Water Supply Shortage Emergency Declaration**

a. A Level 2 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that **an additional reduction in consumer demand is necessary** due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to water conditions and thereby proclaim and declares a Level 2 Water Supply Shortage Emergency.

b. The type of event that **may** prompt the Board to declare a Level 2 Water Supply Shortage could include, among other factors, a finding that:

   i. its **wholesale water supplier has allocated to the District at least 60% of the District's base water supply.** "Base water supply" refers to the District's average annual water purchases from the wholesaler over a given period, as defined by the wholesaler. At this water allocation level, the District could experience a **shortage in imported supplies of up to 40%.**
   ii. State mandated reductions in water use,
   iii. Other water supply conditions,

2. The following **Mandatory Water Conservation Measures <u>remain in effect</u>** during a Level 2 Water Supply Shortage Emergency:

   a. **Permanent Water Conservation Measures** identified in Section VI
   b. **Level 1 Water Conservation Measures** identified in Section VII

3. The following **Water Conservation Measures <u>take effect</u>** upon declaration of a Level 2 Water Supply Shortage Emergency and apply for the duration of a Level 2 Water Supply Shortage Emergency:

   a. **Additional Limits on Outside Watering Days**

      1. Watering lawns, landscaping and other vegetated areas is limited to **no more than two (2) days per week from April – October.** This is one (1) day less than required during a Level 1 Water Shortage. The number of watering days permitted from November – March remains the same at no more than one (1) day per week.

      2. The District will establish and post the new watering schedule. **Assigned watering days have been established to coincide with Municipal City Boundaries. Refer to Appendix B for assigned watering days.**

      3. The following are **exempt** from these restrictions:

         a. Watering with a hand-held bucket or similar container
         b. Watering with a hand-held hose equipped with a positive self-closing shut off hose nozzle
         c. Irrigation systems that exclusively use very-low-flow drip type systems where emitters discharge no more than two (2) gallons of water per hour.

b. **Shorter Timeframe to Fix Leaks, Breaks or Malfunctions** in water users' pipelines, fixtures or facilities.

1. Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing or distribution system must be **fixed in no more than three (3) days following notification from the District** – unless other arrangements are made with the District.

2. This shorter timeframe is two (2) days less than required under Permanent Water Conservation Measures, Section VI.

c. **No Filling or Refilling Ornamental Lakes and Ponds**

1. Filling or refilling ornamental lakes and ponds is prohibited.

2. **Exempt** are ornamental lakes and ponds that sustain aquatic life -- provided such life is of significant value and was actively managed in the water feature prior to declaring the shortage.

d. **No Filling or Refilling Residential Pools or Spas**

1. Filling residential swimming pools or outdoor spas is prohibited; refilling more than one (1) foot of water is prohibited.

2. **Exempt** are (1) individuals who, due to health reasons or medical conditions, find it necessary to fill or refill their pools or spas; or (2) Individuals who have not filled their pool in the last 24 months and who adhere to Best Practices for the construction and operation of pools and spas as defined in Appendix C.

e. **No Hosing or Washing Down Vehicles:** It is prohibited to use water to hose or wash down a motorized or non-motorized vehicle, including but not limited to automobiles, trucks, vans, buses, motorcycles, boats or trailers. The **only exemption** from this restriction is washing vehicles at a commercial car washing facility that recycles its wash water.

**4. Administrative Penalty –**

1. During a Level 2 Water Supply Shortage Emergency, any water customer subject to water budgets pursuant to the District's Tiered Conservation Rate Structure who willfully use water in excess of their combined Tier I and Tier II water budgets shall be in violation of this Ordinance and, upon Board authorization and approval will be subject to an Administrative Penalty in the range of $2.00 to $10.00 as determined by the Board by minute order (motion) or Resolution at an open and public meeting, for each ccf of water used in excess of their combined Tier I and Tier II budget.

2. Such penalty shall be in addition to the water use charge imposed by the District for Tier III and Tier IV water usage.

5. **Other Prohibited Uses:** The District may implement other prohibited water uses as deemed necessary, after notice to customers.

**Section IX. Level 3 Water Supply Shortage Emergency Declaration** ***More than 40% shortage in imported water supplied to the District and/or more than 40% reduction needed in consumer demand***

1. **Level 3 Water Supply Shortage Emergency Declaration**

   a. A Level 3 Water Supply Shortage Emergency shall be initiated only after the District Board of Directors holds a Public Hearing during which, at its sole discretion, determines and declares that **a further additional reduction in consumer demand is necessary** due to drought or water supply cutbacks in order to make more efficient use of water and appropriately respond to existing water conditions and thereby proclaims and declares a Level 3 Water Supply Shortage Emergency.

   b. The type of event that **may** prompt the Board to declare a Level 3 Water Supply Shortage Emergency could include, among other factors, a finding that:

      i. its **wholesale water supplier has allocated to the District less than 60% of the District's base water supply.** "Base water supply" refers to the District's average annual wholesale water purchases over a given period, as defined by the wholesaler. At this reduced water allocation level, the District could experience a **shortage in imported supplies of more than 40%.**
      ii. State mandated reductions in water use,
      iii. Other water supply conditions,

2. The following **Mandatory Water Conservation Measures <u>remain in effect</u>**:

   a. **Permanent Water Conservation Measures** identified in Section VI
   b. **Level 1 Water Conservation Measures** identified in Section VII
   c. **Level 2 Water Conservation Measures** identified in Section VIII

3. The following **Mandatory Water Conservation Measures <u>take effect</u>** upon declaring a Level 3 Water Emergency and apply for the duration of the Emergency:

   a. **All Outside Watering Prohibited**

      1. **Watering is prohibited on any day at any time** for lawns, landscaping and all vegetated areas.

      2. **Exempt** from this restriction are the following -- unless the District determines that recycled water is available and lawful for use:

a. Public works projects and actively-irrigated environmental mitigation projects will be allowed to operate under the Outside Watering Restrictions identified in Level II – Section VIII.
b. Maintenance of vegetation, trees and shrubs using (subject to hour restrictions in Section VI.1.a.1):
    1. A hand-held bucket or similar container
    2. A hand-held hose equipped with a positive self-closing shut off hose nozzle
    3. Irrigation systems that exclusively use very-low-flow drip type systems where emitters discharge no more than two (2) gallons of water per hour

c. Maintenance of (subject to hour restrictions, Section VI.1.a.1):
    1. Existing landscaping necessary for fire protection and/or soil erosion control. To the extent necessary, the District will utilize appropriate outside agencies to confirm exemption eligibility.
    2. Plant materials identified as rare or essential to the well being of endangered/rare species

b. **Shorter Timeframe to Fix Leaks, Breaks or Malfunctions** in pipelines, fixtures or facilities.

1. Excessive use, loss or escape of water through breaks, leaks or malfunctions in the water user's plumbing or distribution system must be fixed in **no more than two (2) days** following District notification – unless other arrangements are made with the District. The timeframe is one (1) day less than for Level 2.

c. **No Filling or Refilling Residential Pools or Spas**

3. Filling residential swimming pools or outdoor spas is prohibited; refilling more than one (1) foot of water is prohibited.

4. **Exempt** are individuals who, due to health reasons or medical conditions, find it necessary to fill or refill their pools or spas.

d. **No New Potable Water Service**

1. During a Level 3 Water Supply Shortage Emergency, the **District will not provide:**

    a. New potable water service
    b. New water meters (temporary or permanent)
    c. Will-serve letters

2. The District will **only issue** will-serve letters in the following cases:

    a. Projects necessary to protect public health, safety & welfare
    b. Projects that have a valid, unexpired city building permit

c. Projects in which applicants can provide -- to the satisfaction of the District -- substantial evidence of an enforceable commitment that water demands will be offset prior to the provision of a new water meter(s)

3. This prohibition **does not preclude** resetting or turning-on meters to restore or continue water service interrupted for one year or less.

**Discontinue Service**: Per Water Code Section 356, the District, in its sole discretion, may discontinue service to customers who willfully violate Section IX provisions.

4. **"Administrative Penalty"**

1. During a Level 3 Water Supply Shortage Emergency, any water customer subject to water budgets pursuant to the District's Tiered Conservation Rate Structure who willfully use water in excess of their combined Tier I and Tier II water budgets shall be in violation of this Ordinance and, upon Board authorization and approval will be subject to an Administrative Penalty in the range of $2.00 to $10.00 as determined by the Board by minute order (motion) or Resolution at an open and public meeting, for each ccf of water used in excess of their combined Tier I and Tier II budget.

2. Such penalty shall be in addition to the water use charge imposed by the District for Tier III and Tier IV water usage.

5. **Other Prohibited Uses:** The District may implement other prohibited water uses as deemed necessary, following notification of customers

## Section X. Other Provisions

1. **Customer Water Conservation Plans:**

a. **Customers with high annual water usage.** During Level 1, Level 2 **or** Level 3 Water Shortages Emergency, the District Board of Directors, at its sole discretion and by written request, may require residential, irrigation, commercial and/or public customers using **ten thousand (10,000) or more billing units per year** to submit a Water Conservation Plan to the District and to submit quarterly progress reports on such plan. The conservation plan must make recommendations for increased water savings, including increased use of recycled water based on feasibility. Quarterly progress reports must include status on implementation of recommendations.

2. **Recycled Water To Replace Potable Water**

a. **Future Developments.** When available, El Toro Water District requires the use of recycled water in future developments.

b. **New Water Service:** Prior to the connection of any new water service, the District will determine whether recycled water is appropriate and available to meet the requirements of the new service request. Recycled water must be utilized to the extent feasible, as determined by the District.

c. **Transition from Potable Water**: The District may prohibit the use of potable water in certain instances – if the District determines that a specified use for potable water could be achieved with recycled water as a cost-effective alternative and the customer is given a reasonable time to make the conversion, as determined by the District's General Manager.

3. **Recycled Water Construction Site Requirements**

   a. **Recycled or non-potable water** must be used, when available.

   b. **No potable water may be used for soil compaction or dust control** where there is a reasonably-available source of recycled or non-potable water approved by the Department of Public Health and appropriate for such use.

   c. **Water hoses shall be equipped with automatic shut-off nozzles,** given such devices are available for the size and type of hoses in use.

4. **Automated Irrigation Control System Requirements for Commercial, Multi-Family and Community Development/Redevelopment Projects**

   **New Commercial, Multi-Family and Community development and/or redevelopment projects that include landscaped open space, park and recreation areas** will be required to install a sensor-based or weather-based irrigation controller.

5. **A Customer Water Waste Hotline** will be established and incorporated into the District's Customer Outreach Plan.

**Section XI. Declaration & Notification of Water Supply Shortage Emergency Declarations**

1. **Declaration of a Level 1, 2 or 3 Water Supply Shortage Emergency:** The District Board of Directors may declare a Level 1, 2 or 3 Water Supply Shortage Emergency in accordance with the procedures specified in Water Code Sections 351 and 352 (Public Hearing, Notice and Publication). Thereafter, penalties and violations under Section XIII apply.

2. **Notification of Declared Water Supply Shortages Emergency**

   The District must publish a copy of the water shortage/emergency resolution in a newspaper used for the publication of official notices within the jurisdiction of the District within fifteen (15) **days** of the date that a Water Supply Shortage Emergency is declared.

**Section XII. Hardship Waiver**

1. **Undue and Disproportionate Hardship:** If, due to unique circumstances, a specific requirement of the Ordinance would result in undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water users, then the person may apply for a waiver to the requirements as provided in this section.

2. **Written Finding:** The waiver may be granted or conditionally granted only upon a written finding of the existence of facts demonstrating an undue hardship.

    a. **Application for a Waiver**: Application for a waiver must be on a form prescribed by the District.

    b. **Supporting Documentation**: The application must be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.

    c. **Required Findings for Waiver:** Based on the information and supporting documents provided in the application, additional information provided as requested, and water use information for the property as shown by the records of the District, the District **General Manager** in making the waiver determination will take into consideration the following:

        1. That the waiver does not constitute a grant of special privilege inconsistent with the limitations upon other residents and businesses;

        2. That because of special circumstances applicable to the property or its use, the strict application of this Ordinance would have a disproportionate impact on the property or use that exceeds the impacts to residents and businesses generally;

        3. That the authorizing of such waiver will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the District to effectuate the purpose of this Ordinance and will not be detrimental to the public interest; and

        4. That the condition or situation of the subject property or the intended use of the property for which the waiver is sought is not common, recurrent or general in nature.

    d. **Approval Authority**

        1. The District General Manager or his designee(s) must act upon any completed **Application for a Waiver** no later than ten (10) days after receipt by the District.

        2. The General **Manager or his designee(s) may approve, conditionally approve, or deny the waiver** and the decision will be final.

        3. The applicant requesting the waiver must be promptly notified in writing of any action taken. Unless specified otherwise, at the time a waiver is

approved, it will apply to the subject property for the duration of the water supply shortage or emergency.

**Section XIII: Non-Compliance**

1. **Non-Compliance with Permanent, Level 1 & Level 2 Mandatory Conservation Measures**

   **Non-Compliance:** The District will issue a **written warning** and provide information regarding the necessity to comply with all Water Conservation Measures.

2. **Non-Compliance with Level 3 Mandatory Conservation Measures**

   a. **Non-Compliance Charges:** The following will apply to persons or entities failing to comply with any provision of the Ordinance for Level 3 Mandatory Water Conservation Measures:

      1. **First Instance of Non-Compliance:** The District will issue a **written warning** and send it along with an explanation of the violation.

      2. **Second Instance of Non-Compliance:** A second instance of non-compliance with the Ordinance within the preceding twelve (12) calendar months is punishable by a non-compliance charge on the water bill not to exceed **two hundred and fifty dollars ($250)**.

      3. **Third Instance of Non-Compliance:** A third instance of non-compliance with the Ordinance within the preceding twelve (12) calendar months is punishable by a non-compliance charge on the water bill not to exceed **five hundred dollars ($500)**.

   b. **Water Flow Restrictor and/or Termination of Service**

      1. **Water Flow Restrictor Device.** In addition to any non-compliance charges, the District may install a water flow restrictor device. If the District determines to install a water flow restrictor, installation of the flow restrictor would follow written notice of intent to the customer and would be in place for a minimum of forty eight (48) hours.

      2. **Termination of Service:** In addition to any non-compliance charges and the installation of a water flow restrictor, the District may disconnect and/or terminate a customer's water service, pursuant to Water Code Section 356.

      3. **Costs for Water Flow Restrictors and Service Disconnection**

         a. A person or entity in non-compliance with this Ordinance is responsible for payment of the District's charges for installing and/or removing any flow restricting device and for disconnecting

and/or reconnecting service per the District's schedule of charges then in effect.

b. The charge for installing and/or removing any flow restricting device must be paid to the District before the device is removed.

c. Nonpayment will be subject to the same remedies as nonpayment of basic water rate

c. **Misdemeanor:** Pursuant to Water Code Section 377, any instance of non-compliance with the Ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding one thousand dollars ($1,000) or by both.

3. **Separate Offenses**: Each day that a person or entity is non-compliant with the Ordinance is a separate offense.

4. **Notice of Non-Compliance/ Appeal and Hearing Process**

a. The District will issue a **Notice of Non-Compliance** by mail or personal delivery at least ten (10) days before taking enforcement action. The notice will describe the violation and, if applicable, the date by which corrective action must be taken.

b. **A customer may appeal the Notice of Non-Compliance** by filing a written Notice of Appeal with the District no later than the close of business on the 10th day following receipt of the enforcement action. A customer appeal shall state the grounds for the appeal.

1. **Any Notice of Non-Compliance not timely appealed will be final.**

2. Upon receipt of a timely appeal, **the District will schedule a hearing on the appeal** and mail written notice of the hearing date to the customer at least ten (10) days before the hearing.

3. The District General Manager or his designee(s) will hear the appeal and issue a written **Notification of Decision** within ten (10) days of the hearing.

c. Pending receipt of a written appeal or pending a hearing pursuant to an appeal, the District **may take appropriate steps to prevent the unauthorized use of water** given the nature and extent of the violations and the current declared water shortage level condition, including restricting the level of water use until the appeal is heard.

**Section XIV: Administrative Penalty Provisions**

1. **Administrative Penalty.** Pursuant to the authority provided for in Government Code Section 53069.4, the District finds, adopts and determines that all penalties provided for in this Ordinance No. 2015-3, as a result of any person or entity violating various provisions set forth herein shall constitute an Administrative Penalty.

2. **Notice and Due Process.** Upon the declaration of a Water Supply Shortage Emergency and publication of the notice required herein, Proper notice shall be deemed to have been given to each and every person and/or entity supplied water within the District, and the applicable water shortage.

3. **Collection of Penalties.** Any penalty imposed pursuant to this Ordinance may be collected on a customer's water bill. Any penalty shall be applicable to water used in violation of this Ordinance during the first complete billing cycle after the declaration of the applicable water shortage stage.

4. **Notice of Violation.** The receipt of a water bill with any applicable penalties shall serve as notice of violation of this Ordinance.

5. **Appeal Procedures.** Any customer who wishes to appeal the imposition of an Administrative Penalty imposed by the District shall comply with the following procedures:

6. **Appeal Request.** An Appeal Request form shall be submitted to the District's Customer Service Department.

   (a) Appeal Request forms may be obtained at the District's Main Office or downloaded from the District's website at www.etwd.com.

   (b) An Appeal Request form shall be received by the District no later than thirty calendar days from the date that the Appellant's water bill for the four-week period in which the penalty or penalties were imposed is due.

   (c) Additional Documentation. Additional documentation may be requested at the discretion of the District. Such documentation may include, but is not limited to, school records, driver's licenses, business licenses, lease agreements.

   (d) Site Survey. After an Appeal Request form has been received, a site survey may be required by District staff to verify the irrigated square footage of the property where the water was delivered. The site survey will be at no charge to the person and will require the person who submitted the Appeal Request form to be present.

   (e) District Response. A response to an Appeal Request shall be provided by the District within thirty calendar days from receipt of the Appeal Request form.

   (f) Review of Denial of Appeal Request. If an Appeal Request is denied, the Appeal Request form may be resubmitted by the customer for review by the District's General Manager. The Decision by the District's General Manager shall be final.

7. **Use of Penalty Funds Collected.** The Board of Directors hereby declares its intent to use penalty funds collected to pay any penalties/charges that may be imposed by the State and/or wholesale water provider of the District for exceeding its baseline water budget allocation and in furtherance of conservation efforts and/or acquisition of supplemental water supplies.

**Section XV: Severability:** If any section, subsection, sentence, clause or phrase in this Ordinance is for any reason held invalid, the validity of the remainder of the Ordinance will not

be affected. The District Board of Directors hereby declares it would have passed this Ordinance and each section, subsection, sentence, clause or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses, or phrases thereof is declared invalid.

**Section XVI: Effective Date of Ordinance:** This Ordinance shall be effective immediately upon adoption.

**ADOPTED, SIGNED, AND APPROVED** by the following vote this 9th day of June, 2015.

AYES:
NOES:
ABSTAIN:
ABSENT:

**EL TORO WATER DISTRICT**

M. Scott Goldman, President
El Toro Water District and the
Board of Directors thereof

**ATTEST:**

Robert R. Hill, General Manager/Secretary
El Toro Water District and the
Board of Directors thereof

# Appendix A

## ETWD Water Conservation & Water Shortage Ordinance Provisions
## Summary Table of Mandatory Water Conservation Measures

| *Year-round* | *Water Supply Alert* | *Water Supply Warning* | *Water Emergency* |
|---|---|---|---|
| **Permanent** | **Level 1**<br>**Water Supply Shortage - Up to 20% shortage in imported supplies to District** | **Level 2**<br>**Water Supply Shortage - Up to 40% shortage in imported supplies to District** | **Level 3**<br>**Water Supply Shortage - More than 40% shortage in imported supplies to District** |
| **Ordinance Section VI** | **Ordinance Section VII**<br>**Same as Permanent Measures PLUS** | **Ordinance Section VIII**<br>**Same as Permanent & Level 1 Measures PLUS** | **Ordinance Section IX**<br>**Same as Permanent, Level 1& Level 2 Measures PLUS** |
| *General Restrictions* | | | |
| a. Prohibited any day of the week between 10 am – 5 pm PST (except using bucket or positive self closing shut-off hose nozzle or for quick system repairs) | a. Watering limited to:<br>- 3 days a week from Apr-Oct<br>- 1 day a week from Nov-Mar | a. Watering limited to;<br>- 2 days a week from April–Oct<br>- Nov-Mar remains 1 day a week | a. All watering prohibited (some exceptions) |
| b. No more than 15 minutes of watering per day, per valve on unattended automatic irrigation systems (some exemptions) | | b. Fix leaks/breaks within reasonable time or no more than 3 days of District notice | b. Fix leaks/breaks within reasonable time or no more than 2 days of District notice |
| c. No excessive water flow or runoff | | c. No filling or refilling ornamental lakes and ponds (some exceptions)<br><br>d. No filling residential swimming pools or outdoor spas or refilling more than 1 foot (some exceptions) | c. No new potable water, new water meters (temporary or permanent) or issuance of will-serve letters (some exceptions for will-serve letters) |
| d. No outside watering when it is Raining and following 48 hours of significant precipitation. | | e. Wash cars only at commercial car wash with re-circulating system | d. Option to discontinue service for customers who willfully violate provisions during water emergency |
| | | | |

# Appendix A

## ETWD Water Conservation & Water Shortage Ordinance Provisions
## Summary Table of Mandatory Water Conservation Measures

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| **Ordinance Section VI** | **Ordinance Section VII**<br>Same as Permanent Measures PLUS | **Ordinance Section VIII**<br>Same as Permanent & Level 1 Measures PLUS | **Ordinance Section IX**<br>Same as Permanent, Level 1& Level 2 Measures PLUS |
| e. Fix leaks/breaks within reasonable time or no more than 5 days of District notice | | | |
| f. No hosing or washing down hard or paved surfaces (except by hand to eliminate safety or sanitary hazards) | Optional Program at Levels 1, 2 or 3: Require Commercial, Industrial and Institutional users in District (10,000 billing units or more per year) to submit water conservation plan and reports to the District. | | |
| g. No hosing or washing down vehicles, except using a bucket or positive self closing shut-off hose nozzle or commercial car wash | | | |
| h. Decorative water fountains or features must re-circulate water | | | |
| *Commercial Food Serving/Lodging* | | | |
| a. Restaurants only serve water on request | | | |
| b. Hotels must provide guests option to not launder linens/towels | | | |

# Appendix A

## ETWD Water Conservation & Water Shortage Ordinance Provisions
## Summary Table of Mandatory Water Conservation Measures

| *Year-round* | *Water Supply Alert* | *Water Supply Warning* | *Water Emergency* |
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| **Ordinance Section VI** | **Ordinance Section VII**<br>**Same as Permanent Measures PLUS** | **Ordinance Section VIII**<br>**Same as Permanent & Level 1 Measures PLUS** | **Ordinance Section IX**<br>**Same as Permanent, Level 1& Level 2 Measures PLUS** |

| | | | |
|---|---|---|---|
| *Commercial Kitchens* | | | |
| a. Water-efficient pre-rinse kitchen sprayers required for:<br>- New installations & Retrofits | | | |
| *Commercial Water Re-circulation* | | | |
| a. No installation of non-re-circulating car wash or laundry facilities or systems | | | |
| b. No single-pass cooling sys. for new or remodeled buildings | | | |

# Appendix B

## ETWD Water Conservation & Water Shortage Ordinance Provisions
## Level 1, 2 & 3 Water Supply Shortage - Assigned Outside Watering Days by City Boundary

| | *Water Supply Alert* | *Water Supply Warning* | *Water Emergency* |
|---|---|---|---|
| | **Level 1**<br>Water Supply Shortage - Up to 20% shortage in imported supplies to District | **Level 2**<br>Water Supply Shortage - Up to 40% shortage in imported supplies to District | **Level 3**<br>Water Supply Shortage - More than 40% shortage in imported supplies to District |
| **City/Municipality** | **Watering Limited to:**<br>**3 days a week from April to Oct.**<br>**Nov. – Mar. 1 day a week**<br>**(Note Section VII.3.a.2 for Exemptions)** | **Watering limited to:**<br>**2 days a week from April to Oct.**<br>**Nov. – Mar. remains 1 day a week**<br>**(Note Section VIII.3.a.3 for Exemptions)** | **Watering prohibited**<br>**(Note Section IX.3.a.2 for Exemptions)** |
| City of Mission Viejo | Monday & Thursday & Saturday or Sunday | Monday or Thursday & Saturday or Sunday | Prohibited – Note Exemption |
| City of Aliso Viejo | Monday & Thursday & Saturday or Sunday | Monday or Thursday & Saturday or Sunday | Prohibited – Note Exemption |
| City of Laguna Woods | Tuesday & Friday & Saturday or Sunday | Tuesday or Friday & Saturday or Sunday | Prohibited – Note Exemption |
| City of Laguna Hills | Tuesday & Friday & Saturday or Sunday | Tuesday or Friday & Saturday or Sunday | Prohibited – Note Exemption |
| City of Lake Forest | Tuesday & Friday & Saturday or Sunday | Tuesday or Friday & Saturday or Sunday | Prohibited – Note Exemption |

# Appendix C

## ETWD Water Conservation & Water Shortage Ordinance Provisions
## Best Practices for the Construction and Operations of Pools and Spas

**Implementation of the following Best Practices is encouraged for the construction and operation of any pool or spa installation on the premises of the private residences:**

Construction:

- Installation of a pool/spa cover or use of cover elements over 75% of the pool surface to reduce evaporation

Operational:

- Installation of a cartridge filtering system to reduce the waste associated with backwash of filters
- Installation of non-mechanical, sensor-based automatic manual or timer-based fill mechanisms to prevent over-filling and waste
- Showing demonstrable off-sets to long-term water use by pool decking and surrounding landscaping compared to traditional landscape.

# Appendix C

## Notice of Public Hearing (Pending)

# El Toro Water District

"A District of Distinction"

Serving the Public - Respecting the Environment

**Board of Directors**

Mike Gaskins
*President*

Kathryn Freshley
*Vice President*

Kay Havens
*Director*

Mark L. Monin
*Director*

Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
South Orange County Wastewater Authority
Attn: Ms. Betty Burnett, General Manager
34156 Del Obispo Street
Dana Point, California 92629

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

Water Code section 10621(b) requires an urban water supplier updating its UWMP to notify cities and counties within its service area of the update at least sixty (60) days prior to holding a public hearing. This letter serves as ETWD's notice that it is preparing and updating its 2020 UWMP, to be adopted and submitted to the California Department of Water Resources before the July 1, 2021 deadline. ETWD will be adopting its Water Shortage Contingency Plan as part of the 2020 UWMP.

ETWD is also considering an Addendum to the 2015 UWMP to demonstrate consistency with the Delta Plan Policy to Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit. 23, § 5003). The 2015 UWMP Addendum and a copy of ETWD's draft 2020 UWMP will be available for review on the ETWD website (www.etwd.com) in spring of 2021, and ETWD will subsequently hold noticed public hearings on the 2020 UWMP, Water Shortage Contingency Plan, and 2015 UWMP Addendum in advance of their proposed adoption.

ETWD invites you to submit comments and consult with ETWD regarding its 2020 UWMP update and 2015 UWMP Addendum. ETWD anticipates holding a public comment period in spring 2021, with a public hearing planned during that time.

If you have any input for the matters contained in this notice letter, require additional information, or would like to set up a meeting to discuss ETWD's 2020 UWMP update, please contact me at (949) 837-7050 ext. 223, or by email at dcafferty@etwd.com.

Sincerely,

Dennis Cafferty
General Manager

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*Director*

Mark L. Monin
*Director*

Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
Municipal Water District of Orange County
Attn: Mr. Rob Hunter, General Manager
P.O. Box 20895
Fountain Valley, California 92708

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

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Sincerely,

Dennis Cafferty
General Manager

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*Director*

Mark L. Monin
*Director*

Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
City of Mission Viejo
Attn: Mr. Dennis Wilberg, City Manager
200 Civic Center
Mission Viejo, California 92691

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

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Sincerely,

Dennis Cafferty
General Manager

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Mark L. Monin
*Director*

Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
City of Lake Forest
Attn: Ms. Debra D. Rose, City Manager
100 Civic Center Drive
Lake Forest, California 92630

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

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Sincerely,

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General Manager

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*Director*
Jose F. Vergara
*Director*

**General Manager**
Dennis P. Cafferty


March 22, 2021
City of Laguna Woods
Attn: Mr. Christopher Macon, City Manager
24264 El Toro Road
Laguna Woods, California 92637

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

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Dennis Cafferty
General Manager

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*Director*
Jose F. Vergara
*Director*

**General Manager**
Dennis P. Cafferty


March 22, 2021
City of Laguna Hills
Attn: Mr Donald White, City Manager
24035 El Toro Road
Laguna Hills, California 92653

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

Water Code section 10621(b) requires an urban water supplier updating its UWMP to notify cities and counties within its service area of the update at least sixty (60) days prior to holding a public hearing. This letter serves as ETWD's notice that it is preparing and updating its 2020 UWMP, to be adopted and submitted to the California Department of Water Resources before the July 1, 2021 deadline. ETWD will be adopting its Water Shortage Contingency Plan as part of the 2020 UWMP.

ETWD is also considering an Addendum to the 2015 UWMP to demonstrate consistency with the Delta Plan Policy to Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit. 23, § 5003). The 2015 UWMP Addendum and a copy of ETWD's draft 2020 UWMP will be available for review on the ETWD website (www.etwd.com) in spring of 2021, and ETWD will subsequently hold noticed public hearings on the 2020 UWMP, Water Shortage Contingency Plan, and 2015 UWMP Addendum in advance of their proposed adoption.

ETWD invites you to submit comments and consult with ETWD regarding its 2020 UWMP update and 2015 UWMP Addendum. ETWD anticipates holding a public comment period in spring 2021, with a public hearing planned during that time.

If you have any input for the matters contained in this notice letter, require additional information, or would like to set up a meeting to discuss ETWD's 2020 UWMP update, please contact me at (949) 837-7050 ext. 223, or by email at dcafferty@etwd.com.

Sincerely,

Dennis Cafferty
General Manager

# El Toro Water District

"A District of Distinction"

Serving the Public - Respecting the Environment

**Board of Directors**

Mike Gaskins
*President*

Kathryn Freshley
*Vice President*

Kay Havens
*Director*

Mark L. Monin
*Director*

Jose F. Vergara
*Director*

**General Manager**

Dennis P. Cafferty


March 22, 2021
County of Orange
Attn: Mr. Hugh Nguyen, Clerk Recorder
12 Civic Center Plaza, Room 101
Santa Ana, California 92701

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

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Sincerely,

Dennis Cafferty
General Manager

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Jose F. Vergara
*Director*

**General Manager**
Dennis P. Cafferty


March 22, 2021
City of Aliso Viejo
Attn: Mr. David Doyle, City Manager
12 Journey Street, Suite 100
Aliso Viejo, California 92656

**Subject: El Toro Water District 2020 Urban Water Management Plan Update**

The El Toro Water District (ETWD) is in the process of preparing and updating its 2020 Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, commonly referred to as SBX7-7. An update of ETWD's UWMP is required every five (5) years.

Water Code section 10621(b) requires an urban water supplier updating its UWMP to notify cities and counties within its service area of the update at least sixty (60) days prior to holding a public hearing. This letter serves as ETWD's notice that it is preparing and updating its 2020 UWMP, to be adopted and submitted to the California Department of Water Resources before the July 1, 2021 deadline. ETWD will be adopting its Water Shortage Contingency Plan as part of the 2020 UWMP.

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If you have any input for the matters contained in this notice letter, require additional information, or would like to set up a meeting to discuss ETWD's 2020 UWMP update, please contact me at (949) 837-7050 ext. 223, or by email at dcafferty@etwd.com.

Sincerely,

Dennis Cafferty
General Manager

# Appendix D

## Adopted WSCP Resolution (Pending)

Arcadis U.S., Inc.
320 Commerce, Suite 200
Irvine
California 92602
Phone: 714 730 9052
www.arcadis.com

Maddaus Water Management, Inc.
Danville, California 94526
Sacramento, California 95816
www.maddauswater.com

**RESOLUTION NO. 21-5-5**

**RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING THE DISTRICT'S ADDENDUM TO THE 2015
URBAN WATER MANAGEMENT PLAN
TO ADD APPENDIX C –
REDUCED DELTA RELIANCE REPORTING**

**WHEREAS,** Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act (Act) require every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet (AF) of water annually to prepare, adopt, and file with the Department of Water Resources (DWR) every five years in the years ending in zero and five;

**WHEREAS,** the District submitted the 2015 Urban Water Management Plan to DWR by July 1, 2015;

**WHEREAS,** Delta Plan Policy WR P1 is one of fourteen regulatory policies in the Delta Plan;

**WHEREAS,** The Delta Plan was adopted in 2013 by the Delta Stewardship Council;

**WHEREAS,** Delta Plan Policy WR P1 identifies UWMPs as the tool to demonstrate consistency with state policy to reduce reliance on the Delta for a Supplier that anticipates receiving water supply benefits from the Delta;

**WHEREAS,** WR P1 states that commencing in 2015, Suppliers that have (A) completed an UWMP, (B) implemented the efficiency measures in that plan, and (C) shown a measurable reduction in Delta reliance and improvement in regional self-reliance in the plan, are contributing to reduced reliance on the Delta and consistent with WR P1;

**WHEREAS,** There was no mentioning of the Delta Plan Policy in the 2015 UWMP Guidebook;

**WHEREAS,** DWR 2020 UWMP Guidebook (Appendix C) recommends that Suppliers prepare and submit this information as an appendix to their UWMP.

**NOW, THEREFORE, BE IT RESOLVED,** that the El Toro Water District hereby adopts its Addendum to the 2015 Urban Water Management Plan to add Appendix C – Reduced Delta Reliance Reporting which is attached hereto, marked Exhibit "A", and by this reference is incorporated herein as though set forth in full.

**ADOPTED, SIGNED AND APPROVED** this 27th day of May, 2021.

_____

MIKE GASKINS, President
El Toro Water District and of the
Board of Directors thereof

ATTEST

_____

DENNIS P. CAFFERTY, Secretary
El Toro Water District and of the
Board of Directors thereof

# El Toro Water District
# REDUCED DELTA RELIANCE REPORTING

## C.1 Background

Under the Sacramento-San Joaquin Delta Reform Act of 2009, state and local public agencies proposing a covered action in the Delta, prior to initiating the implementation of that action, must prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with applicable Delta Plan policies and submit that certification to the Delta Stewardship Council. Anyone may appeal a certification of consistency, and if the Delta Stewardship Council grants the appeal, the covered action may not be implemented until the agency proposing the covered action submits a revised certification of consistency, and either no appeal is filed, or the Delta Stewardship Council denies the subsequent appeal.

An urban water supplier that anticipates participating in or receiving water from a proposed covered action such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta should provide information in their 2015 and 2020 Urban Water Management Plans (UWMPs) that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (WR P1).

WR P1 details what is needed for a covered action to demonstrate consistency with reduced reliance on the Delta and improved regional self-reliance. WR P1 subsection (a) states that:

*(a) Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:*

> *(1) One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c);*
>
> *(2) That failure has significantly caused the need for the export, transfer, or use; and*
>
> *(3) The export, transfer, or use would have a significant adverse environmental impact in the Delta.*

WR P1 subsection (c)(1) further defines what adequately contributing to reduced reliance on the Delta means in terms of (a)(1) above.

*(c)(1) Water suppliers that have done all the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:*

> *(A) Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;*
>
> *(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and*
>
> *(C) Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self- reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).*

The analysis and documentation provided below include all of the elements described in WR P1(c)(1) that need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action.

## C.2 Summary of Expected Outcomes for Reduced Reliance on the Delta

As stated in WR P1 (c)(1)(C), the policy requires that, commencing in 2015, UWMPs include expected outcomes for measurable reduction in Delta reliance and improved regional self- reliance. WR P1 further states that those outcomes shall be reported in the UWMP as the reduction in the amount of water used, or in the percentage of water used, from the Delta.

The expected outcomes for El Toro Water District (hereafter referred to as 'District') regional self-reliance were developed using the approach and guidance described in Appendix C of DWR's Urban Water Management Plan Guidebook 2020 – Final Draft (Guidebook Appendix C) issued in March 2021. The data used in this analysis represent the total regional efforts of Metropolitan, the District, and its member agencies and were developed in conjunction with Metropolitan as part of the UWMP coordination process.

The following provides a summary of the near-term (2025) and long-term (2045) expected outcomes for the District's Delta reliance and regional self-reliance. The results show that as a region, the District, Metropolitan, and its member agencies are measurably reducing reliance on the Delta and improving regional self-reliance, both as an amount of water used and as a percentage of water used.

*Expected Outcomes for Regional Self-Reliance for the District*

- Near-term (2025) – Normal water year regional self-reliance is expected to increase by 5,895 AF from the 2010 baseline; this represents an increase of about 48.3 percent of 2025 normal water year retail demands (Table C-2).
- Long-term (2040) – Normal water year regional self-reliance is expected to increase by nearly 5,953 AF from the 2010 baseline, this represents an increase of about 46.7 percent of 2045 normal water year retail demands (Table C-2).

## C.3 Demonstration of Reduced Reliance on the Delta

The methodology used to determine the District's reduced Delta reliance and improved regional self-reliance is consistent with the approach detailed in DWR's UWMP Guidebook Appendix C, including the use of narrative justifications for the accounting of supplies and the documentation of specific data sources. Some of the key assumptions underlying the District's demonstration of reduced reliance include:

- All data were obtained from the current 2020 UWMP or previously adopted UWMPs and represent average or normal water year conditions.
- All analyses were conducted at the service area level, and all data reflect the total contributions of the District and MWDOC, in conjunction with information provided by Metropolitan.
- No projects or programs that are described in the UWMPs as "Projects Under Development" were included in the accounting of supplies.

*Baseline and Expected Outcomes*

In order to calculate the expected outcomes for measurable reduction in Delta reliance and improved regional self-reliance, a baseline is needed to compare against. This analysis uses a normal water year representation of 2010 as the baseline, which is consistent with the approach described in the Guidebook Appendix C. Data for the 2010 baseline were taken from the District's 2005 UWMP as the UWMPs generally do not provide normal water year data for the year that they are adopted (i.e., 2005 UWMP forecasts begin in 2010, 2010 UWMP forecasts begin in 2015, and so on).

Consistent with the 2010 baseline data approach, the expected outcomes for reduced Delta reliance and improved regional self-reliance for 2015 and 2020 were taken from the District's 2010 and 2015 UWMPs respectively. Expected outcomes for 2025-2040 are from the current 2020 UWMP. Documentation of the specific data sources and assumptions are included in the discussions below.

*Service Area Demands without Water Use Efficiency*

In alignment with the Guidebook Appendix C, this analysis uses normal water year demands, rather than normal

water year supplies to calculate expected outcomes in terms of the percentage of water used. Using normal water year demands serves as a proxy for the amount of supplies that would be used in a normal water year, which helps alleviate issues associated with how supply capability is presented to fulfill requirements of the UWMP Act versus how supplies might be accounted for to demonstrate consistency with WR P1.

Because WR P1 considers water use efficiency savings a source of water supply, water suppliers such as the District need to explicitly calculate and report water use efficiency savings separate from service area demands to properly reflect normal water year demands in the calculation of reduced reliance. As explained in the Guidebook Appendix C, water use efficiency savings must be added back to the normal year demands to represent demands without water use efficiency savings accounted for; otherwise the effect of water use efficiency savings on regional self-reliance would be overestimated. Table C-1 shows the results of this adjustment for the District. Supporting narratives and documentation for the all of the data shown in Table C-1 are provided below.

## Table C -1 – Calculation of Water Use Efficiency

| Service Area Water Use Efficiency Demands | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Service Area Water Demands with Water Use Efficiency | 10,984 | 10,075 | 8,321 | 7,252 | 7,651 | 7,666 | 7,687 |
| Non-Potable Water Demands | 575 | 1,200 | 1,660 | 1,485 | 1,485 | 1,485 | 1,485 |
| Potable Service Area Demands with Water Use Efficiency | 10,409 | 8,875 | 6,661 | | 6,166 | 6,181 | 6,202 |

| Total Service Area Population | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Service Area Population | 47,807 | 48,579 | 47,911 | 48,808 | 51,093 | 51,100 | 51,074 |

| Water Use Efficiency Since Baseline | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Per Capita Water Use (GPCD) | 194 | 163 | 124 | 105 | 108 | 108 | 108 |
| Change in Per Capita Water Use from Baseline (GPCD) | | (31) | (70) | (89) | (87) | (86) | (86) |
| Estimated Water Use Efficiency Since Baseline | | 1,702 | 3,771 | 4,860 | 4,959 | 4,945 | 4,918 |

| Total Service Area Water Demands | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Service Area Water Demands with Water Use Efficiency | 10,984 | 10,075 | 8,321 | 7,252 | 7,651 | 7,666 | 7,687 |
| Estimated Water Use Efficiency Since Baseline | | 1,702 | 3,771 | 4,860 | 4,959 | 4,945 | 4,918 |
| Service Area Water Demands without Water Use Efficiency | 10,984 | 11,777 | 12,092 | 12,112 | 12,609 | 12,611 | 12,605 |

*Service Area Demands with Water Use Efficiency*

The service area demands shown in Table C-1 represent the total retail water demands for the District's service area and may include municipal and industrial demands, agricultural demands, recycled, seawater barrier demands, and storage replenishment demands. These demand types and the modeling methodologies used to calculate them are described in Section 4-3 of the District's UWMP.

*Non-Potable Water Demands*

Any non-potable water demands shown in Table C-1 represent demands for non-potable recycled water, water used for purposes such as surface reservoir storage, and replenishment water for groundwater basin recharge and sweater barrier demands. Additionally, non-potable supplies have a demand hardening effect due to the inability to shift non-potable supplies to meet potable water demands. When water use efficiency or conservation measures are implemented, they fall solely on the potable water users. This is consistent with the approach for water conservation reporting used by the State Water Resources Control Board.

*Total Service Area Population*

The District's total service area population as shown in Table C-1 come from the Center for Demographic Research, with actuals and projections further described in Section 3.4 of the District's 2020 UWMP.

*Water Use Efficiency Since Baseline*

The water use efficiency numbers shown in Table C-1 represent the formulation that District utilized, consistent with Appendix C of the UWMP Guidebook approach.

Service area demands, excluding non-potable demands, are divided by the service area population to get per capita water use in the service area in gallons per capita per day (GPCD) for each five-year period. The change in per capita water use from the baseline is the comparative GPCD from that five-year period compared to the 2010 baseline. Changes in per capita water use over time are then applied back to the District's service area population to calculate the estimated WUE Supply. This estimated WUE Supply is considered an additional supply that may be used to show reduced reliance on Delta water supplies.

The demand and water use efficiency data shown in Table C-1 were collected from the following sources:

- Baseline (2010) values – District's 2005 UWMP
- 2015 values – District's 2010 UWMP
- 2020 values – District's 2015 UWMP
- 2025-2040 values – District's 2020 UWMP

It should be noted that the results of this calculation differ from what the District calculated under section 5.2 pertaining to the Water Conservation Act of 2009 (SB X7-7) due to differing formulas.

## C.4 Supplies Contributing to Regional Self-Reliance

For a covered action to demonstrate consistency with the Delta Plan, WR P1 subsection (c)(1)(C) states that water suppliers must report the expected outcomes for measurable improvement in regional self-reliance. Table C-2 shows expected outcomes for supplies contributing to regional self-reliance both in amount and as a percentage. The numbers shown in Table C-2 represent efforts to improve regional self-reliance for the District's entire service area and include the total contributions of the District. Supporting narratives and documentation for the all of the data shown in Table C-2 are provided below.

The results shown in Table C-2 demonstrate that the District's service area is measurably improving its regional self-reliance. In the near-term (2025), the expected outcome for normal water year regional self-reliance increases by 5,895 AF from the 2010 baseline; this represents an increase of about 48.3 percent of 2025 normal water year retail

demands. In the long-term (2040), normal water year regional self-reliance is expected to increase by more than 5,953 AF from the 2010 baseline; this represents an increase of about 46.7 percent of 2040 normal water year retail demands.

## Table C-2 – Supplies Contributing to Regional Self Reliance

| Water Supplies Contributing to Regional Self-Reliance (Acre-Feet) | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Water Use Efficiency | - | 1,702 | 3,771 | 4,860 | 4,959 | 4,945 | 4,918 |
| Water Recycling | 450 | 496 | 1,270 | 1,485 | 1,485 | 1,485 | 1,485 |
| Stormwater Capture and Use | | | | | | | |
| Advanced Water Technologies | | | | | | | |
| Conjunctive Use Projects | | | | | | | |
| Local and Regional Water Supply and Storage Projects | | | | | | | |
| Other Programs and Projects the Contribute to Regional Self-Reliance | | | | | | | |
| Water Supplies Contributing to Regional Self-Reliance | 450 | 2,198 | 5,041 | 6,345 | 6,444 | 6,430 | 6,403 |

| Service Area Water Demands without Water Use Efficiency | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Service Area Water Demands without Water Use Efficiency | 10,984 | 11,777 | 12,092 | 12,112 | 12,609 | 12,611 | 12,605 |

| Change in Regional Self Reliance (Acre-Feet) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Water Supplies Contributing to Regional Self-Reliance | 450 | 2,198 | 5,041 | 6,345 | 6,444 | 6,430 | 6,403 |
| Change in Water Supplies Contributing to Regional Self-Reliance | | 1,748 | 4,591 | 5,895 | 5,994 | 5,980 | 5,953 |

| Change in Regional Self Reliance (As a Percent of Water Demand w/out WUE) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Water Supplies Contributing to Regional Self-Reliance | 4.1% | 18.7% | 41.7% | 52.4% | 51.1% | 51.0% | 50.8% |
| Change in Water Supplies Contributing to Regional Self-Reliance | | 14.6% | 37.6% | 48.3% | 47.0% | 46.9% | 46.7% |

*Water Use Efficiency*

The water use efficiency information shown in Table C-2 is taken directly from Table C-1 above.

*Water Recycling*

The water recycling values shown in Table C-2 reflect the total recycled water production in the service area as described in Section 4.3 of District's UWMP.

## C.5 Reliance on Water Supplies from the Delta Watershed

Metropolitan's service area as a whole, reduces reliance on the Delta through investments in non-Delta water supplies, local water supplies and demand management measures. Quantifying the District's investments in self-reliance, locally, regionally, and throughout Southern California is infeasible for the reasons as noted in Section C.6. Due to the regional nature of these investments, the District is relying on Metropolitan's regional accounting of measurable reductions in supplies from the Delta Watershed.

The results shown in Table A.11-3 demonstrate that Metropolitan's service area, including the District, is measurably reducing its Delta reliance. In the near-term (2025), the expected outcome for normal water year reliance on supplies from the Delta watershed decreased by 301 TAF from the 2010 baseline; this represents a decrease of 3 percent of 2025 normal water year retail demands. In the long- term (2045), normal water year reliance on supplies from the Delta watershed decreased by 314 TAF from the 2010 baseline; this represents a decrease of just over 5 percent of 2045 normal water year retail demands.

**Table C-3**
**Metropolitan Reliance on Water Supplies from the Delta Watershed**

| Water Supplies from the Delta Watershed (Acre-Feet) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|---|---|---|---|
| CVP/SWP Contract Supplies | 1,472,000 | 1,029,000 | 984,000 | 1,133,000 | 1,130,000 | 1,128,000 | 1,126,000 | 1,126,000 |
| Delta/Delta Tributary Diversions | - | - | - | - | - | - | - | - |
| Transfers and Exchanges of Supplies from the Delta Watershed | 20,000 | 44,000 | 91,000 | 58,000 | 52,000 | 52,000 | 52,000 | 52,000 |
| Other Water Supplies from the Delta Watershed | - | - | - | - | - | - | - | - |
| **Total Water Supplies from the Delta Watershed** | **1,492,000** | **1,073,000** | **1,075,000** | **1,191,000** | **1,182,000** | **1,180,000** | **1,178,000** | **1,178,000** |

| Service Area Demands without Water Use Efficiency (Acre-Feet) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|---|---|---|---|
| Service Area Demands without Water Use Efficiency Accounted For | 5,493,000 | 5,499,000 | 5,219,000 | 4,925,000 | 5,032,000 | 5,156,000 | 5,261,000 | 5,374,000 |

| Change in Supplies from the Delta Watershed (Acre-Feet) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|---|---|---|---|
| Water Supplies from the Delta Watershed | 1,492,000 | 1,073,000 | 1,075,000 | 1,191,000 | 1,182,000 | 1,180,000 | 1,178,000 | 1,178,000 |
| **Change in Supplies from the Delta Watershed** | **NA** | **(419,000)** | **(417,000)** | **(301,000)** | **(310,000)** | **(312,000)** | **(314,000)** | **(314,000)** |
| **Percent Change in Supplies from the Delta Watershed (As a Percent of Demand w/out WUE)** | **Baseline (2010)** | **2015** | **2020** | **2025** | **2030** | **2035** | **2040** | **2045** |
| Percent of Supplies from the Delta Watershed | 27.2% | 19.5% | 20.6% | 24.2% | 23.5% | 22.9% | 22.4% | 21.9% |
| **Change in Percent of Supplies from the Delta Watershed** | **NA** | **-7.6%** | **-6.6%** | **-3.0%** | **-3.7%** | **-4.3%** | **-4.8%** | **-5.2%** |

## C.6 Infeasibility of Accounting Supplies from the Delta Watershed for Metropolitan's Member Agencies and their Customers

Metropolitan's service area, as a whole, reduces reliance on the Delta through investments in non-Delta water supplies, local water supplies, and regional and local demand management measures. Metropolitan's member agencies coordinate reliance on the Delta through their membership in Metropolitan, a regional cooperative providing wholesale water service to its 26 member agencies. Accordingly, regional reliance on the Delta can only be measured regionally—not by individual Metropolitan member agencies and not by the customers of those member agencies.

Metropolitan's member agencies, and those agencies' customers, indirectly reduce reliance on the Delta through their collective efforts as a cooperative. Metropolitan's member agencies do not control the amount of Delta water they receive from Metropolitan. Metropolitan manages a statewide integrated conveyance system consisting of its participation in the State Water Project (SWP), its Colorado River Aqueduct (CRA) including Colorado River water resources, programs and water exchanges, and its regional storage portfolio. Along with the SWP, CRA, storage programs, and Metropolitan's conveyance and distribution facilities, demand management programs increase the future reliability of water resources for the region. In addition, demand management programs provide system-wide

benefits by decreasing the demand for imported water, which helps to decrease the burden on the district's infrastructure and reduce system costs, and free up conveyance capacity to the benefit of all member agencies.

Metropolitan's costs are funded almost entirely from its service area, with the exception of grants and other assistance from government programs. Most of Metropolitan's revenues are collected directly from its member agencies. Properties within Metropolitan's service area pay a property tax that currently provides approximately 8 percent of the fiscal year 2021 annual budgeted revenues. The rest of Metropolitan's costs are funded through rates and charges paid by Metropolitan's member agencies for the wholesale services it provides to them.[1] Thus, Metropolitan's member agencies fund nearly all operations Metropolitan undertakes to reduce reliance on the Delta, including Colorado River Programs, storage facilities, Local Resources Programs and Conservation Programs within Metropolitan's service area.

Because of the integrated nature of Metropolitan's systems and operations, and the collective nature of Metropolitan's regional efforts, it is infeasible to quantify each of Metropolitan member agencies' individual reliance on the Delta. It is infeasible to attempt to segregate an entity and a system that were designed to work as an integrated regional cooperative.

In addition to the member agencies funding Metropolitan's regional efforts, they also invest in their own local programs to reduce their reliance on any imported water. Moreover, the customers of those member agencies may also invest in their own local programs to reduce water demand. However, to the extent those efforts result in reduction of demands on Metropolitan, that reduction does not equate to a like reduction of reliance on the Delta. Demands on Metropolitan are not commensurate with demands on the Delta because most of Metropolitan member agencies receive blended resources from Metropolitan as determined by Metropolitan—not the individual member agency—and for most member agencies, the blend varies from month-to-month and year-to-year due to hydrology, operational constraints, use of storage and other factors.

**Colorado River Programs**

As a regional cooperative of member agencies, Metropolitan invests in programs to ensure the continued reliability and sustainability of Colorado River supplies. Metropolitan was established to obtain an allotment of Colorado River water, and its first mission was to construct and operate the CRA. The CRA consists of five pumping plants, 450 miles of high voltage power lines, one electric substation, four regulating reservoirs, and 242 miles of aqueducts, siphons, canals, conduits and pipelines terminating at Lake Mathews in Riverside County. Metropolitan owns, operates, and manages the CRA. Metropolitan is responsible for operating, maintaining, rehabilitating, and repairing the CRA, and is responsible for obtaining and scheduling energy resources adequate to power pumps at the CRA's five pumping stations.

Colorado River supplies include Metropolitan's basic Colorado River apportionment, along with supplies that result from existing and committed programs, including supplies from the Imperial Irrigation District (IID)-Metropolitan Conservation Program, the implementation of the Quantification Settlement Agreement (QSA) and related agreements, and the exchange agreement with San Diego County Water Authority (SDCWA). The QSA established the baseline water use for each of the agreement parties and facilitates the transfer of water from agricultural agencies to urban uses. Since the QSA, additional programs have been implemented to increase Metropolitan's CRA supplies. These include the PVID Land Management, Crop Rotation, and Water Supply Program, as well as the Lower Colorado River Water Supply Project. The 2007 Interim Guidelines provided for the coordinated operation of Lake Powell and Lake Mead, as well as the Intentionally Created Surplus (ICS) program that allows Metropolitan to store water in Lake Mead.

**Storage Investments/Facilities**

Surface and groundwater storage are critical elements of Southern California's water resources strategy and help Metropolitan reduce its reliance on the Delta. Because California experiences dramatic swings in weather and hydrology, storage is important to regulate those swings and mitigate possible supply shortages. Surface and

[1] A standby charge is collected from properties within the service areas of 21 of Metropolitan's 26 member agencies, ranging from $5 to $14.20 per acre annually, or per parcel if smaller than an acre. Standby charges go towards those member agencies' obligations to Metropolitan for the Readiness-to-Serve Charge. The total amount collected annually is approximately $43.8 million, approximately 2 percent of Metropolitan's fiscal year 2021 annual budgeted revenues.

groundwater storage provide a means of storing water during normal and wet years for later use during dry years, when imported supplies are limited. The Metropolitan system, for purposes of meeting demands during times of shortage, regulating system flows, and ensuring system reliability in the event of a system outage, provides over 1,000,000 acre-feet of system storage capacity. Diamond Valley Lake provides 810,000 acre-feet of that storage capacity, effectively doubling Southern California's previous surface water storage capacity. Other existing imported water storage available to the region consists of Metropolitan's raw water reservoirs, a share of the SWP's raw water reservoirs in and near the service area, and the portion of the groundwater basins used for conjunctive-use storage.

Since the early twentieth century, DWR and Metropolitan have constructed surface water reservoirs to meet emergency, drought/seasonal, and regulatory water needs for Southern California. These reservoirs include Pyramid Lake, Castaic Lake, Elderberry Forebay, Silverwood Lake, Lake Perris, Lake Skinner, Lake Mathews, Live Oak Reservoir, Garvey Reservoir, Palos Verdes Reservoir, Orange County Reservoir, and Metropolitan's Diamond Valley Lake (DVL). Some reservoirs such as Live Oak Reservoir, Garvey Reservoir, Palos Verdes Reservoir, and Orange County Reservoir, which have a total combined capacity of about 3,500 AF, are used solely for regulating purposes. The total gross storage capacity for the larger remaining reservoirs is 1,757,600 AF. However, not all of the gross storage capacity is available to Metropolitan; dead storage and storage allocated to others reduce the amount of storage that is available to Metropolitan to 1,665,200 AF.

Conjunctive use of the aquifers offers another important source of dry year supplies. Unused storage in Southern California groundwater basins can be used to optimize imported water supplies, and the development of groundwater storage projects allows effective management and regulation of the region's major imported supplies from the Colorado River and SWP. Over the years, Metropolitan has implemented conjunctive use through various programs in the service area; the following table lists the groundwater conjunctive use programs that have been developed in the region.

| Program | Metropolitan Agreement Partners | Program Term | Max Storage AF | Dry-Year Yield AF/Yr |
|---|---|---|---|---|
| Long Beach Conjunctive Use Storage Project (Central Basin) | Long Beach | June 2002-2027 | 13,000 | 4,300 |
| Foothill Area Groundwater Storage Program (Monkhill/ Raymond Basin) | Foothill MWD | February 2003-2028 | 9,000 | 3,000 |
| Orange County Groundwater Conjunctive Use Program | MWDOC<br>OCWD | June 2003-2028 | 66,000+ | 22,000 |
| Chino Basin Conjunctive Use Programs | IEUA<br>TVMWD<br>Watermaster | June 2003-2028 | 100,000 | 33,000 |
| Live Oak Basin Conjunctive Use Project (Six Basins) | TVMWD<br>City of La Verne | October 2002-2027 | 3,000 | 1,000 |
| City of Compton Conjunctive Use Project (Central Basin) | Compton | February 2005-2030 | 2,289 | 763 |
| Long Beach Conjunctive Use Program Expansion in Lakewood (Central Basin) | Long Beach | July 2005-2030 | 3,600 | 1,200 |
| Upper Claremont Basin Groundwater Storage Program (Six Basins) | TVMWD | Sept. 2005- 2030 | 3,000 | 1,000 |
| Elsinore Basin Conjunctive Use Storage Program | Western MWD<br>Elsinore Valley MWD | May 2008- 2033 | 12,000 | 4,000 |
| **TOTAL** | | | **211,889** | **70,263** |

**Metropolitan Demand Management Programs**

Demand management costs are Metropolitan's expenditures for funding local water resource development programs and water conservation programs. These Demand Management Programs incentivize the development of local water supplies and the conservation of water to reduce the need to import water to deliver to Metropolitan's member agencies. These programs are implemented below the delivery points between Metropolitan's and its member agencies' distribution systems and, as such, do not add any water to Metropolitan's supplies. Rather, the effect of these downstream programs is to produce a local supply of water for the local agencies and to reduce demands by member agencies for water imported through Metropolitan's system. The following discussions outline how Metropolitan funds local resources and conservation programs for the benefit of all of its member agencies and the entire Metropolitan service area. Notably, the history of demand management by Metropolitan's member agencies and the local agencies that purchase water from Metropolitan's members has spanned more than four decades. The significant history of the programs is another reason it would be difficult to attempt to assign a portion of such funding to any one individual member agency.

<u>Local Resources Programs</u>

In 1982, Metropolitan began providing financial incentives to its member agencies to develop new local supplies to assist in meeting the region's water needs. Because of Metropolitan's regional distribution system, these programs benefit all member agencies regardless of project location because they help to increase regional water supply reliability, reduce demands for imported water supplies, decrease the burden on Metropolitan's infrastructure, reduce system costs and free up conveyance capacity to the benefit of all the agencies that rely on water from Metropolitan.

For example, the Groundwater Replenishment System (GWRS) operated by the Orange County Water District is the

world's largest water purification system for indirect potable reuse. It was funded, in part, by Metropolitan's member agencies through the Local Resources Program. Annually, the GWRS produces approximately 103,000 acre-feet of reliable, locally controlled, drought-proof supply of high-quality water to recharge the Orange County Groundwater Basin and protect it from seawater intrusion. The GWRS is a premier example of a regional project that significantly reduced the need to utilize imported water for groundwater replenishment in Metropolitan's service area, increasing regional and local supply reliability and reducing the region's reliance on imported supplies, including supplies from the State Water Project.

Metropolitan's local resource programs have evolved through the years to better assist Metropolitan's member agencies in increasing local supply production. The following is a description and history of the local supply incentive programs.

*Local Projects Program*

In 1982, Metropolitan initiated the Local Projects Program (LPP), which provided funding to member agencies to facilitate the development of recycled water projects. Under this approach, Metropolitan contributed a negotiated up-front funding amount to help finance project capital costs. Participating member agencies were obligated to reimburse Metropolitan over time. In 1986, the LPP was revised, changing the up-front funding approach to an incentive-based approach. Metropolitan contributed an amount equal to the avoided State Water Project pumping costs for each acre-foot of recycled water delivered to end-use consumers. This funding incentive was based on the premise that local projects resulted in the reduction of water imported from the Delta and the associated pumping cost. The incentive amount varied from year to year depending on the actual variable power cost paid for State Water Project imports. In 1990, Metropolitan's Board increased the LPP contribution to a fixed rate of $154 per acre-foot, which was calculated based on Metropolitan's avoided capital and operational costs to convey, treat, and distribute water, and included considerations of reliability and service area demands.

*Groundwater Recovery Program*

The drought of the early 1990s sparked the need to develop additional local water resources, aside from recycled water, to meet regional demand and increase regional water supply reliability. In 1991, Metropolitan conducted the Brackish Groundwater Reclamation Study which determined that large amounts of degraded groundwater in the region were not being utilized. Subsequently, the Groundwater Recovery Program (GRP) was established to assist the recovery of otherwise unusable groundwater degraded by minerals and other contaminants, provide access to the storage assets of the degraded groundwater, and maintain the quality of groundwater resources by reducing the spread of degraded plumes.

*Local Resources Program*

In 1995, Metropolitan's Board adopted the Local Resources Program (LRP), which combined the LPP and GRP into one program. The Board allowed for existing LPP agreements with a fixed incentive rate to convert to the sliding scale up to $250 per acre-foot, similar to GRP incentive terms. Those agreements that were converted to LRP are known as "LRP Conversions."

*Competitive Local Projects Program*

In 1998, the Competitive Local Resources Program (Competitive Program) was established. The Competitive Program encouraged the development of recycled water and recovered groundwater through a process that emphasized cost-efficiency to Metropolitan, timing new production according to regional need while minimizing program administration cost. Under the Competitive Program, agencies requested an incentive rate up to $250 per acre-foot of production over 25 years under a Request for Proposals (RFP) for the development of up to 53,000 acre-feet per year of new water recycling and groundwater recovery projects. In 2003, a second RFP was issued for the development of an additional 65,000 acre-feet of new recycled water and recovered groundwater projects through the LRP.

*Seawater Desalination Program*

Metropolitan established the Seawater Desalination Program (SDP) in 2001 to provide financial incentives to member agencies for the development of seawater desalination projects. In 2014, seawater desalination projects became eligible for funding under the LRP, and the SDP was ended.

*2007 Local Resources Program*

In 2006, a task force comprised of member agency representatives was formed to identify and recommend program improvements to the LRP. As a result of the task force process, the 2007 LRP was established with a goal of 174,000 acre-feet per year of additional local water resource development. The new program allowed for an open application process and eliminated the previous competitive process. This program offered sliding scale incentives of up to $250 per acre-foot, calculated annually based on a member agency's actual local resource project costs exceeding Metropolitan's prevailing water rate.

*2014 Local Resources Program*

A series of workgroup meetings with member agencies was held to identify the reasons why there was a lack of new LRP applications coming into the program. The main constraint identified by the member agencies was that the $250 per acre-foot was not providing enough of an incentive for developing new projects due to higher construction costs to meet water quality requirements and to develop the infrastructure to reach end-use consumers located further from treatment plants. As a result, in 2014, the Board authorized an increase in the maximum incentive amount, provided alternative payment structures, included onsite retrofit costs and reimbursable services as part of the LRP, and added eligibility for seawater desalination projects. The current LRP incentive payment options are structured as follows:

- Option 1 – Sliding scale incentive up to $340/AF for a 25-year agreement term
- Option 2 – Sliding scale incentive up to $475/AF for a 15-year agreement term
- Option 3 – Fixed incentive up to $305/AF for a 25-year agreement term

*On-site Retrofit Programs*

In 2014, Metropolitan's Board also approved the On-site Retrofit Pilot Program which provided financial incentives to public or private entities toward the cost of small-scale improvements to their existing irrigation and industrial systems to allow connection to existing recycled water pipelines. The On-site Retrofit Pilot Program helped reduce recycled water retrofit costs to the end-use consumer which is a key constraint that limited recycled water LRP projects from reaching full production capacity. The program incentive was equal to the actual eligible costs of the on-site retrofit, or $975 per acre-foot of up-front cost, which equates to $195 per acre-foot for an estimated five years of water savings ($195/AF x 5 years) multiplied by the average annual water use in previous three years, whichever is less. The Pilot Program lasted two years and was successful in meeting its goal of accelerating the use of recycled water.

In 2016, Metropolitan's Board authorized the On-site Retrofit Program (ORP), with an additional budget of $10 million. This program encompassed lessons learned from the Pilot Program and feedback from member agencies to make the program more streamlined and improve its efficiency. As of fiscal year 2019/20, the ORP has successfully converted 440 sites, increasing the use of recycled water by 12,691 acre-feet per year.

*Stormwater Pilot Programs*

In 2019, Metropolitan's Board authorized both the Stormwater for Direct Use Pilot Program and a Stormwater for Recharge Pilot Program to study the feasibility of reusing stormwater to help meet regional demands in Southern California. These pilot programs are intended to encourage the development, monitoring, and study of new and existing stormwater projects by providing financial incentives for their construction/retrofit and monitoring/reporting costs. These pilot programs will help evaluate the potential benefits delivered by stormwater capture projects and provide a basis for potential future funding approaches. Metropolitan's Board authorized a total of $12.5 million for the stormwater pilot programs ($5 million for the District Use Pilot and $7.5 million for the Recharge Pilot).

*Current Status and Results of Metropolitan's Local Resource Programs*

Today, nearly one-half of the total recycled water and groundwater recovery production in the region has been developed with an incentive from one or more of Metropolitan's local resource programs. During fiscal year 2020, Metropolitan provided about $13 million for production of 71,000 acre-feet of recycled water for non-potable and indirect potable uses. Metropolitan provided about $4 million to support projects that produced about 50,000 acre-

feet of recovered groundwater for municipal use. Since 1982, Metropolitan has invested $680 million to fund 85 recycled water projects and 27 groundwater recovery projects that have produced a cumulative total of about 4 million acre-feet.

Conservation Programs

Metropolitan's regional conservation programs and approaches have a long history. Decades ago, Metropolitan recognized that demand management at the consumer level would be an important part of balancing regional supplies and demands. Water conservation efforts were seen as a way to reduce the need for imported supplies and offset the need to transport or store additional water into or within the Metropolitan service area. The actual conservation of water takes place at the retail consumer level. Regional conservation approaches have proven to be effective at reaching retail consumers throughout Metropolitan's service area and successfully implementing water saving devices, programs and practices. Through the pooling of funding by Metropolitan's member agencies, Metropolitan is able to engage in regional campaigns with wide-reaching impact. Regional investments in demand management programs, of which conservation is a key part along with local supply programs, benefit all member agencies regardless of project location. These programs help to increase regional water supply reliability, reduce demands for imported water supplies, decrease the burden on Metropolitan's infrastructure, reduce system costs, and free up conveyance capacity to the benefit of all member agencies.

*Incentive-Based Conservation Programs*

*Conservation Credits Program*

In 1988, Metropolitan's Board approved the Water Conservation Credits Program (Credits Program). The Credits Program is similar in concept to the Local Projects Program (LPP). The purpose of the Credits Program is to encourage local water agencies to implement effective water conservation projects through the use of financial incentives. The Credits Program provides financial assistance for water conservation projects that reduce demands on Metropolitan's imported water supplies and require Metropolitan's assistance to be financially feasible.

Initially, the Credits Program provided 50 percent of a member agency's program cost, up to a maximum of $75 per acre-foot of estimated water savings. The $75 Base Conservation Rate was established based Metropolitan's avoided cost of pumping SWP supplies. The Base Conservation Rate has been revisited by Metropolitan's Board and revised twice since 1988, from $75 to $154 per acre-foot in 1990 and from $154 to $195 per acre-foot in 2005.

In fiscal year 2020 Metropolitan processed more than 30,400 rebate applications totaling $18.9 million.

*Member Agency Administered Program*

Some member agencies also have unique programs within their service areas that provide local rebates that may differ from Metropolitan's regional program. Metropolitan continues to support these local efforts through a member agency administered funding program that adheres to the same funding guidelines as the Credits Program. The Member Agency Administered Program allows member agencies to receive funding for local conservation efforts that supplement, but do not duplicate, the rebates offered through Metropolitan's regional rebate program.

*Water Savings Incentive Program*

There are numerous commercial entities and industries within Metropolitan's service area that pursue unique savings opportunities that do not fall within the general rebate programs that Metropolitan provides. In 2012, Metropolitan designed the Water Savings Incentive Program (WSIP) to target these unique commercial and industrial projects. In addition to rebates for devices, under this program, Metropolitan provides financial incentives to businesses and industries that created their own custom water efficiency projects. Qualifying custom projects can receive funding for permanent water efficiency changes that result in reduced potable demand.

*Non-Incentive Conservation Programs*

In addition to its incentive-based conservation programs, Metropolitan also undertakes additional efforts throughout its service area that help achieve water savings without the use of rebates. Metropolitan's non-incentive conservation efforts include:

- residential and professional water efficient landscape training classes

- water audits for large landscapes
- research, development and studies of new water saving technologies
- advertising and outreach campaigns
- community outreach and education programs
- advocacy for legislation, codes, and standards that lead to increased water savings

*Current Status and Results of Metropolitan's Conservation Programs*

Since 1990, Metropolitan has invested $824 million in conservation rebates that have resulted in a cumulative savings of 3.27 million acre-feet of water. These investments include $450 million in turf removal and other rebates during the last drought which resulted in 175 million square feet of lawn turf removed. During fiscal year 2020, 1.06 million acre-feet of water is estimated to have been conserved. This annual total includes Metropolitan's Conservation Credits Program; code-based conservation achieved through Metropolitan-sponsored legislation; building plumbing codes and ordinances; reduced consumption resulting from changes in water pricing; and pre-1990 device retrofits.

**Infeasibility of Accounting Regional Investments in Reduced Reliance Below the Regional Level**

The accounting of regional investments that contribute to reduced reliance on supplies from the Delta watershed is straightforward to calculate and report at the regional aggregate level. However, any similar accounting is infeasible for the individual member agencies or their customers. As described above, the region (through Metropolitan) makes significant investments in projects, programs and other resources that reduce reliance on the Delta. In fact, all of Metropolitan's investments in Colorado River supplies, groundwater and surface storage, local resources development and demand management measures that reduce reliance on the Delta are collectively funded by revenues generated from the member agencies through rates and charges.

Metropolitan's revenues cannot be matched to the demands or supply production history of an individual agency, or consistently across the agencies within the service area. Each project or program funded by the region has a different online date, useful life, incentive rate and structure, and production schedule. It is infeasible to account for all these things over the life of each project or program and provide a nexus to each member agency's contributions to Metropolitan's revenue stream over time. Accounting at the regional level allows for the incorporation of the local supplies and water use efficiency programs done by member agencies and their customers through both the regional programs and through their own specific local programs. As shown above, despite the infeasibility of accounting reduced Delta reliance below the regional level, Metropolitan's member agencies and their customers have together made substantial contributions to the region's reduced reliance.

**References**


http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2017/12-Dec/Reports/064863458.pdf

http://www.mwdh2o.com/PDF_About_Your_Water/Annual_Achievement_Report.pdf

http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2016/12-Dec/Reports/064845868.pdf

http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2012/05%20-%20May/Letters/064774100.pdf

http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2020/10%20-%20Oct/Letters/10132020%20BOD%209-3%20B-L.pdf

http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2001/10-October/Letters/003909849.pdf

Agenda Item No. 6

# STAFF REPORT

**To:** **Board of Directors** **Meeting Date: May 24, 2021**

**From:** **Dennis Cafferty, General Manager**

**Subject:** **COVID-19 Update**

The District continues its efforts to balance compliance with health officials' guidance and State, Federal and OSHA direction with the critical need to maintain the reliability of the essential services provided by the District. The following represents a summary of the current status of the District's response to the ever-changing challenges presented by the COVID-19 pandemic.

The most recent data reflects the continuing improvement in COVID cases that Orange County has achieved in the last several months. As of May 20, hospitalizations in Orange County have reduced to 75 with only 22 in Intensive Care Units. On May 19 the County moved into the Yellow (minimal) Tier of the State Tiered System for County Risk Levels.

Governor Gavin Newsom recently announced a plan to fully open the California economy on June 15 if two criteria are met:

- If vaccine supply is sufficient for Californians 16 years and older who wish to be inoculated; and
- If hospitalization rates are stable and low

Through May 16, 386,000 people in Orange County have received their first vaccine dose and another 1.3 million people have received both the first and second dose. In addition, 94,000 people have received the single dose Johnson and Johnson vaccine. Over 1.4 million people in Orange County are now fully vaccinated. To put it in context, there are more than 3.2 million people in Orange County, with nearly 12% that have received their first dose and approximately 44% that are fully vaccinated.

As of May 19, the State of California reported administering a total of 35 million vaccine doses statewide with nearly 16 million people (47%) fully vaccinated and another 4.7 million (14%) partially vaccinated.

Specific ETWD impacts, approaches and status are summarized as follows:

**Customer Billing** – The suspension of non-pay shutoffs continues. The incidence of late payments or customers communicating that they are unable to pay their bill due to the financial crisis associated with the COVID-19 pandemic continues to increase. Staff will continue to closely monitor billing for any further indication of trends or patterns as well as assess the impact of these trends on District finances.

**Staffing** – The following descriptions provide an overall description of the current approach to staffing and schedules:

- Illness – The District staff has now experienced 16 employees that have tested positive for the COVID-19 virus. All District staff that tested positive for the virus have fully recovered and returned to full time work. Most of these employees are believed to have contracted the virus outside of the ETWD workplace. The District has not had any employee report a new case of COVID in the last 4 months.

- Vaccination – The District's employees have been advised of their eligibility and encouraged to consider vaccination. Currently approximately 60% of the District staff has received either their first or second dose.

- OSHA Requirements –The Board approved the District's COVID-19 Prevention Program (CPP) at the Special Board Meeting on January 14. District staff has implemented the CPP and continues to monitor employees' adherence to the requirements of the Program. OSHA is preparing to update the COVID requirements based on updated guidance from the CDC and CDPH. Staff is closely monitoring the evolution of the OSHA emergency order.

- Work Safety Protocols – The District's management staff continues to emphatically remind and require all staff of the critical need to practice social distancing of a minimum of six feet as well as the need to follow CDC guidelines regarding hand washing and other personal hygiene. Staff has been informed and consistently reminded that the combination of face coverings, distance and hygiene are the most effective means to mitigate the potential of contracting the virus. Staff has been reminded that vigilance remains necessary even as conditions have seemingly improved.

- Telecommuting – All of the Main Office staff is working remotely to various extents. Staff is evaluating conditions that will allow return to the office for District employees.

- Field Operations – The ETWD Operations Department has returned to their normal 9/80 work schedule. All staff has been reminded that it remains critical to follow all the District's safety protocols.

- Self-Certification – Staff continues to follow the requirement for daily self-certification that employees are not suffering from a fever or any of the typical COVID-19 symptoms. Employees are required to provide the daily certification on-line.

**Emergency Administrative Leave** –

Staff is recommending the Board authorize the General Manager to provide an additional 160 hours of EAL per month per employee, as necessary for the next three months. Further consideration of the EAL requirement will be considered based on current conditions at the August Board meeting.

**Recommended Action:** Staff recommends the Board of Directors grant the General Manager discretion to extend the use of Emergency Administrative Leave, as necessary up to 160 hours per employee per month, until the August 26, 2021 meeting of the Board of Directors.

**Agenda Item No. 7**

# STAFF REPORT

| | | | |
|---|---|---|---|
| **To:** | **Board of Directors** | **Meeting Date:** | **May 27, 2021** |
| **From:** | **Judy Cimorell, Human Resources Manager** | | |
| **Subject:** | **Employee Handbook Update** | | |

The District is committed to providing and maintaining personnel policies that are consistent and current with both federal and state law. It is also the intent of the District to align polices with internal practices.

The proposed revisions to the current handbook follow:

**Section I – General Employment Policies**

- Introductory Statement
  - This policy was revised to clarify the General Managers authority to negotiate terms of new hire employment.

**Section II – Hiring and Employment**

- New Hires
  - Expanded Policy to capture and define current procedures and conditions for new hires.

**Section V – Benefits**

- Wellness Program
  - Updated Policy to align with the District's current practices.

## CONCLUSION

The updated Employee Handbook will help staff ensure employees are treated consistently, publicize employee benefits and keep the District compliant with federal and state laws.

## RECOMMENDATION

Staff recommends that the Board of Directors approve the updates to the existing ETWD Employee Handbook dated September 2020.

# Introductory Statement

Welcome! As an employee of El Toro Water District (the "District"), you are an important member of a team effort. We hope that you will find your position with the District rewarding, challenging, and productive.

Because our success depends upon the dedication of our employees, we are highly selective in choosing new members of our team. We look to you and the other employees to contribute to the success of the District.

This employee handbook is intended to explain the terms and conditions of employment and applies to all employees. Written employment contracts between the District and some individuals may supersede some of the provisions of this handbook. The General Manager has the authority to negotiate terms of new hire employment offers inclusive of compensation and paid time off, in accordance with federal and state laws.

This handbook summarizes the policies and practices in effect at the time of publication. This handbook supersedes all previously issued handbooks and any policy or benefit statements or memoranda that are inconsistent with the policies described here. Your supervisor or manager will be happy to answer any questions you may have.

Each employee will be given a copy of the District's employee handbook and is held responsible for reading, understanding and being familiar with the obligations imposed by this Handbook. The signed Acknowledgement Form included with the employee handbook will be placed in the individual employee's personnel file as documentation of employee having read it and agreed to abide by its rules and regulations. While the provisions of the Handbook provide a general overview of the District's programs, terms and conditions and limitations, if any discrepancies should occur, the official plan documents, where applicable, will govern these brief summaries and any interpretation needed will be at the District's sole discretion.

# New Hires

All persons considered for employment with the District must be qualified to perform the duties of the positon for which they are employed.

The General Manager will have final approval of new hires except for those classifications that report to the Board of Directors. The General Manager has the discretion to decide in what manner a vacancy shall be filled. Vacancies may be filled by external candidates or internal candidates consisting of reinstatement, promotion, transfer, demotion, or by a temporary employee/Intern.

New employees will be provided a formal orientation that will include: an initial meeting with their manager; a tour of the District; a meeting with the Human Resources Manager to review the benefits, office procedures, Employee Handbook and safety training as needed for their position.

The General Manager has the authority to negotiate terms of new hire employment offers inclusive of compensation and paid time off, in accordance with federal and state laws.

The District is committed to full compliance with all federal immigration laws. These laws require that all individuals comply with employment verification rules and regulations within the required time frame. This procedure has been established by law and requires that every individual provide

satisfactory evidence of their identity and legal authority to work in the United States no later than three business days after the first day of employment.

## Wellness Program

The District believes that supporting a healthy and active lifestyle is important and want to encourage and motivate employees to focus on their overall health and wellness.

The Wellness Program provides all regular full-time employees up to $300 per fiscal year to be used toward individual health and wellness goals. The program enables employees to participate in a variety of ways in order to best fit each employee's definition of health and wellness.

The Wellness Program focuses on improving an employee's health and well-being. The reimbursement can be used for activities that are centered on gym memberships, fitness equipment, exercise, nutrition, stress reduction, and healthy lifestyle programs such as weight loss and smoking cessation programs and more.

Reimbursements under the Wellness Program must be approved by the Human Resources Manager. Employees are encouraged to seek guidance from the Human Resources Manager for clarification of exclusions and reimbursable expenses before incurring the expense.

Employees must provide Human Resources with the receipt to be eligible for reimbursement. All reimbursements under this program are taxable income.

# GENERAL MANAGER'S REPORT

## May 2021

## I. OFFICE OF THE GENERAL MANAGER

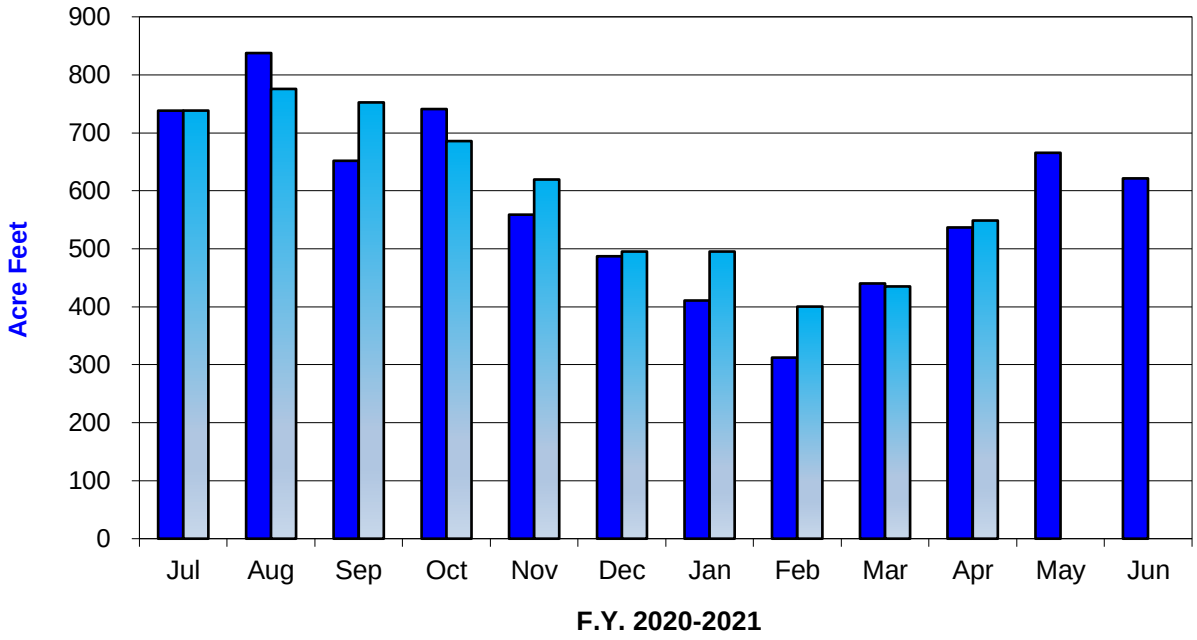
- Attended MWDOC Managers Meeting
- Attended Meetings with Alliance Recruiting
- Attended Meeting with Prudential
- Attended Meeting with Springbrook Software
- Attended Meeting with IRWD Regarding Flow Splitter
- Attended MWDOC / OCWD Joint Planning Committee Meeting
- Attended AWIA Meeting
- Attended ISDOC Quarterly Meeting
- Attended ETWD Pres/VP/GM Meetings
- Attended Meeting with MWDOC / WEROC Regarding WEROC EOC Project
- Attended MWDOC Planning/Operations Committee Meetings
- Attended Meeting with CSDA & Assemblyman Choi
- Attended SOCWMA Management Committee Meeting
- Attended SOCWMA Executive Committee Meeting
- Attended ETWD RRC Meeting
- Attended MWDOC MET Directors Workshop
- Attended SOCWA Board Meeting
- Attended SOCWA Finance Committee Meeting
- Attended ETWD CAG Meeting
- Attended SDLA Module 3 Workshops: Board's Role in Finance & Fiscal Accountability
- Attended ETWD Agenda Review Meeting
- Attended Orange County Water Association Webinar
- Attended SOCWA Board Budget Workshop
- Attended ETWD Regular Engineering & Finance Committee Meetings
- Attended SDLA Module 4 Workshops: Board's Role in Human Resources
- Attended ETWD Regular Board Meeting

## II. DOMESTIC AND RECYCLED WATER SALES

Actual domestic sales for the year-to-date as of April 30, 2021 are 5,945.88 acre-feet. This compares to year-to-date budgeted domestic sales of 5,713.36 acre-feet. The year-to-date variation in actual to budgeted sales reflects an increase of 232.52 acre-feet. Actual sales are 381.81 acre-feet higher than last year-to-date actual sales for the same period.

Actual recycled sales for the year-to-date as of April 30, 2021 are 1,228.08 acre-feet. This compares to year-to-date budgeted recycled sales of 1,137.16 acre-feet. The year-to-date variation in actual to budgeted sales reflects an increase of 90.92 acre-feet. Actual sales are 285.39 acre-feet higher than last year-to-date actual sales for the same period.

# POTABLE WATER SALES




**Year to Date:**

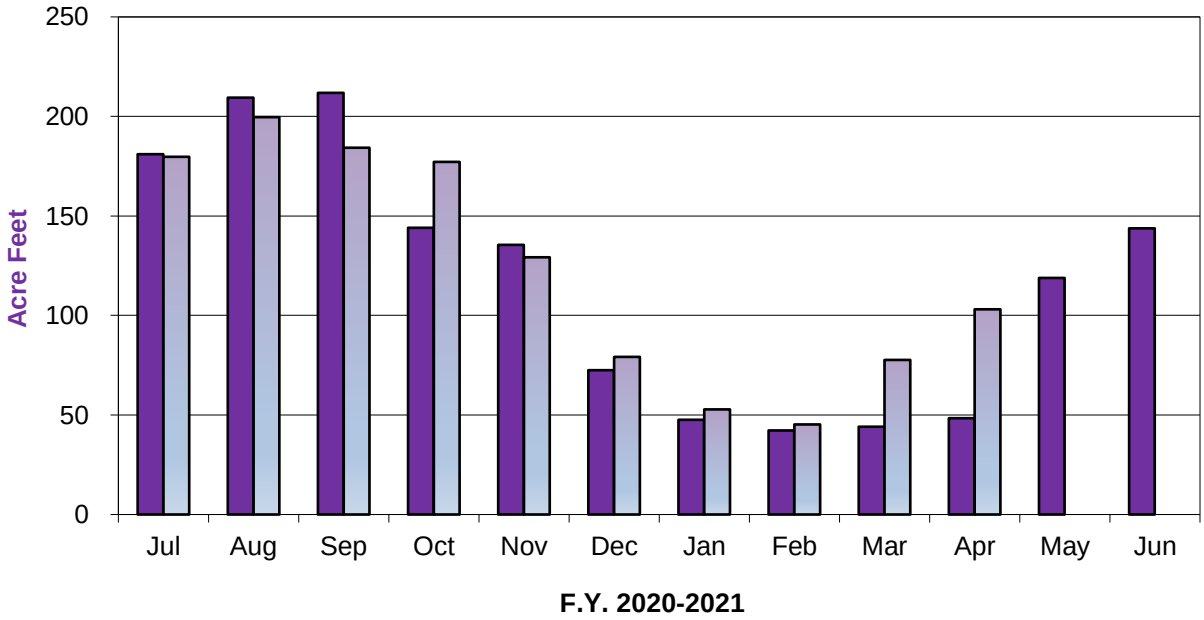
Total Budget
7,000.00 AF

YTD Budget
5,713.36 AF

Actual
5,945.88 AF

Over Budget
232.52 AF

# RECYCLED WATER SALES




**Year to Date:**

Total Budget
1,400.00 AF

YTD Budget
1,137.16 AF

Actual
1,228.08 AF

Over Budget
90.92 AF

## Customer Service Activity Report

| Regular Service Calls | APRIL 2021 | APRIL 2020 |
|---|---|---|
| Serviceman Dispatched to Read, Connect/Disconnect Service | 79 | 57 |
| **Field Investigations:** | | |
| Check for leaks - calls to CS Office:(irrigation,meter,street leaks) | | |
| Customer Responsible | 18 | 17 |
| District Responsible | 7 | 8 |
| None found/other | 7 | 18 |
| High Reads Checked - High Consumption (Billing Dept.) Cust Leaks: _19_ No Leaks: _22_ | 41 | 5 |
| Check Stopped Slowed Meters-Low Consumption (Billing) | 21 | 8 |
| Re-Check Read | 8 | 5 |
| Ordinance Infraction | 3 | 0 |
| Recycled Water | 0 | 0 |
| Water Quality: Taste / Odor / Color | 2 | 1 |
| Phone response: _2_ Field response: _0_ | | |
| Flooding (Hydrant) Meters issued | 1 | 1 |
| Sewer - Odor/Stoppage/ Manhole Covers | 3 | 3 |
| Meter Box: Lids / Covers Replaced | 36 | 5 |
| Meter Box Clean, Digout | 7 | 13 |
| Raised Meter Box | 0 | 2 |
| Trim Bushes / Meter Obstruction | 19 | 19 |
| General Maintenance Response | 11 | 3 |
| Fire Hydrants: Hit / Leaks / Caps | 0 | 0 |
| Pressure(psi) Checks / Reads | 7 | 4 |
| CSSOV (Angle Meter/Ball Valve/Gate Valve/Globe Valve) chk,repair,replaced | 8 | 6 |
| AMS angle-meter-stop replace/repair | 0 | 1 |
| Bees Removed | 2 | 1 |
| Backflow / Cross Connection | 8 | 4 |
| Fogged Registers | 30 | 10 |
| OMCOP: Old Meter Change - Out Program | 4 | 1 |
| Other: (uncommon non-maintenance calls) | 6 | 4 |
| On-Call After Hrs. CS Response | 23 | 11 |
| # 48/24 Hr. Door Hangers Hung | 0 | 0 |
| # Locked Off For Non-Pay (Disconnect) | 0 | 0 |
| Removed Meter | 2 | 0 |
| New Meter | 0 | 2 |
| Unread Meters | 8 | 13 |
| **Total Field Investigations** | **361** | **222** |

| Telephone Calls | APRIL 2021 | APRIL 2020 |
|---|---|---|
| Change of Service: Connections and Disconnections | 84 | 45 |
| Billing / Payments & Graph Inquires | 158 | 233 |
| Assistance with online payments and ETWD's portal (cc, e-checks, other.) | 15 | 48 |
| Variance / Adjustment Inquiries | 29 | 33 |
| Variance / Adjustment Requests Processed | 8 | 7 |
| Ordinance Infraction / Water Waste Complaints | 3 | 0 |
| Outside Utility Districts | 58 | 33 |
| Phone calls Transfer to other Departments within ETWD | 58 | 34 |
| Phone calls for the Board of Directors | 0 | 0 |
| Recycled Water | 0 | 0 |
| Water Quality Taste - Odor - Color | 3 | 3 |
| Leaks / Breaks | 16 | 19 |
| Flooding Meter calls (Hydrant) | 1 | 1 |
| Sewer Problems (odor / spills) | 5 | 3 |
| Backflow / Cross Connection (questions or yearly testing forms) | 2 | 3 |
| ETWD facilities inquiries: Boxes/Covers/Lids/Hydrants/Pump Stations/Graffiti/ "Gen. Maint" | 12 | 3 |
| Tyco (ADT) Calls (Alarms to ETWD facilities) | 0 | 3 |
| ATT Calls (access to tower sites) | 0 | 0 |
| SCE Calls (access to tower sites) | 2 | 0 |
| Pager Calls specifically for Pump Stations - SCADA | 0 | 0 |
| Payment Extensions | 2 | 12 |
| Delinquent Payment Calls to Customer 's prior to shut off per billing calendar (automatic courtesy dialer) | 199 | 0 |
| Return Calls from customers left on our voice mail system. Ext 500 | 9 | 6 |
| Email Correspondence: | 106 | 117 |
| Maintenance Service Order Requests (bees, psi, fogged-dirty registers) | 8 | 4 |
| Misc. (other: employment, deliveries, sales calls) | 36 | 29 |
| Payment Processing Fee Complaints | | |
| **Total Telephone Calls** | **814** | **636** |

| Uncollectible Accounts: | | |
|---|---|---|
| **Budget YTD** | **$16,667.00** | **$ 16,667.00** |
| **Actual YTD** | **$16,023.00** | **$ 6,509.00** |

| Credit Card Payments | APRIL 2021 | | APRIL 2020 | |
|---|---|---|---|---|
| **REGULAR** | **923** | **$97,421.33** | **873** | **$85,660.95** |

# (WRP) Tertiary Treatment Plant

April-21

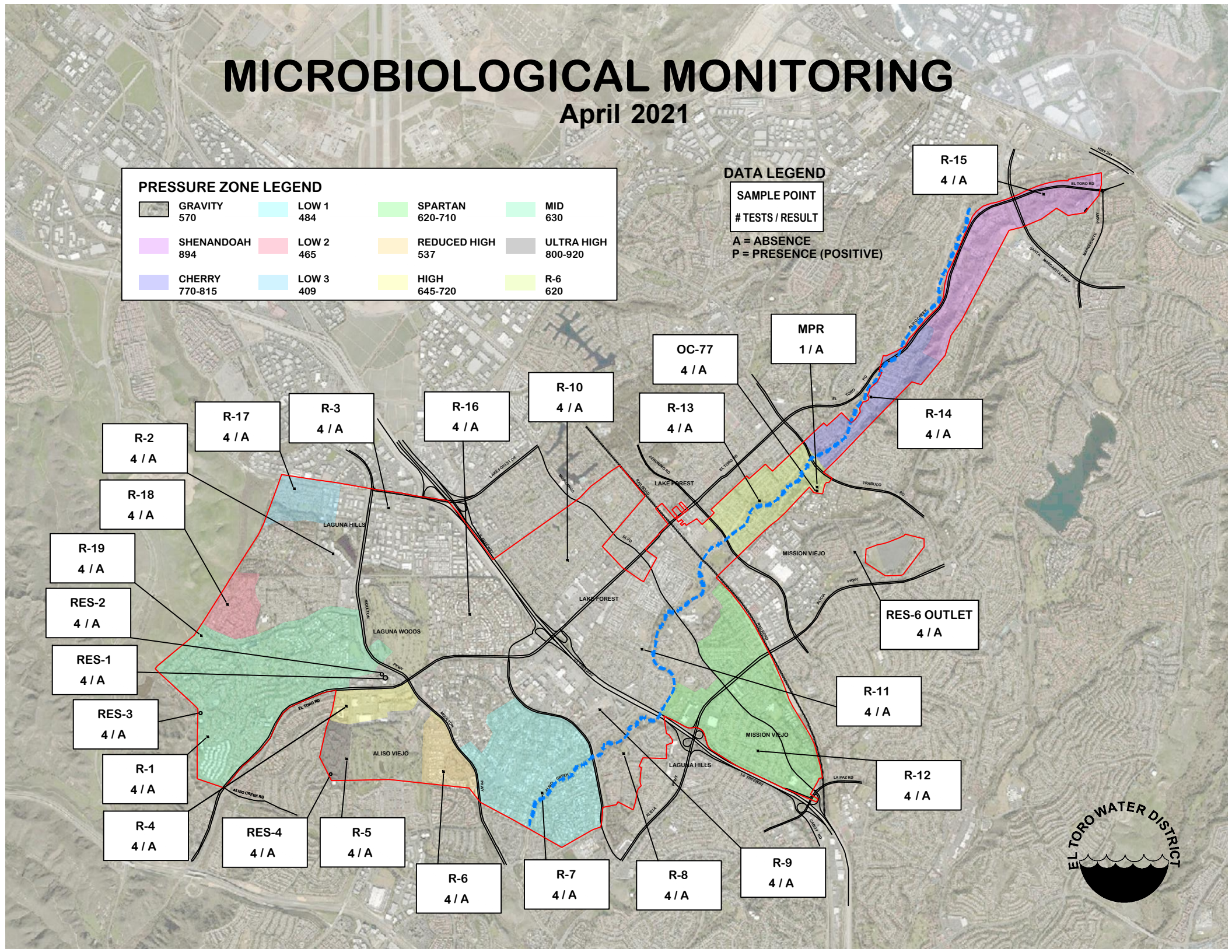
## Total Recycled Water Production

| Flow, Units | G.C. Irrigation | Main Distribution | WRP Irrigation/Utility | Total, Production |
|---|---|---|---|---|
| Avg. Daily Q, MGD | 0.428 | 1.346 | 0.084 | 1.858 |
| Total Q, MG | 12.854 | 40.391 | 2.520 | 55.765 |
| Total Acre Feet | 39.447 | 123.955 | 7.736 | 171.138 |

* No Potable make-up water was used to supplement the demand for Recycled Water in April

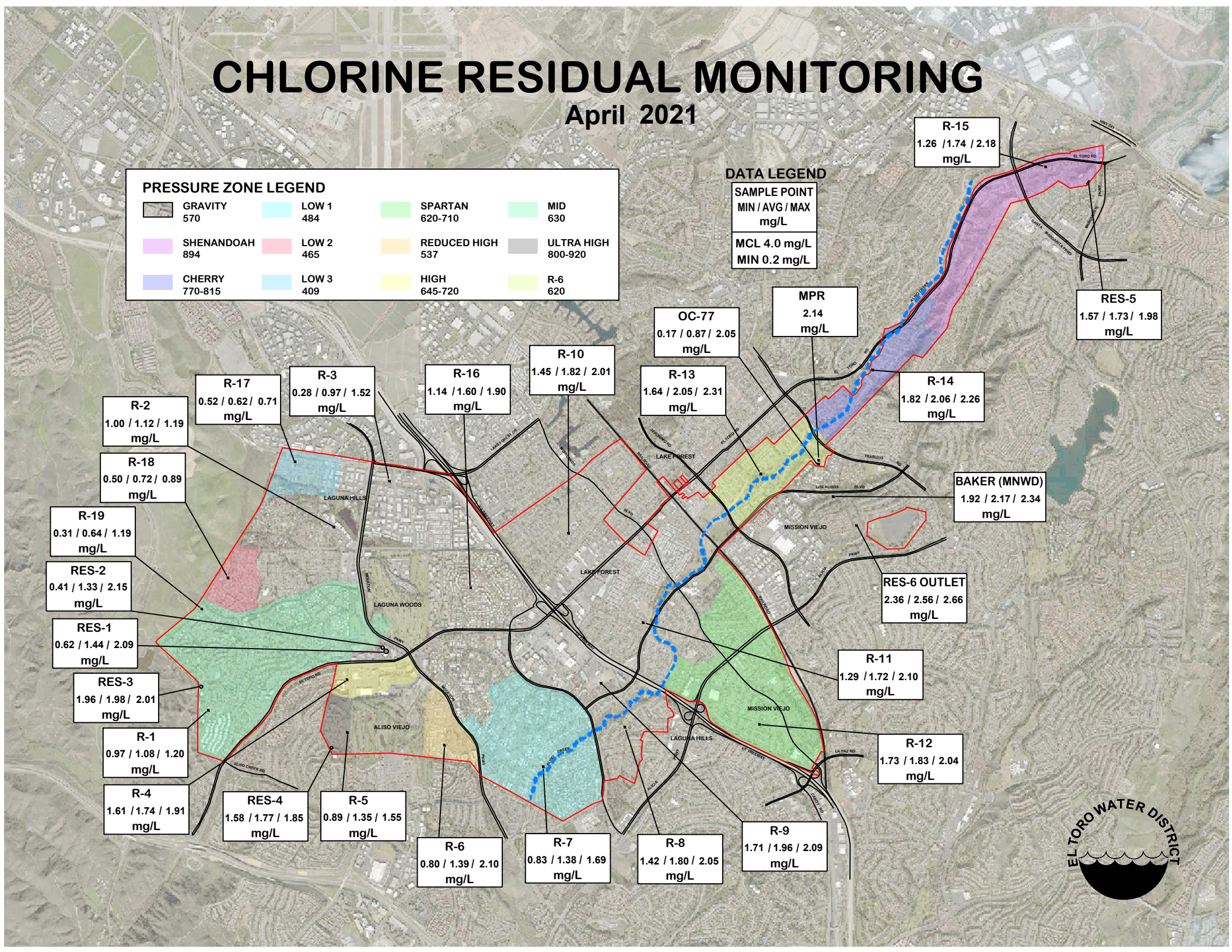
# MICROBIOLOGICAL MONITORING

## April 2021



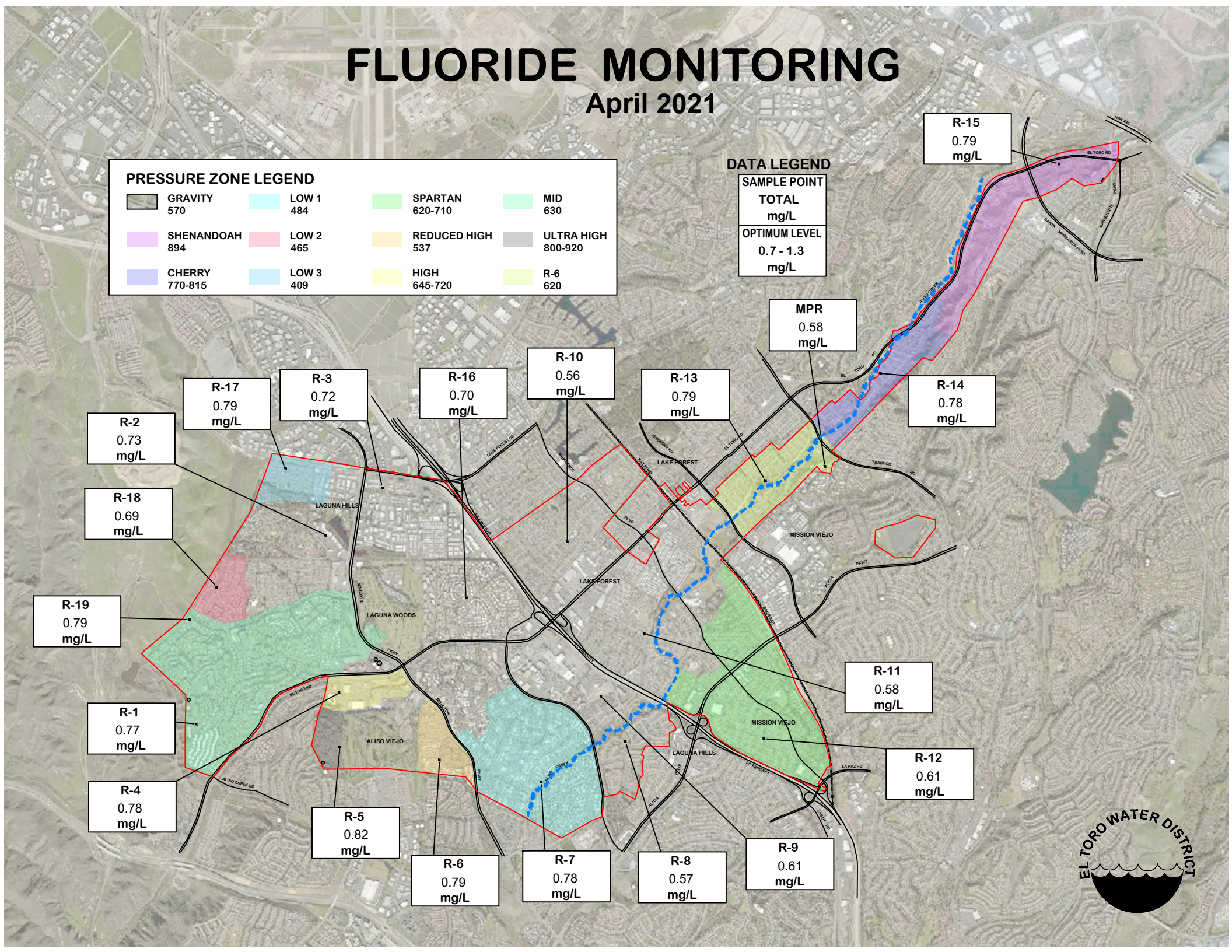
# CHLORINE RESIDUAL MONITORING

## April 2021



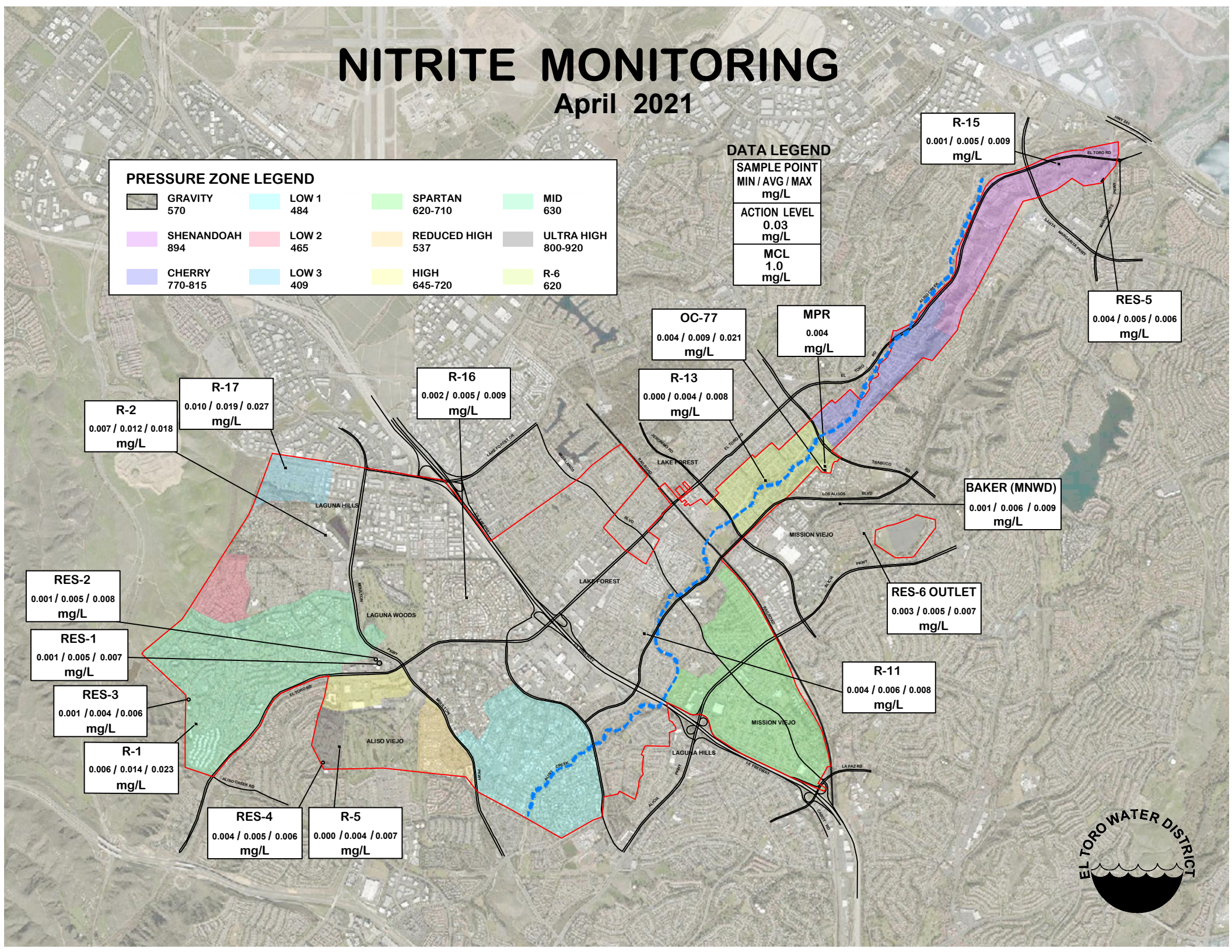
# FLUORIDE MONITORING

## April 2021

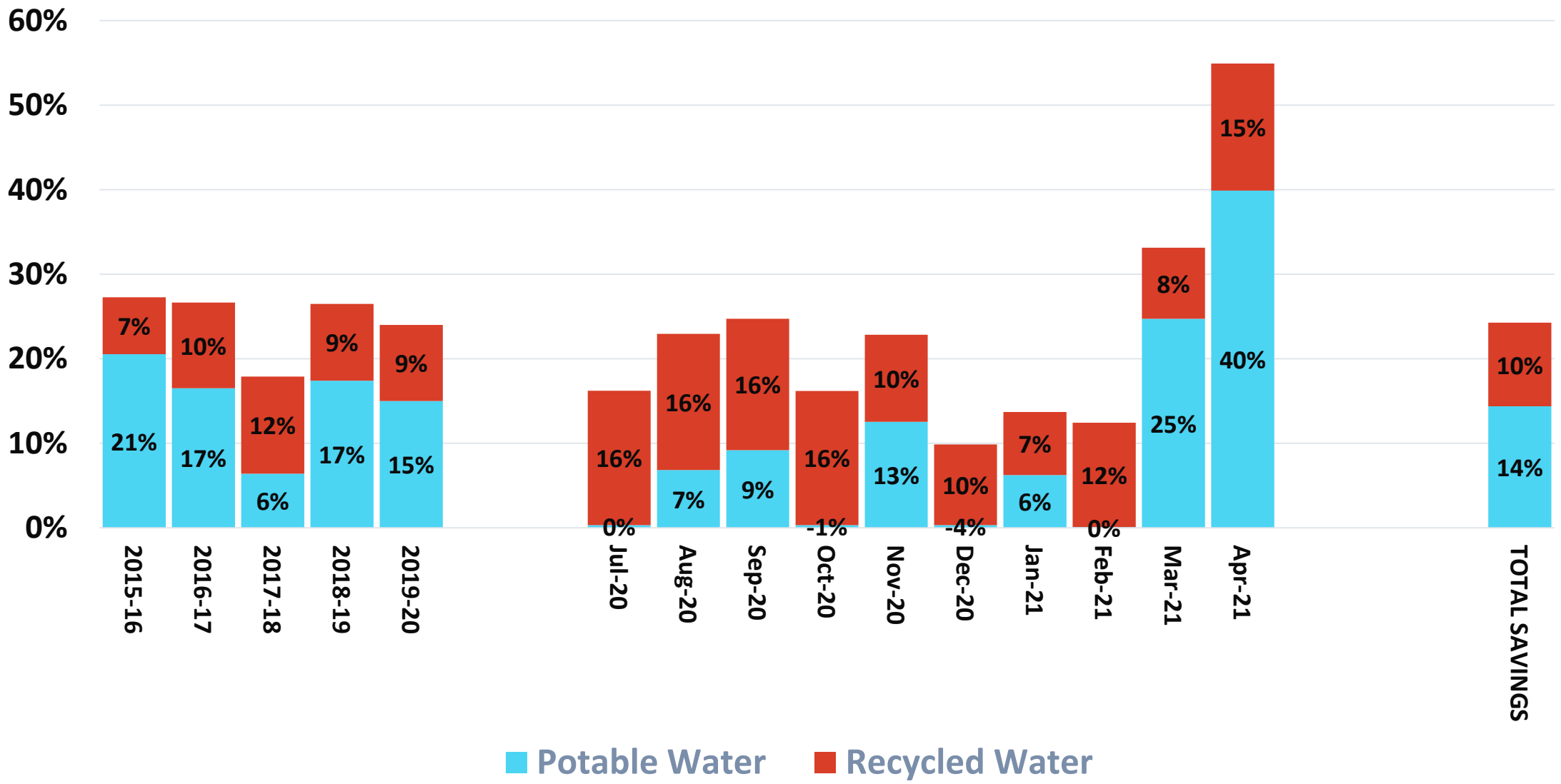


# NITRITE MONITORING

## April 2021



# ETWD WATER SAVINGS COMPARED TO 2013



**EL TORO WATER DISTRICT**
**MONTHLY POTABLE WATER QUALITY REPORT**

**The quality and safety of drinking water in the U.S. is regulated by the federal government through the U.S. Environmental Protection agency (USEPA). In California, those standards are enforced by the California Department of Public Health (CDPH). Water Quality parameters must meet both primary and secondary water quality standards as established by the CDPH.**

**PRIMARY STANDARDS - are intended to protect public health against substances in the water that may be harmful to humans if consumed for long periods of time.**

**SECONDARY STANDARDS - are to ensure esthetic qualities of water such as taste, odor or clarity. Rather than its healthfulness, these standards govern substances that may influence consumer acceptance of water.**

**Given that 100% of ETWD's potable water resource is fully treated and delivered by Metropolitan Water District of southern California (MWDSC) through an enclosed and protected conveyance system, the majority of the State and federal primary and secondary source water quality monitoring requirements are performed by MWDSC. The District's physical responsibility for water quality monitoring is associated with the distribution system. To monitor the distribution system water quality the District utilizes both in house and outside lab services. Routine distribution analysis conforming to CDPH requirements is conducted for the following constituents:**

**1) Microbiological - The number of microbiological samples and the frequency of analysis during the month is based on the population and/or service connections served. Utilizing a population of 50,000, the CDPH requires that 20 "representative" samples be collected and analyzed for coliform bacteria. The objective is to maintain water quality that is absent of coliform bacteria which is a general indicator for the existence of fecal coliform.**

**2) Chlorine Residual - The chlorine residual monitoring is performed in conjunction with the microbiological monitoring. The CDPH requirement for treated surface water mandates that the distribution system maintain a "detectable" residual. The number of and frequency of sampling is determined utilizing the same formula applied to microbiological requirements. At a minimum, we are obligated to collect and analyze for chlorine residual each time we collect the representative microbiological samples. Per EPA Disinfectants & Disinfection Byproduct Rule (D/DBP), which was effective January 2002, requires quarterly reporting for all sampling.**

**3) TTHM & HAA5 Stage 2 DBPR Compliance The U.S. Environmental Protection Agency (EPA) published the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) on January 4, 2006. The Stage 2 DBPR builds on existing regulations by requiring water systems to meet disinfection byproduct (DBP)* maximum contaminant levels (MCLs) at each monitoring site in the distribution system to better protect public health. The Stage 2 DBP rule is intended to reduce potential cancer and reproductive and developmental health risks from disinfection byproducts (DBPs) in drinking water, which form when disinfectants are used to control microbial pathogens.**
**This final rule strengthens public health protection for customers of systems that deliver disinfected water by requiring such systems to meet maximum contaminant levels as an average at each compliance monitoring location (instead of as a system-wide average as in previous rules) for two groups of DBPs, trihalomethanes (TTHM) and five haloacetic acids (HAA5). The rule targets systems with the greatest risk and builds incrementally on existing rules.**
**This regulation will reduce DBP exposure and related potential health risks and provide more equitable public health protection. The Stage 2 DBPR is being released simultaneously with the Long Term 2 Enhanced Surface Water Treatment Rule to address concerns about risk tradeoffs between pathogens and DBPs.**

**The mandatory requirement under the Stage 2 DBP rule, known as an Initial Distribution System Evaluation (IDSE) was completed by ETWD in 2008 and a Stage 2 monitoring plan has been approved by CDPH. Full Stage 2 compliance begins in 2012. The IDSE identified the locations with high disinfection byproduct concentrations. These locations will then be used by the District as the 8 sampling sites for Stage 2 DBP rule compliance monitoring. Compliance with the maximum contaminant levels for two groups of disinfection byproducts (TTHM and HAA5) will be calculated for each monitoring location in the distribution system. This approach, referred to as the locational running annual average (LRAA), differs from current requirements, which determine compliance by calculating the running annual average of samples from all monitoring locations across the system. The Stage 2 DBP rule also requires each system to determine if they have exceeded an operational evaluation level, which is identified using their compliance monitoring results. The operational evaluation level provides an early warning of possible future MCL violations, which allows the system to take proactive steps to remain in compliance. A system that exceeds an operational evaluation level is required to review their operational practices and submit a report to the state that identifies actions that may be taken to mitigate future high DBP levels, particularly those that may jeopardize their compliance with the DBP MCLs.**

**4) Physical Quality** - **Physical Quality analysis is associated with the esthetic qualities of the finished water. Primarily, we are performing analysis for taste, odor and Turbidity (Clarity). In accordance with CDPH requirements, the District collects a minimum of 15 samples per month.**

**5) Nitrites** - **Although the chloramine disinfection process has been effective in controlling TTHM levels, it requires increased monitoring and adjustment as a result of its susceptibility to the Nitrification process. Nitrification is a biological process caused by naturally occurring ammonia oxidizing bacteria. Nitrification in chloraminated drinking water can have various adverse impacts on water quality, the most serious of which is the loss of total chlorine residual which is required by the CDPH and the subsequent potential to increase bacteria-iological activity within the finished or treated water system. MWD has developed an effective nitrification monitoring and prevention program which ETWD staff have adopted and incorporated into the District's daily water quality monitoring and action plan. The number and frequency of this type of monitoring is not currently regulated by CDPH. Staff monitor the level of nitrites in source water, reservoirs and the distribution system daily and weekly in conjunction with the microbiological and chlorine sampling program. A nitrite level of between 0.015 and 0.030 would signal an alert. > 0.030 would require action such as the addition of chlorine to produce a chloramine residual.**

**EL TORO WATER DISTRICT**
**MONTHLY POTABLE WATER QUALITY ANALYSIS**
**MONTH: APRIL YEAR : 2021**

| CONSTITUENT | | INSIDE LAB | | OUTSIDE LAB | |
|---|---|---|---|---|---|
| ANALYSIS | MCL | NO. | RESULTS | NO. | RESULTS |
| | | | | | |
| 1 Microbiological | Pres/Absence | 147 | Absence | | Average |
| 2 Chlorine (ppm) | Detectable Resid | 176 | Average = 1.45 ppm | | |
| 3 TTHM (ppb) (Stage 2) | 80 ppb | | N/A | | |
| 3 HAA5 (ppb) (Stage 2) | 60 ppb | | N/A | | |
| 4 Physical Quality: | | | RANGE | | |
| Turbidity (ppm) | 5 NTU | 20 | 0.02 to 0.08 | | |
| Odor | 3 Units | 20 | ND<1 | | |
| Color | 15 Units | 20 | ND<5 | | |
| Temperature | No standard | 20 | 59.0°F To 69.0°F | | |
| 5 Nitrite (Alert/Action level)ppm | 0.015 to 0.030 ppm | 138 | 0.01 to 0.009 Res. | | |

**To ensure water quality compliance, the District annually performs approximately 8,750 water quality analytical evaluations of the samples collected from the distribution system.**

**Abbreviations:**

| | |
|---|---|
| **RES** | **Indicates that the nitrification was isolated to a reservoir and treated** |
| **ND** | **None detected** |
| **Pres/Absence** | **Presence (P) or Absence (A) related to a positive or negative bacteriological result** |
| **MCL** | **Maximum Contaminant Level** |
| **NTU** | **Nephelometric Turbidity Units, a measure of the suspended material in the water** |
| **ppm** | **Parts per million** |
| **ppb** | **Parts per billion** |
| **Total Coliform** | **No more than 5% of the monthly samples may be total coliform-positive** |
| **N/A** | **Not available** |

# EL TORO WATER DISTRICT
# COLLECTION SYSTEM ACTIVITY REPORT

**MONTH ENDING:** **APRIL** **2021**

| ODOR COMPLAINTS | MONTHLY | ANNUAL | LOCATION, ORIGIN, ACTION: |
|---|---|---|---|
| Outside Laguna Woods Village | 1 | 2 | 23202 Stella Ct. Lake Forest |
| Laguna Woods Village | 1 | 3 | 918 Unit D, Ave Majorica Laguna Woods |
| New World | 0 | 0 | |
| Private System | 0 | 1 | |
| Other: WRP | 0 | 0 | |
| **TOTAL** | **2** | **6** | |

| ROOT FOAMING | FOOTAGE | CHEMICAL USED | COMMENTS |
|---|---|---|---|
| Outside Laguna Woods Village | 0 | 0 | |
| Laguna Woods Village | 0 | 0 | |
| New World | 0 | 0 | |
| Other | 0 | 0 | |
| **TOTAL** | **0** | **0** | |

| ROOT CUTTING | FOOTAGE | COMMENTS: |
|---|---|---|
| Outside Laguna Woods Village | 0 | |
| Laguna Woods Village | 0 | |
| New World | 0 | |
| **TOTAL** | **0** | |

| HYDRO-CLEANING [1] | MONTHLY FOOTAGE | TOTAL CYCLE FOOTAGE | TOTAL CYCLE COMPLETE | PERCENT OF CYCLE COMPLETE | PERCENT OF WEEKS INTO THE 2 YEAR CYCLE |
|---|---|---|---|---|---|
| Outside Laguna Woods Village | 0 | 344,431 | 356,735 | **104%** | **38%** |
| Laguna Woods Village | 67,637 | 263,336 | 84,358 | **32%** | **38%** |
| New World | 0 | 7,728 | 0 | **0%** | **38%** |
| Private System | 0 | | 0 | | |
| **TOTAL** | 67,637 | **615,495** | **441,093** | **72%** | **38%** |
| Hot Spots | 16,778 | | 208,561 | | |
| **COMBINED TOTALS:** | **84,415** | | **649,654** | | |

| TV INSPECTIONS [2] | MONTHLY FOOTAGE | TOTAL CYCLE | TOTAL CYCLE COMPLETE | PERCENT CYCLE COMPLETE | PERCENT OF WEEKS INTO THE 5 YEAR CYCLE |
|---|---|---|---|---|---|
| Outside Laguna Woods Village | 11,112 | 344,265 | 38,731 | **11%** | **5%** |
| Laguna Woods Village | 0 | 263,472 | 3,321 | **1%** | **5%** |
| New World | 0 | 7,728 | 0 | **0%** | **5%** |
| Private System | 0 | 0 | 0 | | |
| Other | 0 | 0 | 0 | | |
| **TOTAL** | **11,112** | **615,465** | **42,052** | **7%** | **5%** |
| Wet Well Cleaning | 3 | | Mathis, La Paz, Freeway | | |
| Flow Meter/Sampling | 0 | | | | |
| Water Tank Fills 85 | 85,000 | | | | |

**1. The Hydrocleaning Objective is a 2 Year Cycle to Clean the Entire System.**
**The current cycle began on 07/01/2020**

**2 The TV Inspection Objective is a 5 Year Cycle to Inspect the Entire System.**
**The current cycle began on 01/25/2021**

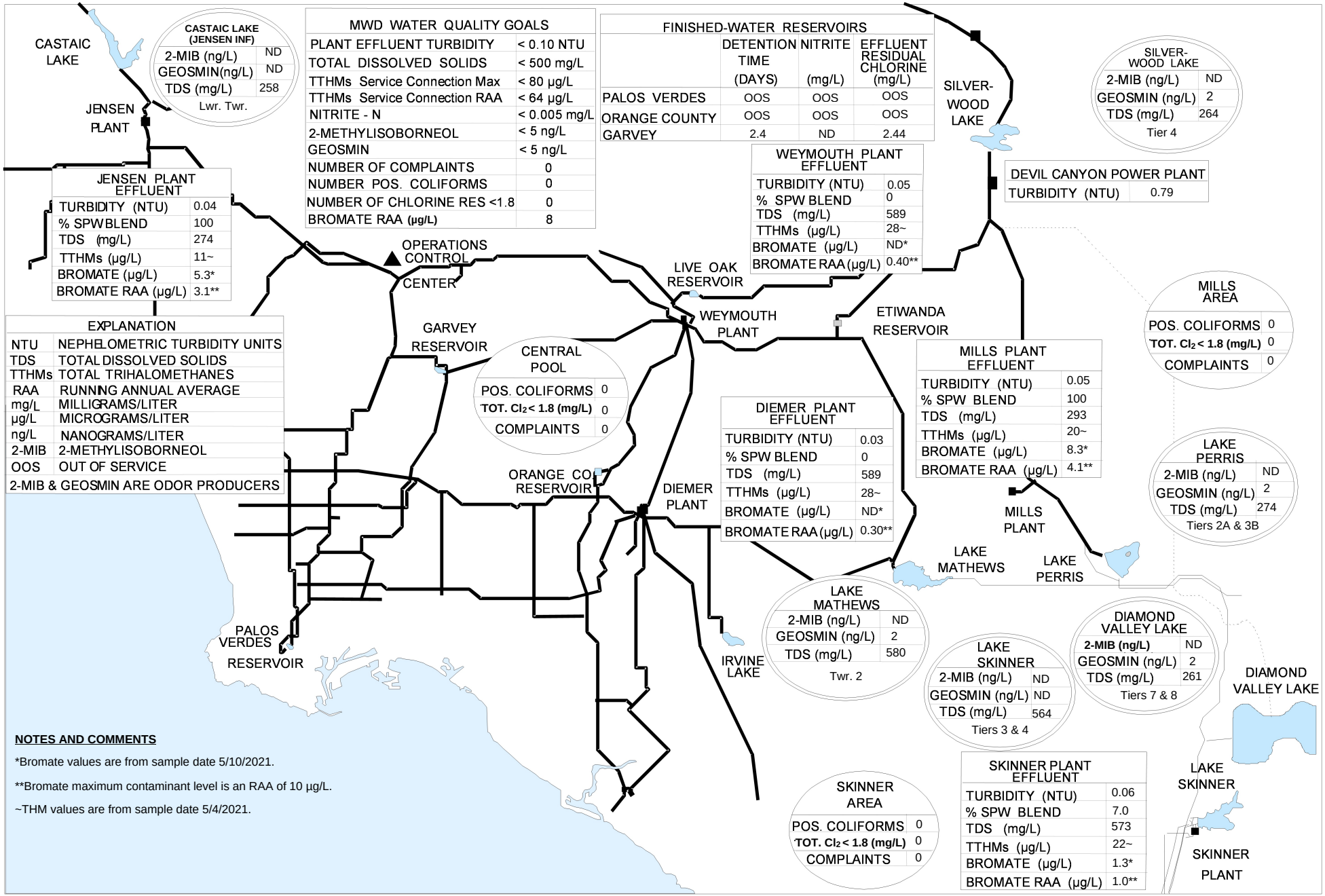
# Weekly Water Quality System Status

## Wednesday, May 19, 2021

Generated On:5/19/2021 11:52:34 AM

**THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

**No violations of State or Federal regulations were recorded during the current period.**




**EXPLANATION**

| | |
|---|---|
| NTU | NEPHELOMETRIC TURBIDITY UNITS |
| TDS | TOTAL DISSOLVED SOLIDS |
| TTHMs | TOTAL TRIHALOMETHANES |
| RAA | RUNNING ANNUAL AVERAGE |
| mg/L | MILLIGRAMS/LITER |
| µg/L | MICROGRAMS/LITER |
| ng/L | NANOGRAMS/LITER |
| 2-MIB | 2-METHYLISOBORNEOL |
| OOS | OUT OF SERVICE |

2-MIB & GEOSMIN ARE ODOR PRODUCERS

**NOTES AND COMMENTS**

*Bromate values are from sample date 5/10/2021.

**Bromate maximum contaminant level is an RAA of 10 µg/L.

~THM values are from sample date 5/4/2021.

MWD water quality goals meet or exceed all State and Federal regulations.

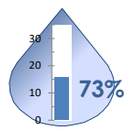
WATER QUALITY INFORMATION LINE: (800) 354-4420
VISIT MWD ON THE WEB AT http://www.mwdh2o.com

# Water Supply Conditions Report

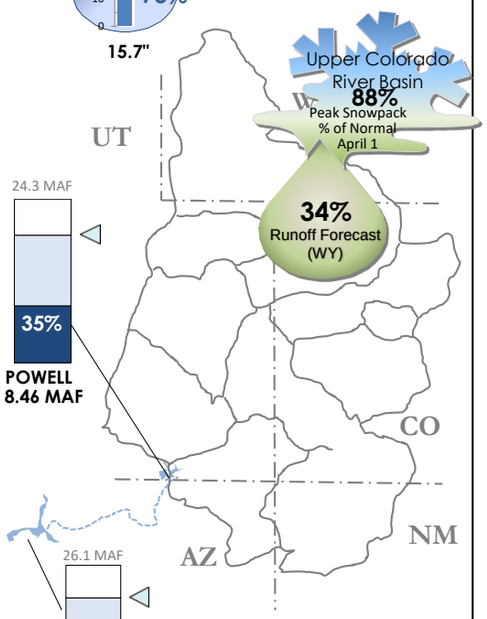
*As of: 05/04/2021*

## 2021 Colorado River

1,103,000 AF
88% of full CRA
Available Supplies

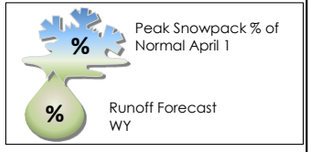



15.7"




**POWELL**
**8.46 MAF**

**MEAD**
**9.88 MAF**
**1078.46 FT**




Turn page for more CRA Data

Flip Over for SWP Data

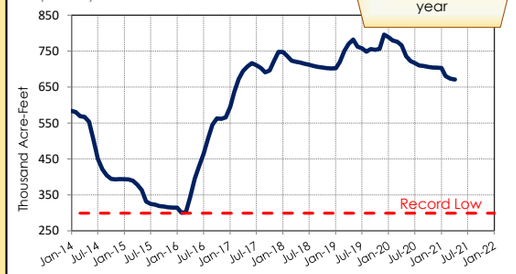
## Highlights

- Precipitation at the 8 Station Index is at 48% of normal
- Water Year runoff forecast for the Sacramento River is at 45% of normal
- Precipitation in the Upper Colorado is at 73% of normal
- Water Year runoff forecast for Lake Powell is forecasted at 34% of normal

### Diamond Valley Lake Storage

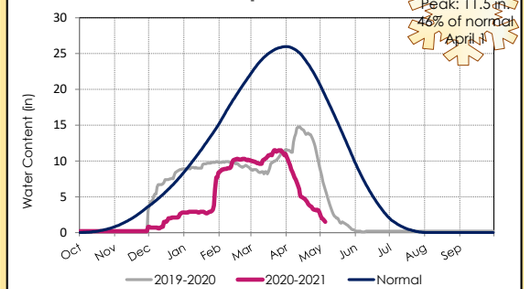
Capacity: 810 TAF

92 TAF less in storage than this time last year

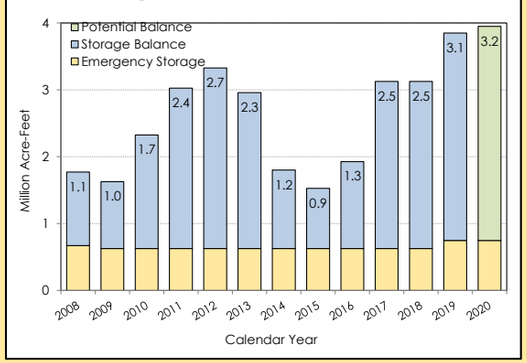



### Southern Sierra Snowpack

Peak: 11.5 in., 46% of normal, April 1



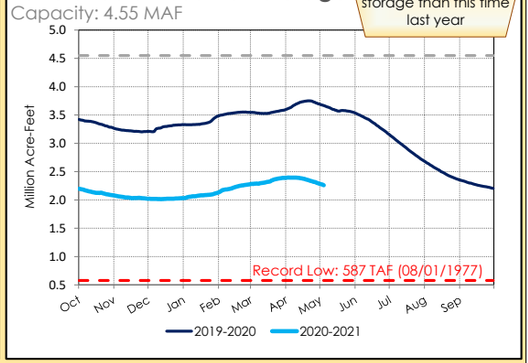

### MWD Storage Reserve Levels




### Lake Shasta Reservoir Storage

Capacity: 4.55 MAF

1.40 MAF less in storage than this time last year






**http://www.mwdh2o.com/WSCR**

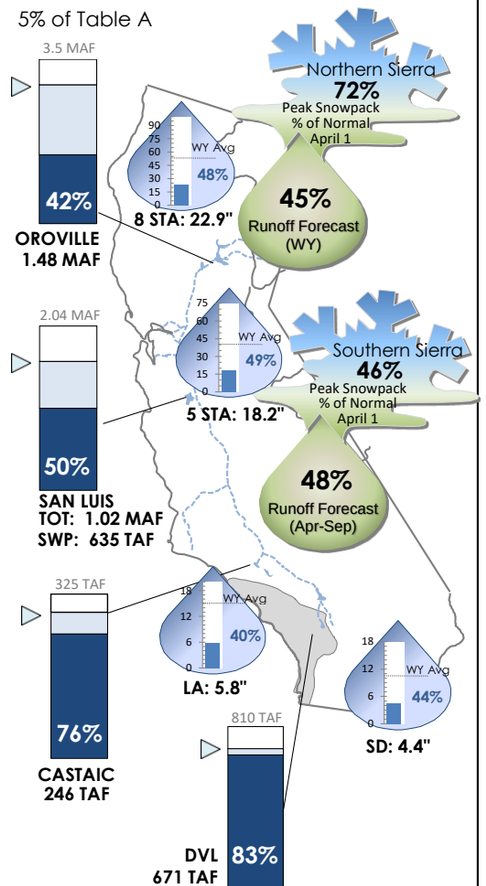
This report is best printed double sided on legal size paper (8.5" x 14") and folded in quarters. Questions? Email mferreira@mwdh2o.com

# Water Supply Conditions Report

*As of: 05/04/2021*

## 2021 SWP Allocation

95,575 AF
5% of Table A



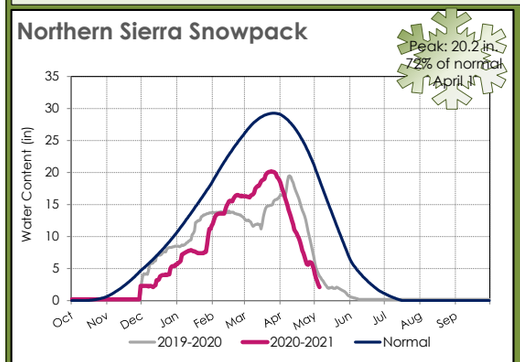

Flip Over for CRA Data

Turn page for more SWP Data

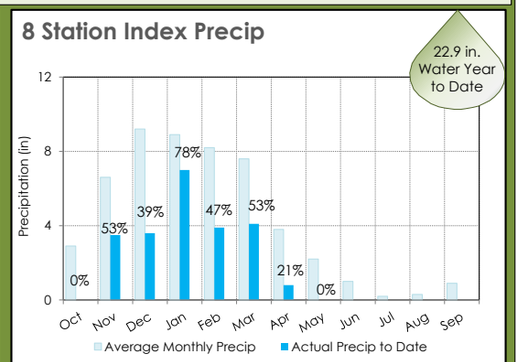
# State Water Project Resources

As of: 05/04/2021

## Northern Sierra Snowpack



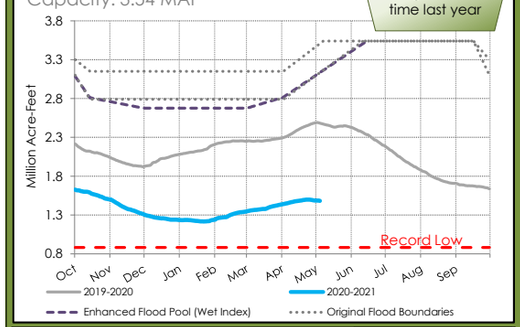

## 8 Station Index Precip



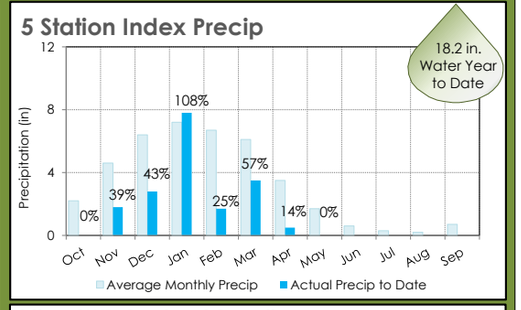

## Oroville Reservoir Storage

Capacity: 3.54 MAF

997 TAF less in storage than this time last year




## 5 Station Index Precip




## Other SWP Contract Supplies

Calendar Year 2021

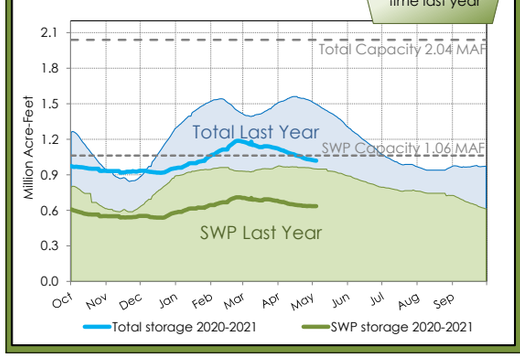
Carryover
207,000 AF

Transfer Supplies
30,000 AF (Est.)

## San Luis Reservoir Storage

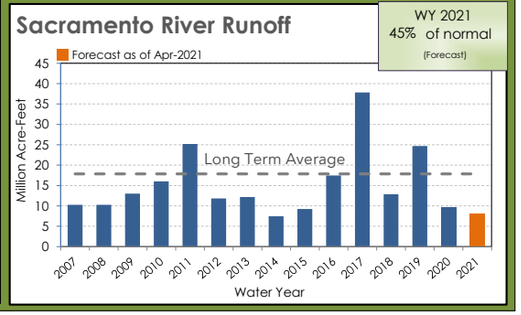
Capacity: 2.04 MAF

313 TAF less in SWP storage than this time last year




## Sacramento River Runoff

WY 2021
45% of normal
(Forecast)

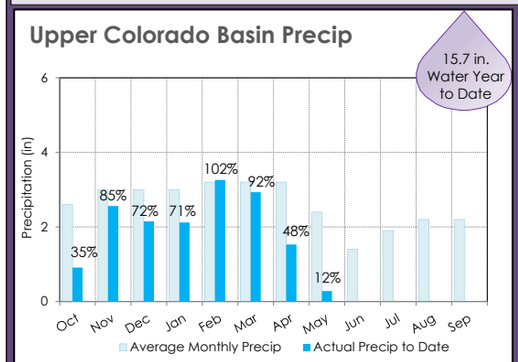



# Colorado River Resources

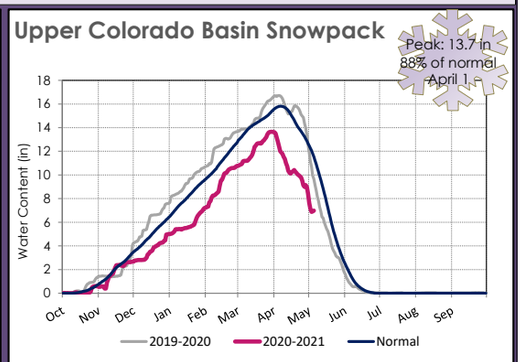
As of: 05/04/2021

## Upper Colorado Basin Precip

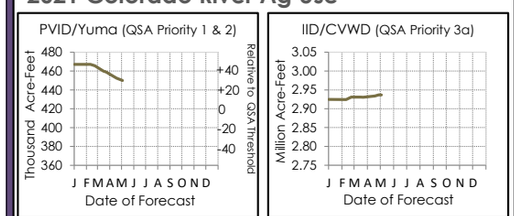
15.7 in.
Water Year to Date




## Upper Colorado Basin Snowpack



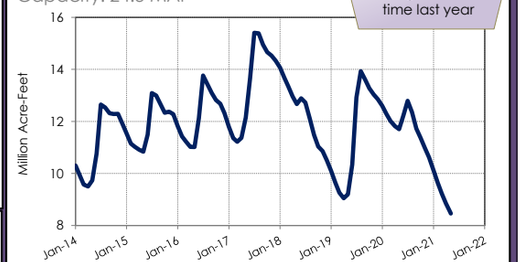

## 2021 Colorado River Ag Use




## Lake Powell Storage

Capacity: 24.3 MAF

3.23 MAF less in storage than this time last year




## Lake Mead Shortage/Surplus Outlook

| | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|
| Surplus | 0% | 0% | 0% | 1% | 4% |
| Shortage | 0% | 97% | 94% | 82% | 77% |
| Metropolitan DCP* | | | 2% | 35% | 26% |

Likelihood based on results from the April 2021 MTOM/CRSS model run. Includes DCP Contributions.

* Chance of required DCP contribution by Metropolitan

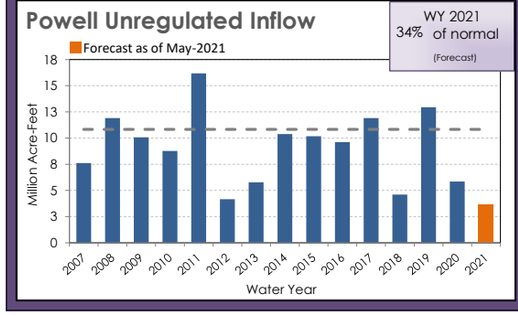
## Projected Lake Mead ICS

Calendar Year 2021

Put (+)/Take(-)
-57,000 AF

## Powell Unregulated Inflow

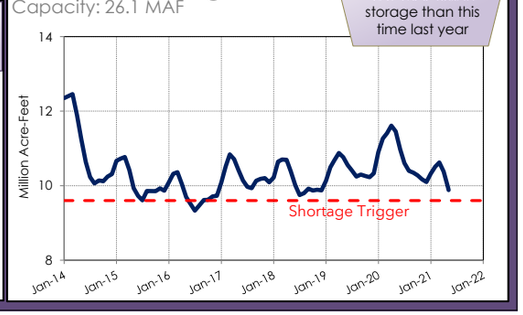
WY 2021
34% of normal
(Forecast)




## Lake Mead Storage

Capacity: 26.1 MAF

1.49 MAF less in storage than this time last year



# Memorandum

**DATE**: May 17, 2021

**TO**: Member Agencies – MWDOC Division Five

**FROM**: Sat Tamaribuchi, Director – Division Five

**SUBJECT**: Monthly Water Usage Data, Tier 2 Projection & Water Supply Information

---

The attached figures show the recent trend of water consumption in Orange County (OC), an estimate of Imported Water Sales for MWDOC, and selected water supply information.

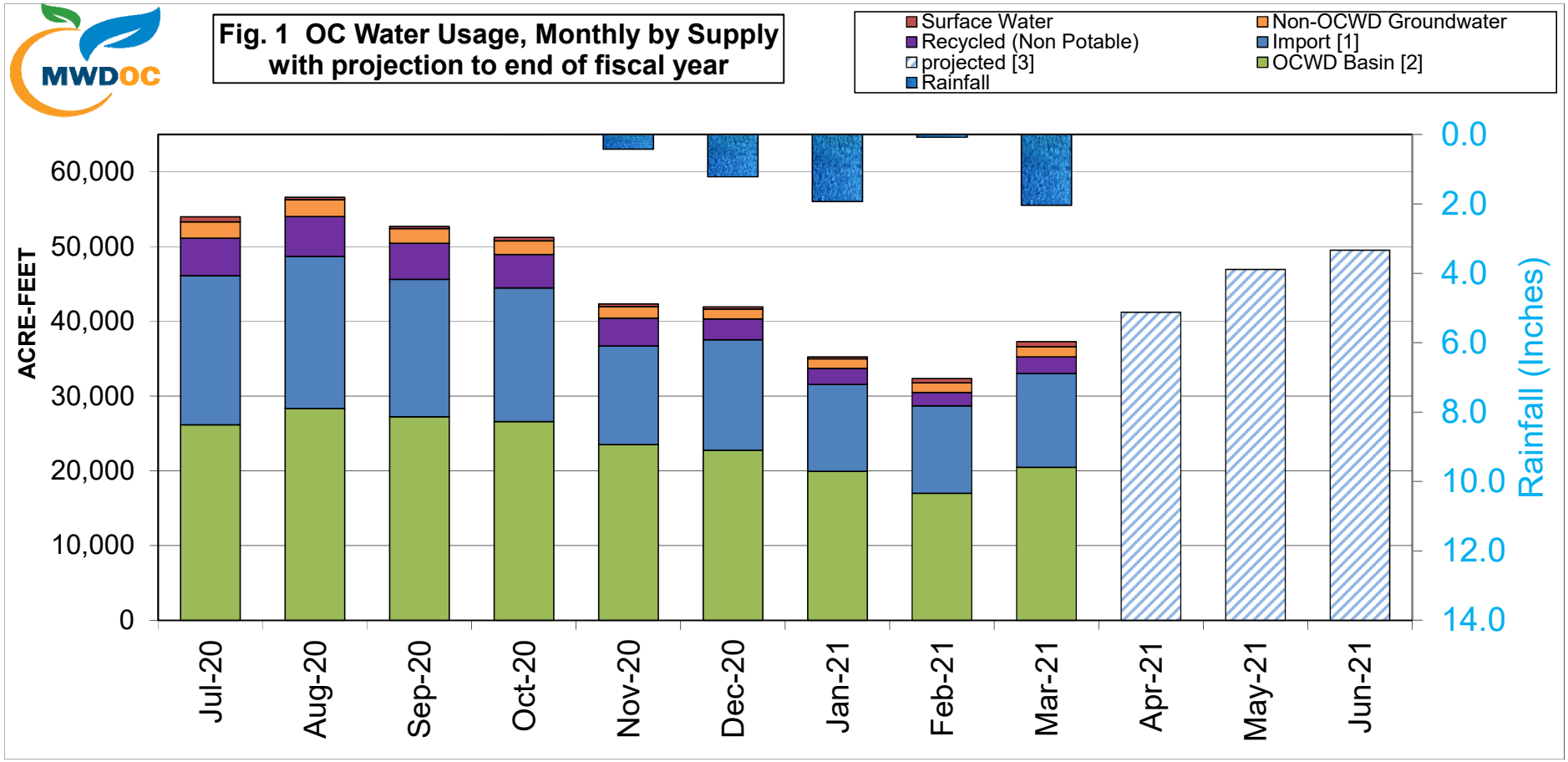
- OC Water Usage, Monthly by Supply ***OCWD Groundwater was the main supply in March.***
- Estimated OC Water Usage, Monthly, Comparison to Previous Years Water usage in ***March 2020 was above average compared to the last 5 years***. We are projecting a slight Increase in overall water usage compared to FY 2019-20. It has been 48 months since all mandatory water restrictions were lifted by the California State Water Resources Control Board.
- Historical OC Water Consumption Orange County M & I water consumption is ***projected*** to be ***541,000 AF in FY 2020-21*** *(this includes ~15 TAF of agricultural usage and non-retail water agency usage).* This is about ***9,000 AF more than FY 2019-20*** and is about ***25,000 AF more than FY 2018-19***. Water usage per person is projected to be slightly higher in ***FY 2020-21 for Orange County at 151 gallons per day*** (This includes recycled water). Although OC population has increased 20% over the past two decades, water usage has not increased, on average. A long-term decrease in per-capita water usage is attributed mostly to Water Use Efficiency (water conservation) efforts. ***O.C. Water Usage for the last five Fiscal Years is the lowest since the 1982-83 Fiscal Year*** (FY 1982-83 was the third wettest year on record).

Water Supply Information Includes data on Rainfall in OC; the OCWD Basin overdraft; Northern California and Colorado River Basin hydrologic data; the State Water Project (SWP) Allocation, and regional storage volumes. The data have implications for the magnitude of supplies from the three watersheds that are the principal sources of water for OC. Note that a hydrologic year is Oct. 1st through Sept. 30th.

- Orange County's accumulated precipitation through ***early May*** was below average for this period. Water year to date rainfall in Orange County is ***5.7 inches***, which is ***46% of normal***.

- Northern California accumulated precipitation through ***early May*** was ***50% of normal for this period***. Water Year 2020 was 63% of normal while water year 2019 was 137% of normal. The ***Northern California snowpack was 66% as April 1st As of early May, 97.52%*** of California is experiencing ***moderate to exceptional drought conditions*** while 100.00% of the state is experiencing abnormally dry conditions. The State Water Project Contractors Table A Allocation was lowered to 5% in March 2021.

- Colorado River Basin accumulated precipitation through ***early May was 74% of normal*** for this period. The ***Upper Colorado Basin snowpack was 74% of normal*** as of April 13th***. Lake Mead and Lake Powell*** combined have about ***54% of their average storage volume*** for this time of year and are at ***36.7% of their total capacity***. If Lake Mead's ***level falls below a "trigger" limit 1,075 ft. at the end of a calendar year***, then a shortage will be declared by the US Bureau of Reclamation (USBR), impacting Colorado River water deliveries to the Lower Basin states. As of early March, Lake Mead levels were ***3.21' above the "trigger" limit***. The USBR predicts that there is ***a 60% chance that the trigger level will be hit in 2022 and a 82% chance in 2023.***

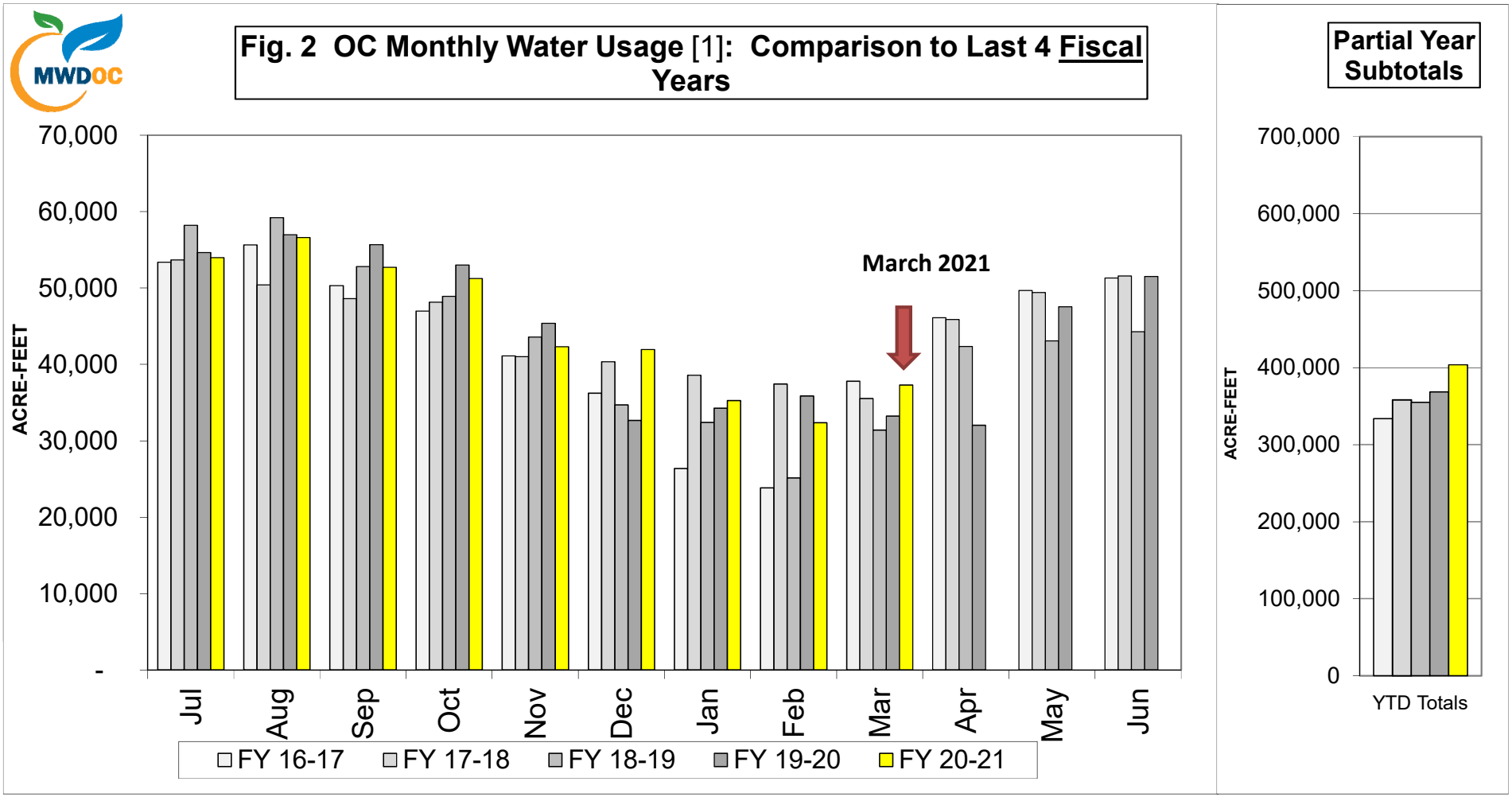



[1] Imported water for consumptive use. Includes "In-Lieu" deliveries and CUP water extraction. Excludes "Direct Replenishment" deliveries of spreading water and deliveries into Irvine Lake.

[2] GW for consumptive use only. Excludes In-Lieu water deliveries and CUP water extraction that are counted with Import. BPP in FY '20-21 is 77%.

[3] MWDOC's estimate of monthly demand is based on the projected 5 Year historical retail water demand and historical monthly demand patterns.

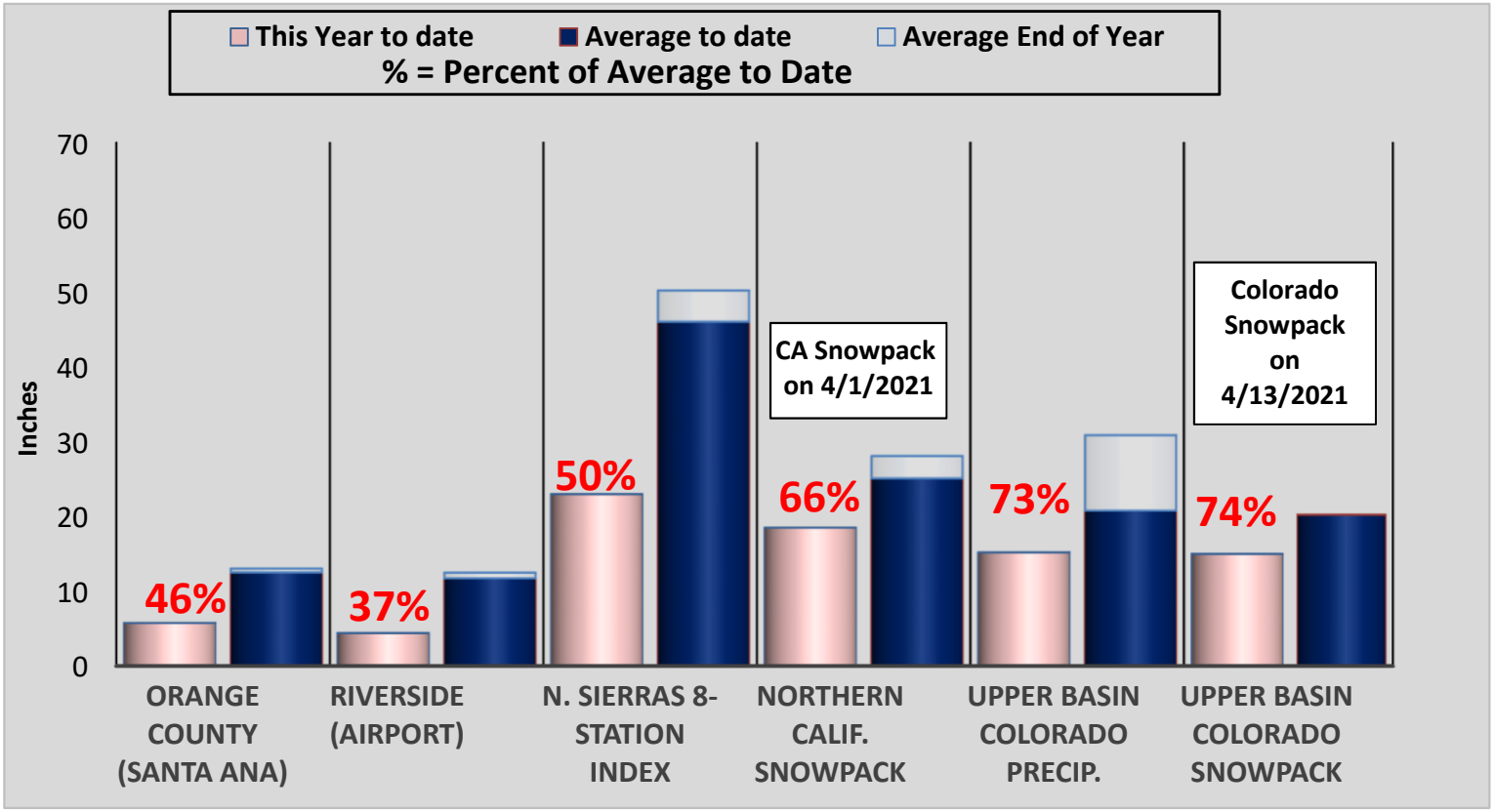
[4] Total water usage includes IRWD groundwater agricultural use and usage by non-retail water agencies.




[1] Sum of Imported water for consumptive use (includes "In-Lieu" deliveries; excludes "Direct Replenishment "and "Barrier Replenishment") and Local water for consumptive use (includes recycled and non-potable water and excludes GWRS production) Recent months numbers include some estimation.

# Accumulated Precipitation

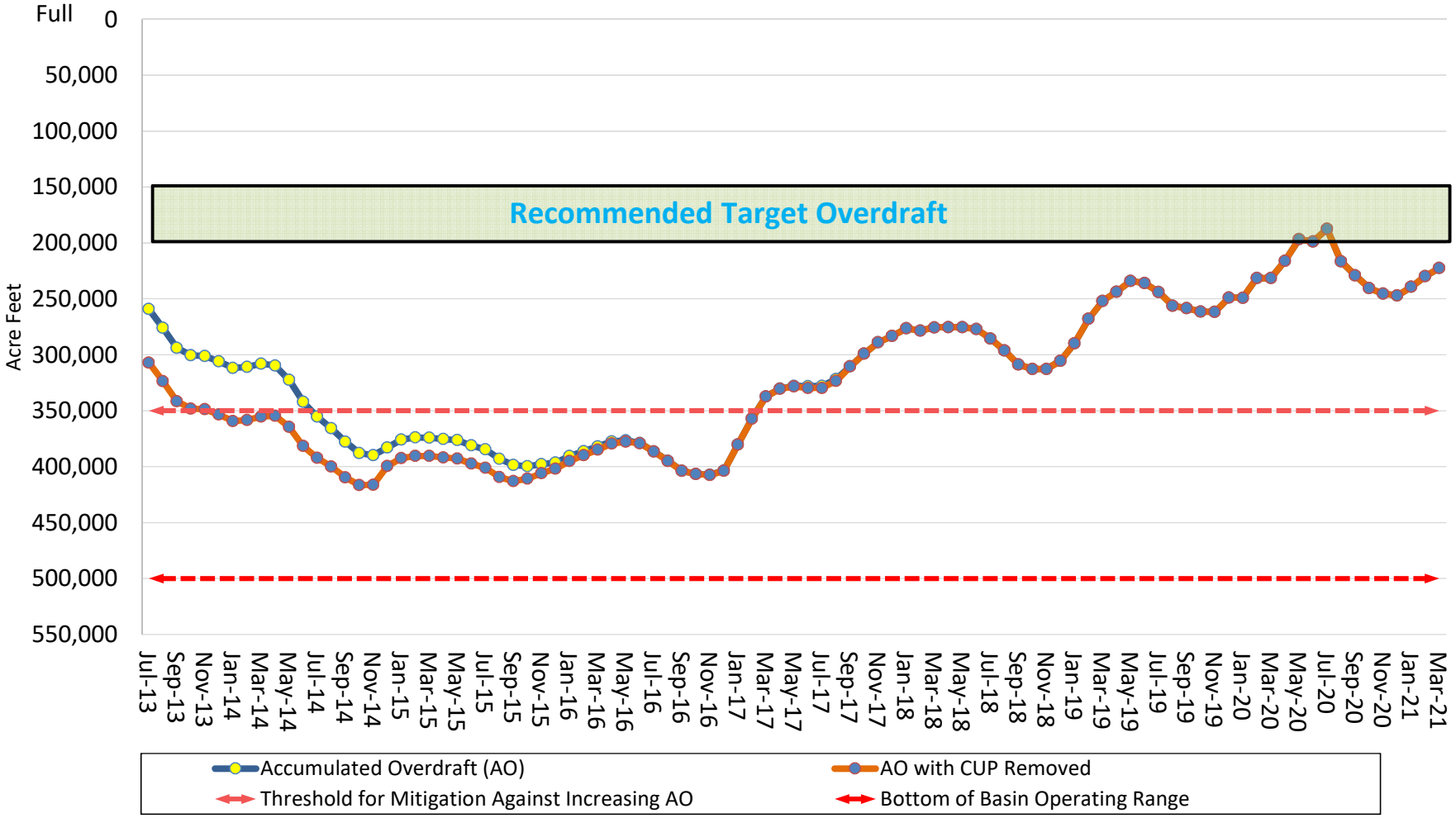
## for the *Oct.-Sep.* water year, early May 2021




MWDOC

* The date of maximum snowpack accumulation (April 1st in Northern Calif. , April 15th in the Upper Colorado Basin) is used for year to year comparison.

# Accumulated Overdraft of the OCWD Groundwater Basin as of March 2021

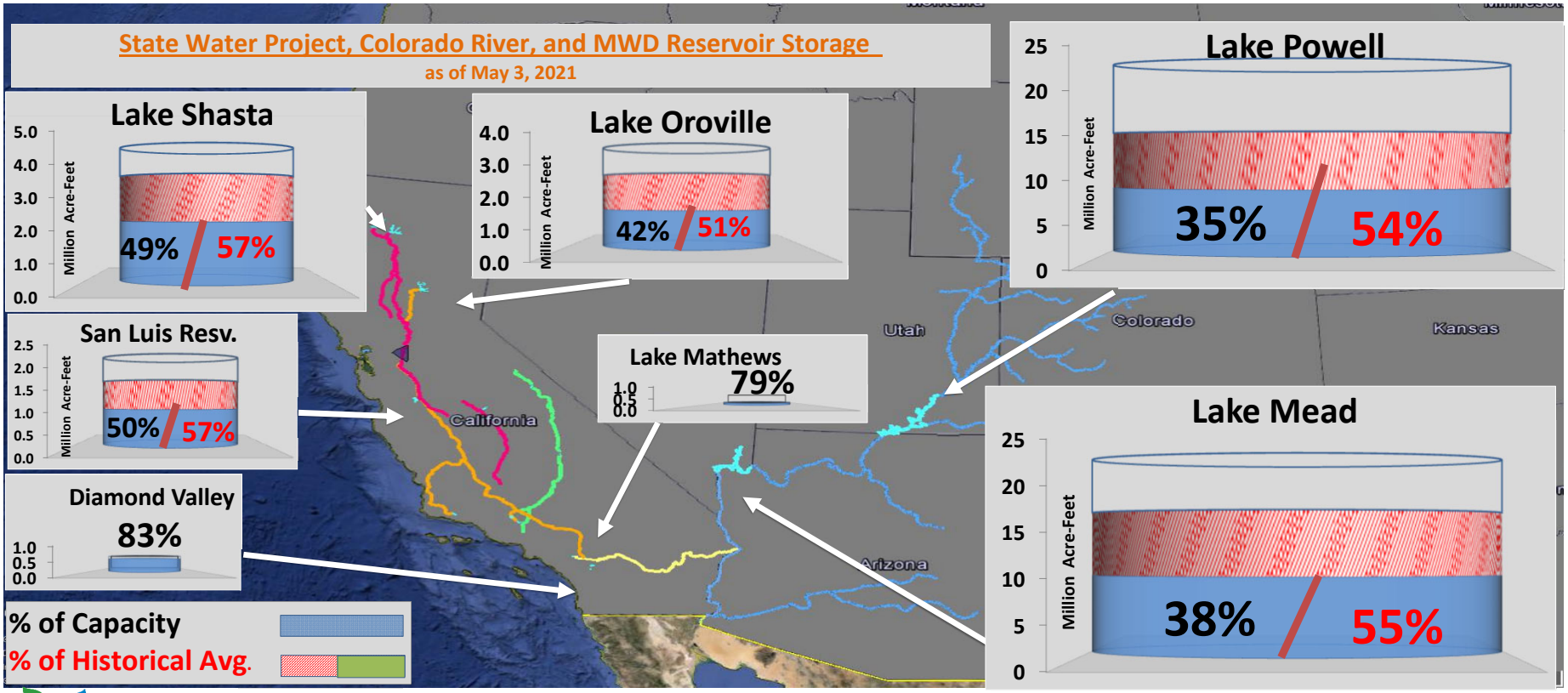



| | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AO (AF) | 244,057 | 256,239 | 258,445 | 261,464 | 261,645 | 248,909 | 249,051 | 231,354 | 231,354 | 216,098 | 196,677 | 198,754 |
| AO w/CUP removed (AF) | 244,057 | 256,239 | 258,446 | 261,464 | 261,645 | 248,909 | 249,051 | 231,354 | 231,354 | 216,098 | 196,677 | 198,754 |
| | Jul-20 | Aug-20 | Sep-20 | Oct-20 | Nov-20 | Dec-20 | Jan-21 | Feb-21 | Mar-21 | Apr-21 | May-21 | Jun-21 |
| AO (AF) | 187,392 | 216,548 | 229,124 | 240,414 | 245,441 | 246,998 | 239,329 | 229,738 | 222,470 | | | |
| AO w/CUP removed (AF) | 187,392 | 216,548 | 229,124 | 240,414 | 245,441 | 246,998 | 239,329 | 229,738 | 222,470 | | | |

**** Source ~ OCWD Monthly Board of Directors Packet, Water Resources Summary***

MWDOC

Source of data = OCWD monthly Water Resources Report in Board meeting packet

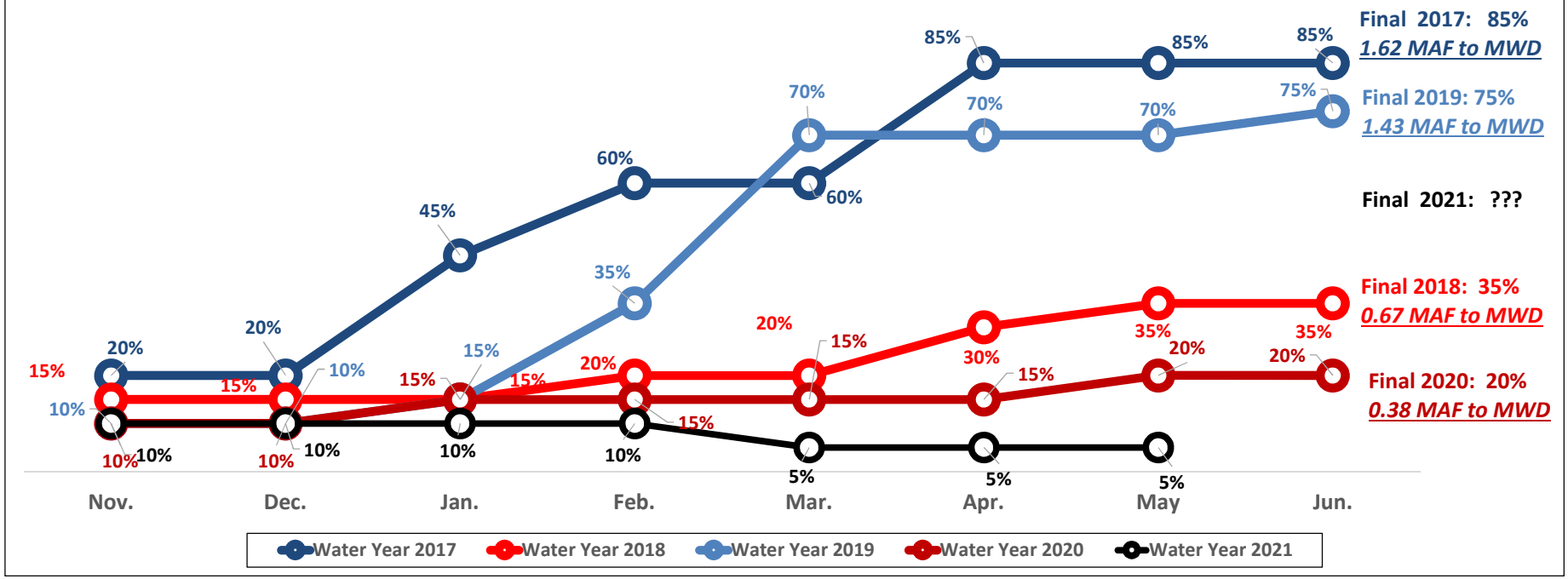


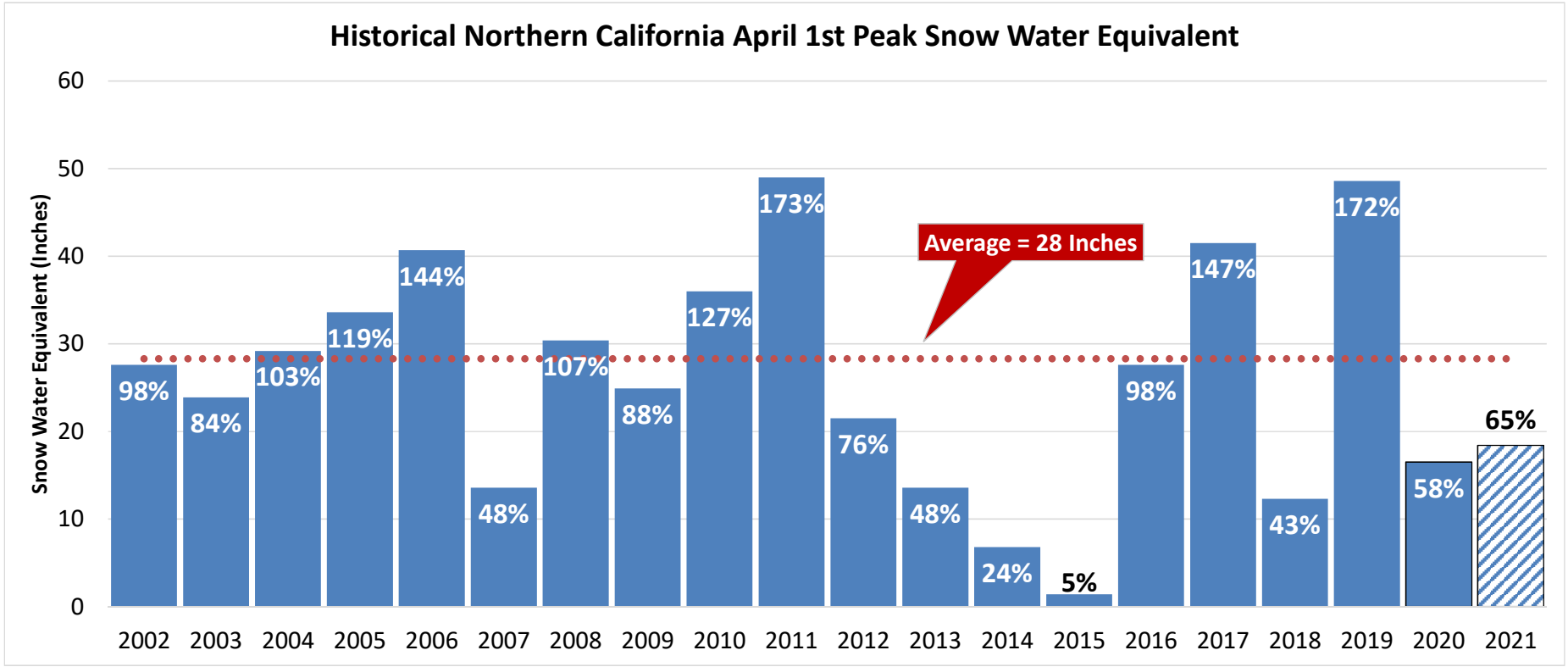

MWDOC

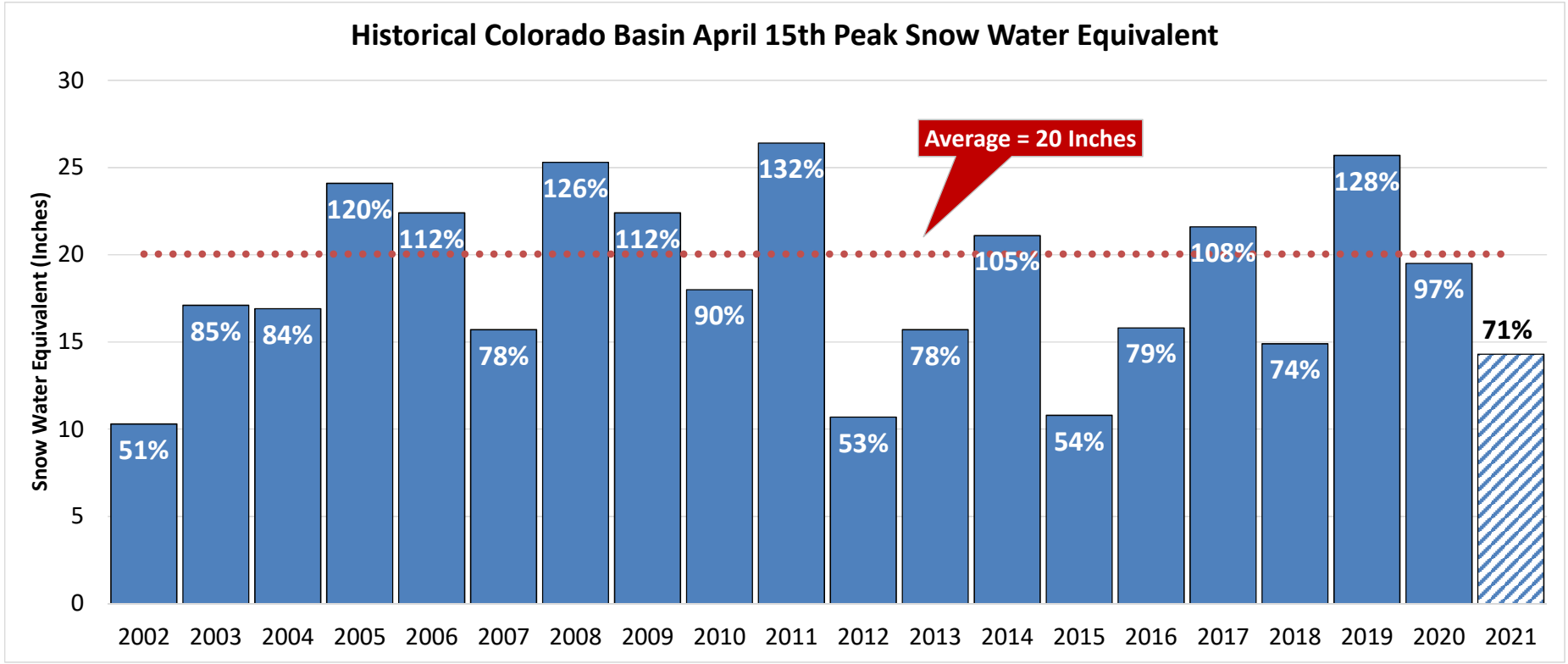
prepared by the Municipal Water District of Orange County
*Number are Subuject to Change

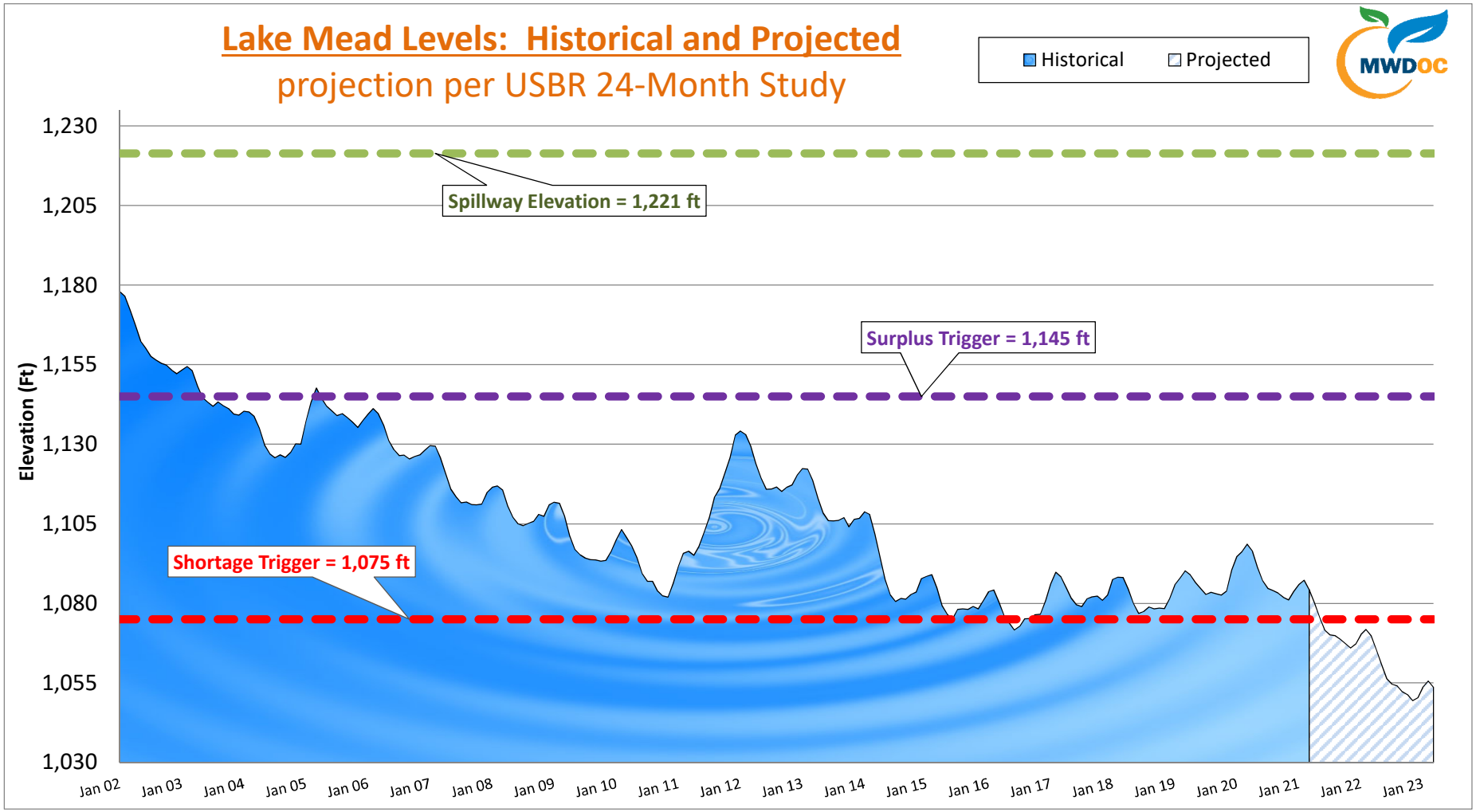
# SWP TABLE A ALLOCATION

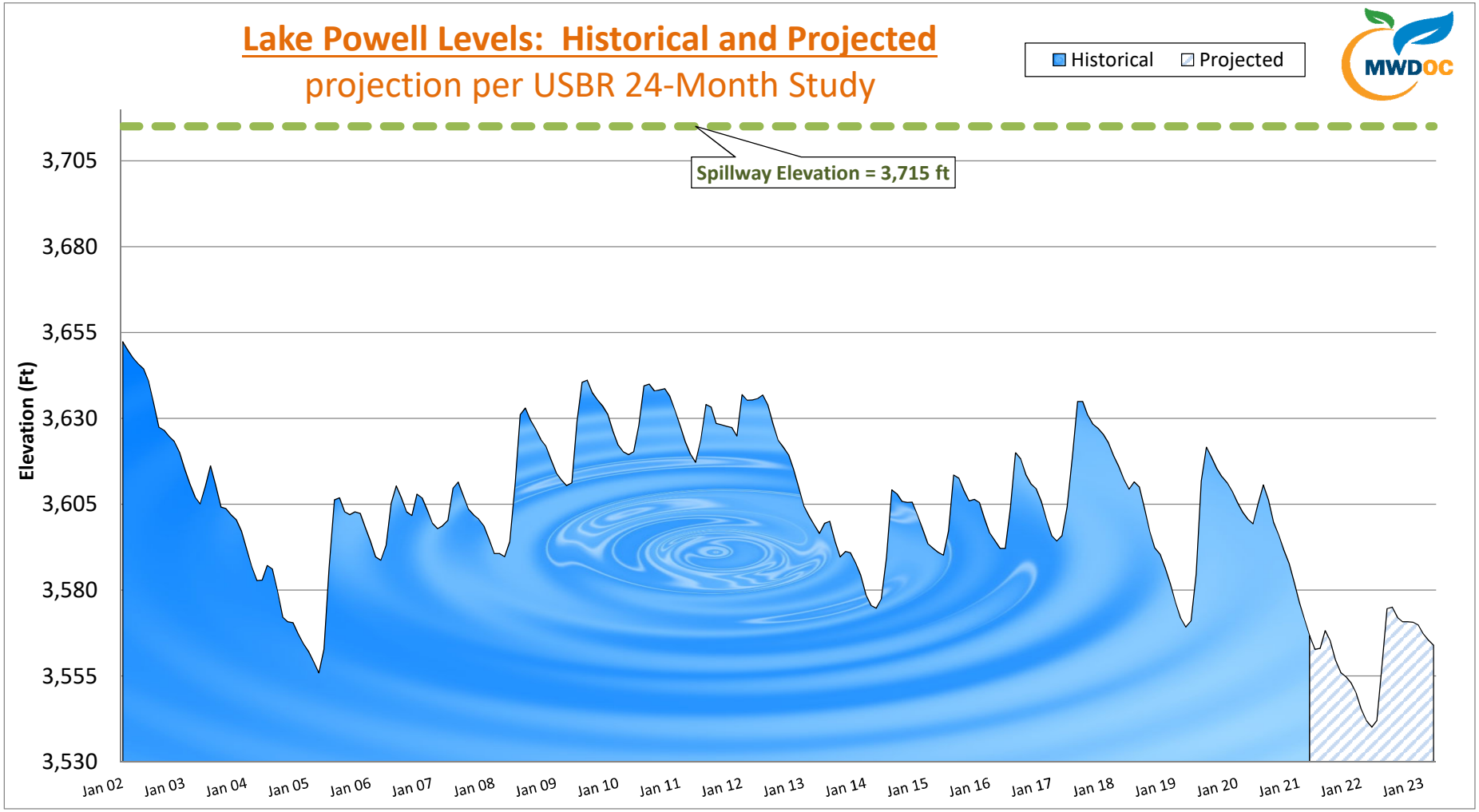
FOR STATE WATER PROJECT CONTRACTORS

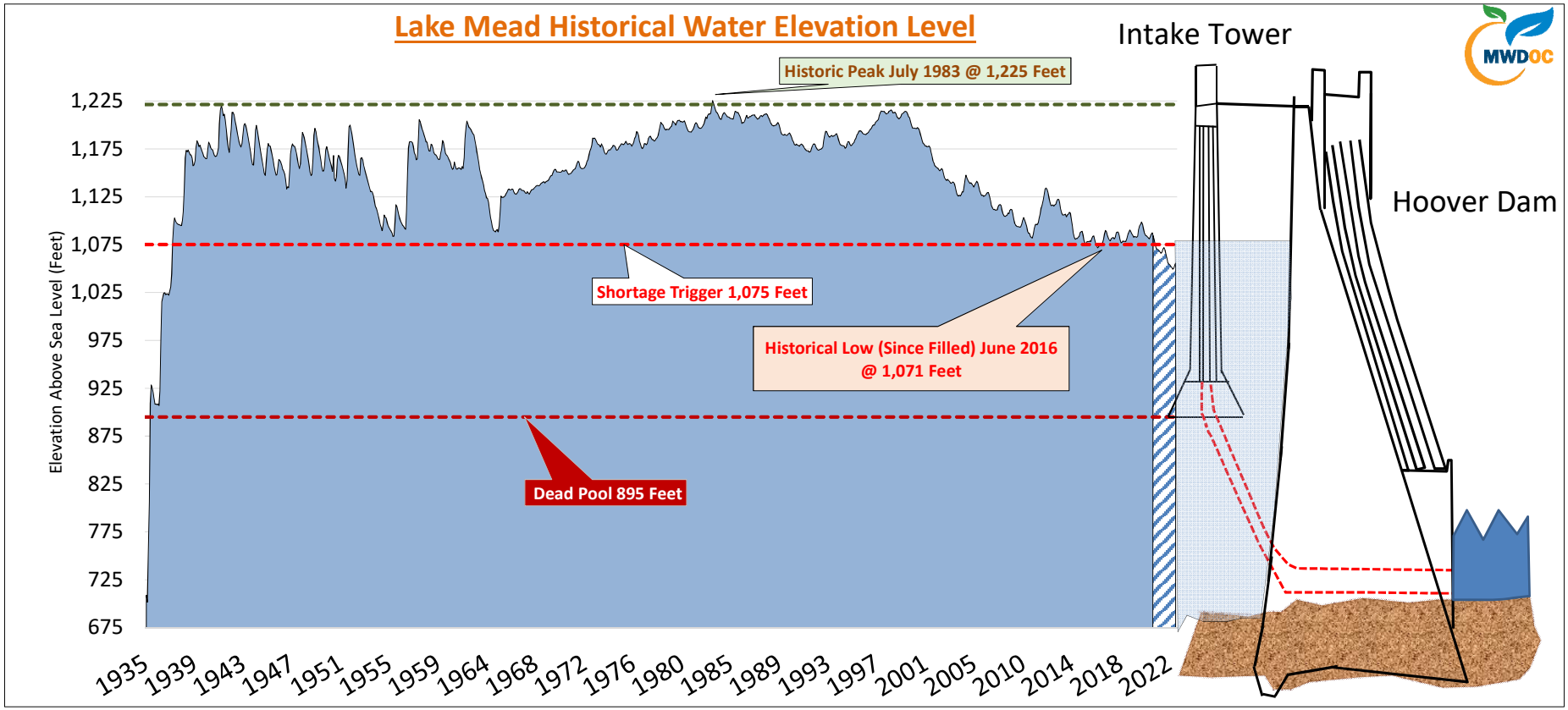



Historical Northern California April 1st Peak Snow Water Equivalent
Snow Water Equivalent (Inches)
60
50
40
30
20
10
0
Average = 28 Inches
98%
84%
103%
119%
144%
48%
107%
88%
127%
173%
76%
48%
24%
5%
98%
147%
43%
172%
58%
65%
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021


Historical Colorado Basin April 15th Peak Snow Water Equivalent
Snow Water Equivalent (Inches)
30
25
20
15
10
5
0
Average = 20 Inches
51%
85%
84%
120%
112%
78%
126%
112%
90%
132%
53%
78%
105%
54%
79%
108%
74%
128%
97%
71%
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021


Lake Mead Levels: Historical and Projected
projection per USBR 24-Month Study
Historical
Projected
MWDOC
Spillway Elevation = 1,221 ft
Surplus Trigger = 1,145 ft
Shortage Trigger = 1,075 ft
Elevation (Ft)
1,230
1,205
1,180
1,155
1,130
1,105
1,080
1,055
1,030
Jan 02
Jan 03
Jan 04
Jan 05
Jan 06
Jan 07
Jan 08
Jan 09
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14
Jan 15
Jan 16
Jan 17
Jan 18
Jan 19
Jan 20
Jan 21
Jan 22
Jan 23


Lake Powell Levels: Historical and Projected
projection per USBR 24-Month Study
Historical
Projected
MWDOC
Spillway Elevation = 3,715 ft
Elevation (Ft)
3,705
3,680
3,655
3,630
3,605
3,580
3,555
3,530
Jan 02
Jan 03
Jan 04
Jan 05
Jan 06
Jan 07
Jan 08
Jan 09
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14
Jan 15
Jan 16
Jan 17
Jan 18
Jan 19
Jan 20
Jan 21
Jan 22
Jan 23

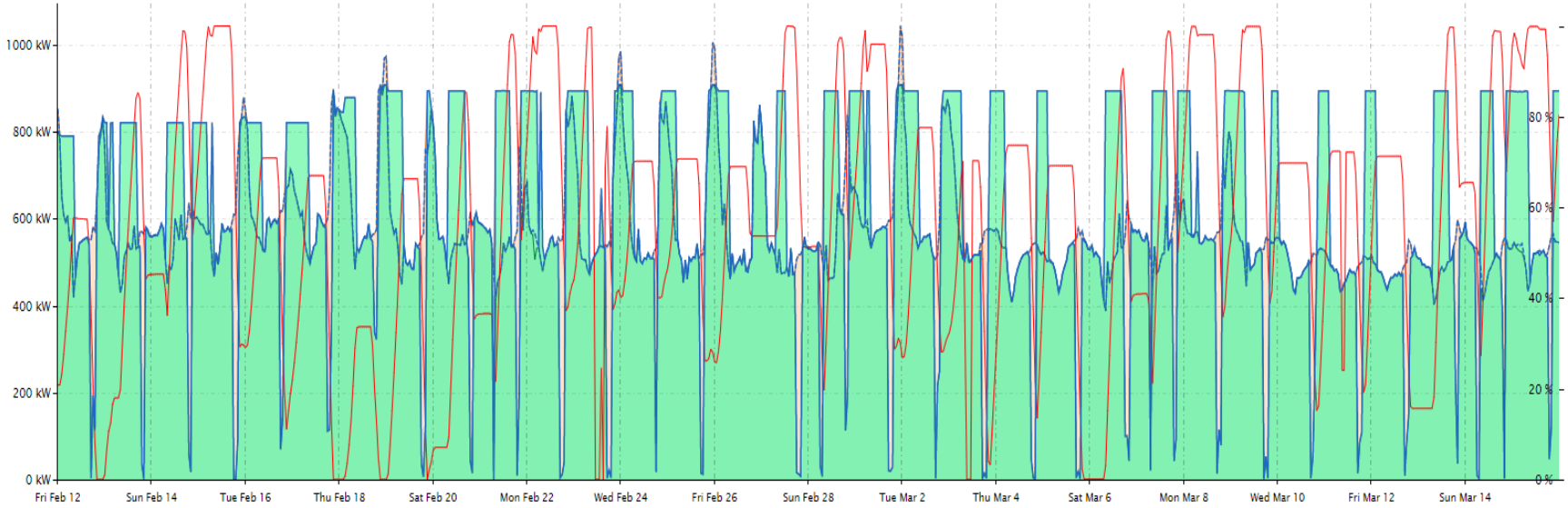

Lake Mead Historical Water Elevation Level
Intake Tower
Hoover Dam
MWDOC
Historic Peak July 1983 @ 1,225 Feet
Shortage Trigger 1,075 Feet
Historical Low (Since Filled) June 2016
@ 1,071 Feet
Dead Pool 895 Feet
Elevation Above Sea Level (Feet)
1,225
1,175
1,125
1,075
1,025
975
925
875
825
775
725
675
1935
1939
1943
1947
1951
1955
1959
1964
1968
1972
1976
1980
1985
1989
1993
1997
2001
2005
2010
2014
2018
2022


# WRP BATTERY STORAGE SYSTEM

## MONTHLY REPORT

**March, 2021** **Year 2**

| BILLING PERIOD | PEAK REDUCTION | PEAK INCURRED | BILL SAVINGS | NET SAVINGS |
|---|---|---|---|---|
| 09/14/2020 - 10/14/2020 | (3 kW) | 1,111 kW | $1,148.81 | ($441.19) |
| 10/14/2020 - 11/13/2020 | 12 kW | 989 kW | $993.90 | ($596.10) |
| 11/13/2020 - 12/15/2021 | 91 kW | 898 kW | $1,814.40 | $224.40 |
| 12/15/2020 - 01/14/2021 | 15 kW | 739 kW | $252.77 | ($1,337.23) |
| 01/14/2021 - 02/12/2021 | 197 kW | 1,882 kW | $2,598.74 | $1,008.74 |
| 02/12/2021 - 03/16/2021 | 134 kW | 914 kW | $2,545.66 | $955.66 |
| **TOTAL** | | | **$9,354.28** | **($185.72)** |



# WILL SERVE REQUEST STATUS REPORT

**(April 2021)**

**All projects subject to previously issued Will Serve Letters are either Complete or the Will Serve Letter has Expired**

**(Will Serve Letters Expire One Year from Date of Issuance)**

| Date Requested | Applicant | Project Description | Type | Location | Status | Date Issued |
|---|---|---|---|---|---|---|
| 8/29/19 | Merlone Geier Partners | Hunter Court Utility Relocations | TI | 24322 Rockfield Blvd | Issued | 12/9/19 |
| 11/15/19 | Kiddie Academy | New Daycare at previous Restaurant | TI | 25521 Muirlands Blvd | Issued | 1/7/20 |
| 6/11/20 | National Community Renaissance | Mountain View Housing, 71 units | ND | 24551 El Toro Rd | Pending | n/a |
| 8/7/20 | City of Laguna Woods | City Hall Public Library | TI | 24264 El Toro Rd | Issued | 9/23/20 |
| 8/13/20 | Buchheim Properties III | Handels Ice Cream | TI | 23615 El Toro Rd, Ste. Y2 | Issued | 9/1/20 |
| 8/27/20 | Buchheim Properties III | Fuddruckers Redevelopment | TI | 23621 El Toro Rd | Issued | 9/22/20 |
| tbd | Merlone Geier Partners | Village at Laguna Hills | ND | LH Mall Site | Pending | n/a |
| 2/3/21 | P.S. Business Parks | Casa Del Olivo | TI | 23052 Lake Forest Dr, D2 | Pending | n/a |
| 5/6/21 | Merlone Geier Partners | Café Del Rio | TI | 24312 Rockfield Blvd | Pending | n/a |
| 5/14/21 | Saddleback Medical Center | Women’s Health Pavilion | TI | 24401 Calle De La Louisa | Pending | n/a |

ND = New Development TI = Tenant Improvement

**EL TORO WATER DISTRICT**
**UNAUTHORIZED DISCHARGE SUMMARY**
**YEAR OF 2021**

| DATE | PUBLIC / PRIVATE | SPILL TYPE | LOCATION | REASON | IMMEDIATE CORRECTIVE MEASURES | PREVIOUS MAINTENANCE | | POST-INCIDENT PREVENTIVE MEASURES | RWQCB | DISCHARGED TO | SPILL VOLUME (PUBLIC) Gallons | | SPILL VOLUME (PRIVATE) Gallons | | REGULATORY NOTIFICATION AND RESPONSE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | CLEANING | TV | | | | CONTAINED | SPILLED | CONTAINED | SPILLED | |
| **January 16. 2021** | Private | Recycled Water | Veeh Ranch Park | Broken Recycled Water Pipe | Turned off customer side ball valve. Called Laguna Woods to fix it. | | | Notified City ball valve was off and needed to fix it | 8 | Storm Drain | | | | **4448** | Region 8, Laguna Woods |
| **February 27. 2021** | Private | Sewer | 22292 Caminito Tecate | Root Intrusion | Placed sand bags in gutter to prevent spill from entering storm drain. Told residences to stop using water until crew unblocked the sewer. | | | Notified City and stayed and did surface clean up around residence | 8 | Gutter and paved surfaces | | | **35** | **35** | Region 8, Laguna Hills, OCHED Flood Control |
| **March 7. 2021** | Private | Sewer | 20702 El Toro Rd. Lake Forest | Root Intrusion | Placed sand bags in gutter to prevent spill from entering storm drain. Told residences to stop using water until crew unblocked the sewer. | | | Notified City other agancies and stayed to help with surface clean up around residence | 9 | Parking Lot,, gutter, storm drain | | | 6000 | 4301 | Region 9, Lake Forest, OCHED, Flood Control, OES |
| **March 14. 2021** | Private | Sewer | 23526 El Reposa Aliso Viejo | Root Intrusion | No spill on paved or dirt surfaces. Blockage contained to lateral. Upstream and downstream laterals were checked and flowing freely. | | | Cleared blockage and Collections were going to return on 3-15-21 to with jetter to clean the line | 8 | Stayed inside the lateral | | | 0 | 0 | No agencies were called due to no sewage actually spilled out of lateral |
| **March 18. 2021** | Public | Sewer | 24361 Osphrey Dr. Lake Forest | Lateral Lining Material | Placed sand bags in gutter to prevent spill from entering storm drain. Had to run the TV truck up the line to figure out what casued spill. Brought out two vactor trucks and Spill trailer to take pressure off line to reduce the effect of the overflow | | | Collections Department went out Friday to cut the slip line material out of the customers lateral | 8 | Street, paved surfaces, gutter and storm drain | 2184.25 | 200 | | | Region 8, OCEH, OES, left message with Lake Forest |
| **March 20. 2021** | Private | Sewer | 22881 Caminito Azul Laguna Hills | Debris | Placed sand bags in gutter to prevent spill from entering storm drain. Told residences to stop using water until crew unblocked the sewer. | | | Notified City and stayed and did surface clean up around residence. HOA was notified that the issue needed to plumber to come back out. | 8 | Private street, guttrer and storm drain. | | | 100 | 50 | Region 8, OCEH, left message with Lake Forest |
| **April** | | | No Spill | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| **LEGEND** | | | | | | | | | | | **2,184** | **200** | **6,135** | **8,834** | |

| | | |
|---|---|---|
| **S.DC = San Diego Creek** | RES. = Residential | R.S. = Rocks |
| **S.D. = Storm Drain** | C. = Commercial | C.W.D. = Calcium Water Deposits |
| **A.C. = Aliso Creek** | S.B. = Siphon | B.P, = Broken Pipe |
| **G.B. = Grease Blockage** | P.F. = Power Failure | U.W. = Untreated Water |
| **S. = Sticks** | P. = Paper | R. = Roots |

MEMORANDUM

Date: May 3, 2021

To: ACWA REGION 10 MEMBER AGENCY PRESIDENTS AND GENERAL MANAGERS
*(sent via e-mail)*

From: ACWA REGION 10 NOMINATING COMMITTEE

- **Joone Lopez, Moulton Niguel Water District**
- **Greg Mills, Serrano Water District**
- **Elsa Saxod, San Diego County Water Authority**
- **Doug Wilson, Padre Dam Municipal Water District**

The Region 10 Nominating Committee is looking for ACWA members who are interested in leading the direction of ACWA Region 10 for the 2022-2023 term. The Nominating Committee is currently seeking candidates for the Region 10 Board, which is comprised of Chair, Vice Chair and up to five Board Member positions.

The leadership of ACWA's ten geographical regions is integral to the leadership of the Association as a whole. The Chair and Vice Chair of Region 10 serve on ACWA's Statewide Board of Directors and recommend all committee appointments for Region 10. The members of the Region 10 Board determine the direction and focus of region issues and activities. Additionally, they support the fulfillment of ACWA's goals on behalf of members and serve as a key role in ACWA's grassroots outreach efforts.

If you, or someone within your agency, are interested in serving in a leadership role within ACWA by becoming a Region 10 Board Member, please familiarize yourself with the Role of the Regions and Responsibilities; the Election Timeline; and the Region 10 Rules and Regulations and complete the following steps:

- **Complete the attached Region Board Candidate Nomination Form** HERE
- **Obtain a Resolution of Support from your agency's Board of Directors** (Sample Resolution HERE)
- **Submit the requested information to ACWA as indicated by Wednesday, June 30, 2021**

The Region 10 Nominating Committee will announce their recommended slate by July 31, 2021. On August 2, 2021 the election will begin with ballots sent to General Managers and Board Presidents. One ballot per agency will be counted. The election will be completed on September 30, 2021. On October 4, 2021, election results will be announced. The newly elected Region 10 Board Members will begin their two-year term of service on January 1, 2022.

If you have any questions, please contact Regional Affairs Representative Augustine Han, at augustineh@acwa.com or (916) 441-4545.

# 2021 ACWA Region Election Timeline
## 2022-2023 Term

**February 26:** **NOMINATING COMMITTEES APPOINTED**

- With concurrence of the region board, the region chairs appoint at least three region members to serve as the respective region's Nominating Committee
- Those serving on nominating committees are ineligible to seek region offices
- Nominating Committee members are posted online at www.acwa.com

**March 1-31:** **NOMINATING COMMITTEE TRAINING**

- Nominating Committee packets will be e-mailed to each committee member
- ACWA staff will hold a Zoom training session with the nominating committees to educate them on their specific roles and duties
  - Regions 1-10 Nominating Committees: via Zoom

**May 3:** **CALL FOR CANDIDATES**

- The Call for Candidate Nominations packet will be e-mailed to ACWA member agency Board Presidents and General Managers

**June 30:** **DEADLINE FOR COMPLETED NOMINATION FORMS**

- Deadline to submit all Nomination Forms and Board Resolutions of Support for Candidacy for region positions
- Nominating Committee members may need to solicit additional candidates in person to achieve a full complement of nominees for the slate

**July 1:** **CANDIDATE INFORMATION TO NOMINATING COMMITTEES**

- All information submitted by candidates will be forwarded by ACWA staff to the respective region Nominating Committee members with a cover memo explaining their task

*Updated January 12, 2021*

# ACWA Region Election Timeline

**July 11 - 31:** **RECOMMENDED SLATES SELECTED**

- Nominating Committees will meet to determine the recommended individuals for their region. The slate will be placed on the election ballot.
- Nominating Committee Chairs will inform their respective ACWA Regional Affairs Representative of their recommended slate by July 23
- Candidates will be notified of the recommended slate by July 30
- The Nominating Committee Chair will approve the official region ballot

**August 2:** **ELECTIONS BEGIN**

- All 10 official electronic ballots identifying the recommended slate and any additional candidates for consideration for each region will be produced and e-mailed to ACWA member agencies only
- Only one ballot per agency will be counted

**September 30:** **ELECTION BALLOTS DUE**

- ***Deadline for all region elections. All region ballots must be received by ACWA by September 30, 2021***

**October 4:** **ANNOUNCEMENT OF ELECTION RESULTS**

- Newly-elected members of the region boards will be contacted accordingly
- An ACWA Advisory will be distributed electronically to all members reporting the statewide region election results
- Results will be posted at acwa.com and will be published in the October issue of ACWA News

*Updated January 12, 2021*

# REGION BOARD CANDIDATE NOMINATION FORM

ACWA
Association of California Water Agencies

Submit completed form by **June 30, 2021** to **regionelections@acwa.com**

SAVE & SUBMIT

| | | |
|---|---|---|
| Name of Candidate: | Title: | |
| Agency: | Agency Phone: | |
| Direct Phone: | E-mail: | |
| Address: | ACWA Region: | County: |

| **Region Board Position Preference**<br>*If you are interested in more than one position, please indicate priority – 1st, 2nd and 3rd choice.* |
|---|
| ☐ Chair: |
| ☐ Vice Chair: |
| ☐ Board Member: |

| **If you are not chosen for the recommended slate, would you like to be listed in the ballot's individual candidate section?**<br>*If neither is selected, your name will **NOT** appear on the ballot.* |
|---|
| ☐ Yes |
| ☐ No |

| **Agency Function(s)**<br>*Check all that apply* |
|---|
| ☐ Wholesale |
| ☐ Urban Water Supply |
| ☐ Ag Water Supply |
| ☐ Sewage Treatment |
| ☐ Retailer |
| ☐ Wastewater Reclamation |
| ☐ Flood Control |
| ☐ Groundwater Management / Replenishment |
| ☐ Other: |

**Describe your ACWA-related activities that help qualify you for this office:**

**Write below or attach a half-page bio summarizing the experience and qualifications that make you a viable candidate for ACWA Region leadership.** Please include the number of years you have served in your current agency position, the number of years you have been involved in water issues and in what capacity you have been involved in the water community.

*I acknowledge that the role of a region board member is to actively participate on the Region Board during my term, including attending region board and membership meetings, participating in region conference calls, participating in ACWA's Outreach Program, as well as other ACWA functions to set an example of commitment to the region and the association.*

*I hereby submit my name for consideration by the Nominating Committee.*

| Signature | Title | Date |
|---|---|---|

**Please attach a copy of your agency's resolution of support / sponsorship for your candidacy.**

ACWA Region 10
Rules & Regulations

*Each region shall organize and adopt rules and regulations for the conduct of its meetings and affairs not inconsistent with the Articles of Incorporation or bylaws of the Association (ACWA Bylaw V, 6.).*

**Officers**

The chair and vice chair shall be from different counties.

At least one of the chair or vice chair positions must be an elected/appointed director from a member agency.

The region board members shall alternate every two years with three from one county and two from the other. The county from which the chair comes from shall have two region board members and the county from which the vice chair comes from shall have three region board members.

The chair will provide the region secretary.

**Meetings**

The region will hold at least quarterly meetings, including the ACWA spring and fall conferences.

The region chair will determine when and if nonmembers are invited to regional activities or events.

**Attendance**

If a region chair or vice chair is no longer allowed to serve on the Board of Directors due to his / her attendance, the region board shall appoint from the existing region board a new region officer. (ACWA Policy & Guideline Q, 1.)

If a region chair or vice chair misses three consecutive region board / membership meetings, the same process shall be used to backfill the region officer position. (ACWA Policy & Guideline Q, 1.)

If a region board member has three consecutive unexcused absences from a region board meeting or general membership business meeting, the region board will convene to discuss options for removal of the inactive board member. If the vacancy causes the board to fail to meet the minimum requirement of five board members, the region must fill the vacancy according to its rules and regulations. (ACWA Policy & Guideline Q, 3.)

**Elections**

All nominations received for the region chair, vice chair and board positions must be accompanied by a resolution of support from each sponsoring member agency, signed by an authorized representative of the Board of Directors. Only one individual may be nominated from a given agency to run for election to

a region board. Agencies with representatives serving on the nominating committees should strive not to submit nominations for the region board from their agency. (ACWA Policy & Guideline P, 2.)

Election ballots will be e-mailed to ACWA member agency general managers and presidents.

The nominating committee shall consist of four persons, two from each county.

The nominating committee shall pursue qualified members within the region to run for the region board and consider geographic diversity, agency size and focus in selecting a slate.

A member of the nominating committee cannot be nominated by the committee for an elected position.

*See current region election timeline for specific dates.*

**Endorsements**

ACWA, as a statewide organization, may endorse potential nominees and nominees for appointment to local, regional, and statewide commissions and boards. ACWA's regions may submit a recommendation for consideration and action to the ACWA Board of Directors to endorse a potential nominee or nominee for appointment to a local, regional or statewide commission or board. (ACWA Policy & Guideline P, 3.)

**Committee Recommendations & Representation**

All regions are given equal opportunity to recommend representatives of the region for appointment to a standing or regular committee of the Association. If a region fails to provide full representation on all ACWA committees, those committee slots will be left open for the remainder of the term or until such time as the region designates a representative to complete the remainder of the term. (ACWA Policy & Guideline P, 4. A.)

At the first region board / membership meeting of the term, regions shall designate a representative serving on each of the standing and regular committees to serve as the official reporter to and from the committee on behalf of the region to facilitate input and communication. (ACWA Policy & Guideline P, 4. B.)

The chair and vice chair will recommend an official alternate for excused committee members.

**Tours**

ACWA may develop and conduct various tours for the regions. All tour attendees must sign a "release and waiver" to attend any and all region tours. Attendees agree to follow environmental guidelines and regulations in accordance with direction from ACWA staff; and will respect the rights and privacy of other attendees. (ACWA Policy & Guideline P, 6.)

**Finances**

*See "Financial Guidelines for ACWA Region Events" document.*

**Amending the Region Rules & Regulations**

ACWA policies and guidelines can be amended by approval of the ACWA Board of Directors.

The region 10 rules and regulations can be changed at any time with advanced written notice to member agencies.

# THE ROLE OF THE REGIONS

*ACWA Regions provide the grassroots support to advance ACWA's legislative and regulatory agenda.*

## Background

As a result of ACWA's 1993 strategic planning process, known as Vision 2000, ACWA modified its governance structure from one that was based on sections to a regional-based configuration. Ten regions were established to provide geographic balance and to group agencies with similar interests.

## Primary Charge of Regions

- To provide a structure where agencies can come together and discuss / resolve issues of mutual concern and interest and based on that interaction, provide representative input to the ACWA board.
- To assist the Outreach Task Force in building local grassroots support for the ACWA Outreach Program in order to advance ACWA's legislative and regulatory priorities as determined by the ACWA Board and the State Legislative, Federal Affairs or other policy committees.
- To provide a forum to educate region members on ACWA's priorities and issues of local and statewide concern.
- To assist staff with association membership recruitment at the regional level.
- To recommend specific actions to the ACWA Board on local, regional, state and federal issues as well as to recommend endorsement for various government offices and positions.

Region chairs and vice chairs, with support from their region boards, provide the regional leadership to fulfill this charge.

*Note: Individual region boards CANNOT take positions, action or disseminate communication on issues and endorsements without going through the ACWA Board structure.*

## GENERAL DUTIES / RESPONSIBILITIES FOR REGION OFFICERS

### Region Chair

- Serves as a member of the ACWA Board of Directors at bimonthly meetings at such times and places as the Board may determine. The Chair will also call at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- Serves as a member of ACWA's Outreach Program, and encourages region involvement. Appoints Outreach Captain to help lead outreach effort within the region.
- Presides over all region activities and ensures that such activities promote and support accomplishment of ACWA's Goals.
- Makes joint recommendations to the ACWA President regarding regional appointments to all ACWA committees.
- Appoints representatives in concurrence of the region board, to serve on the region's nominating committee with the approval of the region board.
- Facilitates communication from the region board and the region membership to the ACWA board and staff.

### Region Vice Chair

- Serves as a member of the ACWA Board of Directors at bimonthly meetings at such times and places as the Board may determine. The Vice Chair will also participate in at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- Performs duties of the Region Chair in the absence of the chair.
- Serves as a member of ACWA's Outreach Program, and encourages region involvement.
- Makes joint recommendations to the ACWA president regarding regional appointments to all ACWA committees.

### Region Board Member

- Participate in at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- Supports program planning and activities for the region.
- Actively participates and encourages region involvement in ACWA's Outreach Program.
- May serve as alternate for the chair and/or vice chair in their absence (if appointed) to represent the region to the ACWA Board.

**RESOLUTION NO. _____**

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE (DISTRICT NAME) PLACING IN NOMINATION (NOMINEE NAME) AS A MEMBER OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES REGION ___ (POSITION)**

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF (DISTRICT NAME) AS FOLLOWS:

A. Recitals

(i) The Board of Directors (Board) of the (District Name) does encourage and support the participation of its members in the affairs of the Association of California Water Agencies (ACWA).

(ii) (Nominee Title), (Nominee Name) is currently serving as (Position) for ACWA Region ___

and/or

(iii) (Nominee Name) has indicated a desire to serve as a (Position) of ACWA Region ____.

B. Resolves

NOW, THEREFORE, BE IT RESOLVED THAT THE BOARD OF DIRECTORS OF (DISTRICT NAME),

(i) Does place its full and unreserved support in the nomination of (Nominee Name) for the (Position) of ACWA Region ____.

(ii) Does hereby determine that the expenses attendant with the service of (Nominee Name) in ACWA Region ____ shall be borne by the (District Name).

Adopted and approved this ____ day of ____ (month) 2021.

_____
(Nominee Name), (Title)
(District Name)

(SEAL)

ATTEST:

_____
(Secretary Name), Secretary

I, (SECRETARY NAME), Secretary to the Board of Directors of (District Name), hereby certify that the foregoing Resolution was introduced at a regular meeting of the Board of Directors of said District, held on the ____ day of ____ (month) 2021, and was adopted at that meeting by the following roll call vote:

AYES:

NOES:

ABSENT:

ATTEST:

_____
(Secretary Name), Secretary to the
Board of Directors of
(District Name)

# REGION **MAP**

www.acwa.com


REGIONS **1, 3, 5**

**Jennifer Rotz**
Regional Affairs Representative
jenniferr@acwa.com

REGIONS **2, 6, 7**

**Michael Cervantes**
Senior Regional Affairs Representative
michaelc@acwa.com

REGION **4**

**Ana Javaid**
Region & Member Engagement Specialist II
anaj@acwa.com

REGIONS **8, 9, 10**

**Augustine Han**
Regional Affairs Representative
augustineh@acwa.com

ACWA
Association of California Water Agencies

Rev. 6/2/20

BEST BEST & KRIEGER LLP
ATTORNEYS AT LAW

| | |
|---|---|
| To: | Municipal Water District of Orange County |
| From: | Syrus Devers, Best Best & Krieger |
| Date: | May 5th, 2021 |
| Re: | State Legislative Report |
| | |

**Legislature**:

April 30th was the deadline to move a fiscal bill out of all assigned policy committees and the overwhelming majority of bills are fiscal. Any bill that has not moved beyond the policy committee stage is now a two-year bill and cannot be considered again until next January.

A pattern has developed in the Legislature similar to how it was before term limits were first imposed, which is that very few bills authored by Democrats are killed in the first policy committee. Two important bills opposed by MWDOC were spared an early death by "courtesy votes" from a member following initial opposition but who then gave the final vote to let the bill out of committee. The result is that most successful opposition efforts will be in the second house.

Besides legislation, the other recent event was the Senate Budget Subcommittee on Natural Resources taking the first official action on the Senate's Drought Relief Budget Plan the 29th. This $3B proposal literally has something for everyone. The proposal passed (of course) with support expressed from every sector of the water community. If the Assembly were to adopt identical language, the proposal would make it into the final budget. If not, the two proposals would have to be reconciled in a budget conference committee in a few weeks.

The following is the current status of all bills where MWDOC actively engaged:

AB 377 (Rivas): OPPOSE. Sweeping changes to the NPDES permit process. This is one of two bills that was about to be held in committee but Assembly Member Al Muratsuchi (D-Long Beach) then gave it a "courtesy vote" to let it out. Although the bill has been substantially reduced since MWDOC adopted an oppose position, the bill is still problematic and opposed by numerous cities and water agencies including MWD.

AB 442 (Mayes): SUPPORT. MWD sponsored bill amending the Surface Mining and Reclamation Act. Moving unopposed on consent.

AB 1434 (Friedman): OPPOSE. Lowers the indoor water use efficiency levels established in 2018. This is the other bill that was about to die until Assembly Member Muratsuchi gave it a courtesy vote. BB&K staff will discuss this bill in greater detail at the workshop.

SB 230 (Portatino): SUPPORT. Base regulations for constituents of emerging concern (CECs) on sound science. This MWD sponsored bill will have to identify an acceptable funding source before it will be allowed to move. The SWRCB indicated the Drinking Water Fund would be the likely source of funding if the bill did not identify an alternate source, and put a high price tag on the bill. MWD will have until January to figure out a way forward.

SB 223 (Dodd): OPPOSE. Extension of prohibitions on shutoffs for nonpayment. This bill will very likely pass the Senate on a party line. It has been vigorously opposed but the real work will be in the Assembly.

SB 323(Caballero): SUPPORT. Statute of limitations for challenging water rate changes. Despite some serious opposition from consumer attorneys the bill is doing very well. It was eligible for a floor vote at the time this report was prepared.

**Administration**:

Governor's Drought Proclamation: As the board has no doubt heard, Governor Newsom declared a drought emergency for parts of Northern California. Although limited in scope, it suggests Newsom will adopt a command-and-control approach if extreme drought conditions expand to other areas of the state.

The Department of Water Resources "previewed" the draft of their recommendations for indoor water use efficiency. This appears to be tied to the effort to pass AB 1434 so BB&K staff will cover this in greater detail at the Workshop.

Recall--It's official; we're having one. Enough signatures have been validated to trigger an election, but Newsom is above a 50% approval rating and that's expected to climb once COVID-19 restrictions are lifted in June.

# The County of Orange Report

Prepared for the MWDOC P&O Committee

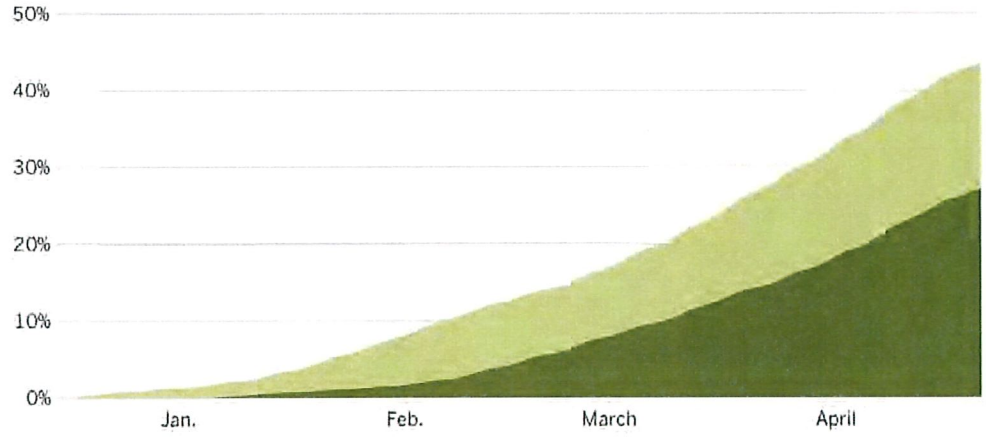
April 27, 2021
by Lewis Consulting Group

## June 15th End of Tiers For Fears

Governor Gavin Newsom recently announced that his new plan is to lift nearly all COVID-19 health restrictions in California by June 15, 2021. Orange County will most certainly embrace the re-openings which will mean businesses, including bars and restaurants, will be allowed to operate at 100% capacity. However, the State will still impose a mask mandate.

The reversion to near normalcy is largely a result of the state's increasing success with vaccine distribution. As of April 25, 2021, nearly 28 million doses of vaccines have been administered in California. Over 45% of residents have received at least one dose. In Orange County, 46% of County residents have received one dose, while 32% of the County population is fully vaccinated.

**Percentage of Californians who are partially or fully vaccinated**



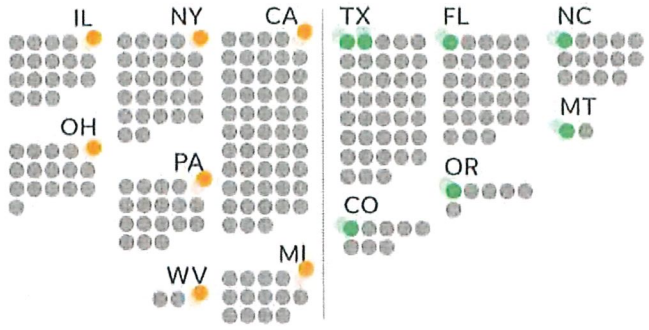

California Department of Public Health

The single dose vaccine by Johnson & Johnson accounts for 10% of vaccines in California, although its use is currently suspended.

**Share of completed vaccinations by Pfizer, Moderna or Johnson & Johnson**

## Electoral College Shift - Minor Republican Gains

Under newly released U.S. Census figures, six states gained electoral votes, including Texas [2], and seven states lost one electoral vote, including California. The net result is among states carried by President Trump, there is a net gain of three electoral votes with a corresponding net loss of three electoral votes for states carried by President Biden. Predicting shifts in the House of Representatives is much more complex due to the redistricting process in each of the 50 states.




ORANGE COUNTY LAFCO EST. 1963 Cancelled

The April 14, 2021 Regular Meeting of the Orange County Local Agency Formation Commission has been cancelled. The next scheduled meeting of the Commission is Wednesday, May 12, 2021 at 8:15 a.m.


## New PPIC Poll Released

The PPIC (Public Policy Institute of California) recently released the results of their most recent poll. Of great interest, this is the third consecutive poll that shows if the election was held today, Governor Newsom would survive the looming recall against him. Perhaps anger over the French Laundry scandal has subsided.

The poll of 1,174 likely voters was conducted March 14-23, 2021 and has a margin of error of +/- 3.9% with a confidence level of 95%. The poll clearly reaffirms California's reputation as progressive in their political attitudes.

Below are some of the poll questions and the results:

Overall, do you approve or disapprove of the way that Gavin Newsom is handling his job as governor of California?

54% approve
36% disapprove
10% don't know

There is an effort under way to remove Governor Gavin Newsom from office in a recall election. If a special election to recall Governor Newsom were held today, would you vote yes to remove Newsom as governor or no to keep Newsom as governor?

40% yes, remove Newsom
56% no, keep Newsom
5% don't know

Would you say that California is in an economic recession, or not?

61% YES
- 25% - yes, serious recession
- 24% - yes, moderate recession
- 10% - yes, mild recession
- 2% - yes, don't know

34% NO, not in an economic recession
5% don't know

Recently, the California legislature passed and Governor Newsom signed into law a $7.6 billion COVID relief package that includes a one-time $600 payment to qualifying lower-income Californians, as well as $2.1 billion in immediate relief for small businesses, and over $400 million in stipends for state subsidized child care and preschool. Do you favor or oppose this relief package?

75% favor
20% oppose
5% don't know

When you combine all of the taxes you pay to state and local governments, do you feel that you pay much more than you should, somewhat more than you should, about the right amount, or less than you should?

30% much more
27% somewhat more
36% about the right amount
4% less than you should
3% don't know

In general, which of the following statements do you agree with more [1] I'd rather pay higher taxes and have a state government that provides more services OR [2] I'd rather pay lower taxes and have a state government that provides fewer services?

52% higher taxes and more services
44% lower taxes and fewer services
4% don't know

Does the cost of your housing make you and your family seriously consider moving away from the part of California you live in now? "Does it make you consider moving elsewhere in California, or outside of the state?")

43% YES
8% - yes, elsewhere in California
33% - yes, outside the state
2% - yes, other
56% NO
1% don't know

Overall, do you approve or disapprove of the way that Joe Biden is handling his job as president?

65% approve
30% disapprove
5% don't know

Overall, do you approve or disapprove of the way the US Congress is handling its job?

42% approve
51% disapprove
6% don't know

As you may know, in response to the coronavirus outbreak Congress passed and President Biden signed into law a bill that would provide $1.9 trillion dollars in economic aid to businesses, individuals, and state and local governments. All in all, do you favor or oppose this bill?

73% favor
25% oppose
2% don't know

Which comes closer to your view about where the US stands in the coronavirus outbreak: [1] the worst is behind us OR [2] the worst is yet to come?

74% the worst is behind us
21% the worst is yet to come
4% don't know

Do you favor or oppose providing health care coverage for undocumented immigrants in California?

66% favor
31% oppose
3% don't know

## Orange County COVID-19 Stats

| ORANGE COUNTY COVID-19 STATS | AS OF 4/27/2021 | AS OF 3/30/2021 |
|---|---|---|
| CUMULATIVE CASES TO DATE | 253,664 | 250,537 |
| CUMULATIVE DEATHS TO DATE | 4,939 | 4,740 |
| DEATHS REPORTED TODAY | 6 | 14 |
| CUMULATIVE TESTS TO DATE | 3,624,119 | 3,332,327 |
| TESTS REPORTED TODAY | 7,110 | 7,248 |
| CASES CURRENTLY HOSPITALIZED | 128 * | 143 * |
| CASES CURRENTLY IN **ICU** | 27 | 26 |
| CUMULATIVE RECOVERED TO DATE | 246,101 * | 242,669 * |

* = INCLUDES ***ICU*** CASES

## Where Orange County Ranks [as of 4/27/2021]

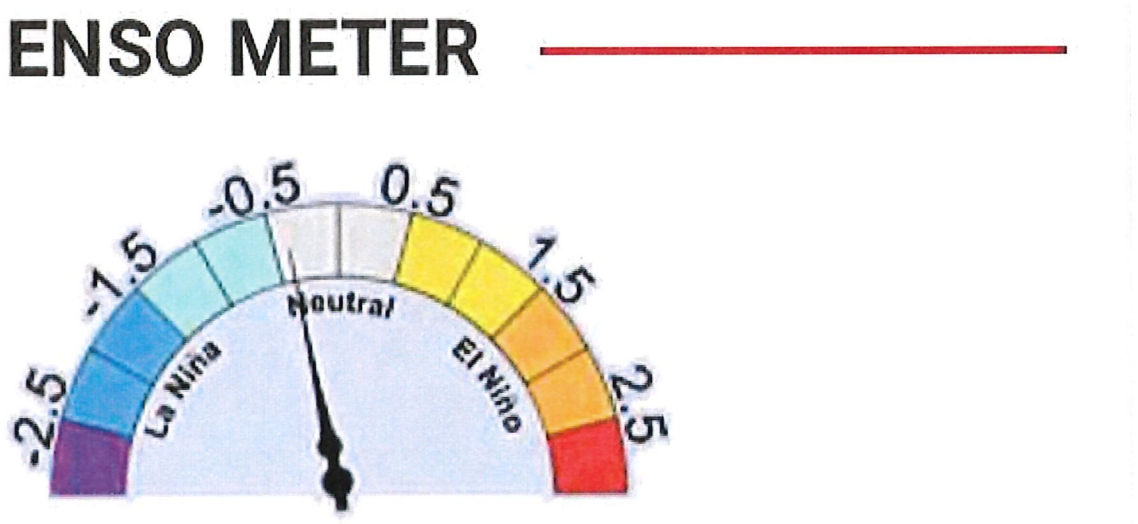
| LOCATION | POPULATION | CONFIRMED CASES | DEATHS |
|---|---|---|---|
| CALIFORNIA | 40,129,160 | 3,633,185 | 60,208 |
| LOS ANGELES COUNTY | 10,247,557 | 1,191,253 | 23,802 |
| **ORANGE COUNTY** | **3,228,519** | **253,664** | **4,939** |
| SAN BERNARDINO COUNTY | 2,217,398 | 290,394 | 4,572 |
| RIVERSIDE COUNTY | 2,468,145 | 286,724 | 4,401 |
| SAN DIEGO COUNTY | 3,370,418 | 275,541 | 3,692 |

## Snowpack Again Disappoints

The Department of Water Resources conducted their April 1st measurement of the California snowpack and reported that water content is just 59% of average for this time of year. This is down from 61% as measured on March 1st. It is however an improvement from the 53% measurement from April 1, 2020. The next snowpack measurement will take place April 29, 2021.

## Waning La Niña Still Leaves It's Mark

As the current La Niña weakens, it still shoulders much of the blame for California's recent parched conditions. The change in weather patterns caused by La Niña shifted plentiful amounts of rain from the Golden State to Oregon and Washington. Another interesting fact about the current La Niña is the effect on worldwide temperatures. This March the world's temperatures dropped to 1/100 of a degree below the last 30 year world temperature average. The dropping temperatures have been a lagging effect of this La Niña.



# Bill Matrix – May, 2021

Item No. 3c

Prepared by Best Best & Krieger

## A. Priority Support/Oppose

| Measure | Author | Topic | Status | Brief Summary | Position | Priority | Notes 1 |
|---|---|---|---|---|---|---|---|
| AB 339 | Lee D | Local government: open and public meetings. | 4/28/2021-VOTE: Do pass as amended and be re-referred to the Committee on [Appropriations] (PASS) | The Ralph M. Brown Act, requires, with specified exceptions, that all meetings of a legislative body of a local agency, as those terms are defined, be open and public and that all persons be permitted to attend and participate. Under existing law, a member of the legislative body who attends a meeting where action is taken in violation of this provision, with the intent to deprive the public of information that the member knows the public is entitled to, is guilty of a crime.This bill would require all meetings to include an opportunity for members of the public to attend via a telephonic option and an internet-based service option. The bill would require all meetings to include an in-person public comment opportunity, except in specified circumstances during a declared state or local emergency. The bill would require all meetings to provide the public with an opportunity to comment on proposed legislation in person and remotely via a telephonic and an internet-based service option, as provided, and would specify requirements for public comment registration. | Support | A. Priority Support/ Oppose | Support position adopted April 7th. |
| AB 361 | Rivas, Robert D | Open meetings: local agencies: teleconferences. | 4/7/2021-Re-referred to Com. on L. GOV. | Would authorize a local agency to use teleconferencing without complying with the teleconferencing requirements imposed by the Ralph M. Brown Act when a legislative body of a local agency holds a meeting for the purpose of declaring or ratifying a local emergency, during a declared state of emergency or local emergency, as those terms are defined, when state or local health officials have imposed or recommended measures to promote social distancing, and during a declared local emergency provided the legislative body makes certain determinations by majority vote. The bill would require legislative bodies that hold teleconferenced meetings under these abbreviated teleconferencing procedures to give notice of the meeting and post agendas, as described, to allow members of the public to access the meeting and address the legislative body, to give notice of the means by which members of the public may access the meeting and offer public comment. | Support | A. Priority Support/ Oppose | Support adopted on March 3rd |
| AB 377 | Rivas, Robert D | Water quality: impaired waters. | 4/21/2021-From committee: | Would require, by January 1, 2023, the State Water Resources Control Board and regional boards to prioritize enforcement of | Opposition | A. Priority Support/ | Oppose position adopted |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | Do pass and re-refer to Com. on APPR. (Ayes 5. Noes 3.) (April 21). Re-referred to Com. on APPR. | all water quality standard violations that are causing or contributing to an exceedance of a water quality standard in a surface water of the state. The bill would require the state board and regional boards, by January 1, 2025, to evaluate impaired state surface waters and report to the Legislature a plan to bring all water segments into attainment by January 1, 2050. The bill would require the state board and regional boards to update the report with a progress summary to the Legislature every 5 years. The bill would create the Waterway Recovery Account in the Waste Discharge Permit Fund and would make moneys in the Waterway Recovery Account available for the state board to expend, upon appropriation by the Legislature, to bring impaired water segments into attainment in accordance with the plan. | | Oppose | April 7th. |
| AB 442 | Mayes I | Surface Mining and Reclamation Act of 1975: exemption: Metropolitan Water District of Southern California: single master reclamation plan. | 4/27/2021-From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. (Ayes 15. Noes 0.) (April 26). Re-referred to Com. on APPR. | The Surface Mining and Reclamation Act of 1975 exempts certain activities from the provisions of the act, including, among others, emergency excavations or grading conducted by the Department of Water Resources or the Central Valley Flood Protection Board for the specified purposes; surface mining operations conducted on lands owned or leased, or upon which easements or rights-of-way have been obtained, by the Department of Water Resources for the purpose of the State Water Resources Development System or flood control; and surface mining operations on lands owned or leased, or upon which easements or rights-of-way have been obtained, by the Central Valley Flood Protection Board for the purpose of flood control. This bill would additionally exempt from the provisions of the act emergency excavations or grading conducted by the Metropolitan Water District of Southern California (MWD) for its own operations and infrastructure for specified purposes. | Support | A. Priority Support/ Oppose | Support adopted on March 3rd. |
| AB 703 | Rubio, Blanca D | Open meetings: local agencies: teleconferences. | 2/25/2021-Referred to Com. on L. GOV. | Current law, by Executive Order N-29-20, suspends the Ralph M. Brown Act's requirements for teleconferencing during the COVID-19 pandemic, provided that notice requirements are met, the ability of the public to observe and comment is preserved, as specified, and that a local agency permitting teleconferencing have a procedure for receiving and swiftly resolving requests for reasonable accommodation for individuals with disabilities, as specified. This bill would remove the requirements of the act particular to teleconferencing and allow for teleconferencing subject to existing provisions regarding the posting of notice of an agenda and the ability of the public to observe the meeting and provide public comment. The bill would require that, in each instance in which notice of the time of | Support | A. Priority Support/ Oppose | Support adopted on March 3rd. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | the teleconferenced meeting is otherwise given or the agenda for the meeting is otherwise posted, the local agency also give notice of the means by which members of the public may observe the meeting and offer public comment and that the legislative body have and implement a procedure for receiving and swiftly resolving requests for reasonable accommodation for individuals with disabilities, consistent with the federal Americans with Disabilities Act, as provided. | | | |
| AB 1195 | Garcia, Cristina D | Drinking water. | 4/28/2021-VOTE: Do pass and be re-referred to the Committee on [Appropriations] (PASS) | Current law establishes the Safe and Affordable Drinking Water Fund in the State Treasury to help water systems provide an adequate and affordable supply of safe drinking water in both the near and long terms. Current law authorizes the state board to provide for the deposit into the fund of certain moneys and continuously appropriates the moneys in the fund to the state board for grants, loans, contracts, or services to assist eligible recipients. This bill would prohibit, once an operator of a public water system exercises water rights for the benefit of the public water system, those surface water rights or groundwater rights from being severed or otherwise separated from the public water system. | Out for Analysis | A. Priority Support/ Oppose | On the agenda for May 5th. |
| AB 1434 | Friedman D | Urban water use objectives: indoor residential water use. | 4/27/2021-From committee: Do pass and re-refer to Com. on APPR. (Ayes 8. Noes 6.) (April 26). Re-referred to Com. on APPR. | Would establish, beginning January 1, 2023, until January 1, 2025, the standard for indoor residential water use as 48 gallons per capita daily. The bill would establish, beginning January 1, 2025, the standard as 44 gallons per capita daily and, beginning January 1, 2030, 40 gallons per capita daily. | Opposition | A. Priority Support/ Oppose | Opposed position adopted April 7th. |
| AB 1500 | Garcia, Eduardo D | Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, and Workforce Development Bond Act of 2022. | 4/15/2021-Re-referred to Com. on NAT. RES. | Would enact the Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, and Workforce Development Bond Act of 2022, which, if approved by the voters, would authorize the issuance of bonds in the amount of $6,955,000,000 pursuant to the State General Obligation Bond Law to finance projects for safe drinking water, wildfire prevention, drought preparation, flood protection, extreme heat mitigation, and workforce development programs. | Out for Analysis | A. Priority Support/ Oppose | Bond intended for Nov. '22 ballot. Will remain "out for analysis" for the near future. |
| SB 45 | Portantino D | Wildfire Prevention, Safe Drinking Water, Drought Preparation, and Flood Protection Bond Act of 2022. | 4/21/2021-Set for hearing May 3. | Would enact the Wildfire Prevention, Safe Drinking Water, Drought Preparation, and Flood Protection Bond Act of 2022, which, if approved by the voters, would authorize the issuance of bonds in the amount of $5,595,000,000 pursuant to the State General Obligation Bond Law to finance projects for a wildfire prevention, safe drinking water, drought preparation, and | Out for Analysis | A. Priority Support/ Oppose | Bond intended for the Nov. '22 ballot. |

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| | | | | flood protection program. | | | |
| SB 222 | Dodd D | Water Rate Assistance Program. | 4/21/2021-Set for hearing April 29. | would establish the Water Rate Assistance Fund in the State Treasury to help provide water affordability assistance, for both drinking water and wastewater services, to low-income ratepayers and ratepayers experiencing economic hardship in California. The bill would require the Department of Community Services and Development to develop and administer the Water Rate Assistance Program established by the bill. | Watch | A. Priority Support/ Oppose | Position adopted 2/3/2021 |
| SB 223 | Dodd D | Discontinuation of residential water service. | 4/21/2021-Set for hearing April 29. | Current law prohibits an urban and community water system, defined as a public water system that supplies water to more than 200 service connections, from discontinuing residential water service for nonpayment until a payment by a customer has been delinquent for at least 60 days. Current law requires an urban and community water system to have a written policy on discontinuation of residential service for nonpayment, including, among other things, specified options for addressing the nonpayment. Current law requires an urban and community water system to provide notice of that policy to customers, as provided. This bill would apply those provisions, on and after July 1, 2022, to a very small community water system, defined as a public water system that supplies water to 200 or fewer service connections used by year long residents. | Opposition | A. Priority Support/ Oppose | Oppose position taken on 2/3/2021 |
| SB 230 | Portantino D | State Water Resources Control Board: Constituents of Emerging Concern Program. | 3/22/2021-March 22 set for first hearing canceled at the request of author. | Would require the State Water Resources Control Board to establish, maintain, and direct an ongoing, dedicated program called the Constituents of Emerging Concern Program to assess the state of information and recommend areas for further study on, among other things, the occurrence of constituents of emerging concern (CEC) in drinking water sources and treated drinking water. The bill would require the state board to convene, by an unspecified date, the Science Advisory Panel to review and provide recommendations to the state board on CEC for further action, among other duties. The bill would require the state board to provide an annual report to the Legislature on the ongoing work conducted by the panel. | Support | A. Priority Support/ Oppose | Support position adopted April 7th. |
| SB 323 | Caballero D | Local government: water or sewer service: legal actions. | 4/22/2021-Read second time. Ordered to third reading. | Current law prohibits a local agency from imposing fees for specified purposes, including fees for water or sewer connections, as defined, that exceed the estimated reasonable cost of providing the service for which the fee is charged, unless voter approval is obtained. Current law provides that a local agency levying a new a water or sewer connection fee or increasing a fee must do so by ordinance or resolution. Current law requires, for specified fees, including water or sewer connection fees, any judicial action or proceeding to attack, | Support | A. Priority Support/ Oppose | Support adopted on March 3rd. |

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| | | | | review, set aside, void, or annul an ordinance, resolution, or motion adopting a new fee or service charge or modifying an existing fee or service charge to be commenced within 120 days of the effective date of the ordinance, resolution, or motion according to specified procedures for validation proceedings. This bill would apply the same judicial action procedure and timelines, as stated above, to ordinances, resolutions, or motions adopting, modifying, or amending water or sewer service fees or charges adopted after January 1, 2022, except as provided. | | | |
| SB 351 | Caballero D | Water Innovation Act of 2021. | 4/20/2021-Read second time and amended. Re-referred to Com. on APPR. | Current law establishes the State Water Resources Control Board for the purposes of providing for the orderly and efficient administration of the water resources of the state. This bill, the Water Innovation Act of 2021, would create the Office of Water Innovation at the California Water Commission for the furtherance of new technologies and other innovative approaches in the water sector. The bill would require the office, by December 31, 2023, to take specified measures to advance innovation in the water sector. The bill would make findings and declarations regarding the need for water innovation. | Support | A. Priority Support/ Oppose | Support adopted on March 3rd. |

## B. Watch

| Measure | Author | Topic | Status | Brief Summary | Position | Priority | Notes 1 |
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| AB 11 | Ward D | Climate change: regional climate change authorities. | 1/25/2021-Re-referred to Com. on NAT. RES. | Would require the Strategic Growth Council, by January 1, 2023, to establish up to 12 regional climate change authorities to coordinate climate adaptation and mitigation activities in their regions, and coordinate with other regional climate adaptation autorities, state agencies, and other relevant stakeholders. | Watch | B. Watch | |
| AB 50 | Boerner Horvath D | Climate change: Climate Adaptation Center and Regional Support Network: sea level rise. | 1/11/2021-Referred to Com. on NAT. RES. | Current law requires the Natural Resources Agency, in collaboration with the Ocean Protection Council, to create, and update biannually, a Planning for Sea Level Rise Database describing steps being taken throughout the state to prepare for, and adapt to, sea level rise.This bill would establish the Climate Adaptation Center and Regional Support Network in the Ocean Protection Council to provide local governments facing sea level rise challenges with information and scientific expertise necessary to proceed with sea level rise mitigation. | Watch | B. Watch | |
| AB 51 | Quirk D | Climate change: adaptation: regional climate adaptation planning groups: regional climate adaptation plans. | 1/11/2021-Referred to Com. on NAT. RES. | Would require the Strategic Growth Council, by July 1, 2022, to establish guidelines for the formation of regional climate adaptation planning groups. The bill would require the council, by July 1, 2023, and in consultation with certain state entities, to develop criteria for the development of regional climate adaptation | Watch | B. Watch | |

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| | | | | plans. | | | |
| AB 59 | Gabriel D | Mitigation Fee Act: fees: notice and timelines. | 1/11/2021-Referred to Coms. on L. GOV. and H. & C.D. | Current law authorizes any party to protest the imposition of a fee, dedication, reservation, or other exactions imposed on a development project within 90 or 120 days of the imposition of the fee, as applicable, and specifies procedures for those protests and actions. The Mitigation Fee Act imposes the same requirements on a local agency for a new or increased fee for public facilities. Current law, for specified fees, requires any judicial action or proceeding to attack, review, set aside, void, or annul an ordinance, resolution, or motion adopting a new fee or service charge or modifying an existing fee or service charge to be commenced within 120 days of the effective date of the ordinance, resolution, or motion. Current law also provides that, if an ordinance, resolution, or motion provides for an automatic adjustment in a fee or service charge and the adjustment results in an increase in the fee or service charge, that any action to attack, review, set aside, void, or annul the increase to be commenced within 120 days of the increase. This bill would increase, for fees and service charges and for fees for specified public facilities, the time for mailing the notice of the time and place of the meeting to at least 45 days before the meeting. | Watch | B. Watch | |
| AB 100 | Holden D | Drinking water: pipes and fittings: lead content. | 4/14/2021-In committee: Set, first hearing. Referred to suspense file. | The California Safe Drinking Water Act prohibits, with certain exceptions, the use of any pipe, pipe or plumbing fitting or fixture, solder, or flux that is not lead free in the installation or repair of any public water system or any plumbing in a facility providing water for human consumption. The act defines "lead free" for purposes of conveying or dispensing water for human consumption to mean not more than 0.2% lead when used with respect to solder and flux and not more than a weighted average of 0.25% lead when used with respect to the wetted surfaces of pipes and pipe fittings, plumbing fittings, and fixtures. This bill would additionally define "lead free," with respect to endpoint devices, as defined, to mean that the devices do not leach more than one microgram of lead under certain tests and meeting a specified certification. | Watch | B. Watch | |
| SB 1 | Atkins D | Coastal resources: sea level rise. | 4/20/2021-April 19 hearing: Placed on APPR suspense file. | Thee California Coastal Act of 1976 establishes the California Coastal Commission and provides for planning and regulation of development in the coastal zone, as defined. The act requires the commission, within 90 days after January 1, 1977, to adopt, after public hearing, procedures for the preparation, submission, approval, appeal, certification, and amendment of a local coastal program, including a common methodology for the preparation of, and the determination of the scope of, the local coastal programs, as | Watch | B. Watch | |

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| | | | | provided. This bill would also include, as part of the procedures the commission is required to adopt, recommendations and guidelines for the identification, assessment, minimization, and mitigation of sea level rise within each local coastal program, as provided. The bill would delete the timeframe specified above by which the commission is required to adopt these procedures. | | | |
| SB 273 | Hertzberg D | Water quality: municipal wastewater agencies. | 4/22/2021-Read third time. Passed. (Ayes 38. Noes 0.) Ordered to the Assembly. In Assembly. Read first time. Held at Desk. | Would authorize a municipal wastewater agency, as defined, to enter into agreements with entities responsible for stormwater management for the purpose of managing stormwater and dry weather runoff, to acquire, construct, expand, operate, maintain, and provide facilities for specified purposes relating to managing stormwater and dry weather runoff, and to levy taxes, fees, and charges consistent with the municipal wastewater agency's existing authority in order to fund projects undertaken pursuant to the bill. The bill would require the exercise of any new authority granted under the bill to comply with the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000. To the extent this requirement would impose new duties on local agency formation commissions, the bill would impose a state-mandated local program. | Watch | B. Watch | |
| SB 274 | Wieckowski D | Local government meetings: agenda and documents. | 4/22/2021-Read third time. Passed. (Ayes 38. Noes 0.) Ordered to the Assembly. In Assembly. Read first time. Held at Desk. | The Ralph M. Brown Act requires meetings of the legislative body of a local agency to be open and public and also requires regular and special meetings of the legislative body to be held within the boundaries of the territory over which the local agency exercises jurisdiction, with specified exceptions. Current law authorizes a person to request that a copy of an agenda, or a copy of all the documents constituting the agenda packet, of any meeting of a legislative body be mailed to that person. This bill would require a local agency with an internet website, or its designee, to email a copy of, or website link to, the agenda or a copy of all the documents constituting the agenda packet if the person requests that the items be delivered by email. If a local agency determines it to be technologically infeasible to send a copy of the documents or a link to a website that contains the documents by email or by other electronic means, the bill would require the legislative body or its designee to send by mail a copy of the agenda or a website link to the agenda and to mail a copy of all other documents constituting the agenda packet, as specified. | Watch | B. Watch | |
| SB 403 | Gonzalez D | Drinking water: consolidation. | 4/27/2021-Read second time and amended. Re-referred | The California Safe Drinking Water Act authorizes the State Water Resources Control Board to order consolidation with a receiving water system where a public water system or a state small water system, serving a disadvantaged community, | Watch | B. Watch | |

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| | | | to Com. on APPR. | consistently fails to provide an adequate supply of safe drinking water or where a disadvantaged community is substantially reliant on domestic wells that consistently fail to provide an adequate supply of safe drinking water. This bill would authorize the state board to also order consolidation where a water system serving a disadvantaged community is an at-risk water system, as defined, or where a disadvantaged community is substantially reliant on at-risk domestic wells, as defined. | | | |
| SB 480 | Stern D | Metropolitan Water District of Southern California: rules: inappropriate conduct. | 4/21/2021-Set for hearing May 3. | The Metropolitan Water District Act provides for the creation of metropolitan water districts and specifies the powers and purposes of a district. The act requires the Metropolitan Water District of Southern California to establish and operate an Office of Ethics and adopt rules relating to internal disclosure, lobbying, conflicts of interest, contracts, campaign contributions, and ethics for application to its board members, officers, and employees. This bill would require the Metropolitan Water District of Southern California to adopt rules relating to inappropriate conduct, as defined, by board members, officers, and employees. | Watch | B. Watch | |
| SB 526 | Min D | Community water systems: lead user service lines. | 4/7/2021-April 12 hearing postponed by committee. | Current law requires, by July 1, 2020, a community water system with known lead user service lines in use in its distribution system to provide a timeline for replacement of those lines to the State Water Resources Control Board. Current law requires the state board to review and approve an established timeline, and requires, if the state board fails to act within 30 days of the submission of the timeline, the timeline to be deemed approved. Current law authorizes the state board to enforce these requirements, as specified, and a violation is considered a violation of the California Safe Drinking Water Act, subjecting the violator to specified civil and criminal penalties. This bill would, until January 1, 2025, require a community water system to remove or replace the full lead user service line, if the community water system disturbs, removes, or replaces a portion thereof. The bill would apply the above-described enforcement provisions to a violation of the requirements of the bill, thereby creating a state-mandated local program by expanding the scope of crimes under the California Safe Drinking Water Act. | Watch | B. Watch | |
| SB 552 | Hertzberg D | Drought planning: small water suppliers: nontransient noncommunity water systems. | 4/27/2021-Read second time and amended. Re-referred to Com. on APPR. | Would require small water suppliers, as defined, and nontransient noncommunity water systems that are schools, no later than December 31, 2022, to develop and submit to the Division of Drinking Water for the State Water Resources Control Board an Emergency Response Plan that includes specified drought-planning elements. The bill would require these water systems to | Watch | B. Watch | |

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| | | | | report specified water supply condition information to the state board through the state board's Electronic Annual Reporting System, and to include water system risk and water shortage information in the water systems' consumer confidence reports, as provided. | | | |
| SB 559 | Hurtado D | Department of Water Resources: water conveyance systems: Canal Conveyance Capacity Restoration Fund. | 4/27/2021-From committee: Do pass and re-refer to Com. on APPR. (Ayes 6. Noes 0.) (April 27). Re-referred to Com. on APPR. | Would establish the Canal Conveyance Capacity Restoration Fund in the State Treasury to be administered by the Department of Water Resources. The bill would require all moneys deposited in the fund to be expended, upon appropriation by the Legislature, in support of subsidence repair costs, including environmental planning, permitting, design, and construction and necessary road and bridge upgrades required to accommodate capacity improvements. The bill would require the department to expend from the fund, upon appropriation by the Legislature, specified monetary amounts to restore the capacity of 4 specified water conveyance systems, as prescribed, with 2 of those 4 expenditures being in the form of a grant to the Friant Water Authority and to the San Luis and Delta-Mendota Water Authority. The bill would make these provisions inoperative on July 1, 2030, and would repeal the provisions as of January 1, 2031. | Watch | B. Watch | |
| **Total Measures: 27**<br>**Total Tracking Forms: 27** | | | | | | | |

# Metropolitan Water District of Southern California
# State Legislative Matrix
# April 12, 2021 – First Year of Legislative Session

Item No. 3d

| Topic | Bill Number<br>Author | Status | Title – Summary | MWD Position | Effects on Metropolitan |
|---|---|---|---|---|---|
| Metropolitan-sponsored bills | **AB 442**<br>**Mayes (I)**<br><br>Sponsor:<br><br>Metropolitan | Introduced 2/4/2021<br><br>Assembly Water, Parks, and Wildlife Committee | **Surface Mining and Reclamation Act of 1975: exemption: Metropolitan Water District of Southern California: single master reclamation plan**<br><br>Amends the Surface Mining and Reclamation Act of 1975 (SMARA) to prepare a single reclamation plan for emergency excavations or grading on lands owned, leased, or with easements for repairs and maintenance of pipelines, infrastructure, or related transmission systems used to distribute water in Metropolitan's service area. | **SPONSOR**<br><br>Based on October 2019 Board Action | Maintaining critical water infrastructure requires coordinated regulatory compliance. Metropolitan is proposing legislation to allow it to develop a single reclamation plan to consistently administer and enforce SMARA compliance for responding to emergencies and repairing, maintaining or replacing any pipelines, infrastructure, or related transmission systems used to distribute water in Southern California. |
| Metropolitan-sponsored bills | **SB 230**<br>**Portantino (D)**<br><br>Sponsors:<br><br>Metropolitan and the California Municipal Utilities Association | Introduced 1/19/2021<br><br>Senate Appropriations Committee<br><br>Two-year bill | **State Water Resources Control Board: Constituents of Emerging Concern Program**<br><br>Seeks to create a statewide program to identify and evaluate Constituents of Emerging Concern (CECs) in drinking water sources. | **CO-SPONSOR**<br><br>Based on October 2019 Board Action | Metropolitan and the California Municipal Utilities Association are co-sponsoring legislation in response to growing public concern about CECs in drinking water. The bill would establish a CEC Drinking Water Program at the State Water Resources Control Board. The program would set up a consistent and science-based approach for assessing the public health and drinking water consequences of CECs, with the |

# Metropolitan Water District of Southern California
## State Legislative Matrix
## April 12, 2021 – First Year of Legislative Session

| Topic | Bill Number Author | Status | Title – Summary | MWD Position | Effects on Metropolitan |
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| | | | | | intent to improve knowledge and future regulatory determinations. |
| Water Quality and Treatment | **AB 377**<br>**Rivas, R. (D)**<br><br>Sponsor:<br><br>California Coastkeeper Alliance | Amended 3/22/2021<br><br>Assembly Environmental Safety and Toxic Materials Committee<br><br>Hearing: 4/21/2021 | **Water quality: impaired waters**<br><br>Would require all California surface waters to attain applicable beneficial uses by January 1, 2050. Would require the State Water Resources Control Board and Regional Water Quality Control Boards, when issuing a permit, to require that the discharge to surface waters does not cause or contribute to an exceedance of a water quality standard and to not authorize the use of best management practices in permit terms to authorize a discharge that causes or contributes to water quality exceedance standard | **OPPOSE**<br><br>Based upon Board-adopted 2021 State Legislative Priorities and Principles | The objective of the bill is to gradually remove California's impaired waterways from the 303(d) impaired waterways list. The bill would have serious negative impacts to Metropolitan, its member agencies, and all sectors that have NPDES permits. The bill contains blanket prohibitions on the issuance of new, renewed, or remodified NPDES waivers, waste discharge requirements, and permits with best management practices. Metropolitan has NPDES permits including a statewide general permit, drinking water discharge permit, and construction general permit. |
| Delta/State Water Project | **SB 369**<br>**Pan (D)**<br><br>Sponsor:<br><br>Sacramento Area Flood Control Agency | Introduced 2/10/2021<br><br>Assembly Desk | **Flood control: Yolo Bypass Cache Slough Partnership Multi-Benefit Program**<br><br>Codifies State recognition and support for the Yolo Bypass Partnership and its efforts to advance coordinated master planning and accelerate restoration activities for the Yolo Bypass-Cache Slough region. | **SUPPORT**<br><br>Based upon Board-adopted 2021 State Legislative Priorities and Principles | The 2020 Water Resources Development Act authorized a comprehensive study of the Yolo Bypass and its future role in regional flood control. A state master plan for the Yolo Bypass-Cache Slough would similarly advance multi-benefit restoration projects and encourage state and federal agencies to coordinate regulatory compliance and funding for flood control, water supply, habitat and recreation. |

# Metropolitan Water District of Southern California
## State Legislative Matrix
## April 12, 2021 – First Year of Legislative Session

| Topic | Bill Number<br>Author | Status | Title – Summary | MWD Position | Effects on Metropolitan |
|---|---|---|---|---|---|
| Delta/State Water Project | **SB 626**<br>**Dodd (D)**<br><br>**Sponsor:**<br><br>Author | Amended 4/5/2021<br><br>Senate Natural Resources and Water Committee<br><br>Hearing: 4/15/2021 | **Construction Manager/General Contractor Procurement Method: Department of Water Resources**<br><br>Authorizes the Department of Water Resources to use the Construction Manager/General Contractor (CM/GC) procurement method for construction contracts. | **SUPPORT IF AMENDED**<br><br>Based upon Board-adopted 2021 State Legislative Priorities and Principles | The State Water Contractors (SWCs) fund all State Water Project capital and operations and maintenance (O&M) projects. Projects that use the CM/GC or design build procurement method can begin earlier and take less time because of overlapping design and construction phases. This will reduce the overall cost of capital infrastructure, public safety and habitat restoration projects. The SWCs are seeking amendments to ensure price is considered when selecting a qualified contractor, and to ensure that in the event a procurement contract is appealed that any work started before the appeal is completed. |
| Water/Energy Nexus | **AB 1161**<br>**E. Garcia (D)**<br><br>Sponsor:<br><br>Author | Amended 3/22/2021<br><br>Assembly Utilities and Energy Committee | **Electricity: eligible renewable energy and zero-carbon resources: state agencies: procurement**<br><br>Requires the Department of Water Resources (DWR) to procure newly eligible renewable energy resources or zero-carbon resources, and associated energy storage, for state agencies to satisfy their 100% renewable energy goals by December 31, 2030. | **OPPOSE**<br><br>Based upon Board-adopted 2021 State Legislative Priorities and Principles | SB 100 (DeLeon, 2018) set a state goal for 100% carbon-free resources for all state agencies by 2045. Staff have concerns that this bill misplaces the burden of procuring renewable and carbon-free resources and associated storage onto DWR. Procuring energy for other state agencies is outside DWR's purpose and core expertise. Moreover, accelerating the state's goal of 100% renewable and carbon-free energy resources for all state agencies by 2045 to 2030 could dramatically increase |

# Metropolitan Water District of Southern California
## State Legislative Matrix
## April 12, 2021 – First Year of Legislative Session

| Topic | Bill Number Author | Status | Title – Summary | MWD Position | Effects on Metropolitan |
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| | | | | | Metropolitan's retail electricity rates above what is mandated by SB 100. |
| Water Bond Infrastructure Funding | **AB 1500 Garcia, E. (D) and Mullin (D)**<br><br>Sponsor:<br><br>Author | Introduced 2/19/2021<br><br>Assembly Water, Parks and Wildlife Committee<br><br>Hearing: 4/8/2021 | **Safe Drinking Water, Wildlife Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, and Workforce Development Bond Act of 2022**<br><br>Places a $6.7 billion wildfire and water bond on the 2022 ballot for voter approval. | **SUPPORT AND SEEK AMENDMENTS**<br><br>Based upon Board adopted 2021 State Legislative Priorities and Principles and Board action on AB 3256 (Garcia, 2020) 06/09/2020 | Would provide funding for safe drinking water, wildfire prevention, drought preparation, flood protection, extreme heat mitigation, and workforce development programs.<br><br>Metropolitan is seeking amendments to ensure adequate funding for recycled water projects, water quality monitoring and treatment, and subsidence repairs to conveyance infrastructure projects. |
| Water Bond Infrastructure Funding | **SB 45 Portantino (D)**<br><br>Sponsor:<br><br>Author | Introduced 12/7/2020<br><br>Senate Governance and Finance Committee<br><br>Hearing: 4/15/2021 | **Wildfire, Safe Drinking Water, Drought Preparation, and Flood Protection Bond Act of 2022**<br><br>Places a $5.51 billion wildfire and water bond on the 2022 ballot for voter approval. | **SUPPORT AND SEEK AMENDMENTS**<br><br>Based upon Board adopted 2021 State Legislative Priorities and Principles and Board action on SB 45 (Allen, 2018) 6/11/19 | Would provide funding to restore areas damaged by wildfires, mitigate future wildfires, create healthy forests and watersheds, protect water supplies and water quality, and protect and restore rivers, streams and lakes.<br><br>Metropolitan is seeking amendments to ensure adequate funding for recycled water projects, water quality monitoring and treatment, and subsidence repairs to conveyance infrastructure projects. |

**Metropolitan Water District of Southern California**
**State Legislative Matrix**
**April 12, 2021 – First Year of Legislative Session**

| Topic | Bill Number Author | Status | Title – Summary | MWD Position | Effects on Metropolitan |
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| Water Bond Infrastructure Funding | **SB 559 Hurtado (D)**<br><br>Sponsors:<br><br>Friant Water Authority, San Luis & Delta Mendota Water Authority, and State Water Contractors | Introduced 2/18/2021<br><br>Senate Natural Resources & Water Committee<br><br>Hearing: 4/27/2021 | **Department of Water Resources: water conveyance systems: Canal Conveyance Capacity Restoration Fund**<br><br>Establishes the Canal Conveyance Capacity Restoration Fund that would upon appropriation provide up to $785 million in funding for the Department of Water Resources to help pay for subsidence repairs to the State Water Project and Central Valley Project water conveyance systems and for necessary road and bridge upgrades. | **SUPPORT**<br><br>Based upon Board adopted 2021 State Legislative Priorities and Principles | Portions of the California Aqueduct, the Friant Kern Canal and the Delta Mendota Canal have lost capacity due to subsidence. The Fund would upon appropriation provide funding to DWR to support a 10-year program to restore the capacity of the canals and ensure a more secure water supply. Funds could be used to cover one-third of the cost to restore the capacity of the canals. A federal companion bill is envisioned that would provide one-third the cost and local partners would contribute the remaining one-third of the cost |
| Innovation | **SB 351 Caballero (D)**<br><br>Sponsor:<br><br>California Municipal Utilities Association | Introduced 2/9/2021<br><br>Senate Natural Resources & Water Committee<br><br>Hearing: 4/15/2021 | **Water Innovation Act of 2021**<br><br>Would create the Office of Water Innovation at the California Water Commission to foster the adoption of new technologies and other innovative approaches in the water sector. Creates the Water Innovation Fund, with monies available upon appropriation, to the Department of Water Resources and State Water Resources Control Board to support water innovation. | **SUPPORT**<br><br>Based upon Board adopted 2021 State Legislative Priorities and Principles | The water sector is facing a myriad of challenges from climate change, aging infrastructure, groundwater contamination, subsidence and freshwater ecosystems vulnerable to climate change. Innovative technologies and approaches are needed to ensure a reliable water supply while trying to address the challenges. An Office of Water Innovation could increase collaboration among state agencies on innovative approaches, engage stakeholders, and review regulations that may inhibit innovation in order to recommend regulatory reforms. |

**Metropolitan Water District of Southern California**
**State Legislative Matrix**
**April 12, 2021 – First Year of Legislative Session**

| Topic | Bill Number Author | Status | Title – Summary | MWD Position | Effects on Metropolitan |
|---|---|---|---|---|---|
| Governance | **AB 361**<br>**R. Rivas (D)**<br><br>Sponsor:<br><br>California Special Districts Association | Amended 4/6/2021<br><br>Assembly Local Government Committee | **Open meetings: local agencies: teleconferences**<br><br>Authorizes local agencies to use teleconferencing during state or local emergencies or when social distancing guidelines have been imposed without complying with physical noticing or quorum requirements under the Ralph M. Brown Act. | **SUPPORT**<br><br>Based upon Board Action on 3/9/2021 | Codifies Executive Order N-29-20 that allows for teleconferenced public meetings during state or local emergencies. Metropolitan currently hosts teleconferencing public meetings in accordance with the Executive Order. AB 361 provides statutory clarity allowing Metropolitan to maintain transparency and public participation in public meetings through teleconferencing now and during future declared emergencies. |
| Governance | **AB 703**<br>**B. Rubio (D)**<br><br>Sponsor:<br><br>Three Valleys Municipal Water District | Introduced 2/16/2021<br><br>Assembly Local Government Committee | **Open meetings: local agencies: teleconferences**<br><br>Amends the Ralph M. Brown Act to allow a local agency to use teleconferencing and removes certain noticing provisions for each teleconferencing location and a required physical quorum, but requires the local agency to allow all members of the public to observe the meeting and address the legislative body. | **SUPPORT**<br><br>Based upon Board Action on 3/9/2021 | Metropolitan currently hosts teleconferencing public meetings in accordance with Executive Order, N-29-20. AB 703 allows the option to hold teleconferenced meetings into the future after the COVID-19 public health emergency is over and the Executive Order is lifted. |

# ETWD Public Education and Outreach Report
**May 27, 2021**

## Bill Message

Customer June/July bill message:

Indoor and outdoor rebates are available. Thinking of re-landscaping, purchasing a premium high efficiency toilet or new high efficiency clothes washer. Take advantage of regional and ETWD supplemental rebates by visiting www.etwd.com/conservation/rebates. For additional questions, please call Customer Service at 949-837-0660.

## Laguna Woods Village Television

Director Vergara discussed May is Water Awareness Month in a Zoom interview with Lisa Hart for Laguna Woods Television on May 11, 2021. Video will be distributed when received.

Director Monin will participate in a Zoom interview with Lisa Hart on June 14, 2021. Topic is to be determined.

## Community Advisory Group Meetings

After marketing and using the Constant Contact platform to invite ETWD customers to the CAG meeting, we received 11 RSVP's and 1 cancellation for the May 13, 2021 Zoom meeting. Approximately 6 of those RSVP's attended. Staff will continue to outreach for the next CAG meeting in August.

## MWDOC School Choice Program

In March 2020, MWDOC shifted the K-12 Choice School Program to short, engaging, pre-recorded water lesson videos for online distance learners. For the upcoming 2021-2022 year, they have restructured the programs to be available for in-class and distance learners with live, hybrid water lessons. They are assuming that large indoor class gatherings will not be available for at least the beginning of the year or possibly throughout the year. The Orange County Department of Education Inside the Outdoors is the new contractor and will facilitate programs for Grades 3 through High School. Using the Department of Education will assist with increase participation in the schools. The new programs continue to meet state standards and guides the students to become environmentally literate citizens able to examine real-world issues.

The program is broken down into the following sections:

Elementary School Grades K-2. Shows that Teach will provide live or virtual sessions, pre and post program activities, video resources and teacher's guide.

Elementary School Grades 3-5. The Orange County Department of Education Inside the Outdoors will provide multi-classroom in-person and virtual presentations, pre and post program activities, live traveling scientist with learning stations, virtual field trip, teacher resources, and family engagement activities.

Middle School Grades 6-8 and High School. The Orange County Department of Education Inside the Outdoors will provide pre and post program activities, live traveling scientist with learning stations, virtual field trip, teacher resources, and a field study or community project. The learning stations include: aquifer model, water conveyance maps and system engineering experiments.

The District will be receiving a credit from the 2020/2021 school year due to COVID and schools transferring to virtual learning. Due to the new program, schools returning to in-class instruction and some using a hybrid approach, pricing has changed. Staff is estimating costs for the 2021/2022 school programs and will discuss at the board meeting. The school choice program costs will be increasing but will be offset by the credit.

Submitted by: Sherri Seitz 5/20/21

**EL TORO WATER DISTRICT**
**CONSERVATION PROGRAM**
**Monthly**
**Status Report**
**May 27, 2021**

## REBATE PROGRAMS

The SoCal WaterSmart regional rebate program is available to ETWD customers provided by the Metropolitan Water District of Southern California, the Metropolitan Water District of Orange County and ETWD.

The following tables reflect the current device rebates ETWD customers can apply for from August 1, 2020 through June 30, 2022.

Select device purchases are eligible for rebates while meeting eligibility requirements and subject to funding availability. Rebate information can be found at www.etwd.com/conservation/rebates.

**1) Residential Rebate Program:**

| Device | MET Rebate | MWDOC Grant | ETWD Rebate | Total Rebate (up to) |
|---|---|---|---|---|
| **High Efficiency Clothes Washer** | **$85** | | **$115** | **$200** |
| **Premium High Efficiency Toilet** | **$40** | | **$60** | **$100** |
| **Rotating Sprinkler Nozzles** (min 30 per home) | **$2 ea** | | **$1** | **$3** |
| **Smart Irrigation Timer** | **$80** | **$100** | **$75** | **$255** |
| **Turf Removal Program** (up to 5,000 sq ft)* | **$2 sq. ft.** | | **$1 sq. ft.** | **$3 sq. ft.** |
| **Soil Moisture Sensor System** <1 Acre<br>>1 Acre | **$80**<br>**$35/station** | **$100** | **$75** | **$255**<br>**$35/station** |
| **Hose Bib Irrigation Controller** | **$35** | | | **$35** |
| **Rain Barrels**<br>**Cisterns**<br>(200 -500 gallon)<br>(501-999 gallon)<br>(1,000 gallon or more) | **$35**<br><br>**$250**<br>**$300**<br>**$350** | | **$15** | **$50**<br><br>**$250**<br>**$300**<br>**$350** |
| **Spray to Drip Irrigation** (up to 5,000 sf of converted area per fiscal year) | | **$0.25 sq. ft.** | | **$0.25 sq. ft.** |

***Designated recycled water sites are not eligible for turf removal rebates. MWDOC Grant funding based on availability. ETWD has discontinued funding of synthetic turf rebates.**

**2) Commercial Plumbing/Irrigation Devices Rebate Program:**

| Device | MET Rebate | MWDOC Grant | ETWD Rebate | Total Rebate (up to) |
|---|---|---|---|---|
| Premium High Efficiency Toilet | $40 | | | $40 |
| Multi-family Premium High Efficiency Toilet | $40 | | | $40 |
| Zero Water/Ultra Low Water Urinal | $200 | | | $200 |
| Plumbing Flow Control Valve (min. 10) | $5 | | | $5 |
| Smart Irrigation Timer/Central Computer Irrigation Controller/Soil Moisture Sensor System/Hose Bib Irrigation Controller | $35/station | | | $35/station |
| Rotating Sprinkler Nozzles (minimum quantity of 15) | $2 | | $1 | $3 |
| Rotating Nozzles – Large Rotary | $13 | | | $13 |
| Turf Removal Program (up to 50,000 sq ft)* | $2 sq. ft* | | | $2 sq. ft.* |
| Spray to Drip Irrigation (up to 45,000 sq. ft) | | $0.20 sq. ft. | | $0.20 sq. ft. |

***Designated recycled water sites are not eligible for turf removal rebates. Synthetic turf is not eligible for the turf removal rebate. Additional commercial rebates available online at ocwatersmart.com. MWDOC Grant funding based on availability.**

**3) Actual Customer Rebates and Budget Analysis**

Since last month's report there have been two new ETWD supplemental rebates in addition to the Metropolitan Water District device rebates and the Municipal Water District of Orange County turf removal program that have been paid.

The table below shows the devices and programs that ETWD provides supplemental rebates for in addition to the Metropolitan Water District device rebates and the Municipal Water District of Orange County turf removal program. Total number of water-use efficiency devices includes paid rebates from April 16, 2021 through May 19, 2021. Turf removal program is total square footage rebates paid from March 18, 2021 through April

15, 2021. The table also lists ETWD's budget for each item for the fiscal year. The last column is the total ETWD supplemental rebates paid to date. Note rebates are paid up to the cost of the device. If the device receives funding from MET and MWDOC that covers the price of the device, the customer does not receive ETWD supplemental funding.

| Device<br>March 18 – April 15 | Total # Rebates Paid | ETWD Supplemental Amount | Budget 20/21 | ETWD Supplemental Rebate Total |
|---|---|---|---|---|
| **High Efficiency Clothes Washer** | **7** | **$115** | **$5,750** | **$3,680** |
| **Premium High Efficiency Toilet** | **0** | **$60** | **$1,800** | **$120** |
| **Smart Irrigation Timer/Soil Moisture Sensor System** | **4 (1 – Supplemental)** | **$49** | **$2,625** | **$923** |
| **Rain Barrels Cisterns** | **1** | **$15** | **$150** | **$75** |
| **Total** | | | **$10,325** | **$4,798** |

| Turf Removal Program<br>March 18 – April 15 | Total sq.ft. Paid | ETWD Supplemental Amount | Budget | ETWD Supplemental Rebate Total |
|---|---|---|---|---|
| **Turf Removal**<br>Residential | **0** | **$1 sq. ft.** | **$7,000** | **$0** |

## WATER USE EFFICIENCY PLAN UPDATE (Water Conservation Plan)

The District Water Budget-Based Tiered Conservation Rate Structure (WBBTCRS) pricing structure is the primary plan that gives customers the incentive needed to be efficient. The Plan efforts initially will concentrate on those customers continually in the Inefficient and Excessive Tiers (Tiers 3 and 4). As of April 2021 year-to-date sales, residential accounted for 68% of the overall Tier 3 usage and dedicated irrigation accounted for 56% of Tier 4 usage.

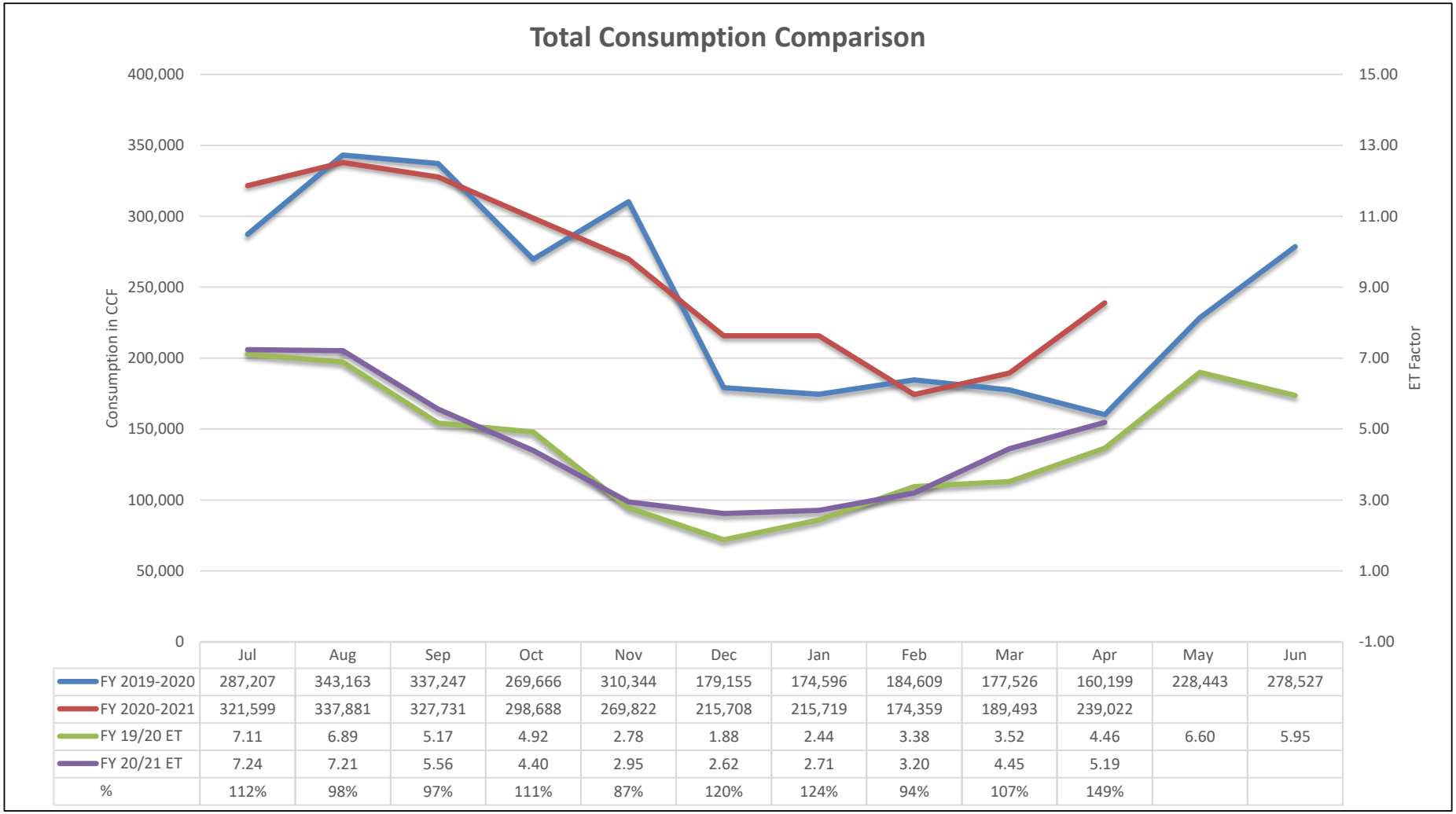
## TOTAL CONSUMPTION COMPARISON TO EVAPOTRANSPIRATION (ET) FACTOR

Included in this month's Conservation Report is a chart comparing the current fiscal year 2020/21 consumption and ET factor to the fiscal 2019/20 consumption and ET factor. The ET factor increased 14% from April 2020 when compared to April 2021. There was a 49% increase in consumption reflected in April 2021.

**MWDOC's—WATER USE EFFICIENCY PROGRAMS SAVINGS AND IMPLEMENTATION REPORT / ETWD's—WATER USE EFFICIENCY PROGRAM SAVINGS REPORT**

The current MWDOC and ETWD's Program Savings Reports follow this report. MWDOC's report show all their client agencies current participation levels in water use efficiency programs and savings calculations. ETWD's report show current District customer participation in water use efficiency programs along with savings provided in acre/feet per year, million gallons per year and avoided water costs based on those calculations.

**By: Sherri Seitz**
**Date: May 19, 2021**




| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FY 2019-2020 | 287,207 | 343,163 | 337,247 | 269,666 | 310,344 | 179,155 | 174,596 | 184,609 | 177,526 | 160,199 | 228,443 | 278,527 |
| FY 2020-2021 | 321,599 | 337,881 | 327,731 | 298,688 | 269,822 | 215,708 | 215,719 | 174,359 | 189,493 | 239,022 | | |
| FY 19/20 ET | 7.11 | 6.89 | 5.17 | 4.92 | 2.78 | 1.88 | 2.44 | 3.38 | 3.52 | 4.46 | 6.60 | 5.95 |
| FY 20/21 ET | 7.24 | 7.21 | 5.56 | 4.40 | 2.95 | 2.62 | 2.71 | 3.20 | 4.45 | 5.19 | | |
| % | 112% | 98% | 97% | 111% | 87% | 120% | 124% | 94% | 107% | 149% | | |

# El Toro Water District
## Water Use Efficiency Program Savings

| Program | Program Start Year | Program/Total Years | Avoided Water Use Acre Feet/Annual | Avoided Water Use Million Gallons/Annual | Avoided Water Costs Based on MWDOC Rate ($2.16 CCF) Annual |
|---|---|---|---|---|---|
| | | | | | |
| High Efficiency Toilet (HET) | 2005 | 15 | 52.5 | 17.1 | $49,408 |
| High Efficiency Clothes Washers--Residential | 2001 | 19 | 26.2 | 8.5 | $24,657 |
| *SoCal Water Smart Commercial Plumbing Fixtures Rebate Program (ULFT's, HET's, Urinals, HECW, Cooling Tower Conductivity Controllers) | 2002 | 18 | 51.6 | 16.8 | $48,561 |
| SmarTimer Program--Irrigation Timers | 2004 | 16 | 186.4 | 60.7 | $175,421 |
| Rotating Nozzles Rebate Program | 2007 | 13 | 137.4 | 44.8 | $129,307 |
| Turf Removal Program | 2010 | 10 | 60.2 | 19.6 | $56,654 |
| **Water Smart Landscape Program - Ended 2016 | 1997 | 20 | 242.9 | 79.2 | $228,594 |
| Synthetic Turf Rebate Program-Ended 2011 | 2007 | 8 | 0.9 | 0.3 | $847 |
| ***Ultra Low Flush Toilets (ULFT)--Ended 2009 | 1992 | 16 | 193.2 | 58.0 | $167,487 |
| Computer Controlled Irrigation System--Gate 11--Ended 2006 | 2001 | 6 | 8.9 | 2.9 | $8,357 |
| Totals | | | 960.2 | 312.9 | $903,627 |

*** Formerly the Save Water Save a Buck - Commercial Rebate Program**
**** Formerly the Landscape Performance Certification Program**
***** Correction on date and total**

**Because of our participation in Water Use Efficiency Programs, the District will not be using an estimated 312.9 million gallons of water per year.**

rev/ss 5/19/2021

# Orange County

## Water Use Efficiency Programs Savings
## and
## Implementation Report

### Retrofits and Acre-Feet Water Savings for Program Activity

| Program | Program Start Date | Retrofits Installed in | Month Indicated | | Current Fiscal Year | | Overall Program | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Interventions | Water Savings | Interventions | Water Savings | Interventions | Annual Water Savings[4] | Cumulative Water Savings[4] |
| High Efficiency Clothes Washer Program | 2001 | March-21 | 175 | 0.50 | 2,087 | 28.41 | 123,519 | 4,261 | 37,603 |
| Smart Timer Program - Irrigation Timers | 2004 | March-21 | 137 | 1.17 | 2,576 | 146.50 | 29,999 | 9,229 | 64,167 |
| Rotating Nozzles Rebate Program | 2007 | March-21 | 31 | 0.12 | 1,030 | 3.88 | 571,848 | 2,793 | 23,766 |
| Commercial Plumbing Fixture Rebate Program | 2002 | March-21 | 5 | 0.27 | 623 | 9.40 | 110,925 | 5,295 | 60,693 |
| Industrial Process/Water Savings Incentive Program (WSIP) | 2006 | March-21 | 0 | 0.00 | 1 | 20.67 | 38 | 1,284 | 6,005 |
| Turf Removal Program[3] | 2010 | March-21 | 102,178 | 1.15 | 471,531 | 18.84 | 23,407,197 | 3,278 | 19,104 |
| High Efficiency Toilet (HET) Program | 2005 | March-21 | 5 | 0.02 | 132 | 5.38 | 60,699 | 2,244 | 24,464 |
| Water Smart Landscape Program [1] | 1997 | | | | | | 12,677 | 10,621 | 72,668 |
| Home Water Certification Program | 2013 | | | | | | 312 | 7.339 | 15.266 |
| Synthetic Turf Rebate Program | 2007 | | | | | | 685,438 | 96 | 469 |
| Ultra-Low-Flush-Toilet Programs [2] | 1992 | | | | | | 363,926 | 13,452 | 162,561 |
| Home Water Surveys [2] | 1995 | | | | | | 11,867 | 160 | 1,708 |
| Showerhead Replacements [2] | 1991 | | | | | | 270,604 | 1,667 | 19,083 |
| **Total Water Savings All Programs** | | | | **3** | **477,980** | **233** | **25,649,049** | **54,388** | **492,307** |

(1) Water Smart Landscape Program participation is based on the number of water meters receiving monthly Irrigation Performance Reports.
(2) Cumulative Water Savings Program To Date totals are from a previous Water Use Efficiency Program Effort.
(3) Turf Removal Interventions are listed as square feet.
[4] Cumulative & annual water savings represents both active program savings and passive savings that continues to be realized due to plumbing code changes over time.

# HIGH EFFICIENCY CLOTHES WASHERS INSTALLED BY AGENCY

**through MWDOC and Local Agency Conservation Programs**

| Agency | FY 12/13 | FY13/14 | FY14/15 | FY15/16 | FY16/17 | FY17/18 | FY18/19 | FY19/20 | FY20/21 | Total | Current FY Water Savings Ac/Ft (Cumulative) | Cumulative Water Savings across all Fiscal Years | 15 yr. Lifecycle Savings Ac/Ft |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brea | 93 | 115 | 114 | 76 | 57 | 55 | 53 | 36 | 33 | 2,044 | 0.42 | 621.85 | 1,058 |
| Buena Park | 105 | 106 | 91 | 76 | 54 | 50 | 46 | 28 | 34 | 1,676 | 0.46 | 499.15 | 867 |
| East Orange CWD RZ | 10 | 8 | 8 | 8 | 3 | 1 | 6 | 2 | - | 201 | 0.00 | 64.88 | 104 |
| El Toro WD | 134 | 121 | 111 | 65 | 47 | 50 | 40 | 29 | 27 | 1,667 | 0.39 | 497.96 | 863 |
| Fountain Valley | 115 | 102 | 110 | 76 | 65 | 48 | 39 | 34 | 25 | 2,546 | 0.41 | 807.79 | 1,317 |
| Garden Grove | 190 | 162 | 165 | 251 | 127 | 87 | 70 | 63 | 73 | 3,856 | 0.90 | 1,173.84 | 1,995 |
| Golden State WC | 265 | 283 | 359 | 260 | 138 | 156 | 92 | 95 | 93 | 5,451 | 1.19 | 1,666.96 | 2,821 |
| Huntington Beach | 334 | 295 | 319 | 225 | 180 | 139 | 93 | 115 | 114 | 8,707 | 1.51 | 2,792.25 | 4,505 |
| Irvine Ranch WD | 1,763 | 1,664 | 1,882 | 1,521 | 1,369 | 1,194 | 883 | 490 | 335 | 27,564 | 4.53 | 8,109.80 | 14,262 |
| La Habra | 82 | 114 | 87 | 66 | 53 | 48 | 48 | 46 | 46 | 1,515 | 0.62 | 443.18 | 784 |
| La Palma | 34 | 25 | 34 | 29 | 10 | 14 | 7 | 12 | 5 | 496 | 0.08 | 150.81 | 257 |
| Laguna Beach CWD | 38 | 37 | 39 | 32 | 19 | 20 | 18 | 16 | 17 | 1,003 | 0.26 | 308.38 | 519 |
| Mesa Water | 114 | 86 | 89 | 113 | 79 | 53 | 42 | 41 | 83 | 2,736 | 1.21 | 867.34 | 1,416 |
| Moulton Niguel WD | 442 | 421 | 790 | 688 | 574 | 524 | 357 | 298 | 266 | 11,365 | 3.50 | 3,240.98 | 5,881 |
| Newport Beach | 116 | 92 | 95 | 66 | 61 | 51 | 41 | 28 | 24 | 2,768 | 0.32 | 900.40 | 1,432 |
| Orange | 218 | 163 | 160 | 124 | 80 | 73 | 56 | 59 | 57 | 4,143 | 0.83 | 1,335.04 | 2,144 |
| San Juan Capistrano | 76 | 73 | 92 | 63 | 33 | 32 | 23 | 26 | 24 | 1,564 | 0.27 | 481.82 | 809 |
| San Clemente | 140 | 94 | 141 | 75 | 70 | 83 | 64 | 61 | 57 | 2,885 | 0.79 | 876.77 | 1,493 |
| Santa Margarita WD | 553 | 662 | 792 | 466 | 367 | 271 | 213 | 251 | 205 | 10,456 | 2.88 | 3,100.60 | 5,410 |
| Seal Beach | 31 | 29 | 38 | 23 | 9 | 17 | 8 | 21 | 9 | 657 | 0.12 | 201.22 | 340 |
| Serrano WD | 13 | 10 | 26 | 8 | 11 | 8 | 2 | 7 | 3 | 377 | 0.03 | 120.51 | 195 |
| South Coast WD | 89 | 79 | 68 | 43 | 44 | 36 | 28 | 30 | 21 | 1,699 | 0.28 | 517.85 | 879 |
| Trabuco Canyon WD | 30 | 45 | 47 | 34 | 28 | 22 | 13 | 12 | 9 | 854 | 0.13 | 259.87 | 442 |
| Tustin | 78 | 59 | 80 | 66 | 44 | 48 | 34 | 29 | 48 | 1,771 | 0.66 | 550.86 | 916 |
| Westminster | 121 | 82 | 109 | 149 | 84 | 65 | 46 | 36 | 56 | 2,789 | 0.82 | 855.34 | 1,443 |
| Yorba Linda | 181 | 167 | 156 | 123 | 55 | 66 | 43 | 62 | 51 | 3,973 | 0.67 | 1,279.09 | 2,056 |
| **MWDOC Totals** | **5,365** | **5,094** | **6,002** | **4,726** | **3,661** | **3,211** | **2,365** | **1,927** | **1,715** | **104,775** | **23.27** | **31,729.29** | **20,242** |
| Anaheim | 331 | 285 | 295 | 266 | 213 | 173 | 135 | 119 | 163 | 11,272 | 2.18 | 3,628.05 | 5,832 |
| Fullerton | 200 | 186 | 211 | 165 | 107 | 99 | 113 | 84 | 68 | 4,059 | 0.87 | 1,230.90 | 2,100 |
| Santa Ana | 163 | 131 | 132 | 259 | 141 | 124 | 128 | 49 | 141 | 3,413 | 2.10 | 1,015.10 | 1,766 |
| **Non-MWDOC Totals** | **694** | **602** | **638** | **690** | **461** | **396** | **376** | **252** | **372** | **18,744** | **5.15** | **5,874.05** | **3,621** |
| **Orange County Totals** | **6,059** | **5,696** | **6,640** | **5,416** | **4,122** | **3,607** | **2,741** | **2,179** | **2,087** | **123,519** | **28.41** | **37,603.33** | **23,863** |

# SMART TIMERS INSTALLED BY AGENCY

**through MWDOC and Local Agency Conservation Programs**

| Agency | FY 12/13 | | FY 13/14 | | FY 14/15 | | FY 15/16 | | FY16/17 | | FY17/18 | | FY18/19 | | FY19/20 | | FY20/21 | | Total Program | | Cumulative Water Savings across all Fiscal Years |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm | Res | Comm. | |
| Brea | 9 | 8 | 4 | 0 | 43 | 6 | 20 | 4 | 31 | 4 | 32 | 0 | 33 | 0 | 31 | 0 | 39 | 0 | 266 | 80 | 650.09 |
| Buena Park | 3 | 0 | 0 | 0 | 4 | 10 | 7 | 4 | 10 | 7 | 15 | 3 | 17 | 7 | 22 | 1 | 19 | 1 | 104 | 53 | 225.69 |
| East Orange CWD RZ | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 11 | 1 | 6 | 0 | 1 | 0 | 1 | 0 | 4 | 0 | 37 | 1 | 34.78 |
| El Toro WD | 7 | 2 | 11 | 0 | 8 | 9 | 9 | 17 | 33 | 8 | 29 | 4 | 34 | 0 | 21 | 3 | 17 | 1 | 216 | 363 | 2,982.96 |
| Fountain Valley | 3 | 2 | 4 | 0 | 7 | 10 | 13 | 1 | 33 | 12 | 28 | 12 | 36 | 4 | 41 | (2) | 32 | 0 | 228 | 54 | 278.03 |
| Garden Grove | 5 | 2 | 9 | 0 | 10 | 14 | 13 | 11 | 28 | 0 | 27 | 2 | 36 | 3 | 31 | 0 | 16 | 0 | 211 | 43 | 249.83 |
| Golden State WC | 9 | 49 | 9 | 25 | 39 | 12 | 35 | 16 | 56 | 37 | 88 | 6 | 85 | 15 | 89 | 0 | 59 | 0 | 546 | 213 | 1,147.32 |
| Huntington Beach | 18 | 33 | 20 | 35 | 19 | 2 | 42 | 12 | 88 | 94 | 70 | 30 | 105 | 65 | 71 | 21 | 55 | 2 | 573 | 386 | 1,631.53 |
| Irvine Ranch WD | 414 | 135 | 71 | 59 | 67 | 310 | 239 | 207 | 344 | 420 | 416 | 78 | 379 | 105 | 292 | 146 | 720 | 52 | 3,576 | 2,667 | 15,058.23 |
| La Habra | 4 | 7 | 2 | 0 | 4 | 7 | 3 | 1 | 12 | 7 | 8 | 0 | 19 | 3 | 22 | (2) | 12 | 0 | 97 | 45 | 272.16 |
| La Palma | 1 | 0 | 2 | 0 | 2 | 0 | 3 | 2 | 1 | 0 | 5 | 0 | 7 | 0 | 6 | 0 | 10 | 0 | 38 | 2 | 11.21 |
| Laguna Beach CWD | 76 | 2 | 71 | 0 | 86 | 0 | 86 | 1 | 27 | 0 | 11 | 0 | 8 | 0 | 15 | 0 | 9 | 0 | 540 | 20 | 310.69 |
| Mesa Water | 10 | 2 | 15 | 2 | 17 | 28 | 36 | 12 | 149 | 41 | 49 | 0 | 34 | 55 | 31 | 3 | 14 | 2 | 446 | 214 | 1,056.92 |
| Moulton Niguel WD | 51 | 74 | 40 | 45 | 46 | 95 | 163 | 100 | 236 | 129 | 284 | 33 | 316 | 64 | 279 | 45 | 482 | 58 | 2,275 | 1,001 | 5,001.61 |
| Newport Beach | 242 | 26 | 168 | 75 | 11 | 9 | 28 | 43 | 30 | 12 | 24 | 0 | 21 | 0 | 11 | 32 | 12 | 12 | 1,106 | 453 | 3,288.87 |
| Orange | 20 | 24 | 13 | 9 | 18 | 31 | 51 | 13 | 69 | 10 | 61 | 13 | 93 | 26 | 99 | 15 | 64 | 2 | 602 | 221 | 1,268.69 |
| San Juan Capistrano | 14 | 18 | 6 | 11 | 6 | 19 | 20 | 8 | 22 | 8 | 23 | 5 | 20 | 1 | 24 | 9 | 13 | 0 | 302 | 140 | 854.67 |
| San Clemente | 26 | 7 | 28 | 2 | 28 | 24 | 26 | 3 | 37 | 13 | 38 | 41 | 36 | 0 | 35 | 16 | 24 | 30 | 1,184 | 461 | 3,359.54 |
| Santa Margarita WD | 53 | 171 | 64 | 93 | 53 | 321 | 189 | 136 | 326 | 221 | 273 | 220 | 222 | 37 | 223 | 31 | 169 | 169 | 2,041 | 1,829 | 8,154.35 |
| Seal Beach | 1 | 0 | 1 | 36 | 1 | 12 | 2 | 2,446 | 2 | 4 | 5 | 0 | 6 | 31 | 10 | 0 | 3 | 0 | 31 | 2,533 | 8,531.75 |
| Serrano WD | 1 | 0 | 0 | 0 | 4 | 0 | 11 | 2 | 4 | 0 | 8 | 0 | 10 | 0 | 9 | 0 | 9 | 0 | 74 | 2 | 22.60 |
| South Coast WD | 13 | 16 | 8 | 4 | 104 | 73 | 9 | 11 | 7 | 0 | 15 | 2 | 7 | 7 | 14 | 0 | 3 | 3 | 317 | 224 | 1,475.46 |
| Trabuco Canyon WD | 6 | 0 | 2 | 0 | 6 | 1 | 16 | 50 | 13 | 3 | 20 | 0 | 33 | 0 | 35 | 0 | 28 | 0 | 219 | 157 | 1,178.53 |
| Tustin | 8 | 4 | 9 | 1 | 18 | 14 | 33 | 8 | 33 | 23 | 27 | 1 | 37 | 0 | 40 | 0 | 37 | 0 | 284 | 81 | 470.96 |
| Westminster | 1 | 1 | 2 | 0 | 13 | 17 | 7 | 1 | 17 | 12 | 22 | 0 | 24 | 0 | 20 | 0 | 11 | 0 | 142 | 44 | 268.38 |
| Yorba Linda | 20 | 0 | 12 | 5 | 32 | 2 | 61 | 27 | 72 | 71 | 68 | 10 | 74 | 4 | 111 | 5 | 112 | 9 | 703 | 211 | 1,154.22 |
| **MWDOC Totals** | 1,017 | 583 | 571 | 402 | 648 | 1,026 | 1,123 | 3,136 | 1,691 | 1,137 | 1,652 | 460 | 1,693 | 427 | 1,583 | 323 | 1,973 | 341 | 16,158 | 11,498 | 58,939.06 |
| Anaheim | 19 | 10 | 9 | 26 | 7 | 52 | 30 | 34 | 87 | 10 | 66 | 0 | 142 | 73 | 111 | 9 | 144 | 16 | 707 | 555 | 3,375.50 |
| Fullerton | 9 | 29 | 8 | 0 | 40 | 26 | 32 | 12 | 53 | 7 | 45 | 0 | 77 | 0 | 61 | 8 | 79 | 2 | 461 | 209 | 1,241.33 |
| Santa Ana | 8 | 19 | 7 | 8 | 9 | 27 | 22 | 26 | 15 | 3 | 16 | 0 | 24 | 20 | 19 | 129 | 21 | 0 | 162 | 249 | 611.32 |
| **Non-MWDOC Totals** | 36 | 58 | 24 | 34 | 56 | 105 | 84 | 72 | 155 | 20 | 127 | 0 | 243 | 93 | 191 | 146 | 244 | 18 | 1330 | 1013 | 5,228.15 |
| **Orange County Totals** | 1,053 | 641 | 595 | 436 | 704 | 1,131 | 1,207 | 3,208 | 1,846 | 1,157 | 1,779 | 460 | 1,936 | 520 | 1,774 | 469 | 2,217 | 359 | 17,488 | 12,511 | 64,167 |

## ROTATING NOZZLES INSTALLED BY AGENCY
## through MWDOC and Local Agency Conservation Programs

| | FY 13/14 | | | FY 14/15 | | | FY 15/16 | | | FY 16/17 | | | FY 17/18 | | | FY 18/19 | | | FY 19/20 | | | FY 20/21 | | | Total Program | | | Cumulative Water Savings across all Fiscal Years |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Small | | Large | Small | | Large | Small | | Large | Small | | Large | Small | | Large | Small | | Large | Small | | Large | Small | | Large | Small | | Large | |
| Agency | Res | Comm. | Comm. | Res | Comm. | Comm. | Res | Comm. | Comm | Res | Comm. | Comm. | Res | Comm. | Comm. | Res | Comm. | Comm. | Res | Comm. | Comm. | Res | Comm. | Comm. | Res | Comm. | Comm. | |
| Brea | 84 | 0 | 0 | 157 | 45 | 0 | 74 | 2,484 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 572 | 2,749 | 0 | 86.96 |
| Buena Park | 53 | 0 | 0 | 248 | 0 | 0 | 45 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 558 | 173 | 2,535 | 909.02 |
| East Orange | 30 | 0 | 0 | 221 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 781 | 0 | 0 | 25.10 |
| El Toro | 56 | 3,288 | 0 | 1,741 | 28,714 | 0 | 730 | 4,457 | 0 | 55 | 242 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 3,435 | 46,222 | 890 | 1,786.20 |
| Fountain Valley | 0 | 0 | 0 | 107 | 0 | 0 | 222 | 0 | 0 | 0 | 0 | 0 | 85 | 0 | 0 | 0 | 283 | 0 | 0 | 0 | 0 | 124 | 0 | 0 | 919 | 283 | 0 | 28.21 |
| Garden Grove | 80 | 0 | 0 | 88 | 50 | 0 | 110 | 0 | 0 | 55 | 98 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 1,057 | 299 | 0 | 43.46 |
| Golden State | 192 | 0 | 0 | 583 | 1,741 | 0 | 1,088 | 0 | 0 | 207 | 6,008 | 0 | 161 | -495 | 0 | 35 | 259 | 0 | 63 | 1,652 | 0 | 50 | 0 | 0 | 3,757 | 12,732 | 0 | 414.23 |
| Huntington Beach | 120 | 0 | 0 | 798 | 1,419 | 0 | 1,345 | 2,836 | 0 | 149 | 3,362 | 0 | -37 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 0 | 80 | 0 | 0 | 3,905 | 12,526 | 2,681 | 1,552.65 |
| Irvine Ranch | 11,010 | 4,257 | 0 | 1,421 | 632 | 0 | 1,989 | 5,047 | 0 | 335 | 9,511 | 0 | 356 | -215 | 0 | 72 | 0 | 0 | 157 | 0 | 0 | 286 | 0 | 0 | 48,008 | 94,346 | 2,004 | 5,868.36 |
| La Habra | 15 | 0 | 0 | 109 | 338 | 0 | 300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 512 | 1,236 | 900 | 410.55 |
| La Palma | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 505 | 0 | 0 | 2,385 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 2,890 | 0 | 61.87 |
| Laguna Beach | 2,948 | 878 | 0 | 2,879 | 1,971 | 0 | 1,390 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12,139 | 2,896 | 0 | 470.55 |
| Mesa Water | 361 | 0 | 0 | 229 | 0 | 0 | 166 | 0 | 0 | 113 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 2,116 | 385 | 343 | 226.89 |
| Moulton Niguel | 361 | 227 | 0 | 1,596 | 4,587 | 0 | 5,492 | 1,441 | 0 | 153 | 5,872 | 0 | 893 | 0 | 0 | 713 | 38 | 0 | 687 | 0 | 0 | 325 | 0 | 0 | 14,492 | 20,553 | 2,945 | 2,124.00 |
| Newport Beach | 19,349 | 6,835 | 0 | 460 | 3,857 | 0 | 348 | 670 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46,723 | 21,413 | 0 | 2,312.34 |
| Orange | 245 | 120 | 0 | 304 | 668 | 0 | 631 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 67 | 0 | 0 | 0 | 0 | 0 | 3,267 | 1,072 | 0 | 145.68 |
| San Juan Capistrano | 370 | 0 | 0 | 495 | 737 | 0 | 310 | 593 | 0 | 75 | 123 | 0 | 59 | 0 | 0 | 40 | 1,400 | 0 | 58 | 0 | 0 | 0 | 0 | 0 | 5,652 | 10,252 | 0 | 548.86 |
| San Clemente | 415 | 5,074 | 0 | 326 | 0 | 0 | 426 | 0 | 0 | 0 | 0 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 44 | 0 | 0 | 10,214 | 7,538 | 1,343 | 975.79 |
| Santa Margarita | 389 | 0 | 0 | 1,207 | 1,513 | 0 | 1,820 | 837 | 0 | 15 | 0 | 0 | 224 | 0 | 0 | 30 | 0 | 0 | 229 | 0 | 0 | 0 | 0 | 0 | 16,648 | 6,921 | 611 | 997.51 |
| Seal Beach | 0 | 0 | 0 | 40 | 5,261 | 0 | 0 | 2,300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 155 | 7,852 | 0 | 220.24 |
| Serrano | 105 | 0 | 0 | 377 | 0 | 0 | 695 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,405 | 0 | 0 | 117.83 |
| South Coast | 70 | 0 | 0 | 4,993 | 13,717 | 0 | 1,421 | 2,889 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8,130 | 18,870 | 0 | 768.96 |
| Trabuco Canyon | 0 | 0 | 0 | 56 | 0 | 0 | 130 | 0 | 0 | 0 | 4,339 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,086 | 5,130 | 0 | 196.90 |
| Tustin | 329 | 0 | 0 | 408 | 0 | 0 | 317 | 386 | 0 | 65 | -341 | 0 | 30 | 0 | 0 | 47 | 0 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 3,503 | 1,058 | 0 | 152.23 |
| Westminster | 0 | 0 | 0 | 54 | 0 | 0 | 73 | 0 | 0 | 105 | 0 | 0 | 50 | 0 | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 556 | 0 | 0 | 16.12 |
| Yorba Linda | 40 | 990 | 0 | 921 | 0 | 0 | 1,715 | 0 | 0 | 213 | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6,115 | 4,359 | 500 | 556.57 |
| **MWDOC Totals** | 36,622 | 21,669 | 0 | 19,818 | 65,250 | 0 | 20,883 | 24,634 | 0 | 1,556 | 31,599 | 0 | 2,199 | -710 | 0 | 1,043 | 1,980 | 0 | ### | 1,652 | 0 | 970 | 0 | 0 | 198,794 | 281,755 | 14,752 | 21,017.07 |
| Anaheim | 338 | 0 | 0 | 498 | 712 | 0 | 794 | 5,221 | 0 | 147 | 3,953 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,020 | 49,799 | 105 | 1,672.74 |
| Fullerton | 107 | 0 | 0 | 684 | 1,196 | 0 | 521 | 7,015 | 0 | 65 | 3,034 | 0 | 0 | 0 | 0 | 140 | 0 | 0 | 75 | 0 | 0 | 60 | 0 | 0 | 3,185 | 11,309 | 1,484 | 881.09 |
| Santa Ana | 86 | 2,533 | 0 | 310 | 0 | 0 | 0 | 1,420 | 0 | 0 | 1,106 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 893 | 5,752 | 0 | 195.31 |
| **Non-MWDOC Totals** | 531 | 2,533 | 0 | 1,492 | 1,908 | 0 | 1,315 | 13,656 | 0 | 212 | 8,093 | 0 | 0 | 0 | 0 | 140 | 0 | 0 | 109 | 0 | 0 | 60 | 0 | 0 | 8,098 | 66,860 | 1,589 | 2,749.14 |
| **Orange County Totals** | 37,153 | 24,202 | 0 | 21,310 | 67,158 | 0 | 22,198 | 38,290 | 0 | 1,768 | 39,692 | 0 | 2,199 | -710 | 0 | #### | 1,980 | 0 | ### | 1,652 | 0 | 1,030 | 0 | 0 | 206,892 | 348,615 | 16,341 | 23,766.21 |

# COMMERCIAL PLUMBING FIXTURES INSTALLED BY AGENCY[1]

**through MWDOC and Local Agency Conservation Programs**

| Agency | FY 12/13 | FY 13/14 | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | FY 19/20 | FY 20/21 | Totals | Cumulative Water Savings across all Fiscal Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Brea | 234 | 0 | 10 | 91 | 734 | 242 | 0 | 74 | 154 | **1,835** | **759** |
| Buena Park | 5 | 23 | 56 | 591 | 133 | 49 | 0 | 94 | 0 | **2,632** | **1,656** |
| East Orange CWD RZ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0** |
| El Toro WD | 0 | 212 | 6 | 268 | 35 | 737 | 717 | 0 | 0 | **2,516** | **929** |
| Fountain Valley | 0 | 0 | 1 | 249 | 0 | 895 | 0 | 398 | 0 | **2,165** | **946** |
| Garden Grove | 4 | 1 | 167 | 676 | 410 | 0 | 354 | 388 | 0 | **3,193** | **2,175** |
| Golden State WC | 0 | 1 | 0 | 1,008 | 53 | 93 | 86 | 80 | 0 | **3,124** | **2,676** |
| Huntington Beach | 104 | 144 | 7 | 783 | 641 | 10 | 208 | 270 | 0 | **3,442** | **2,352** |
| Irvine Ranch WD | 1,090 | 451 | 725 | 11,100 | 5,958 | 1,599 | 1,000 | 15 | 2 | **30,482** | **12,331** |
| La Habra | 0 | 0 | 0 | 340 | 42 | 0 | 0 | 59 | 0 | **984** | **786** |
| La Palma | 0 | 0 | 0 | 0 | 509 | 0 | 0 | 0 | 0 | **675** | **215** |
| Laguna Beach CWD | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **446** | **435** |
| Mesa Water | 6 | 0 | 79 | 661 | 782 | 0 | 110 | 19 | 2 | **4,385** | **3,036** |
| Moulton Niguel WD | 0 | 0 | 3 | 413 | 281 | 506 | 4,392 | 764 | 0 | **6,939** | **1,808** |
| Newport Beach | 0 | 0 | 566 | 0 | 0 | 0 | 1,596 | 16 | 0 | **3,446** | **1,998** |
| Orange | 1 | 271 | 81 | 275 | 2,851 | 458 | 532 | 395 | 2 | **6,417** | **2,805** |
| San Juan Capistrano | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **260** | **518** |
| San Clemente | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 321 | 0 | **753** | **530** |
| Santa Margarita WD | 0 | 0 | 2 | 90 | 743 | 598 | 699 | 0 | 0 | **2,247** | **528** |
| Seal Beach | 0 | 0 | 0 | 0 | 184 | 278 | 0 | 0 | 0 | **816** | **611** |
| Serrano WD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0** |
| South Coast WD | 148 | 0 | 382 | 0 | 0 | 0 | 0 | 0 | 0 | **1,320** | **782** |
| Trabuco Canyon WD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **11** | **20** |
| Tustin | 0 | 0 | 75 | 358 | 212 | 2 | 408 | 254 | 0 | **2,066** | **1,251** |
| Westminster | 1 | 28 | 0 | 146 | 177 | 25 | 0 | 252 | 186 | **1,601** | **1,405** |
| Yorba Linda | 1 | 0 | 0 | 226 | 84 | 338 | 0 | 83 | 0 | **1,016** | **815** |
| **MWDOC Totals** | **1,594** | **1,172** | **2,161** | **17,275** | **13,829** | **5,830** | **10,102** | **3,482** | **346** | **82,771** | **41,371** |
| Anaheim | 165 | 342 | 463 | 3,072 | 309 | 1,808 | 686 | 592 | 211 | **17,050** | **10,171** |
| Fullerton | 94 | 0 | 178 | 476 | 621 | 274 | 384 | 356 | 0 | **3,792** | **2,474** |
| Santa Ana | 16 | 17 | 5 | 1,293 | 238 | 582 | 7 | 920 | 66 | **7,312** | **6,677** |
| **Non-MWDOC Totals** | **275** | **359** | **646** | **4,841** | **1,168** | **2,664** | **1,077** | **1,868** | **277** | **28,154** | **19,322** |
| **Orange County Totals** | **1,869** | **1,531** | **2,807** | **22,116** | **14,997** | **8,494** | **11,179** | **5,350** | **623** | **110,925** | **60,693** |

[1] Retrofit devices include ULF Toilets and Urinals, High Efficiency Toilets and Urinals, Multi-Family and Multi-Family 4-Liter HETs, Zero Water Urinals, High Efficiency Clothes Washers, Cooling Tower Conductivity Controllers, Ph Cooling Tower Conductivity Controllers, Flush Valve Retrofit Kits, Pre-rinse Spray heads, Hospital X-Ray Processor Recirculating Systems, Steam Sterilizers, Food Steamers, Water Pressurized Brooms, Laminar Flow Restrictors, and Ice Making Machines.

# INDUSTRIAL PROCESS/WATER SAVINGS INCENTIVE PROGRAM

**Number of Projects by Agency**

| Agency | FY 11/12 | FY 12/13 | FY 13/14 | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | FY 19/20 | FY 20/21 | Overall Program Interventions | Annual Water Savings[1] | Cumulative Water Savings across all Fiscal Years[1] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brea | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buena Park | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 54 | 664 |
| East Orange | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| El Toro | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 9 | 23 |
| Fountain Valley | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 23 | 94 |
| Garden Grove | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 7 | 11 |
| Golden State | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 58 | 117 |
| Huntington Beach | 0 | 2 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 6 | 180 | 1107 |
| Irvine Ranch | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 1 | 11 | 147 | 1008 |
| La Habra | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| La Palma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Laguna Beach | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mesa Water | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Moulton Niguel | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Newport Beach | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 21 | 134 |
| Orange | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 5 | 97 | 787 |
| San Juan Capistrano | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| San Clemente | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Santa Margarita | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Seal Beach | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Serrano | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| South Coast | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 134 | 549 |
| Trabuco Canyon | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tustin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Westminster | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 117 | 224 |
| Yorba Linda | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 20 | 51 |
| **MWDOC Totals** | 1 | 3 | 1 | 2 | 9 | 5 | 3 | 3 | 2 | 1 | 36 | 868 | 4770 |
| Anaheim | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fullerton | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 282 | 469 |
| Santa Ana | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 135 | 766 |
| **OC Totals** | 1 | 3 | 1 | 2 | 10 | 5 | 3 | 3 | 3 | 1 | 38 | 1284 | 6005 |

[1] Acre feet of savings determined during a one year monitoring period.

If monitoring data is not available, the savings estimated in agreement is used.

# TURF REMOVAL BY AGENCY[1]

**through MWDOC and Local Agency Conservation Programs**

| Agency | FY 13/14 | | FY 14/15 | | FY 15/16 | | FY 16/17 | | FY 17/18 | | FY 18/19 | | FY 19/20 | | FY 20/21 | | Total Program | | Cumulative Water Savings across all Fiscal Years |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | |
| Brea | 5,697 | 0 | 71,981 | 30,617 | 118,930 | 404,411 | 8,354 | 479 | 9,853 | 27,234 | 3,180 | 44,733 | 8,244 | 0 | 3,745 | 0 | 240,986 | 516,940 | **595.45** |
| Buena Park | 0 | 0 | 11,670 | 1,626 | 77,127 | 16,490 | 3,741 | 0 | 4,586 | 0 | 1,230 | 0 | 7,222 | 0 | 2,688 | 0 | 108,264 | 18,116 | **96.35** |
| East Orange | 1,964 | 0 | 18,312 | 0 | 27,844 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48,120 | 0 | **42.14** |
| El Toro | 4,582 | 0 | 27,046 | 221,612 | 63,546 | 162,548 | 13,139 | 48,019 | 7,273 | 42,510 | 12,856 | 9,895 | 5,203 | 21,290 | 4,664 | 3,667 | 147,712 | 582,259 | **602.01** |
| Fountain Valley | 4,252 | 0 | 45,583 | 5,279 | 65,232 | 0 | 3,679 | 0 | 8,631 | 0 | 5,764 | 28,700 | 734 | 0 | 4,095 | 20,921 | 139,952 | 62,424 | **140.28** |
| Garden Grove | 8,274 | 0 | 67,701 | 22,000 | 177,408 | 49,226 | 11,504 | 0 | 4,487 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 287,921 | 117,403 | **380.75** |
| Golden State | 32,725 | 8,424 | 164,507 | 190,738 | 310,264 | 112,937 | 0 | 0 | 0 | 0 | 0 | 48,595 | 0 | 0 | 0 | 0 | 581,902 | 394,867 | **887.86** |
| Huntington Beach | 20,642 | 0 | 165,600 | 58,942 | 305,420 | 270,303 | 9,560 | 21,534 | 14,236 | 6,032 | 9,539 | 40,135 | 10,225 | 13,193 | 16,950 | 1,097 | 589,822 | 476,162 | **899.09** |
| Irvine Ranch | 36,584 | 76,400 | 234,905 | 317,999 | 782,844 | 2,675,629 | 231,483 | 46,725 | 86,893 | 61,037 | 55,346 | 203,014 | 23,465 | 30,267 | 13,732 | 18,545 | 1,510,009 | 3,476,460 | **3,938.02** |
| La Habra | 0 | 0 | 14,014 | 1,818 | 49,691 | 72,164 | 0 | 0 | 3,003 | 0 | 1,504 | 0 | 6,102 | 0 | 4,964 | 0 | 79,278 | 90,019 | **141.49** |
| La Palma | 0 | 0 | 4,884 | 0 | 10,257 | 59,760 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15,141 | 59,760 | **61.56** |
| Laguna Beach | 4,586 | 226 | 13,647 | 46,850 | 47,614 | 0 | 3,059 | 0 | 589 | 0 | 0 | 0 | 1,217 | 0 | 0 | 0 | 76,887 | 48,788 | **114.28** |
| Mesa Water | 22,246 | 0 | 131,675 | 33,620 | 220,815 | 106,896 | 4,173 | 77,033 | 17,373 | 77,785 | 3,023 | 0 | 16,189 | 47,075 | 15,029 | 0 | 447,967 | 342,409 | **571.66** |
| Moulton Niguel | 14,739 | 40,741 | 314,250 | 1,612,845 | 889,748 | 1,059,279 | 220,749 | 0 | 98,271 | 0 | 106,574 | 0 | 81,778 | 18,951 | 14,016 | 184,371 | 1,757,102 | 3,043,376 | **3,932.31** |
| Newport Beach | 894 | 0 | 33,995 | 65,277 | 76,675 | 375,404 | 2,924 | 0 | 5,938 | 6,499 | 0 | 90,403 | 1,294 | 0 | 756 | 8,070 | 129,478 | 547,999 | **518.36** |
| Orange | 11,244 | 0 | 120,093 | 281,402 | 289,990 | 106,487 | 12,847 | 2,366 | 11,956 | 0 | 13,645 | 1,798 | 2,190 | 0 | 8,695 | 0 | 499,582 | 400,776 | **784.81** |
| San Clemente | 18,471 | 13,908 | 90,349 | 1,137 | 215,249 | 438,963 | 4,267 | 0 | 33,083 | 7,098 | 6,500 | 0 | 6,420 | 13,719 | 8,821 | 0 | 420,724 | 487,990 | **742.05** |
| San Juan Capistrano | 12,106 | 0 | 101,195 | 32,366 | 197,290 | 143,315 | 2,624 | 40,748 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 365,415 | 347,277 | **686.54** |
| Santa Margarita | 17,778 | 48,180 | 211,198 | 514,198 | 534,048 | 550,420 | 17,010 | 28,094 | 62,706 | 25,000 | 24,616 | 23,198 | 11,357 | 51,999 | 12,240 | 39,873 | 907,551 | 1,309,523 | **1,799.82** |
| Seal Beach | 0 | 0 | 15,178 | 504 | 17,349 | 15,911 | 1,234 | 0 | 752 | 0 | 0 | 0 | 996 | 0 | 316 | 0 | 39,436 | 16,415 | **47.68** |
| Serrano | 2,971 | 0 | 41,247 | 0 | 127,877 | 4,403 | 5,450 | 0 | 555 | 0 | 4,000 | 0 | 840 | 0 | 0 | 0 | 182,940 | 4,403 | **155.61** |
| South Coast | 15,162 | 116,719 | 84,282 | 191,853 | 181,102 | 128,290 | 14,967 | 0 | 13,319 | 7,806 | 7,574 | 0 | 25,465 | 50,879 | 2,817 | 66,624 | 360,923 | 582,890 | **756.15** |
| Trabuco Canyon | 2,651 | 0 | 14,771 | 0 | 42,510 | 88,272 | 1,465 | 0 | 4,788 | 0 | 1,536 | 0 | 4,752 | 49,533 | 1,520 | 0 | 75,807 | 160,245 | **170.72** |
| Tustin | 1,410 | 0 | 71,285 | 14,137 | 232,697 | 33,362 | 11,173 | 0 | 16,926 | 0 | 13,189 | 6,894 | 15,343 | 6,936 | 12,601 | 0 | 384,604 | 61,329 | **339.29** |
| Westminster | 0 | 0 | 14,040 | 34,631 | 71,833 | 23,902 | 11,112 | 0 | 10,033 | 0 | 5,924 | 0 | 1,962 | 0 | 0 | 0 | 114,904 | 58,533 | **137.29** |
| Yorba Linda | 0 | 0 | 112,136 | 12,702 | 360,279 | 116,985 | 19,420 | 0 | 9,529 | 3,696 | 12,590 | 12,020 | 7,773 | 0 | 714 | 0 | 533,790 | 145,403 | **552.48** |
| **MWDOC Totals** | **238,978** | **304,598** | **2,195,544** | **3,692,153** | **5,493,639** | **7,015,357** | **613,934** | **264,998** | **424,780** | **264,697** | **288,590** | **509,385** | **238,771** | **303,842** | **128,363** | **343,168** | **10,046,217** | **13,351,766** | **19,094.04** |
| Anaheim | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **-** |
| Fullerton | 0 | 9,214 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9,214 | **9.99** |
| Santa Ana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **-** |
| **Non-MWDOC Totals** | **0** | **9,214** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **9,214** | **9.99** |
| **Orange County Totals** | **238,978** | **313,812** | **2,195,544** | **3,692,153** | **5,493,639** | **7,015,357** | **613,934** | **264,998** | **424,780** | **264,697** | **288,590** | **509,385** | **238,771** | **303,842** | **128,363** | **343,168** | **10,046,217** | **13,360,980** | **19,104** |

[1]Installed device numbers are listed as square feet

# HIGH EFFICIENCY TOILETS (HETs) INSTALLED BY AGENCY

**through MWDOC and Local Agency Conservation Programs**

| Agency | FY 12-13 | FY 13-14 | FY 14-15 | FY 15-16 | FY 16-17 | FY 17-18 | FY 18-19 | FY 19-20 | FY 20-21 | Total | Cumulative Water Savings across all Fiscal Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Brea | 0 | 38 | 146 | 154 | 4 | 6 | 1 | 0 | 0 | **457** | **155.51** |
| Buena Park | 0 | 96 | 153 | 112 | 13 | 3 | 0 | 2 | 2 | **691** | **274.25** |
| East Orange CWD RZ | 0 | 13 | 26 | 24 | 0 | 0 | 0 | 2 | 0 | **88** | **31.66** |
| El Toro WD | 133 | 218 | 869 | 264 | 12 | 6 | 10 | 5 | 2 | **2,060** | **787.51** |
| Fountain Valley | 0 | 41 | 132 | 220 | 7 | 8 | 1 | 3 | 2 | **837** | **350.13** |
| Garden Grove | 0 | 63 | 350 | 363 | 7 | 4 | 5 | 3 | 1 | **1,497** | **602.68** |
| Golden State WC | 2 | 142 | 794 | 512 | 9 | 11 | 5 | 7 | 6 | **2,819** | **1,118.20** |
| Huntington Beach | 0 | 163 | 1,190 | 628 | 4 | 3 | 4 | 2 | 10 | **2,920** | **1,071.21** |
| Irvine Ranch WD | 1,449 | 810 | 1,777 | 2,798 | 638 | 239 | 162 | 66 | 32 | **17,408** | **7,516.53** |
| Laguna Beach CWD | 0 | 45 | 112 | 81 | 1 | 4 | 0 | 2 | 4 | **398** | **152.23** |
| La Habra | 0 | 37 | 94 | 83 | 5 | 1 | 0 | 0 | 3 | **594** | **266.55** |
| La Palma | 0 | 21 | 59 | 52 | 4 | 2 | 4 | 3 | 0 | **231** | **85.97** |
| Mesa Water | 0 | 147 | 162 | 162 | 7 | 3 | 3 | 15 | 1 | **1,640** | **790.49** |
| Moulton Niguel WD | 0 | 400 | 2,497 | 1,939 | 49 | 38 | 21 | 17 | 13 | **5,779** | **1,838.21** |
| Newport Beach | 0 | 49 | 168 | 243 | 11 | 6 | 0 | 0 | 3 | **734** | **270.89** |
| Orange | 1 | 142 | 978 | 416 | 17 | 10 | 5 | 4 | 6 | **2,204** | **797.05** |
| San Juan Capistrano | 0 | 35 | 140 | 202 | 3 | 9 | 4 | 0 | 0 | **536** | **185.56** |
| San Clemente | 0 | 72 | 225 | 246 | 11 | 6 | 10 | 1 | 5 | **894** | **332.64** |
| Santa Margarita WD | 0 | 528 | 997 | 1,152 | 114 | 33 | 11 | 18 | 13 | **3,384** | **1,083.64** |
| Seal Beach | 2 | 17 | 50 | 69 | -1 | 0 | 0 | 0 | 0 | **857** | **494.66** |
| Serrano WD | 0 | 2 | 40 | 55 | 3 | 0 | 3 | 0 | 0 | **124** | **39.37** |
| South Coast WD | 64 | 102 | 398 | 235 | 11 | 7 | 0 | 0 | 0 | **1,028** | **354.30** |
| Trabuco Canyon WD | 0 | 10 | 108 | 169 | 2 | 3 | 2 | 0 | 2 | **346** | **108.31** |
| Tustin | 0 | 64 | 132 | 201 | 12 | 10 | 4 | 7 | 5 | **1,532** | **719.97** |
| Westminster | 0 | 35 | 161 | 359 | 3 | 4 | 0 | 0 | 5 | **1,340** | **574.50** |
| Yorba Linda WD | 0 | 40 | 280 | 379 | 12 | 8 | 2 | 6 | 0 | **1,267** | **496.88** |
| **MWDOC Totals** | 1,651 | 3,330 | 12,038 | 11,118 | 958 | 424 | 257 | 163 | 115 | **51,665** | **20,498.92** |
| Anaheim | 0 | 156 | 1,188 | 614 | 70 | 19 | 5 | 11 | 9 | **5,909** | **2,697.01** |
| Fullerton | 0 | 61 | 293 | 286 | 14 | 9 | 8 | 7 | 4 | **1,083** | **406.91** |
| Santa Ana | 0 | 33 | 602 | 293 | 20 | 0 | 4 | 8 | 3 | **2,036** | **861.48** |
| **Non-MWDOC Totals** | 0 | 250 | 2,083 | 1,193 | 104 | 28 | 17 | 26 | 16 | **9,028** | **3,965.40** |
| **Orange County Totals** | **1,651** | **3,580** | **14,121** | **12,311** | **1,062** | **452** | **274** | **189** | **131** | **60,693** | **24,464.31** |

I hereby certify that the following Agenda was posted at least 72 hours prior to the time of the Board Meeting so noticed below, at the usual agenda posting location of the South Orange County Wastewater Authority [SOCWA] and at www.socwa.com.

Betty Burnett, General Manager
SOCWA and the Board of Directors thereof

# AGENDA

*Regular Meeting*
*of the*
*South Orange County Wastewater Authority*
*Board of Directors*

To Be Held by Teleconference on:
May 6, 2021
8:30 a.m.

MEMBERS OF THE PUBLIC ARE INVITED TO PARTICIPATE IN THIS TELECONFERENCE MEETING AND MAY JOIN THE MEETING VIA THE TELECONFERENCE PHONE NUMBER AND ENTER THE ID CODE. THIS IS A PHONE CALL MEETING AND NOT A WEB-CAST MEETING SO PLEASE REFER TO AGENDA MATERIALS AS POSTED ON THE WEBSITE AT WWW.SOCWA.COM. ON YOUR REQUEST, EVERY EFFORT WILL BE MADE TO ACCOMMODATE PARTICIPATION. IF YOU REQUIRE ANY SPECIAL DISABILITY RELATED ACCOMMODATIONS, PLEASE CONTACT THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY SECRETARY'S OFFICE AT (949) 234-5452 AT LEAST **SEVENTY-TWO** (72) HOURS PRIOR TO THE SCHEDULED MEETING TO REQUEST DISABILITY RELATED ACCOMMODATIONS. THIS AGENDA CAN BE OBTAINED IN ALTERNATE FORMAT UPON REQUEST TO THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY'S SECRETARY AT LEAST **SEVENTY-TWO** (72) HOURS PRIOR TO THE SCHEDULED MEETING.

AGENDA ATTACHMENTS AND OTHER WRITINGS THAT ARE DISCLOSABLE PUBLIC RECORDS DISTRIBUTED TO ALL, OR A MAJORITY OF, THE MEMBERS OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY BOARD OF DIRECTORS IN CONNECTION WITH A MATTER SUBJECT TO DISCUSSION OR CONSIDERATION AT AN OPEN MEETING OF THE BOARD OF DIRECTORS ARE AVAILABLE BY PHONE REQUEST MADE TO THE AUTHORITY ADMINISTRATIVE OFFICE AT 949-234-5452. THE AUTHORITY ADMINISTRATIVE OFFICES ARE LOCATED AT 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE"), BUT ARE NOT OPEN TO THE PUBLIC DURING THE PERIOD OF STAY AT HOME ORDERS IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE BOARD OF DIRECTORS LESS THAN **SEVENTY-TWO** (72) HOURS PRIOR TO THE MEETING, THEY WILL BE SENT TO PARTICIPANTS REQUESTING VIA EMAIL DELIVERY. IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IMMEDIATELY ON VERBAL REQUEST TO BE DELIVERED VIA EMAIL TO REQUESTING PARTIES.

## *FOR MEETING PARTICIPATION:*

Join Zoom Meeting
https://socwa.zoom.us/

Meeting ID: 841 0139 0894
Passcode: 745343

One tap mobile
+16699006833,,84101390894#,,,,*745343# US (San Jose)
+12532158782,,84101390894#,,,,*745343# US (Tacoma)

Dial by your location
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)

+1 312 626 6799 US (Chicago)
+1 929 205 6099 US (New York)
+1 301 715 8592 US (Washington DC)
Find your local number: https://socwa.zoom.us/u/kbWxiUtRcc

# AGENDA

1. CALL MEETING TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ORAL COMMUNICATIONS

*MEMBERS OF THE PUBLIC MAY ADDRESS THE BOARD REGARDING AN ITEM ON THE AGENDA OR MAY RESERVE THIS OPPORTUNITY DURING THE MEETING AT THE TIME THE ITEM IS DISCUSSED BY THE BOARD. THERE WILL BE A THREE-MINUTE LIMIT FOR PUBLIC COMMENTS.*

PAGE NO

4. CONSENT CALENDAR

A. Minutes of Board Meeting ..... 1

- Board of Directors April 1, 2021

ACTION The Board will be requested to approve subject Minutes as submitted.

B. Minutes of Finance Committee Meeting .....4

- Finance Committee Minutes March 16, 2021

ACTION The Board will be requested to receive and file subject Minutes as submitted.

C. Minutes of Engineering Committee Meeting .....8

- Engineering Committee Minutes March 11, 2021

ACTION The Board will be requested to receive and file subject Minutes as submitted.

D. Minutes of PC 23 Committee Meeting .....12

- PC 23 Committee Minutes February 11, 2021
- PC 23 Committee Minutes February 19, 2021

ACTIONS
1. The PC 23 Board will be requested to approve subject Minutes as submitted; and
2. The Board of Directors will be requested to receive and file subject Minutes.

E. Minutes of PC 2 / PC5 Joint Committee Meeting .....18

- PC 2 / PC 5 Committee Minutes March 31, 2021

PAGE NO

ACTION
1. The PC 2/PC 5 Board will be requested to approve subject Minutes as submitted; and
2. The Board of Directors will be requested to receive and file subject Minutes.

F. Financial Reports for the Month of March 2021 .....21

1. Summary of Disbursements for March 2021 (Exhibit A)
2. Schedule of Funds Available for Reinvestment (Exhibit B)
   - Local Agency Investment Fund (LAIF)
3. Schedule of Cash and Investments (Exhibit C)
4. Capital Schedule (Exhibit D)
   - Capital Projects – Graph (Exhibit D-1)
5. Budget vs. Actual Expenses:
   - Operations and Environmental Summary (Exhibit E-1)
   - Operations and Environmental by PC (E-1.2)
   - Residual Engineering, after transfer to Capital (Exhibit E-2)
   - Administration (Exhibit E-3)
   - Information Technology (IT) (Exhibit E-4)
6. Q3 Fringe Pool and Updated Fringe Rate Forecast (Exhibit E-5)

ACTION: The Finance Committee recommends to the Board of Directors to ratify the March 2021 disbursements for the period from March 1, 2021, through March 31, 2021, totaling $3,508,706, and to receive and file the March 2021 Financial Reports as submitted.

G. Q3 FY 2020-21 Cash Roll Forward as of March 31, 2021 .....40

Cash Roll Forward balances are attached:

- Cash Roll Forward Notes
- Large Capital Cash Reconciliation to General Ledger (GL)
- Large Capital Cash Roll Forward Balance by Project Committee, Member Agency and Project
- Non-Capital Cash Roll Forward Balance by Project Committee, Member Agency and Project
- Non-Capital – Miscellaneous Cash Roll Forward Balance by Project Committee, Member Agency and Project
- Small Capital Cash Roll Forward balance by Project Committee, Member Agency and Project

ACTION: The Finance Committee recommends to the Board of Directors to receive and file the Q3 Fiscal Year 2020-21 Cash Roll Forward as submitted.

PAGE NO

H. March 2021 Operations Reports .....49

1. Monthly Operational Report
2. SOCWA Ocean Outfall Discharges by Agency
3. Quarterly Report on Key Operational Expenses
4. Beach Ocean Monitoring Report
5. Recycled Water Report
6. Pretreatment Report

ACTION: The Board will be requested to receive and file the March 2021 Operations Reports as submitted.

I. Capital Improvement Program Status Report .....99

ACTION: The Board will be requested to receive and file the reports as submitted.

J. Capital Improvement Program Project Financial Status and Change Orders [Project Committee 2, 5, 15, & 17].....115

ACTION: The Engineering Committee recommends:
- the PC-2 Board of Directors to approve Change Orders 17 and 18 for a total of $41,964; and
- the PC-17 Board of Directors to approve Change Orders 21 through 29 for a total of $72,586

5. ENGINEERING MATTERS

A. Regional Treatment Plant Aeration PLC Upgrade [Project Committee 17].....133

ACTION: The Engineering Committee recommends to the PC 17 Board to award the contract to Tesco in the amount of $98,980 for the aeration PLC upgrade for the Regional Treatment Plant Aeration System.

B. JBL Effluent Pumping Station Pump VFD Replacements [Project Committee 2] .....135

ACTION: Staff recommends the PC 2 Board to authorize the General Manager to enter a contract with Sulzer EMS to purchase and install three (3) effluent pumping station pump variable frequency drives (VFD) at the cost of $60,912.50, including additional shipping costs that will be determined at the time the units are shipped.

C. JBL Primary Tank Cover Replacement [Project Committee 2] .....137

ACTION: Staff recommends the PC 2 Board to authorize the General Manager to enter a contract with Hallsten, Inc. to install the Primary Tank Cover Replacement at a Cost of $248,367.00 with a 5% contingency of $12,400.

PAGE NO

6. GENERAL MANAGER'S REPORTS

A. Resolution No. 2020-02: A Resolution approving new Side Letter of Agreement Number 3 to the 2020-2023 Memorandum of Understanding between the South Orange County Wastewater Authority and the SOCWA Employee Association.....139

ACTION: The Board will be requested to approve and adopt Resolution No. 2020-02, A Resolution approving new Side Letter of Agreement Number 3 to the 2020-2023 Memorandum of Understanding between the South Orange County Wastewater Authority and the SOCWA Employee Association

B. Resolution No. 2020-03: A Resolution of the Board of Directors of The South Orange County Wastewater Authority Approving Changes to The SOCWA Employee Manual Regarding Uniform Allowance.....143

ACTION: The Board will be requested to approve and adopt Resolution No. 2020-03, A Resolution of the Board of Directors of the South Orange County Wastewater Authority Approving Changes to the SOCWA Employee Manual Regarding Uniform Allowance

C. FY 20/21 O&M Budget Update and Proposed Budget Amendments .....146

ACTION: The Finance Committee recommends to the PC 2 Board that PC 2 J.B. Latham Plant Budget be amended by $100,000 to add the following amounts:

| | | |
|---|---|---|
| PC 2 Line 5008 | Ferric Chloride | $50,000 |
| PC-2 Line 5049 | Biosolids | $50,000 |

D. Independent Auditing Firm Selection – FY 2021-2022 .....148

ACTION: The Finance Committee recommends to the Board of Directors to extend the PUN Group for the FY 2021-22 Audit with a rotation of the firm's Audit Managers.

E. Tesla Energy-SGIP Equity Resiliency Eligibility Matrix-Non-Residential Customers .....149

- Commercial Battery Storage Systems Presentation by Lee Murakami

ACTION: Information Item

F. Appointment of SOCWA Representative to Integrated Regional Watershed Participants Executive Committee .....

ACTION: Appointment of Representative

G. General Manager Status Report .....168

ACTION: Information Item

7. CLOSED SESSION

A. A Closed Session Conference with Labor Negotiators pursuant to Government Code Section § 54957.6

SOCWA Designated Representatives: Betty Burnett, General Manager;
Brad Neufeld, Labor Counsel.

Employee Organization: SOCWA Employee Association

B. A Closed Session Conference with Legal Counsel Anticipated Litigation
- Significant exposure to litigation pursuant to Government Code Section § 54956.9(d)(2): 1 matter

C. Reports out of Closed Session

8. OTHER MATTERS

Open discussion or items received too late to be agendized.

Note: Determine the need to take action on the following item(s) introduced by the General Manager which arose subsequent to the agenda being posted.

[Adoption of this action requires a two-thirds vote of the Board, or if less than two-this are present a unanimous vote.]

ADJOURNMENT

THE NEXT SOCWA BOARD MEETING
BOARD BUDGET WORKSHOP
MAY 20, 2021

**NOTICE OF REGULAR MEETING**
**OF THE**
**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY**

**ENGINEERING COMMITTEE**
**TELECONFERENCE MEETING**

**May 13, 2021**
**8:30 a.m.**

**Join Zoom Meeting by clicking on the link below:**
https://socwa.zoom.us/

Meeting ID: 818 5892 8585
Passcode: 524880

One tap mobile
+16699006833,,81858928585#,,,,*524880# US (San Jose)
+13462487799,,81858928585#,,,,*524880# US (Houston)

Dial by your location
+1 669 900 6833 US (San Jose)
+1 346 248 7799 US (Houston)
+1 253 215 8782 US (Tacoma)
+1 929 205 6099 US (New York)
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)

Find your local number: https://socwa.zoom.us/u/kdoW08o3kq

NOTICE IS HEREBY GIVEN that a Regular Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee was called to be held by Teleconference on **May 13, 2021** at **8:30 a.m.** SOCWA staff will be present and conducting the call at the SOCWA Administrative Office located at 34156 Del Obispo Street, Dana Point, California. This meeting is being conducted via Teleconference pursuant to the California Governor Executive Order N-29-20.

*MEMBERS OF THE PUBLIC ARE INVITED TO PARTICIPATE IN THIS TELECONFERENCE MEETING AND MAY JOIN THE MEETING VIA THE TELECONFERENCE PHONE NUMBER AND ENTER THE ID CODE. THIS IS A PHONE CALL MEETING AND NOT A WEB-CAST MEETING SO PLEASE REFER TO AGENDA MATERIALS AS POSTED WITH THE AGENDA THE WEB-SITE WWW.SOCWA.COM. ON YOUR REQUEST, EVERY EFFORT WILL BE MADE TO ACCOMMODATE PARTICIPATION. IF YOU REQUIRE ANY SPECIAL DISABILITY RELATED ACCOMMODATIONS, PLEASE CONTACT THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY SECRETARY'S OFFICE AT (949) 234-5452 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE SCHEDULED MEETING TO REQUEST DISABILITY RELATED ACCOMMODATIONS. THIS AGENDA CAN BE OBTAINED IN ALTERNATE FORMAT UPON REQUEST TO THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY'S SECRETARY AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE SCHEDULED MEETING.*

*AGENDA EXHIBITS AND OTHER WRITINGS THAT ARE DISCLOSABLE PUBLIC RECORDS DISTRIBUTED TO ALL, OR A MAJORITY OF, THE MEMBERS OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY ENGINEERING COMMITTEE IN CONNECTION WITH A MATTER SUBJECT FOR DISCUSSION OR CONSIDERATION AT AN OPEN MEETING OF THE ENGINEERING COMMITTEE ARE AVAILABLE BY PHONE REQUEST MADE TO THE AUTHORITY ADMINISTRATIVE OFFICE AT 949-234-5452. THE AUTHORITY ADMINISTRATIVE OFFICES ARE LOCATED AT 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE"). IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE ENGINEERING*

*COMMITTEE LESS THAN SEVENTY-TWO (72) HOURS PRIOR TO THE MEETING, THEY WILL BE SENT TO PARTICIPANTS REQUESTING VIA EMAIL DELIVERY. IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IMMEDIATELY ON VERBAL REQUEST TO BE DELIVERED VIA EMAIL TO REQUESTING PARTIES.*

## ***AGENDA***

**1. Call Meeting to Order**

**2. Public Comments**

*THOSE WISHING TO ADDRESS THE ENGINEERING COMMITTEE ON ANY ITEM LISTED ON THE AGENDA WILL BE REQUESTED TO IDENTIFY AT THE OPENING OF THE MEETING AND PRIOR TO THE CLOSE OF THE MEETING. THE AUTHORITY REQUESTS THAT YOU STATE YOUR NAME WHEN MAKING THE REQUEST IN ORDER THAT YOUR NAME MAY BE CALLED TO SPEAK ON THE ITEM OF INTEREST. THE CHAIR OF THE MEETING WILL RECOGNIZE SPEAKERS FOR COMMENT AND GENERAL MEETING DECORUM SHOULD BE OBSERVED IN ORDER THAT SPEAKERS ARE NOT TALKING OVER EACH OTHER DURING THE CALL.*

**3. Approval of Minutes**

- Engineering Committee Meeting of April 8, 2021

**Recommended Action:** Staff recommends the Engineering Committee to approve Minutes as submitted.

**4. Operations Report**

**Recommended Action:** Information Item

**5. Capital Improvement Construction Projects Report**

**Recommended Action:** Staff recommends that the Engineering Committee recommend to the:

- PC-2 Board of Directors to approve Change Orders 19 through 21 for a total of $134,453 for the JBL Package B project

- PC-15 Board of Directors to approve Change Order 1 for $5,690 for the CTP Sludge Force Main project; and

- PC-15 Board of Directors to approve Change Orders 22 through 24 for $14,394 for the CTP Facility Improvements project

**6. Contract Amendment for the J.B. Latham Treatment Plant Package B Engineering Services during Construction [Project Committee 2]**

**Recommended Action:** Staff recommends that the Engineering Committee recommend to the PC 2 Board to approve the contract amendment to Carollo in the amount of $227,617 for a total revised contract amount of $1,074,145 for the engineering services for the J.B. Latham Package B Project.

**7. Contract Amendment for the J.B. Latham Treatment Plant Package B Construction Management Services [Project Committee 2]**

**Recommended Action:** Staff recommends that the Engineering Committee recommend to the PC 2 Board to approve the contract amendment to Butier in the amount of $290,156 for a total revised contract amount of $1,185,883 for the construction management services for the JB Latham Package B Project.

**8. J.B. Latham Treatment Plant Electrical System Evaluation Additional Design Services [Project Committee 15]**

**Recommended Action:** Staff recommends that the Engineering Committee recommend to the PC 2 Board to approve the contract amendment to Hazen and Sawyer in the amount of $24,390 for a total revised contract amount of $223,936 for the design services for the JB Latham Electrical System Study and Design Project.

**9. Coastal Treatment Plant Aeration Diffuser Purchase [Project Committee 15]**

**Recommended Action:** Informational item only.

**Adjournment**

I hereby certify that the foregoing Notice was personally emailed or mailed to each member of the SOCWA Engineering Committee at least 72 hours prior to the scheduled time of the Regular Meeting referred to above.

I hereby certify that the foregoing Notice was posted at least 72 hours prior to the time of the above-referenced Engineering Committee meeting at the usual agenda posting location of the South Orange County Wastewater Authority and at www.socwa.com.

Dated this 6th day of May 2021.

B. Burnett

Betty Burnett, General Manager/Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

**NOTICE OF SPECIAL MEETING**
**OF THE**
**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY**

**BOARD BUDGET WORKSHOP**
**TELECONFERENCE MEETING**

**May 20, 2021**
**8:30 a.m.**

**Join Zoom Meeting by clicking on the link below:**

**https://socwa.zoom.us**

Meeting ID: 873 7462 3048
Passcode: 321793
One tap mobile
+16699006833,,87374623048#,,,,*321793# US (San Jose)
+12532158782,,87374623048#,,,,*321793# US (Tacoma)

Dial by your location
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+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
+1 929 205 6099 US (New York)
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)
Find your local number: https://socwa.zoom.us/u/kcdRujv1eq

NOTICE IS HEREBY GIVEN that a Special Meeting of the South Orange County Wastewater Authority (SOCWA) Board Budget Workshop was called by the Chairman to be held by Teleconference on **May 20, 2021,** located at 34156 Del Obispo Street, Dana Point, California. This meeting is being conducted via Teleconference pursuant to the California Governor Executive Order N-29-20.

*MEMBERS OF THE PUBLIC ARE INVITED TO PARTICIPATE IN THIS TELECONFERENCE MEETING AND MAY JOIN THE MEETING VIA THE TELECONFERENCE PHONE NUMBER AND ENTER THE ID CODE. THIS IS A PHONE CALL MEETING AND NOT A WEB-CAST MEETING SO PLEASE REFER TO AGENDA MATERIALS AS POSTED WITH THE AGENDA ON THE WEB-SITE WWW.SOCWA.COM. ON YOUR REQUEST, EVERY EFFORT WILL BE MADE TO ACCOMMODATE PARTICIPATION. IF YOU REQUIRE ANY SPECIAL DISABILITY RELATED ACCOMMODATIONS, PLEASE CONTACT THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY SECRETARY'S OFFICE AT (949) 234-5452 AT LEAST **TWENTY-FOUR (24)** HOURS PRIOR TO THE SCHEDULED MEETING TO REQUEST DISABILITY RELATED ACCOMMODATIONS. THIS AGENDA CAN BE OBTAINED IN ALTERNATE FORMAT UPON REQUEST TO THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY'S SECRETARY AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO THE SCHEDULED MEETING.*

*AGENDA EXHIBITS AND OTHER WRITINGS THAT ARE DISCLOSABLE PUBLIC RECORDS DISTRIBUTED TO ALL, OR A MAJORITY OF, THE MEMBERS OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY BOARD BUDGET WORKSHOP IN CONNECTION WITH A MATTER SUBJECT FOR DISCUSSION OR CONSIDERATION AT AN OPEN MEETING OF THE BOARD BUDGET WORKSHOP ARE AVAILABLE BY PHONE REQUEST MADE TO THE AUTHORITY ADMINISTRATIVE OFFICE AT 949-234-5452. THE AUTHORITY ADMINISTRATIVE OFFICES ARE LOCATED AT 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE"). IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE BOARD BUDGET WORKSHOP LESS THAN **TWENTY-FOUR (24)** HOURS PRIOR TO THE MEETING, THEY WILL BE SENT TO PARTICIPANTS REQUESTING VIA EMAIL DELIVERY. IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IMMEDIATELY ON VERBAL REQUEST TO BE DELIVERED VIA EMAIL TO REQUESTING PARTIES.*

## ***AGENDA***

**1.** Call Meeting to Order

**2.** Pledge of Allegiance

**3.** Public Comments

*THOSE WISHING TO ADDRESS THE BOARD OF DIRECTORS ON ANY ITEM LISTED ON THE AGENDA WILL BE REQUESTED TO IDENTIFY AT THE OPENING OF THE MEETING AND PRIOR TO THE CLOSE OF THE MEETING. THE AUTHORITY REQUESTS THAT YOU STATE YOUR NAME WHEN MAKING THE REQUEST IN ORDER THAT YOUR NAME MAY BE CALLED TO SPEAK ON THE ITEM OF INTEREST. THE CHAIR OF THE MEETING WILL RECOGNIZE SPEAKERS FOR COMMENT AND GENERAL MEETING DECORUM SHOULD BE OBSERVED IN ORDER THAT SPEAKERS ARE NOT TALKING OVER EACH OTHER DURING THE CALL.*

**4.** Budget Workshop – Review of Proposed SOCWA FY 2021-22 Total Operating Budget

A. Update on Finance Committee Review

B. Budget Overview & Key Assumptions Proposed Budget $22,770,568.

- Operations, Maintenance, including Environmental and Safety
- Capital Programs (Small Internal and Large Capital), and Engineering Non-Capital
- Administration
- General Fund

**Recommended Action:** (1) Board Questions and Comments, and (2) Schedule the Budget for consideration of adoption at the June 3rd 2021 Board Meeting

**Adjournment**

I hereby certify that the foregoing Notice was personally emailed or mailed to each member of the SOCWA Finance Committee at least 24 hours prior to the scheduled time of the Special Meeting referred to above.

I hereby certify that the foregoing Notice was posted at least 24 hours prior to the time of the above-referenced Finance Committee at the usual agenda posting location of the South Orange County Wastewater Authority and at www.socwa.com.

Dated this 13th day of May 2021.

B. Burnett

Betty Burnett, General Manager/Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

MEETING OF THE BOARD OF DIRECTORS OF THE
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
Jointly with the
**PLANNING & OPERATIONS COMMITTEE**
May 3, 2021, 8:30 a.m.

**Due to the spread of COVID-19 and as authorized by the Governor's Executive Order, MWDOC will be holding all upcoming Board and Committee meetings by Zoom Webinar and will be available by either computer or telephone audio as follows:**
**Computer Audio: You can join the Zoom meeting by clicking on the following link:**
https://zoom.us/j/8828665300

| | |
|---|---|
| **Telephone Audio:** | **(669) 900 9128 fees may apply** |
| | **(877) 853 5247 Toll-free** |
| **Webinar ID:** | **882 866 5300#** |

**P&O Committee:**
Director Yoo Schneider, Chair
Director Nederhood
Director Seckel

Staff: R. Hunter, J. Berg, V. Osborn, H. De La Torre, T. Dubuque, D. Micalizzi, H. Baez, T. Baca

Ex Officio Member: Director Tamaribuchi

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MWDOC Committee meetings are noticed and held as joint meetings of the Committee and the entire Board of Directors and all members of the Board of Directors may attend and participate in the discussion. Each Committee has designated Committee members, and other members of the Board are designated alternate committee members. If less than a quorum of the full Board is in attendance, the Board meeting will be adjourned for lack of a quorum and the meeting will proceed as a meeting of the Committee with those Committee members and alternate members in attendance acting as the Committee.

**PUBLIC COMMENTS -** Public comments on agenda items and items under the jurisdiction of the Committee should be made at this time.

**ITEMS RECEIVED TOO LATE TO BE AGENDIZED -** Determine there is a need to take immediate action on item(s) and that the need for action came to the attention of the District subsequent to the posting of the Agenda. (Requires a unanimous vote of the Committee)

**ITEMS DISTRIBUTED TO THE BOARD LESS THAN 72 HOURS PRIOR TO MEETING --** Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection in the lobby of the District's business office located at 18700 Ward Street, Fountain Valley, California 92708, during regular business hours. When practical, these public records will also be made available on the District's Internet Web site, accessible at http://www.mwdoc.com.

## ACTION ITEM

1. ADOPTION OF MWDOC'S 2020 URBAN WATER MANAGEMENT PLAN, WATER SHORTAGE CONTINGENCY PLAN, AND 2015 UWMP ADDENDUM (ALONG WITH PUBLIC HEARING INFORMATION)

2. LRP AGREEMENT BETWEEN METROPOLITAN, MWDOC, AND SANTA MARGARITA WATER DISTRICT FOR THE LAS FLORES RECYCLED WATER EXPANSION PROJECT

3. BOARD APPROVAL OF ON-CALL TECHNICAL SERVICES SLATE TO SUPPORT RELIABILITY PLANNING, ENGINEERING & RESOURCE DEVELOPMENT

**DISCUSSION ITEMS**

4. UPDATE ON COVID-19 (ORAL REPORT)

5. UPDATE REGARDING SMWD SAN JUAN WATERSHED PROJECT (ORAL REPORT)

**INFORMATION ITEMS** (The following items are for informational purposes only – background information is included in the packet. Discussion is not necessary unless a Director requests.)

6. SOUTH COAST WATER DISTRICT DOHENY OCEAN DESALINATION PROJECT UPDATE

7. OC-70 METER ACCURACY TESTING UPDATE

8. LOCAL LEGISLATIVE ACTIVITIES
   a. County Legislative Report (Lewis)
   b. Legal and Regulatory Report (Ackerman)

9. MWDOC CHOICE SCHOOL PROGRAMS UPDATE

10. 2021 OC WATER SUMMIT UPDATE

11. STATUS REPORTS

    a. Ongoing MWDOC Reliability and Engineering/Planning Projects
    b. WEROC
    c. Water Use Efficiency Projects
    d. Public and Government Affairs

12. REVIEW OF ISSUES RELATED TO PLANNING OR ENGINEERING PROJECTS, WEROC, WATER USE EFFICIENCY, FACILITY AND EQUIPMENT MAINTENANCE, WATER STORAGE, WATER QUALITY, CONJUNCTIVE USE PROGRAMS, EDUCATION, PUBLIC AFFAIRS PROGRAMS AND EVENTS, PUBLIC INFORMATION PROJECTS, PUBLIC INFORMATION CONSULTANTS, DISTRICT FACILITIES, and MEMBER-AGENCY RELATIONS

**ADJOURNMENT**

**NOTE:** At the discretion of the Committee, all items appearing on this agenda, whether or not expressly listed for action, may be deliberated, and may be subject to action by the Committee. On those items designated for Board action, the Committee reviews the items and makes a

recommendation for final action to the full Board of Directors; final action will be taken by the Board of Directors. Agendas for Committee and Board meetings may be obtained from the District Secretary. Members of the public are advised that the Board consideration process includes consideration of each agenda item by one or more Committees indicated on the Board Action Sheet. Attendance at Committee meetings and the Board meeting considering an item consequently is advised.

Accommodations for the Disabled. Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning Maribeth Goldsby, District Secretary, at (714) 963-3058, or writing to Municipal Water District of Orange County at P.O. Box 20895, Fountain Valley, CA 92728. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the District to provide the requested accommodation.

WORKSHOP MEETING OF THE
BOARD OF DIRECTORS WITH MET DIRECTORS
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
18700 Ward Street, Fountain Valley, California
May 5, 2021, 8:30 a.m.

**Due to the spread of COVID-19 and as authorized by the Governor's Executive Order, MWDOC will be holding all upcoming Board and Committee meetings by Zoom Webinar and will be available by either computer or telephone audio as follows:**

**Computer Audio: You can join the Zoom meeting by clicking on the following link:**
https://zoom.us/j/8828665300

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| **Telephone Audio:** | **(669) 900 9128 fees may apply** |
| | **(877) 853 5247 Toll-free** |
| **Webinar ID:** | **882 866 5300#** |

# AGENDA

## PLEDGE OF ALLEGIANCE

## ROLL CALL

## PUBLIC PARTICIPATION/COMMENTS
At this time members of the public will be given an opportunity to address the Board concerning items within the subject matter jurisdiction of the Board. Members of the public may also address the Board about a particular Agenda item at the time it is considered by the Board and before action is taken.

The Board requests, but does not require, that members of the public who want to address the Board complete a voluntary "Request to be Heard" form available from the Board Secretary prior to the meeting.

## ITEMS RECEIVED TOO LATE TO BE AGENDIZED
Determine need and take action to agendize item(s), which arose subsequent to the posting of the Agenda. (ROLL CALL VOTE: Adoption of this recommendation requires a two-thirds vote of the Board members present or, if less than two-thirds of the Board members are present a unanimous vote.)

## ITEMS DISTRIBUTED TO THE BOARD LESS THAN 72 HOURS PRIOR TO MEETING
Pursuant to Government Code Section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection in the lobby of the District's business office located at 18700 Ward Street, Fountain Valley, California 92708, during regular business hours. When practical, these public records will also be made available on the District's Internet Web site, accessible at http://www.mwdoc.com.

**NEXT RESOLUTION NO. 2111**

## ACTION ITEMS

### 1. AB 1195 (C. GARCIA) – DRINKING WATER

*Recommendation: Vote to adopt an Oppose Unless Amended position on AB 1195.*

**2. SB 559 (HURTADO) – DEPARTMENT OF WATER RESOURCES: WATER CONVEYANCE SYSTEMS: CANAL CONVEYANCE CAPACITY RESTORATION FUND**

*Recommendation: Vote to adopt a Support position on SB 559.*

**PRESENTATION/DISCUSSION ITEMS**

**3. LEGISLATIVE ACTIVITIES**

a. Federal Legislative Report (NRR)
b. State Legislative Report (BBK)
c. MWDOC Legislative Matrix
d. Metropolitan Legislative Matrix

*Recommendation: Review and discuss the information presented.*

**4. INPUT OR QUESTIONS ON MET ISSUES FROM THE MEMBER AGENCIES/MET DIRECTOR REPORTS REGARDING MET COMMITTEE PARTICIPATION**

*Recommendation: Receive input and discuss the information presented.*

**5. PRESENTATION ON SOUTHERN CALIFORNIA WATER SUPPLY CONDITIONS AND COMMUNICATIONS/OUTREACH MESSAGING (METROPOLITAN STAFF BRAD COFFEY AND SUE SIMS)**

*Recommendation: Review and discuss the information presented.*

**INFORMATION ITEMS**

**6. MET ITEMS CRITICAL TO ORANGE COUNTY** (The following items are for informational purposes only – a write up on each item is included in the packet. Discussion is not necessary unless requested by a Director)

a. MET's Finance and Rate Issues
b. MET's General Manager Recruitment Process
c. MET'S Review of Equal Employment Opportunity Policies and Practices
d. MET's Integrated Resources Plan Update
e. MET's Water Supply Conditions
f. Colorado River Issues
g. Delta Conveyance Activities and State Water Project Issues

*Recommendation: Review and discuss the information presented.*

## 7. METROPOLITAN (MET) BOARD AND COMMITTEE AGENDA DISCUSSION ITEMS

a. Summary regarding April MET Board Meeting
b. Review items of significance for MET Board and Committee Agendas

*Recommendation: Review and discuss the information presented.*

## ADJOURNMENT

Note: Accommodations for the Disabled. Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning Maribeth Goldsby, District Secretary, at (714) 963-3058, or writing to Municipal Water District of Orange County at P.O. Box 20895, Fountain Valley, CA 92728. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodations should make the request with adequate time before the meeting for the District to provide the requested accommodations.

ADJOURNED MEETING OF THE BOARD OF DIRECTORS OF THE
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
Jointly with the
**ADMINISTRATION & FINANCE COMMITTEE**
May 12, 2021, 8:30 a.m.

**Due to the spread of COVID-19 and as authorized by the Governor's Executive Order, MWDOC will be holding all upcoming Board and Committee meetings by Zoom Webinar and will be available by either computer or telephone audio as follows:**

**Computer Audio: You can join the Zoom meeting by clicking on the following link:**
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| **Webinar ID:** | **882 866 5300#** |

**A&F Committee:**
Director McVicker, Chair
Director Dick
Director Thomas

Staff: R. Hunter, J. Berg, H. Chumpitazi, H. De La Torre, K. Davanaugh, C. Harris

Ex Officio Member: Director Tamaribuchi

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MWDOC Committee meetings are noticed and held as joint meetings of the Committee and the entire Board of Directors and all members of the Board of Directors may attend and participate in the discussion. Each Committee has designated Committee members, and other members of the Board are designated alternate committee members. If less than a quorum of the full Board is in attendance, the Board meeting will be adjourned for lack of a quorum and the meeting will proceed as a meeting of the Committee with those Committee members and alternate members in attendance acting as the Committee.

**PUBLIC COMMENTS -** Public comments on agenda items and items under the jurisdiction of the Committee should be made at this time.

**ITEMS RECEIVED TOO LATE TO BE AGENDIZED -** Determine there is a need to take immediate action on item(s) and that the need for action came to the attention of the District subsequent to the posting of the Agenda. (Requires a unanimous vote of the Committee)

**ITEMS DISTRIBUTED TO THE BOARD LESS THAN 72 HOURS PRIOR TO MEETING --** Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection in the lobby of the District's business office located at 18700 Ward Street, Fountain Valley, California 92708, during regular business hours. When practical, these public records will also be made available on the District's Internet Web site, accessible at http://www.mwdoc.com.

## PROPOSED BOARD CONSENT CALENDAR ITEMS

1. TREASURER'S REPORT
   a. Revenue/Cash Receipt Report – April 2021
   b. Disbursement Approval Report for the month of May 2021
   c. Disbursement Ratification Report for the month of April 2021

d. GM Approved Disbursement Report for the month of April 2021
e. Consolidated Summary of Cash and Investment – March 2021
f. OPEB and Pension Trust Fund monthly statement

2. FINANCIAL REPORT
   a. Combined Financial Statements and Budget Comparative for the Period Ending March 31, 2021
   b. Quarterly Budget Report

**ACTION ITEMS**

3. ANNUAL REVIEW OF DISTRICT INVESTMENT POLICY AND GUIDELINES

**INFORMATION ITEMS –** (THE FOLLOWING ITEMS ARE FOR INFORMATIONAL PURPOSES ONLY – BACKGROUND INFORMATION IS INCLUDED IN THE PACKET. DISCUSSION IS NOT NECESSARY UNLESS REQUESTED BY A DIRECTOR.)

4. DEPARTMENT ACTIVITIES REPORTS
   a. Administration
   b. Finance and Information Technology

5. MONTHLY WATER USAGE DATA, TIER 2 PROJECTION, AND WATER SUPPLY INFORMATION

**OTHER ITEMS**

6. REVIEW ISSUES REGARDING DISTRICT ORGANIZATION, PERSONNEL MATTERS, EMPLOYEE BENEFITS FINANCE AND INSURANCE

**ADJOURNMENT**

**NOTE:** At the discretion of the Committee, all items appearing on this agenda, whether or not expressly listed for action, may be deliberated, and may be subject to action by the Committee. On those items designated for Board action, the Committee reviews the items and makes a recommendation for final action to the full Board of Directors; final action will be taken by the Board of Directors. Agendas for Committee and Board meetings may be obtained from the District Secretary. Members of the public are advised that the Board consideration process includes consideration of each agenda item by one or more Committees indicated on the Board Action Sheet. Attendance at Committee meetings and the Board meeting considering an item consequently is advised.

Accommodations for the Disabled. Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning Maribeth Goldsby, District Secretary, at (714) 963-3058, or writing to Municipal Water District of Orange County at P.O. Box 20895, Fountain Valley, CA 92728. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the District to provide the requested accommodation.

REGULAR MEETING
OF THE BOARD OF DIRECTORS
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
18700 Ward Street, Fountain Valley, California
May 19, 2021, 8:30 a.m.

**Due to the spread of COVID-19 and as authorized by the Governor's Executive Order, MWDOC will be holding all upcoming Board and Committee meetings by Zoom Webinar and will be available by either computer or telephone audio as follows:**

**Computer Audio: You can join the Zoom meeting by clicking on the following link:**
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| **Telephone Audio:** | **(669) 900 9128 fees may apply** |
| | **(877) 853 5247 Toll-free** |
| **Webinar ID:** | **882 866 5300#** |

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## AGENDA

## MOMENT OF SILENCE

## PLEDGE OF ALLEGIANCE

## ROLL CALL

## PUBLIC COMMENTS/PARTICIPATION

At this time, members of the public will be given an opportunity to address the Board concerning items within the subject matter jurisdiction of the Board. Members of the public may also address the Board about a particular Agenda item at the time it is considered by the Board and before action is taken. If the item is on the Consent Calendar, please inform the Board Secretary before action is taken on the Consent Calendar and the item will be removed for separate consideration.

The Board requests, but does not require, that members of the public who want to address the Board complete a voluntary "Request to be Heard" form available from the Board Secretary prior to the meeting.

## ITEMS RECEIVED TOO LATE TO BE AGENDIZED

Determine need and take action to agendize items(s) which arose subsequent to the posting of the Agenda. (ROLL CALL VOTE: Adoption of this recommendation requires a two-thirds vote of the Board members present, or, if less than two-thirds of the Board members are present, a unanimous vote of those members present.)

## ITEMS DISTRIBUTED TO THE BOARD LESS THAN 72 HOURS PRIOR TO MEETING

Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection in the lobby of the District's business office located at 18700 Ward Street, Fountain Valley, California 92708, during regular business hours. When practical, these public records will also be made available on the District's Internet Web site, accessible at http://www.mwdoc.com.

**NEXT RESOLUTION NO. 2111**

## CONSENT CALENDAR (Items 1 to 6)

(All matters under the Consent Calendar will be approved by one motion unless a Board member requests separate action on a specific item)

**1. MINUTES**

a. April 1, 2021 Special Board Meeting
b. April 7, 2021 Workshop Board Meeting
c. April 21, 2021 Regular Board Meeting

*Recommendation: Approve as presented.*

**2. COMMITTEE MEETING REPORTS**

a. Planning & Operations Committee Meeting: April 5, 2021
b. Administration & Finance Committee Meeting: April 19, 2021
c. Executive Committee Meeting: April 22, 2021
d. MWDOC/OCWD Joint Planning Committee: April 28, 2021

*Recommendation: Receive and file as presented.*

**3. TREASURER'S REPORTS**

a. MWDOC Revenue/Cash Receipt Register as of April 30, 2021
b. MWDOC Disbursement Registers (April/May)

*Recommendation: Ratify and approve as presented.*

c. Summary of Cash and Investment and Portfolio Master Summary Report (Cash and Investment report) as of March 31, 2021
d. PARS Monthly Statement (OPEB Trust)

*Recommendation: Receive and file as presented.*

**4. FINANCIAL REPORT**

a. Combined Financial Statements and Budget Comparative for the Period ending March 31, 2021
b. Quarterly Budget Report

*Recommendation: Receive and file as presented.*

**5. LRP AGREEMENT BETWEEN METROPOLITAN, MWDOC, AND SANTA MARGARITA WATER DISTRICT FOR THE LAS FLORES RECYCLED WATER EXPANSION PROJECT**

*Recommendation: Authorize the General Manager to execute the final Local Resources Program agreement with the Metropolitan Water District of Southern California and Santa Margarita Water District substantially in the form as attached for the Las Flores Recycled Water Expansion Project, subject to review and approval by Legal Counsel of any final agreement changes.*

**6. BOARD APPROVAL OF ON-CALL TECHNICAL SERVICES SLATE TO SUPPORT RELIABILITY PLANNING, ENGINEERING & RESOURCE DEVELOPMENT**

*Recommendation:* *Approve the list of pre-qualified consultants for on-call technical services to support Reliability Planning & Engineering, and MET Issues & Water Policy.*

**End Consent Calendar**

**ACTION CALENDAR**

**7-1 HOLD PUBLIC HEARING AND ADOPT MWDOC'S 2020 URBAN WATER MANAGEMENT PLAN, WATER SHORTAGE CONTINGENCY PLAN, AND 2015 UWMP ADDENDUM**

**RES NOS. ____, ____, & ____**

*Recommendation:* *(1) Open the public hearing (as noticed) at the MWDOC Board Meeting on May 19 regarding MWDOC's Proposed 2020 Urban Water Management Plan, MWDOC's proposed 2020 Water Shortage Contingency Plan, and Addendum to MWDOC's 2015 Urban Water Management Plan, to receive input from the public; and*
*(2) Adopt the following three (3) resolutions, in the general form presented, with amendments if necessary: (a) Resolution adopting MWDOC's 2020 Urban Water Management Plan; (b) Resolution adopting MWDOC's 2020 Water Shortage Contingency Plan, and (c) Resolution adopting an Addendum to the MWDOC 2015 Urban Water Management Plan*

**7-2 ANNUAL REVIEW OF DISTRICT INVESTMENT POLICY AND GUIDELINES**

**RES. NO. ____**

*Recommendation:* *Approve the revisions to the Investment Policy and Guidelines and adopt a Resolution, as presented, with the caveat that in the event staff implements the single issuer investment over 5% for Prime Commercial Paper or Corporate Securities (Medium-Term Notes), the Administration & Finance Committee will be notified.*

**7-3 ADMINISTRATION BUILDING SEISMIC RETROFIT AND REMODEL PROJECT: BOARD AUTHORIZATION TO DIRECT STORAGE ROOM CREDIT TO THE PROJECT CONTINGENCY FUND**

*Recommendation:* *Approve direction of a $35,000 credit for the elimination of the Conference Room 101 storage room to the Project contingency fund.*

**INFORMATION CALENDAR** (All matters under the Information Calendar will be Received/Filed as presented following any discussion that may occur)

## 8. GENERAL MANAGER'S REPORT, MAY 2021 (ORAL AND WRITTEN)

*Recommendation: Receive and file report(s) as presented.*

## 9. MWDOC GENERAL INFORMATION ITEMS

a. Board of Directors - Reports re: Conferences and Meetings
b. Requests for Future Agenda Topics

*Recommendation: Receive and file as presented.*

## ADJOURNMENT

Note: Accommodations for the Disabled. Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by contacting Maribeth Goldsby, District Secretary, at (714) 963-3058, or writing to Municipal Water District of Orange County at P.O. Box 20895, Fountain Valley, CA 92728. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the District to provide the requested accommodation.

# GENERAL MANAGER'S REPORT OF STAFF ACTIVITIES MAY 2021

**MWDOC Agencies Managers Meeting**

MWDOC held its Member Agency Managers' meeting at its office in Fountain Valley, Thursday, April 22, 2021.

**In attendance were:** M. McGee – Buena Park, D. Cafferty – ETWD, M. Dunbar 0-Emerald Bay SD, H. Lee – Fountain Valley, C. Pasillas – Garden Grove, A. Papa, C. Davis – Huntington Beach, P. Cook, P. Weghorst – IRWD, K. Van Der Maaten – Laguna Beach CWD, J. Chavira – La Palma, J. Cruz, K. Young & M. Collings – Moulton Niguel WD, M. Vukojevic – Newport Beach, M. Markus, J. Kennedy, K. O'Toole, A. Hutchinson – Orange County WD, J. Diaz – Orange, D. Rebensdorf -– San Clemente, E. Bauman – San Juan Capistrano, D. Ferons, J. Leach – Santa Margarita WD, T. Kjolsing – South Coast WD, F. Paludi – Trabuco Canyon WD, M. Grisso – Tustin, S. Miller – Westminster

**Staff in attendance were:** R. Hunter, H. De La Torre, R. Davis, D. Micalizzi, V. Osborn, M. Baum-Haley, A. Heide, C. Lingad, C. Busslinger, K. Hostert

MWDOC Budget Items:

- MWDOC FY 2021-22 Budget
- MWDOC 2021 Rate Study

General Meeting Information/Discussion Items:

- MWDOC Board Draft Agendas
- MWDOC's Role & Discussion Process
- Water Supply Conditions
- Metropolitan Updates
    - Conditions Messaging
    - Local Resources Program Update

Legislative Items:

- Grants Program Meeting
- Legislative Items Update (AB 1296/SB 342)
- Legislative Items Update (AB 1434)

Update Items:

- Metropolitan Shutdown Update
    - AMP Shutdown- April 4 - May 10
- Water Loss Update
- MWDOC School Program Update

The next meeting will tentatively be held on May 20, 2021.

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| **Meetings** | • MWDOC staff, along with ABS Consulting, IDS Group, and Optima RPM, participated in several construction progress meetings in the month of April regarding the admin building seismic retrofit and remodel. Weekly progress meetings will continue through the completion of the project.<br>• Charles Busslinger, Melissa Baum-Haley, Alex Heide, and Chris Lingad held multiple interviews during April with shortlisted consultants for the on-call technical services RFQ. |

# MET ITEMS CRITICAL TO ORANGE COUNTY

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| **MET's Finance & Rate Issues** | **Current Update**<br><br>Water Transactions for February 2021 totaled 95.4 thousand acre-feet (TAF), which was 5.0 TAF lower than the budget of 100.4 TAF. This translates to $86.6 million in revenues for February 2021, which were $2.7 million lower than the budget of $89.3 million.<br><br>Year-to-date water transactions through February 2021 were 1,038.6 TAF, which was 28.8 TAF lower than the budget of 1,067.4 TAF. Year-to-date water transactions through February 2021 were $913.7 million, which were $32.2 million lower than the budget of $945.9 million.<br><br>On February 4, 2021, Metropolitan issued $188,890,000 of Water Revenue Bonds, 2021 Series A, at an actual interest cost of 2.77 percent. There was strong investor demand with $839 million in orders. This allowed for interest rates to be lowered, resulting in $1.27 million in debt service savings over the life of the bonds. Bond proceeds will provide $255 million for funding a portion of the Capital Investment Plan for fiscal years 2020/21 and 2021/22. |
| **MET's General Manager Recruitment Process** | The current steps in the General Manager Recruitment process are as follows:<br>• At the January 11 OP&T committee, the Hawkins Company presented the Job Description, Recruitment Brochure, and the Outreach Plan to the Metropolitan Board for review and approval.<br>• Nominations and submittals from interested candidates were accepted up to February 26. While the recruitment is open until the position is filled, candidates are encouraged to apply early; evaluations of all potential candidates will be done throughout the recruitment process.<br>• At the February 23 Executive Committee meeting, the screening criteria, interview process, and interview questions were developed within a closed session.<br>• Throughout the month of March, the Hawkins Company reviewed the submitted candidate applications. Only a select number of highly qualified candidates were invited to participate in the interview process.<br>• On March 23, the Hawkins Company presented a shortlist of candidates to the Executive Committee within a closed session. |

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| **MET's General Manager Recruitment Process - continued** | • The Executive Committee conducted initial interviews within closed sessions during April.<br>• The entire Board will conduct interviews of the top candidates in closed session during May.<br>• The Board will approve the selection of the new General Manager, with potential action on either May 11 or June 8.<br><br>The MET General Manager Recruitment brochure can be found at the link: https://thehawkinscompany.com/wp-content/uploads/2021/01/metro_water_district_v6.pdf |
| **MET Review of Equal Employment Opportunity Policies and Practices** | Metropolitan's Board of Directors and executive management are taking steps to foster and ensure a workplace that values equity, inclusion, and diversity – both in policy and in practice.<br><br>The Metropolitan Board responded to employee comments alleging systemic harassment by authorizing Metropolitan's Ethics Officer in November 2020 to enter into a contract with Shaw Law Group, a certified women-owned business enterprise with extensive expertise in Equal Employment Opportunity issues. The firm is currently conducting an independent and thorough review of allegations of systemic Equal Employment Opportunity-related discrimination, harassment, retaliation, and related concerns.<br><br>To help ensure greater transparency and accountability, a microsite has also been created on Metropolitan's website that includes information about the Board's actions, policies, correspondence, and related matters. Additional information can be found in the attached statement.<br><br>On April 13, a presentation report was given at the Legal and Claims Committee on the Metropolitan microsite and public employee First Amendment rights. Within the open session component of this report, the general principles of public employee First Amendment rights were outlined. |
| **MET Integrated Resources Plan Update** | The Integrated Water Resources Plan (IRP) is Metropolitan's comprehensive resource planning process. It serves as Metropolitan's blueprint for long-term water reliability, including key supply development and water use efficiency goals. Metropolitan's 2020 Urban Water Management Plan (UWMP) is being developed as part of the IRP planning process. However, the UWMP does not explicitly discuss specific activities undertaken-- that is, the role of Metropolitan's Integrated Water Resources Plan.<br><br>Metropolitan's 2020 UWMP represents Metropolitan's planning elements and reliability assessments reported under the conditions required by the UWMP Act and are prepared as part of the 2020 Integrated Water Resources Plan process. The draft 2020 UWMP complies with California state law requiring urban water suppliers to prepare and update urban water management plans every five years. The draft Appendix 11 to both the 2020 UWMP and the 2015 UWMP includes all of the elements described in Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (Cal. Code Regs. tit. 23, § 5003), which need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action. The draft Water Shortage Contingency Plan |

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| **MET Integrated Resources Plan Update - continued** | (WSCP) includes Metropolitan's efficient management and planned actions to respond to actual water shortage conditions. Metropolitan's draft WSCP satisfies the requirements of the California Water Code.<br><br>Metropolitan held a public hearing on Monday, April 12, 2021, to receive comments on its draft 2020 UWMP, draft Appendix 11 as an addendum to its 2015 UWMP, and it's draft WSCP.<br><br>Metropolitan's Board of Directors will consider adopting the 2020 UWMP, Appendix 11 as an addendum to the 2015 UWMP, and the WSCP at the Board Meeting on May 11, 2021. After Board adoption, the documents will be submitted to the California Department of Water Resources by July 1, 2021.<br><br>More information on Metropolitan's IRP can be found at: http://www.mwdwatertomorrow.com/IRP/index.html |
| **MET's Water Supply Conditions** | The 2020-21 Water Year (2020-21 WY) officially started on October 1, 2020. Thus far, Northern California accumulated precipitation (8-Station Index) reports ***23.1 inches or 50% of normal*** as of April 28th.<br><br>For 2020-21 WY, the Northern Sierra Snow Water Equivalent is peaked at ***20.2 inches on March 24th***, which is ***71% of normal*** for that day. Due to the below-average precipitation/snowfall, the Department of Water Resources (DWR) has reduced the initial State Water Project (SWP) ***"Table A" allocation from 10% to 5%.*** This allocation provides Metropolitan with approximately ***96,575 AF in SWP deliveries this water year.*** DWR's SWP Allocation considers several factors, including existing storage in SWP, conservation reservoirs, SWP operational, regulatory constraints, and the 2021 contractor demands. If the Table A allocation remains at 5%, it would be tied for the lowest allocation dating back to 1968. The last time DWR had a Table A Allocation of 5% was in 2014.<br><br>The Upper Colorado River Basin accumulated precipitation is reporting ***15.1 inches or 73% of normal as of April 26th***. The snowpack is measured across four states in the Upper Colorado River Basin on the Colorado River system. The Upper Colorado River Basin Snow Water Equivalent was reporting ***16.4 inches as of April 1st***, which is ***86% of normal*** for that day. Due to the below-average precipitation/snowfall in 2020-21 WY, there is now a 60% chance of a shortage at Lake Mead in 2022 and an 82% chance of shortage in 2023.<br><br>As of April 27th, Lake Oroville storage is at ***42% of total capacity and 53% of normal.*** As of April 27th, San Luis Reservoir has a current volume of ***51% of the reservoir's total capacity and is 56% of normal.*** |

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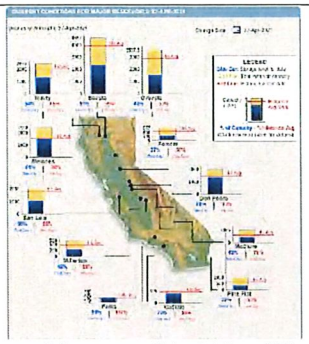
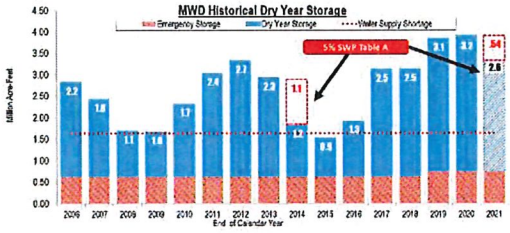
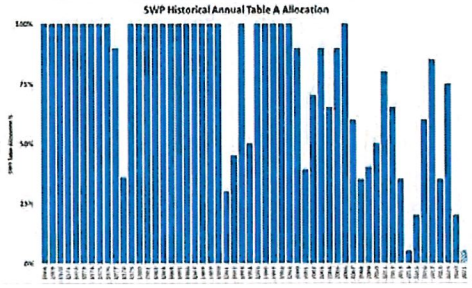
| **MET's Water Supply Conditions – continued** |  <br>With estimated total demands and losses of 1.648 million acre-feet (MAF) and a 5% SWP Table A Allocation, Metropolitan is projecting that demands will exceed supply levels in Calendar Year (CY) 2021. Based on this, the estimated total dry-year storage for Metropolitan at the end of ***CY 2021 will go down to approximately 2.6 MAF.***<br><br>A projected dry-year storage supply of ***2.6 MAF will be the fourth-highest for Metropolitan, a very impressive accomplishment. The last two years have been extremely dry in Northern California***. A large factor in maintaining a high water storage level is lower than expected water demands. We are seeing regional water demands reaching a 38-year low.<br>  <br>  |
| **Colorado River Issues** | **<u>Quantification Settlement Agreement Annual Meeting</u>**<br>Metropolitan staff attended the annual Quantification Settlement Agreement (QSA) Implementation Workshop in a virtual format, hosted by Imperial Irrigation District (IID). The purpose of the annual meeting is to review each agency's accomplishments in the prior year and verify the conservation amounts needed for the QSA water transfers. Metropolitan, IID, Coachella Valley Water District, and San Diego County Water Authority made presentations summarizing significant activities and conservation achievements made during the calendar year 2020. U.S. Bureau of Reclamation made a presentation on preliminary 2020 Colorado River water accounting and 2021 water supply numbers. Finally, IID's consultant gave a detailed presentation on the quantitative verification of IID's System Discharge Reduction Conservation Program, a new method IID developed to save water to meet |

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| **Colorado River Issues - continued** | its transfer obligations. Metropolitan reviews the data and will make that determination before the 2020 Decree Accounting Report was finalized in May 2020.<br><br>**Bard Fallowing Program Update**<br>The Bard Land Management and Seasonal Fallowing Program (Program) between Metropolitan and Bard Water District (Bard) successfully launched last year with the fallowing of 2,750 irrigable acres. For the 2021 Fallowing Season, Metropolitan executed agreements with five farmers, four of which also participated in the 2020 Fallowing Season. The five farmers within the Bard Unit will fallow approximately 2,950 irrigable acres of land from April 1 – July 31, 2021. However, due to unforeseen shipping schedule delays that affected the harvest schedule, Metropolitan will be allowing the fallowing of five parcels within one participating farmer's land to occur from April 15 – August 15, 2021, instead of April 1 – July 31, 2021. Metropolitan staff has determined this flexibility will allow the farmer to participate without compromising the program's integrity fully. By providing an annual incentive of $459 per irrigable acre fallowed, Metropolitan will issue a total payment of $1.37 million for this year's following season. In addition to the payments to participating farmers, Bard will receive an estimated payment of $353,400, which includes $15,000 for direct program costs and system improvements. Metropolitan anticipates that it will receive about 6,000 acre-feet of Colorado River supply under this program this year.<br><br>**CLE's Annual Law of the River Conference**<br>Metropolitan staff co-chaired CLE's annual Law of the River Conference in March. Due to the pandemic, this year's conference was held virtually. The yearly Law of the River Conference, which has been co-chaired by Metropolitan staff for more than 20 years, highlights past successes, current issues, and future challenges facing the Colorado River. This year's conference included a panel that highlighted the Metropolitan/Southern Nevada Water Authority partnership benefits, including the potential partnership in developing the Regional Recycling Project in Carson. Additional topics included an effort to reduce demand in the Upper Colorado River Basin and Arizona's challenges dealing with a potential first-ever shortage declaration for 2022. Next year, the conference hopes to return to a live event in Santa Fe, New Mexico, to commemorate the 100th anniversary of signing the Colorado River Compact. |
| **Delta Conveyance Activities and State Water Project Issues** | **Delta Conveyance**<br>The California Department of Water Resources (DWR) is developing an Environmental Impact Report (EIR) under the California Environmental Quality Act. DWR has identified a range of reasonable alternatives to analyze in the EIR, and current efforts are focused on analyzing the alternatives' potential impacts on environmental resources. The U.S. Army Corps of Engineers, as part of its permitting review under the Clean Water Act and Rivers and Harbors Act, started preparation of an Environmental Impact Statement to comply with the National Environmental Policy Act.<br><br>Field activities under the Initial Study/Mitigated Negative Declaration for Soil Investigations in the Delta (including cone penetration tests, soil borings, and geophysical surveys) have been on hold during the winter season. DWR and the Delta Conveyance Design Construction Authority (DCA) are scheduled to begin 2021 activities during the week of March 14. DWR added a link to their public |

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| **Delta Conveyance Activities and State Water Project Issues – continued** | information website to help provide information to interested public members and update a map weekly of the near-term planned explorations (https://water.ca.gov/Programs/State-Water-Project/Delta-Conveyance/PublicInformation). Additionally, DWR and the DCA are continuing work to obtain temporary entry for soil surveys on private lands. DWR is continuing to pursue permits for soil survey sites that fall under the jurisdiction of the Rivers and Harbors Act (Section 408). Investigations at any given site will not occur until property owners are notified, and required permits and approvals for that site are obtained.<br><br>DWR continues to compile results from an Environmental Justice survey that was conducted to collect information on how low-income, minority, and other underserved communities rely on resources in the Delta. This information will help assess potential impacts and benefits to these communities. The results from this survey will be shared after the data has been collated and synthesized.<br><br>DWR conducted interviews with stakeholders in February and early March on the concept of incorporating a Community Benefits Program as part of the Delta Conveyance Project to help protect and enhance the cultural, recreational, natural resource, and agricultural values of the Delta. DWR scheduled three public workshops: April 14, May 6, and May 25, and one tribal workshop on May 17, to have additional discussions and obtain feedback from a wider audience. Registration to participate in the workshops and further information can be found on DWR's website: https://water.ca.gov/Programs/State-Water-Project/Delta-Conveyance/CommunityBenefits-Program<br><br>**Joint Powers Authorities**<br>During the March 18 DCA Board of Directors Meeting, the board received an update on monthly progress, with an anticipated end-of-year budget savings of approximately $1 million for the fiscal year 2020-2021. At the March DCA meeting, the board unanimously voted to amend the Management Partners Agreement for Executive Director Services, transitioning the existing Executive Director Ms. Kathryn Mallon as a Senior Advisor and Mr. Graham Bradner to serve as the Executive Director on an initial interim basis effective April 1, 2021. Ms. Mallon conveyed to the board that she wished to pursue other opportunities more closely related to traditional construction and project delivery experience. The entire board thanked her for her service and appreciated her willingness to remain on board to transition as a Senior Advisor. The DCA Board of Directors Meeting also included updates on planning from DWR and DCA Treasurer and Counsel reports.<br><br>The March 18 regularly scheduled meeting of the Delta Conveyance Finance Authority (DCFA) was canceled. The next DCFA meeting is scheduled for April 15, 2021. Additionally, there were no DCA Stakeholder Engagement Committee (SEC) meetings scheduled in March. The next scheduled SEC meeting is April 28, 2021.<br><br>**Sites Reservoir**<br>In their March meetings, the Sites Project Authority Board (Authority Board) and the Sites Reservoir Committee (Reservoir Committee) approved various consulting agreement amendments. They approved a new Accounts Payable Approval Policy to ensure timely and efficient payment of vendor and service providers' invoices. The |

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| **Delta Conveyance Activities and State Water Project Issues - continued** | Authority Board and Reservoir Committee also received a status update regarding a draft Sites Water Storage Policy and reviewed and commented on the proposed allocation of storage space in the reservoir to each Storage Partner based on the final proposed formulaic approach 1-acre-foot capacity share to 6.234 acre-feet of storage space. They also reviewed and commented on developing the Sites Project Proforma 2.0, an updated project financial modeling tool for participants to evaluate long-term project costs and benefits.<br><br>**Delta Stewardship Council**<br>As reported in December 2020, the Delta Stewardship Council (Council) conducts a climate change study for the Delta and Suisun Marsh as part of their Delta Adapts: Creating a Climate Resilient Future initiative. The study will help the Council assess specific climate risks and vulnerabilities in the Delta and, in coordination with stakeholders, develop adaptation strategies to address those vulnerabilities. The draft Climate Change Vulnerability Assessment (CCVA) portion of Delta Adapts analyzes the vulnerability of various asset types within the Delta from several climate stressors and hazards. The Council released its draft CCVA in January 2021 and began conducting scoping meetings for its Adaptation Strategy in late February 2021.<br><br>**Regulatory Activities**<br>As reported last month, Metropolitan staff co-organized and participated in the Delta Science Program's workshop, "Monitoring Steelhead Populations in The San Joaquin Basin." The workshop supports the Biological Opinion on Long-Term Operation of the Central Valley Project (CVP) and State Water Project (SWP), which aims to develop a plan to monitor steelhead populations within the San Joaquin Basin and/or the San Joaquin River downstream of the confluence of the Stanislaus River, including steelhead and rainbow trout on non-project San Joaquin tributaries. Metropolitan staff is currently working with the planning committee, including the National Marine Fisheries Service (NMFS) and U.S. Bureau of Reclamation (USBR), on the next steps and ideas for incorporating information learned from the workshop into a monitoring plan for steelhead in the San Joaquin Basin.<br><br>**Science Activities**<br>Metropolitan staff is participating in formal training on how to implement structured decision making (SDM) taught by the Compass Resource Management consulting company. The objective of the SDM process is to develop a shared understanding among participating stakeholders about the following elements: (1) what could and could not be achieved with different management alternatives, (2) which trade-offs are acceptable, and (3) which uncertainties are most important. Technical fisheries experts from Metropolitan, SWC, DWR, USBR, NMFS, U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife participate in the training. The goal is to ensure that these experts, who are working together in various Incidental Take Permit and Biological Opinion implementation actions, can organize their discussion and selection of management alternatives in a transparent matter through this SDM process.<br><br>Metropolitan staff co-authored a recently accepted publication in the journal Ecotoxicology titled, "Effects of dietary cypermethrin exposure on swimming performance and expression of lipid homeostatic genes in livers of juvenile Chinook salmon, Oncorhynchus tshawytscha." In the study, field-relevant concentrations of the pyrethroid pesticide cypermethrin were exposed to Chinook salmon to evaluate |

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| **Delta Conveyance Activities and State Water Project Issues - continued** | the effects of the pesticide on salmon following dietary exposure. The study found that the pesticide exposure significantly altered the salmon fatty acid metabolic pathways suggesting impairments to the salmon nutritional status. The study was funded by Proposition 1 grant funding, and Metropolitan provided cost-share funding and participated in the study.<br><br>Metropolitan staff continued participating in the Collaborative Science and Adaptive Management Program (CSAMP), including participation on the Collaborative Adaptive Management Team (CAMT). At the March 16 meeting, CAMT received updates on SWP and CVP operations forecast and dry year planning efforts, and DWR intends to conduct a drought monitoring and synthesis study. CAMT also discussed comments on the draft CSAMP Delta Smelt Organizational Framework document and received a status update on the CDFW Biological Monitoring Survey Design Review process. Metropolitan staff is coordinating with the SWC to develop and submit technical comments on these efforts.<br><br>In March, three scientific papers were published in the San Francisco Estuary & Watershed Science journal that reported on results from the CAMT Delta smelt entrainment studies (diversion of fish at the state and federal water project diversions in the South Delta). The purpose of the entrainment studies was to evaluate the factors affecting Delta smelt entrainment at the SWP and CVP facilities. The first paper identified hydrology, water clarity, Delta smelt distribution, and precipitation as significant factors affecting entrainment at the export facilities. The other two papers report on the development and results from a Behavioral Particle Tracking model used in conjunction with hydrodynamics to evaluate the potential effects of Delta smelt swimming behaviors on distribution and proportional entrainment losses. Many unknowns were identified as part of these studies, and overall, the researchers report on an improved framework for evaluating entrainment. CAMT will discuss these published studies and consider the next steps. CAMT has representatives from state and federal agencies, public water agencies, and non-governmental organizations. Their work is directed by a policy group of the same entities. |
| **ENGINEERING & PLANNING** | |
| **Economic Benefit Studies and Modeling Work to Quantify the Benefits of Local Projects in the Context of MET's 2020 Integrated Resources Plan (IRP)** | MWDOC staff is working with the Brattle Group and CDM Smith on the Economic Benefits Studies and modeling work. In this process, the consulting team is working with MWDOC and the member agencies regarding the survey of businesses in Orange County.<br><br>CDM Smith completed initial modeling work for a water demand analysis. Preliminary results were presented to MWDOC's member agencies at the Managers Meeting on January 21, 2021. Final drafts have now been completed. This analysis supports the 2020 Urban Water Management Plans and provides information for the Economic Benefits study.<br><br>Wallace Walrod, an economist for Orange County Business Council and sub-consultant for the Brattle Group, is leading the business survey portion of the studies. MWDOC staff has been working with Dr. Walrod on the draft business survey. Once |

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| **Economic Benefit Studies and Modeling Work to Quantify the Benefits of Local Projects in the Context of MET's 2020 Integrated Resources Plan (IRP) - continued** | it is ready, the draft survey will be forwarded to member agencies for review, and a meeting will be scheduled to obtain member agency input on the business survey. |
| **OC Hydraulic Model** | Black & Veatch has constructed and calibrated the hydraulic model using Innovyze's InfoWater modeling platform. Staff and B&V are currently working with member agencies to define potential project scopes of work. |
| **SMWD San Juan Watershed Project** | Santa Margarita WD continues to focus on diversifying its water supply portfolio toward obtaining a goal of 30% local supplies. The San Juan Watershed Project is one project SMWD is working on toward that goal. |
| **Strand Ranch Project** | MWDOC and IRWD are continuing to exchange ideas on implementing the program to capture the benefits that can be provided by the development of "extraordinary supplies" from the Strand Ranch Project. Staff from MWDOC and IRWD met in August 2020 and reached out to other agencies to determine the level of interest in the project. |
| **Poseidon Resources Huntington Beach Ocean Desalination Project** | The Santa Ana Regional Water Quality Control Board (SARWQCB) continues to work with Poseidon to renew the National Pollutant Discharge Elimination System (NPDES) Permit for the proposed HB Desalination Project.<br>The renewal of the NPDES permit for the proposed desalination facility requires a California Water Code section 13142.5(b) determination in accordance with the State's Ocean Plan (a.k.a. the Desalination Amendment). To make a consistency determination with the Desalination Amendment, the Regional Board is required to analyze the project using a two-step process:<br>1. Analyze separately as independent considerations a range of feasible alternatives for the best available alternative to minimize intake and mortality of all forms of marine life:<br>a. Site<br>b. Design<br>c. Technology<br>d. Mitigation Measures<br>2. Then, consider all four factors collectively and determine the best combination of feasible alternatives. |

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| **Poseidon Resources Huntington Beach Ocean Desalination Project – continued** | On December 6, 2019, SARWQCB, Regional Board staff, conducted a workshop in Huntington Beach that was heavily attended with a considerable range of views expressed at the meeting.<br><br>On May 15, 2020, SARWQB held a second workshop, which focused on the identified need for the desalinated water and marine life mitigation requirements. Karl Seckel presented to the Regional Board on several topics, including MWDOC's role in Orange County, alternative definitions of "need" for a water supply project and the role of water agencies, Urban Water Management Plans, non-mandated planning documents, and what was and was NOT in the 2018 OC Water Reliability Study.<br><br>On September 15, 2020, the Regional Board postponed action on the waste discharge permit renewal at the request of Poseidon to allow additional time to address concerns raised in three days of public hearings.<br><br>On February 12, 2021, the Santa Ana Regional Water Board released a tentative order detailing proposed revisions to the project. The Tentative order is available at: https://www.waterboards.ca.gov/santaana/public_notices/docs/2021/NPH_Poseidon_Order_R8-2021-0011.pdf<br><br>The changes include:<br>• Revisions to the mitigation acres for the inlet dredging in Bolsa Chica so that the dredging accounts for no more than 25% of the mitigation acreage needed to minimize the intake and mortality of all forms of marine life.<br><br>Poseidon has proposed additional mitigation to meet the requirements of the Ocean Plan and proposed additional restoration at the Bolsa Chica Wetlands and the creation of an artificial reef along the Palos Verdes Peninsula to satisfy the remaining mitigation requirements.<br><br>• A finding regarding the human right to water policy adopted by the State and adopted by the SARWQB as a core value. The Order is consistent with and promotes the human right to water policy.<br>• The deadline for the Discharger to submit the Climate Change Action Plan was revised from within three years of the effective date of the Order to within 18 months.<br><br>Continued public hearings were held on April 23, 2021, and April 29, 2021, and, if needed, will continue on May 13, 2021, at 9:00 a.m. to review the revisions and vote on renewing Poseidon's permit.<br><br>Assuming success at the Regional Board, Poseidon would then seek its final permits from the California Coastal Commission (CCC). |
| **Trampas Canyon Dam and Reservoir** | Trampas Canyon Reservoir and Dam (Trampas Reservoir) is a seasonal recycled water storage reservoir, with a total capacity of 5,000 AF, of which 2,500 AF is available to meet Santa Margarita Water District's projected base recycled water demands, and 2,500 AF to meet future water supply needs. The Trampas Reservoir allows SMWD to store recycled water in the winter and draw on that water during the peak summer months.<br>The construction of the Trampas Canyon Recycled Water Seasonal Storage Reservoir consisted of three main components:<br>1. Trampas Canyon Dam (Dam) |

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| **Trampas Canyon Dam and Reservoir - continued** | 2. Conveyance facilities to transport recycled water into and out of the Reservoir (Pipelines)<br>3. Trampas Canyon Pump Station (Pump Station)<br>The construction of the facilities was completed in three phases:<br>1. Preconstruction/Site Preparation for the Dam and Pump Station Construction<br>Project Status – Completed in 2018<br>2. Dam and Pipelines<br>Project Status – All of the pipelines that convey the recycled water to and from the reservoir have been completed. The Division of Safety of Dams (DSOD) authorized SMWD to start filling the reservoir on April 2, 2021, and the SMWD is sending water to storage at this time.<br>3. Pump Station<br>Project Status – All pre-startup work necessary for pumping has been completed. SMWD has opted not to operate and test the pumps until it has the flexibility of sending water into the Reservoir, which will make the testing activities more efficient and help conserve water.<br>As of April 2021, Trampas Reservoir is fully operational. Congratulations to SMWD. This is the final update on the reservoir. |
| **AMP Shutdown in 2021 to Replace PCCP Sections** | A section of the AMP south of OC-70 was found to have an increased number of wire breaks in the Prestressed Concrete Cylinder Pipe (PCCP) sections of the AMP. MET scheduled a shutdown to affect repairs by installing a structural steel liner along approximately 1,000 feet of the AMP, which requires a 37-day shutdown for this portion of the AMP south of OC-70. MET originally scheduled AMP PCCP relining projects to begin in about five years, but based on monitoring surveys, MET did not recommend repairs to this reach wait until Fall 2021.<br>MWDOC staff worked with member agencies to coordinate their projects with the MET AMP shutdown.<br>As of April 27, 2021, the AMP relining project is 85% complete. Major work completed includes installing and welding the steel liners and cement mortar lining the steel liners and grout plugs. Work in progress includes installing the concrete encasement formwork.<br>The AMP shutdown continues on schedule, beginning on April 4, 2021, and is expected to be complete by May 10, 2021. |
| **Other Shutdowns** | **Orange County Feeder**<br>MET plans to reline and replace valves in a section of the Orange County Feeder from Bristol Ave to Corona Del Mar – this is the last section of this 80-year-old pipeline to be lined.<br>MET has further delayed the relining project and has proposed new shutdown dates of September 15, 2022, through June 15, 2023.<br>**Orange County Feeder Extension**<br>MET plans to reline 300-linear feet of the OC Feeder extension affecting the City of Newport Beach, IRWD, and LBCWD. |

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| **Other Shutdowns - continued** | MET has delayed the relining project by one year and has proposed new shutdown dates of June 16, 2023, through July 10, 2023. |

# EMERGENCY PREPAREDNESS

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| **COVID-19 (Corona Virus) Coordination** | • WEROC continues to monitor the State and County for changing information and is sharing information with agencies as it becomes available.<br>• WEROC is participating in the weekly Operational Area Conference calls.<br>• WEROC continues to hold bi-weekly conference calls on Tuesdays with member agencies to report on Federal, State, and County changes. Calls continue to support the sharing of information between agencies.<br>• Vicki continues to support agencies daily with COVID-19 related questions and guidance needs.<br>• Vicki is a member of the County POD IMT coordination calls. WEROC is coordinating with a special district.<br>• CalOSHA is reanalyzing the Temporary Emergency Standards in place for section 3205. CalOSHA meets the California Department of Public Health on changes recommended by CDC for both agencies to try to get on the same page, but there is still no resolution or updates to the COVID-19 ETS. To highlight, one area of conversation is the quarantine time for someone vaccinated vs. not. The mask-wearing requirements WEROC will monitor the discussions and outcomes and provide information to the agencies as it is available. When this occurs, timing is dependent on the state announcement on 4-27-21 with CDC guidance and mask-wearing.<br>• The MWDOC COVID Plan will be updated appropriately as updated stated guidance has been released. |
| **April Incidents/ Events (Cyber, Mutual Assistance Coordination)** | • Vicki sent out an email on 4/21 to all WEROC member agencies regarding the Governor's emergency proclamation for Sonoma and Mendocino counties concerning the drought and outing the bullet remarks made by the governor in regards to current and future actions concerning the drought. |
| **America's Water Infrastructure Act (AWIA)** | • WEROC and its consultant, Herndon Solutions Group (HSG), continue to work with WEROC agencies to comply with America's Water Infrastructure Act (AWIA).<br>• Tier II agencies successfully completed their RRA submittals by the December 31, 2020 deadline. The Emergency Response Plan phase will be due in June 2021. Tier II agencies began their Emergency Response Plan meetings at the end of January.<br>• All Tier III agencies have begun their workshops. The Tier III agencies RRA are due June 30, 2021.<br>• Nine agencies workshops were conducted in April utilizing various virtual platforms dependent on the agency preference. |

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| **Coordination/ Participation With Member Agencies And Outside Agencies** | • Daniel is providing important cybersecurity information to the member agencies. The Cyber Communications group is being used to disseminate this information.<br>• WEROC continues to assist the County/Operational Area Emergency Management Division with getting the water and wastewater Special Districts signed Operational Area Agreements completed. The new Operational Area agreement went into effect in September 2020. Vicki attended the Board Meetings for Laguna Beach County and South Coast Water District, who passed the agreement in March. There are only four special district water agencies left that have not submitted their completed agreements.<br>• Vicki attended the State CalWARN board meeting and is assisting with revising the Mutual Assistance plan, which has not been updated in 4 years and, based on recent events, requires some changes and training.<br>• Vicki assisted the Orange County Sanitation District with the field exercise. The exercise was conducted on April 28th. Vicki evaluated the EOC Operations and Coordination activities.<br>• Vicki attended the elected official's forum on 4/1<br>• Vicki attended and provided comments to AQMD Workshop #2 regarding the process and procedure development in relation to 1110.2 and 1470, which pertains to Public Safety Power and the emergency generator use.<br>• Vicki attended the Southern California Edison PSPS workshop for water utilities on 4/13, outlining their procedures and changes to the program.<br>• On 4/16, Vicki met with IRWD, received a valuable tour of the Baker Treatment Plant, and talked about the South EOC project and alternatives.<br>• On 4/28, Vicki gave a presentation at the CalWarn Members meeting on the revised mutual assistance plan. |
| **WEROC Assessment Implementation and Planning Efforts** | • Items identified for implementation within three to six months have been completed or near completion, including:<br>• Obtain a US Bank Government Cal Card for the WEROC program and create a process document for a chain of custody and use within the EOC. This project is 100% completed.<br>• Records and Data Management project is 80 % completed. Janine is updating the outdated documents in the safety center.<br>• Program, Planning Maintenance and Recommendation Matrix are 100% completed as a comparison of federal and state mandates in relation to current planning continues. This matrix includes staff program and planning assignments and each member of the WEROC team. Internal planning meeting occurred to discuss and implement this matrix.<br>• Training and Exercise Plan is 100% completed and implemented.<br>• Staffing assignments and realignment of EOC roles and responsibilities are 62% completed. A survey was sent to the internal members of MWDOC to highlight currently assigned roles and potential future reassignment of roles. Once this part of the realignment of the EOC responder assignment is completed, training |

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| **WEROC Assessment Implementation and Planning Efforts - continued** | will begin in conjunction with the updated Emergency Operations Plan.<br>• The WEROC EOP is 95% completed, Management has provided second round feedback to Daniel on the plan, and he is in the process of making final changes. This plan will be done in the next month.<br>• WEROC is focusing on finishing these items and beginning on other portions of the assessment report. One specific item is the WEROC EOC Project – Presentation made at 4/5 P&O, Presentation made at A&F 4/19. Board passed Option 1 at the 4/21 board meeting. Future progress on this project will be communicated as this project moves forward. Vicki and Heather Baez met with Senator Feinstein's office on 4/23 regarding the South EOC Project. Outcomes from the meeting will be reported on as the discussion continues. |
| **EOC Readiness** | • Daniel is working on maintaining the operational function for the South EOC. He is focused on the project areas with the generator and IT systems (on-going). EOC OA1 Radio System power supply is out for repair as of 4/27.<br>• Daniel is working with agencies on implementing signal as a backup communications system (free).<br>• Janine updated all EOC phonebooks.<br>• There is no update from the County on the status of the WebEOC Resource Management and Resource Request board issues or timeline when the issues will be resolved. Janine attended the Operational Area Technology committee meeting on 3/24.<br>• Janine continues to update member agency contact information. |
| **Training and Exercises** | • Daniel hosted one 800 MHz radio training in April.<br>• Daniel continues his National Emergency Management Advanced Academy (NEMAA). This is a nationally offered class targeting California representatives from Federal, State, City, County, Local, Tribal, and Territorial Governments and Emergency Managers from Higher Education, DOD, Private Sector, American Red Cross, Public Health, and Volunteers. To attend, you have to be sponsored and selected. This course will further enhance Daniels' experience and professional career.<br>• Janine has completed a grant writing course. This will provide her and WEROC with additional skill sets to look for additional funding for different programs.<br>• Vicki has created the training and exercise plan for May-August. WEROC will be providing 12 training opportunities covering EOC functions, ICS 300, etc., to member agencies during this time frame.<br>• During the April 27th WEROC Coordination call with member agencies, Janine provided training on the Safety Center Applications and their uses. |

# WATER USE EFFICIENCY

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| **Orange County Data Acquisition Partnership (OCDAP)** | On April 12, Rachel Waite participated in the OCDAP working group, which is a regional effort to cost share the acquisition of high-resolution aerial imagery and related products. Attendees included staff from MWDOC, Southern California Association of Governments, Center for Demographic Research, Orange County Fire Authority, Orange County Water District, Orange County Public Works, City of Yorba Linda, and a guest speaker from the United States Geological Survey (USGS). Topics on the agenda included:<br>• USGS FY20/21 Broad Agency Announcement Presentation<br>• Deliverables and Flight Status Update<br>• Timeline to Receive Data<br>• OCDAP Cycle 1 Participation Agreement Tracking Log<br>• OCDAP Cycle 1 Payment Log<br>• OCDAP Cycle 2<br>  o Timeline<br>  o Cycle 2 Lead Agency<br>  o Deliverables<br>• Other Matters<br><br>The next meeting is scheduled for May 10. |
| **Project Agreement 22 Committee Meeting** | On April 13, Rachel W. attended the Project Agreement 22 Committee meeting hosted by the Santa Ana Watershed Project Authority (SAWPA). Agencies in attendance included committee members representing Inland Empire Utilities Agency, San Bernardino Valley Municipal Water District, Eastern Municipal Water District, Orange County Water District, and Western Municipal Water District, in addition to other agencies within the watershed. Topics on the agenda included:<br>• Project Agreement 22 Committee Budget for Fiscal Years Ending 2022 and 2023<br>• Approval of Contract for 2021 Upper Watershed Aerial Imagery<br><br>The next meeting is scheduled for May 11 |
| **Department of Water Resources (DWR) Residential Area Measurement (LAM) Workgroup** | On April 14, Joe Berg and Andrea Antony-Morr attended DWR's Residential Landscape Area Measurement Workgroup pertaining to SB 606 and AB 1668 (Conservation Framework). This workgroup focused on residential area measurement, its distribution to urban water suppliers, considerations when making the measurements, and the proper channel to submit feedback. Topics on the agenda included:<br>• Overview of Legislation and DWR's Approach<br>• Overview of the Data Delivery Process<br>• District Review Process<br>• Review of Data Issues – Normal Request for Adjustments through DWR<br>• Review of Data Issues – To Be Considered through the Variance Process<br>• Open Discussion and Q&A<br>• Next Steps<br>The next DWR LAM Workgroup has not been scheduled. |

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| **Alliance for Water Efficiency Research Committee Meeting** | On April 15, Rachel W. participated in the Alliance for Water Efficiency (AWE) Research Committee meeting, which was attended by numerous AWE member water agencies and related entities across the United States and Canada. Topics on the agenda included:<br>• Research Committee Activity<br>• Research Committee Workplan for 2021<br>• AWE Project Updates<br>• CalWEP Research and Evaluation Committee<br>• Committee Member Research Activity Updates<br>• Other Business Updates<br><br>The next meeting is scheduled tentatively for June 23. |
| **Metropolitan Water District of Southern California (Metropolitan) Water Use Efficiency Workgroup Meeting** | On April 15, Andrea, Beth Fahl, Rachel Davis., and Rachel W. participated via Zoom in Metropolitan's Water Use Efficiency Workgroup meeting. Topics on the agenda included:<br>• Welcome<br>• March Metropolitan Water District Board Presentations<br>  o Conservation Board Report<br>• Welcome Corner Landscape Transformation Partnership Project - City of Simi Valley and Waterworks District No. 8<br>• Alliance for Water Efficiency Leadership Update<br>• A Variety of Remote Workshops – Three Valley MWD<br>• Metropolitan Water District Program Updates<br>  o Regional Residential Leak Detection Program<br>  o Member Agency Administered Program (MAAP)<br>  o SoCalWater$mart Rebate Program RFP<br>  o Landscape Area Measurement<br>• External Affairs Update<br>• Member Agency Roundtable<br><br>The next Workgroup meeting is scheduled for May 20. |
| **Project Agreement 22 Advisory Workgroup Meeting** | On April 19, Rachel W. attended the Project Agreement (PA) 22 Advisory Workgroup Meeting hosted by Santa Ana Watershed Project Authority (SAWPA). Those in attendance included staff from SAWPA's member agencies. Topics on the agenda included:<br>• Invoicing Tracking<br>  o SARCCUP (Prop 84) vs. Enhanced Decision Support Tool (Prop 1)<br>• Enhanced Decision Support Tool (Prop 1)<br>  o Aerial Imagery Work by Geophex and Bureau of Reclamation Update<br>• SARCCUP Water Budget Assistance Project Update<br>  o Status of Flyer Outreach by SAWPA Member Agencies<br>  o OC Retail Agency Partnership Lead – SAWPA/MWDOC<br>  o MOU and NDA Development<br>  o Quality Control Process<br>  o Imagery Options for OC and Upper Watershed<br>  o Completion of Efficiency Budget for Unresponsive Customer |

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| **Project Agreement 22 Advisory Workgroup Meeting - continued** | The next Advisory Workgroup meeting has not been scheduled. |
| **Proposition 1 (SAWPA Region) Project Partners Meeting** | On April 20, Joe, Steve Hedges, Rachel W., and Andrea hosted a Proposition 1 Project Partners meeting to discuss the Santa Ana Watershed Regional Comprehensive Landscape Rebate Program, a collaborative project among MWDOC, Big Bear Department of Water, Eastern Municipal Water District, Inland Empire Utilities Agency, and Western Municipal Water District. The project's administrative consultant, Soto Resources, also participated and co-hosted the meeting, which functioned as an introduction to project reporting for the Project Partners. Topics on the agenda included:<br>• Project Partner Goals and Budget Data Table<br>• Project Partner Progress Report and Excel Reporting Form<br>• Reporting/Submission Protocol<br>• Reporting Schedule<br>• Communication Protocol<br>• Agreements<br>• Next Steps<br><br>Follow up meetings will be scheduled as needed throughout the course of the Project. |
| **Department of Water Resources (DWR) Water Use Study Workgroup Meeting – Indoor Residential Water Use** | On April 22, Joe, Beth, Rachel W., and Andrea attended DWR's Water Use Study Workgroup meeting pertaining to SB 606 and AB 1668 (Conservation Framework). This workgroup focused on the indoor residential water use standard. Topics on the agenda included:<br>• Meeting Logistics and Agenda Review<br>• Welcome and Legislative Overview for Indoor Residential Water Use Standards (IRWUS)<br>• IRWUS Study Results<br>• Efficient Indoor Residential Water Use<br>• DWR/Water Board Proposed Joint Recommendations on IRWUS for Stakeholder Feedback<br>• Workgroup Discussion<br>• Wrap Up and Next Steps<br><br>The next DWR Water Use Study Workgroup Meeting focusing on indoor residential water use has not been scheduled. |
| **North Orange County Integrated Regional Water Management Ad Hoc Committee** | On April 22, Rachel W. attended the North Orange County (OC) Integrated Regional Water Management (IRWM) Ad Hoc Committee meeting. The purpose of the Ad Hoc is to complete specific work products on behalf of the North OC IRWM Stakeholder group, which includes reviewing the process for prioritizing and selecting projects in preparation for the Proposition 1 Round 2 project selection process. The Ad Hoc is made up of staff from the following stakeholders: Orange County Public Works, Orange County Parks, MWDOC, Orange County Water |

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| **North Orange County Integrated Regional Water Management Ad Hoc Committee - continued** | District, Orange County Sanitation District, Irvine Ranch Water District, and City of Santa Ana. The County is working with Geosyntec as a consultant on this project. Topics on the agenda included:<br>• Overview of the OC Plan and Governance Structure<br>• Overview of the Proposition 1 IRWM Grant Program<br>• Discuss the Process to Enhance the Project Ranking Approach<br>• Discuss the Process to Execute the Project Selection<br>• Next Steps<br><br>The next meeting is scheduled for May 19. |
| **California Water Efficiency Partnership (CalWEP) Landscape Task Force Fire Rebuild Group** | On April 22, Andrea participated in a remote meeting with Krista Guerrero from Metropolitan Water District, Lisa Cuellar from CalWEP, Debby Figoni from the City of Beverly Hills, Cheryl Buckwalter from Landscape Liaisons, Brian Lee from Sonoma Water District, and Anya Kamenskaya from East Bay Municipal Water District. The meeting focused on grouping the resources found and establishing next steps. |
| **DWR Commercial, Industrial, and Institutional (CII) Outdoor Landscape Area with Dedicated Irrigation Meters Standards, Classification, and Performance Measures Workgroup** | On April 26, Rachel W. Beth, and Andrea attended the DWR Workgroup focused on CII Outdoor Landscape Area with Dedicated Irrigation Meters, Standards, Classifications, and Performance Measures as relates to the Conservation Framework. Topics on the agenda included:<br>• Recap and What to Expect<br>• CII Water Use Classification System<br>• Best Management Practice<br>• Standards for CII Outdoor Irrigation of Landscape Areas with Dedicated Irrigation Meters<br>• Wrap up and Next Steps<br><br>The next DWR CII Workgroup is scheduled for May 24. |
| **Qualified Water Efficient Landscaper (QWEL) Quarterly Professional Certifying Organization (PCO) Meeting** | On April 29, Andrea participated in the quarterly QWEL meeting for PCOs. Topics on the agenda included:<br>• Minutes from January 28, 2021<br>• Program Update<br>  o Fee structure update<br>  o CEUs<br>  o Online proctoring<br>• Professional Certifying Organization update<br>• Grant Applications<br>• Other Items<br><br>The next meeting is scheduled for July 29. |

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| **Santa Ana River Watershed Water Efficiency Budget Assistance Workshop** | On May 3, Rachel W. attended the Santa Ana River Watershed Water Efficiency Budget Assistance Workshop hosted by SAWPA. The Workshop aimed to introduce retail water agencies in the SAWPA region to the project, and introduce them to the project consultant, Quantum Spatial. Those in attendance included retail and wholesale agencies from the upper watershed.<br><br>An additional workshop will be hosted by SAWPA on May 11. |
| **South Orange County Watershed Management Area (SOCWMA) IRWM Management Committee Meeting** | On May 3, Rachel W. attended the SOCWMA IRWM Management Committee, which was attended by numerous South Orange County Agencies' committee members and staff. Topics on the agenda included:<br>• Overview of May 6 Executive Committee Agenda<br>• Presentation: Water Sustainability Atlas<br>• Discussion: South OC IRWM Factsheet<br>• Discussion: Letters of Support for IRWM Funding in AB 1500 & SB 45<br>• Discussion: Future of IRWM<br>  o Roundtable of Regions Recommendations<br>  o South OC Goals for IRWM Group<br>• Discussion: Future Agenda Items<br>• MC Member Roundtable<br><br>The next Management Committee meeting will be scheduled for July 12 or August 2. |
| **Water Conservation Data Collaborative** | On May 4, Rachel W. attended the Water Conservation Data Collaborative hosted by San Antonio Water Systems (SAWS). The purpose of the Data Collaborative is for water conservation data analysts to discuss, share, and collaborate on projects. Those in attendance represented MWDOC, SAWS, City of Austin, Bay Area Water Supply and Conservation Agency, Southern Nevada Water Authority, City of Bend, City of Santa Barbara, City of Portland, Moulton Niguel Water District, and Maddaus Water Management. Topics on the agenda included:<br>• Agency project roundtable<br>• AMI deployments, customer communications, data, and lessons learned<br><br>The next meeting will be scheduled for August. |
| **Flume End Use Study Discussion** | On May 6, Joe, Steve, and Rachel W. met with staff from South Coast Water District, Santa Margarita Water District, and Flume to discuss MWDOC's End Use Study and related Flume deployment. Topics discussed included a project and Flume product overview, Flume deployment, and program marketing.<br><br>Follow up meetings will be scheduled as necessary.<br><br>` |

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| **California Water Efficiency Partnership (CalWEP) Program Committee Meeting** | On May 6, Beth and Andrea participated in the CalWEP Program Committee meeting. Topics on the agenda included:<br>• CalWEP Updates<br>  o Implementation Guides/Drought Toolkit Update/AWE Tracking Tool<br>  o My CalWEP Plus: Direct Distribution<br>  o Peer to Peer, June 2-3<br>• Presentation: EBMUD - Adaptive Solutions While Working Remotely<br>• Task Force Updates<br>  o Landscape<br>  o AMI<br>  o Water loss<br>  o CII<br>  o Education & Outreach<br>• Announcements<br><br>The next meeting is scheduled for June 24. |
| **Bureau of Reclamation WaterSmart Grant Award Initial Call** | On May 6, Joe, Steve, and Rachel W. joined Bureau of Reclamation Grants Management Staff to discuss MWDOC's WaterSmart grant award. Topics discussed included introductions, estimated timeline, and next steps.<br><br>The next call will be scheduled for a to-be-determined date in June. |
| **Orange County Water Use Efficiency Coordinators Workgroup Meeting** | On May 6, Joe, Steve, Beth, Rachel W., Andrea, and Rachel D. hosted the Orange County Water Use Efficiency Coordinators Workgroup meeting via Zoom. Highlights on the agenda included:<br>• MWDOC Updates<br>• Agency Problem Solving Roundtable<br>• Grants Meeting and Discussion with Joey Soto and Heather Baez<br>• Metropolitan Update<br>  o Conservation Board Report<br>  o Regional Residential Leak Detection Rebate Program<br>  o Member Agency Administered Program (MAAP) Update<br>  o SoCalWater$mart Rebate Program RFP<br>• Conservation Framework<br>  o Upcoming Meetings of Interest<br>• Water Use Efficiency Updates<br>  o Turf Removal<br>  o MWDOC Dedicated Irrigation Meter Onboarding Workshop<br>  o Data Request for Evaluation<br>  o Reformulated Residential End Use Study<br>  o Pressure Regulating Valve Program<br>  o Choice Program<br>• CalWEP Update<br>• Future Agenda Items<br><br>The next Workgroup meeting is tentatively scheduled for June 23. |

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| **South Orange County Watershed Management Area (SOCWMA) Executive Committee Meeting** | On May 6, Rachel W. attended the SOCWMA Executive Committee Meeting. Topics on the agenda included:<br>• Election of Chair and Vice-Chair<br>• Presentation: Benefits of Watershed-Level Coordination in Aliso Creek<br>• 2021-2023 Proposed Work Plan and Cost Share Budget<br>• Presentation: Update on the Oso Water Recycling Plant<br><br>The next Executive Committee meeting is scheduled for August 5. |

# PUBLIC/GOVERNMENT AFFAIRS

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| **Member Agency Relations** | Public Affairs Staff:<br>• Distributed contest results and a voting invitation to member agencies.<br>• Facilitated One-on-One meeting between member agencies and consultant for Consumer Confidence Reports (CCRs)<br>• Produced bill insert marketing Flume Smart Home Water Monitor<br>• Met with Digital Deployment to discuss accessibility and compliance workshop for the June Public Affairs Workgroup meeting<br>• Met with Irvine Ranch Water District to provide information on the Wyland National Mayor's Challenge for Water Conservation<br><br>Government Affairs Staff:<br>• Hosted a legislative update meeting for member agency legislative staff where we discussed pending legislation and opportunities to work collaboratively<br>• Presented at the MWDOC Elected Officials Forum on AB 1434 (Friedman) and encouraged participants to adopt an oppose position on the legislation and join MWDOC's coalition letter<br>• Distributed an AB 1434 (oppose) template for member agencies to use to contact their elected officials<br>• Sent out a reminder email to member agencies about the upcoming South Coast AQMD meeting on emergency use of generators<br>• Sent out a reminder/deadline to join MWDOC's coalition letter to oppose AB 1434 (Friedman)<br>• Circulated information to all member agencies about an EPA webinar training for drinking water wastewater utilities on Building Resistance and Adapting to Climate Change Impacts<br>• Sent out a reminder for our upcoming bi-monthly grants meeting<br>• Provided an update on our AB 1434 efforts at the MWDOC Member Agency GM meeting<br>• Provided an overview at the MWDOC Member Agency GM meeting on AB 1296/SB 324, legislation that would expand the South Coast Air Quality Management District Board of Directors and offered to coordinate a coalition letter |

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| **Community Relations** | Public Affairs Staff:<br>• Promoted participation for Wyland National Mayor's Challenge for Water Conservation<br>• Created and distributed April 2021 eCurrents<br>• Met with UCCE Master Gardeners and Strategic Digital Communications contractor Hashtag Pinpoint (#P) to discuss strategies for water-wise gardening tip videos<br>• Spent a day on-set filming with UCCE Master Gardeners and #P, capturing demonstrations and visual content for eight water-wise gardening videos<br><br>Governmental Affairs Staff:<br>• Sent out a request for certificates for MWDOC's Water Awareness Poster Contest to each legislative office in the Orange County delegation and fielded questions regarding the contest |
| **Education** | Public Affairs Staff:<br>• Worked with #P to create and produce a promotional video for MWDOC Choice School Programs<br>• Attended the Department of Water Resources Water Education Committee monthly meeting<br>• Attended the Orange County Business Council's Workforce Development meeting<br>• Attended the Metropolitan Water District of Southern California's Education Coordinators bi-weekly meetings<br>• Met with and provided information on MWDOC Choice School Programs structure and reach to Los Angeles Department of Water and Power<br>• Participated in monthly California Environmental Literacy Initiative Leadership Council meeting<br>• Presented at Orange County Community Foundation Workforce Development meeting on the Water-Energy Education Alliance (WEEA)<br>• Participated in the California Environmental Literacy Initiative Career Technical Education/Green Career Education Innovation Hub workgroup meeting<br>• Met with TalentED to discuss WEEA partnership opportunities<br>• Met with Orange County Business Council to discuss WEEA efforts and support opportunities<br>• Met with Orange County Department of Education and Metropolitan Water District of Southern California to discuss content for educational videos project<br>• Completed a new MWDOC hands-on Grab-and-Go activity: "Emergency Go-Bag Challenge." |

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| **Media Relations** | Public Affairs Staff:<br>• Prepared and distributed content for social media<br>• Met with #P to discuss social media and campaign strategies<br>• Provided an interview for Capistrano Unified School District Insider about the 2021 Water Awareness Poster Contest |
| **Special Projects** | Public Affairs Staff:<br>• Participated in the Orange County Water Summit Committee Meetings with Orange County Water District and MWDOC Directors Yoo Schneider, Thomas, and Seckel<br>• Coordinated communications and recognition materials for the 2021 Water Awareness Poster Contest<br>• Developed Garden Smart print resources for MWDOC and UC Master Gardeners partnership<br>• Completed several website updates<br>• Made several database contact list updates<br>• Created working zone signs for the MWDOC Water Use Efficiency department<br>• Participated in three of four training sessions of Foundations in Excellence Academy<br>• Participated in the Communication and Listening Skills training with MWDOC staff<br>• Continued work to advance and strengthen the District's Search Engine Optimization<br>• Reviewed MWDOC's Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan and made recommendations for the communications sections<br>• Created a UWMP webpage<br><br>Governmental Affairs Staff:<br>• Hosted the monthly WACO meeting with OCWD staff<br>• Drafted and scheduled an invite for ISDOC's Quarterly Luncheon meeting for distribution<br>• Staffed the ISDOC Executive Committee meeting<br>• Sent out the ISDOC letter to elected officials for distribution<br>• Created a spreadsheet of contact names/emails for the ISDOC letter to elected officials<br>• Prepared and sent a letter from ISDOC regarding their annual appointments to the Orange County Operational Area Board<br>• Completed a ten-week Supervisor Academy professional training course<br>• Sent out a reminder invite to the upcoming ISDOC Quarterly Luncheon per the direction of the ISDOC Executive Committee<br>• Staffed the WACO Planning meeting<br>• Sent follow-up information to SDCWA staff regarding the May program featuring their GM, Sandy Kerl |

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| **Legislative Affairs** | Governmental Affairs Staff:<br>• Attended an ACWA DC Conference Panel discussion webinar focusing on President Biden's First 100 Days<br>• Drafted a coalition letter of opposition on AB 1434<br>• Completed and filed MWDOC's Quarterly Lobbying Report as required per state law<br>• Worked with NRR on a possible federal appropriations request for funding for WEROC's EOC<br>• Participated in the Southern California Water Coalition's Legislative Task Force meeting<br>• Participated in the ACWA Region 10 State Legislative Committee prep call<br>• Participated in CMUA's Regulatory Committee meeting<br>• Participated in CMUA's Legislative Committee meeting<br>• Attended the MET Member Agency legislative update call<br>• Participated in the ACWA State Legislative Committee meeting<br>• Joined CSDA's outreach efforts to obtain COVID relief funding for Orange County special districts<br>• Coordinated with NRR on days/times to set up a meeting with Congresswoman Young Kim<br>• Met with legislative staff at Metropolitan to discuss our concerns with AB 1434<br>• Reviewed and edited talking points for upcoming meetings with congressional offices<br>• Along with Director Nederhood, Rob and NRR met with Congresswoman Young Kim to share our legislative priorities for 2021<br>• Attended the ACC-OC Energy, Environment, and Water Committee meeting<br>• Drafted a coalition letter on AB 1296/SB 342<br>• Met with staff from Assemblywoman Laurie Davies' office and provided an overview of MWDOC<br>• Along with NRR and Vicki Osborn, met with staff from Senator Dianne Feinstein's office to provide an overview of WEROC and our appropriations request to fund the construction of an updated EOC<br>• Participated in the ACWA Federal Affairs Subcommittee meeting on Agriculture and Infrastructure<br>• Participated in the ACWA Federal Affairs Subcommittee meeting on Energy and Drinking Water<br>• Attended the OCBC DC Virtual Advocacy event featuring members of Congress, including John Garamendi, Judy Chu, Linda Sanchez, and Mike Levin; and the Executive Director of the US Chamber of Commerce<br>• Participated in the ACWA Federal Affairs Subcommittee meeting on Water Supply<br>• Along with Directors McVicker, Seckel and Yoo Schneider, and Rob, met with staff from Congresswoman Michelle Steel's office to provide an overview of MWDOC's 2021 priorities |

# LOCAL AGENCY FORMATION COMMISSION
# ORANGE COUNTY

2677 North Main Street, Suite 1050
Santa Ana, CA 92705
(714) 640-5100 ◆ FAX (714) 640-5139

## REGULAR MEETING AGENDA

**Wednesday, May 12, 2021**
**8:15 a.m.**

**IMPORTANT NOTICE REGARDING THE MAY 12, 2021 REGULAR COMMISSION MEETING**

***Due to COVID-19, this meeting will be conducted as a teleconference pursuant to the provisions of the Governor's Executive Orders N-25-20 and N-29-20, which suspend certain requirements of the Ralph M. Brown Act. Members of the public may not attend this meeting in person.***

**Participation by Commissioners and staff will be from remote locations. Public access and participation will only be available telephonically and electronically.**

**To virtually attend the meeting and to be able to view any presentations or additional materials provided at the meeting, please join online via Zoom using the link and information below:**

**https://us02web.zoom.us/j/85394595203**

**You can also dial in using your phone**
1 (669) 900-9128
Webinar ID: **853 9459 5203**

**Submission of Public Comments:** For those wishing to submit public comments at the May 12, 2021 Regular Commission meeting, comments on agendized or non-agendized items must be submitted by email to the Commission Clerk at ccarter-benjamin@oclafco.org and shall be subject to the same rules as would otherwise govern speaker comments made electronically or in person at any regular Commission meeting. Public comments must be received prior to the commencement of the Commission meeting in order to be accepted. Public comments submitted in accordance with these guidelines shall become part of the record of the regular Commission meeting. Public comments received after the commencement of the meeting or via text or social media (Facebook, Twitter, etc.) will not be accepted.

**Reading of Public Comments:** The Commission Clerk shall read all comments received prior to the commencement of the Commission meeting, provided that the reading shall not exceed three (3) minutes. The Chair, at his discretion, may reduce the time allowance if warranted by the volume of public comments received.

1. **CALL THE MEETING TO ORDER**

2. **PLEDGE OF ALLEGIANCE**

3. **BOARD APPOINTMENT – COMMISSIONER KATRINA FOLEY**
   The Commission will receive a report on the recent board appointment made by the Board of Supervisors.

4. **ROLL CALL**

5. **ANNOUNCEMENT OF SUPPLEMENTAL COMMUNICATIONS**
   **(Communications Received After Agenda Distribution for Agendized Items)**

6. **PUBLIC COMMENT**

   This is an opportunity for members of the public to address the Commission on items not on the agenda, provided that the subject matter is within the jurisdiction of the Commission and that no action may be taken on an off-agenda item(s) unless authorized by law.

7. **CONSENT CALENDAR**

   a.) **March 10, 2021 – Regular Commission Meeting Minutes**
   The Commission will consider approval of the March 10, 2021 meeting minutes.

   b.) **2021 Update to the Local Guidelines for Implementing the California Environmental Quality Act (CEQA)**
   The Commission will consider adoption of revisions to the local 2021 CEQA Guidelines.

8. **PUBLIC HEARING**

   a.) **2021-22 OC LAFCO Final Budget**
   The Commission will consider the adoption of the Fiscal Year 2021-22 OC LAFCO Final Budget.

9. **COMMISSION DISCUSSION AND ACTION**

   a.) **Legislative Report (May 2021)**
   The Commission will receive the legislative report and consider adopting positions on proposed legislation of LAFCO interest.

10. **COMMISSIONER COMMENTS**

    This is an opportunity for Commissioners to comment on issues not listed on the agenda, provided that the subject matter is within the jurisdiction of the Commission. No discussion or action may occur or be taken except to place the item on a future agenda if approved by Commission majority.

11. **EXECUTIVE OFFICER'S REPORT**

    Executive Officer's announcement of upcoming events and brief report on activities of the Executive Officer since the last meeting.

## 12. INFORMATIONAL ITEMS & ANNOUNCEMENTS

### a.) 2021 LAFCO Strategic Planning Workshop

The 2021 Strategic Planning Workshop has been rescheduled to Wednesday, September 8, 2021. Additional details on time and location will be provided and published at a later date.

## 13. CLOSED SESSION

No closed session items scheduled.

## 14. ADJOURNMENT OF REGULAR COMMISSION MEETING

**NOTICE REGARDING ITEMS DISTRIBUTED TO THE COMMISSION LESS THAN 72 HOURS PRIOR TO THE LAFCO REGULAR MEETING:**
*Pursuant to Government Code Section 54957.5, public records that relate to open session agenda items that are distributed to a majority of the Commission less than seventy-two (72) hours prior to the meeting will be made available to the public on the OC LAFCO website at http://www.oclafco.org.*

**NOTICE:** ***State law requires that a participant in an OC LAFCO proceeding who has a financial interest in a decision and who has made a campaign contribution of more than $250 to any commissioner in the past year must disclose the contribution. If you are affected, please notify the Commission's staff before the hearing.***

***OC LAFCO Agendas and supporting documentation are available on the Internet at http://oclafco.org.***

# ORANGE COUNTY LOCAL AGENCY FORMATION COMMISSION
# 2021 MEETING CALENDAR

*Approved October 14, 2020*

2021

**January**

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OC LAFCO Regular Meeting (***begins at 8:15 a.m.***)
**Location:** Meetings are currently conducted electronically and telephonically. Meeting participation and location information are provided in the monthly agenda.

Annual Strategic Planning Workshop, September 8, 2021. Time and location will be provided at a later date.

Office closure due to legal holidays and flexible work schedule.

CALAFCO Annual Conference - October 6 - 8, 2021 at Hyatt Regency Newport Beach John Wayne Airport.

**Agenda Materials Available Online at http://oclafco.org.**

ORANGE COUNTY LAFCO
EST. 1963
PROMOTING EFFECTIVE LOCAL GOVERNANCE

**SOUTH ORANGE COUNTY WATERSHED MANAGEMENT AREA MANAGEMENT COMMITTEE**

AGENDA

May 3, 2021

1:30 PM – 3:30 PM

Join Teams Meeting

Call in number: +1 949-543-0845

Access code (PIN): 498 811 514#

**Shaun Pelletier**
City of Aliso Viejo
**Lisa Zawaski**
City of Dana Point
**Mary Vondrak**
City of Laguna Beach
**Ken Rosenfield**
City of Laguna Hills
**Kathy Nguyen**
City of Laguna Niguel
**Rebecca Pennington**
City of Laguna Woods
**Devin Slaven**
City of Lake Forest
**Joe Ames**
City of Mission Viejo
**Hazel McIntosh**
City of Rancho Santa Margarita
**David Rebensdorf**
City of San Clemente
**Norris Brandt**
San Juan Basin Authority

**Joe Parco**
City of San Juan Capistrano
**Grant Sharp**
County of Orange
**Dennis Cafferty**
El Toro Water District
**Mark Tettemer**
Irvine Ranch Water District
**Rodney Woods**
Moulton Niguel Water District
**Charles Busslinger**
Municipal Water District of OC
**Dan Ferons**
Santa Margarita Water District
**Rick Shintaku**
South Coast Water District
**Betty Burnett**
South OC Wastewater Authority
**Fernando Paludi**
Trabuco Canyon Water District
**David Youngblood**
Laguna Beach County Water District

1. **Welcome & Introductions**

2. **Overview of May 6th Executive Committee Agenda**
   *Jenna Voss, County of Orange*

3. **Presentation: Water Sustainability Atlas**
   *Andrew McGuire, County of Orange*

4. **Discussion: South OC IRWM Factsheet**
   *Jenna Voss/ Committee*

5. **Discussion: Letters of Support for IRWM Funding in AB 1500 & SB 45**
   *Jenna Voss/ Committee*

6. **Discussion: Future of IRWM**
   a) **Roundtable of Regions Recommendations**
      *Jenna Voss*
   b) **South Orange County Goals for IRWM Group**
      *Committee*

7. **Discussion: Future Agenda Items**

   a) **IRWM Plan & Component Plan Updates/Calendar**
   b) **Team Arundo – Procedure for Permit Use**
   c) **Tri-FACC Partner Updates**
   d) **Proposition 1 – Round 2 IRWM Grant (expected in August)**
   e) **Direct Potable Reuse Regulations & Planning**

   *Jenna Voss/ Committee*

8. **MC Member Roundtable**
   *Committee*

9. **Next Management Committee Meeting: July 12, 2021 OR August 2, 2021**
   **Next Executive Committee Meeting: August 5, 2021**

10. **Closing and Adjourn**

# AGENDA
# SOUTH ORANGE COUNTY WATERSHED MANAGEMENT AREA
# EXECUTIVE COMMITTEE

**May 6, 2021**
2:30 – 4:30 p.m.

**Meeting Held Remotely**

**Click Here to Join Webinar**

**Call-in: 1-415-655-0001 (Conference ID: 133 600 5117)**

| | |
|---|---|
| **Debbie Neev, Chair** | **Tiffany Ackley, Vice Chair** |
| Laguna Beach County Water District | City of Aliso Viejo |
| **Saundra Jacobs** | **Bill Moorhead** |
| Santa Margarita Water District | Moulton Niguel Water District |
| **Kelly Jennings** | **Megan Yoo Schneider** |
| City of Laguna Niguel | Municipal Water District of OC |
| **Mike Frost** | **Lisa Bartlett** |
| City of Dana Point | County of Orange |
| **Kay Havens** | **Brad McGirr** |
| El Toro Water District | City of Rancho Santa Margarita |
| **Karen McLaughlin** | **Steve Knoblock** |
| Irvine Ranch Water District | City of San Clemente |
| **Sue Kempf** | **Derek Reeve** |
| City of Laguna Beach | San Juan Basin Authority |
| **Dave Wheeler** | **Doug Erdman** |
| City of Laguna Hills | South Coast Water District |
| **Carol Moore** | **Rick Erkeneff** |
| City of Laguna Woods | South OC Wastewater Authority |
| **Trish Kelley** | **Ed Mandich** |
| City of Mission Viejo | Trabuco Canyon Water District |
| **Neeki Moatazedi** | **Sergio Farias** |
| City of Lake Forest | City of San Juan Capistrano |

*The Watershed Management Area Executive Committee welcomes you to this meeting and encourages your participation. This agenda contains a brief general description of each item to be considered. Except as otherwise provided by law, no action shall be taken on any items not appearing in the following agenda. However, items may be taken up in a different sequence.*

*As a result of the COVID-19 emergency and Governor Newsom's Executive Orders N-29-20 and N-33-20, this meeting will be held via webinar and teleconference only. Important privacy note: This is a public meeting and as such, the webinar and teleconference access information is published and available to everyone at www.southocirwm.org. Executive Committee members and staff may attend this meeting via telephone and/or online.*

*Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Executive Committee less than seventy two (72) hours prior to the meeting will be available on the South OC IRWM website at www.southocirwm.org.*

*In compliance with the American Disabilities Act, those requiring accommodations for this meeting should notify the SOCWMA Meeting Administrator 72 hours prior to the meeting at 714-955-0635 or maria.tamez@ocpw.ocgov.com.*

**LINK:** ocpublicworks.com/SOCMWAMay6

**FOR AUDIO:**

1. Use computer audio through WebEx Live; or
2. From Phone: Follow the "Call In" instructions when joining the WebEx Event – Dial 1-415-655-0001 enter access code 177-624-8573. If prompted, event password is: socwma

***If you have any questions, please contact the designated SOCWMA Meeting Administrator at maria.tamez@ocpw.ocgov.com or 714-955-0635.***

**TO PROVIDE PUBLIC COMMENT ON AGENDA ITEMS:**

*Members of the public have the opportunity to submit comments in writing via mail to Maria Tamez (SOCWMA Meeting Administrator) at 2301 N. Glassell, Orange CA 92665 or by email at maria.tamez@ocpw.ocgov.com prior to the meeting. If submitting comments via mail, please ensure your comments are received prior to May 6, 2021. Comments may also be submitted during the meeting via the "chat" function of Microsoft Teams. Comments on agenda items submitted via comments or email will be read aloud by the SOCWMA Meeting Administrator during the appropriate agenda item. Please identify the applicable agenda item number and keep public comments to three minutes.*

*Public comments on non-agenda topics as noted for Item #2 below are requested in advance to entered into the record; however, you may also submit comments prior to Item #2 via the "chat" function of the webinar during meeting if joining via the webinar.*

**REGULAR BUSINESS**

**CALL TO ORDER**

**WELCOME AND PLEDGE OF ALLEGIANCE**

**MEETING HOUSEKEEPING & TECHNICAL ASSISTANCE**

**CONSENT CALENDAR**

**ITEM # 1 INTRODUCTIONS/ROLL CALL**

**ITEM # 2 PUBLIC COMMENTS (NON-AGENDA ITEMS)**

**ITEM # 3 APPROVAL OF MINUTES**

**Recommended Action**: Approve the minutes of the March 4, 2021 meeting.

**PRESENTATIONS & DISCUSSION**

**ITEM # 4 ELECTION OF CHAIR AND VICE-CHAIR**

**Recommended Action:** Elect Chair and Vice-Chair based upon recommendations presented by nomination ad hoc.

**ITEM # 5 PRESENTATION: BENEFITS OF WATERSHED-LEVEL COORDINATION IN ALISO CREEK**
***JENNIFER SHOOK & JENNA VOSS, COUNTY OF ORANGE***

**Recommended Action**: Receive and file.

**ITEM # 6 2021-2023 PROPOSED WORK PLAN AND COST-SHARE BUDGET**
***JENNA VOSS, COUNTY OF ORANGE***

**Recommended Action**: Approve proposed 2021 – 2023 Cost Share Budget.

**ITEM #7 PRESENTATION: UPDATE ON THE OSO WATER RECYCLING PLANT TERTIARY EXPANSION (FORMERLY 3A PLANT) – 2015 PROPOSITION 84 IRWM GRANT PROJECT**
***DON BUNTS, SANTA MARGARITA WATER DISTRICT***

**Recommended Action**: Receive and file.

**EXECUTIVE OFFICER'S REPORT**

**EXECUTIVE COMMITTEE MEMBER COMMENTS**

**ADJOURNMENT – NEXT MEETING DATE: AUGUST 5, 2021**

# AGENDA STAFF REPORTS

## ITEM # 1. INTRODUCTIONS

***Committee Members**: please use the "chat" function to notify the SOCWMA Meeting Administrator you are in attendance. The SOCWMA Meeting Administrator will record your attendance and webinar/call-in ID name, and request confirmation during a verbal roll call. Please make sure to unmute your connection when your name is read aloud during roll call, and then mute again until you would like to speak on subsequent agenda items. The SOCWMA Meeting Administrator will read all Executive Committee member names during roll – if an alternate is serving on the Committee, they will respond when the name of the primary member is read, and indicate which member they are sitting in for on the record.*

***Members of the Public**: your line will be muted upon joining. As with all SOCWMA Executive Committee meetings, you are welcome to introduce yourself to sign-in but are not required to do so. Please either enter your name as you join or email the SOCWMA Meeting Administrator to ensure your name appears on the public record, if you so chose. If you wish to submit a public comment, please identify yourself in the "chat" function or prior to speaking via a phone connection.*

## ITEM # 2. PUBLIC COMMENTS, NON-AGENDA TOPICS

*Any member of the public wishing to provide public comment on non-agenda items under the jurisdiction of the Executive Committee may do so during Public Comments by submitting a comment in the "chat" function of the webinar or via email to the SOCWMA Meeting Administrator at maria.tamez@ocpw.ocgov.com **by 2:30 PM on May 6th so your comment can be read aloud and your name announced for the record on this item**. All persons addressing the Executive Committee are requested to limit their comments to three minutes.*

## ITEM # 3. APPROVAL OF MINUTES

### MINUTES OF MARCH 4, 2021 FOR APPROVAL

**Date and Location:** March 4, 2021 2:30 – 4:30 p.m.

*****Video/audio recording for the March 4, 2021 meeting is available here. Recording times noted in the minutes correspond to that item on the recording. *****

**ITEM # 1 Roll Call/Self-Introductions (Recording: 00:03:06)**

| | |
|---|---|
| Debbie Neev, Chair, Laguna Beach County Water District | Ed Mandich, Trabuco Canyon Water District |
| Shaun Pelletier, for Vice-Chair Tiffany Ackley, City of Aliso Viejo | Norris Brandt, for Derek Reeve, San Juan Basin Authority |
| Kelly Jennings, City of Laguna Niguel | Doug Erdman, South Coast Water District |
| Rick Erkeneff, South OC Wastewater Authority | Saundra Jacobs, Santa Margarita Water District |
| Dave Wheeler, City of Laguna Hills | Megan Yoo Schneider, Municipal Water District of OC |
| Carol Moore, City of Laguna Woods | Brad McGirr, City of Rancho Santa Margarita |
| Kay Havens, El Toro Water District | Scott Voigts, for Neeki Moatazedi, City of Lake Forest |
| Bill Moorehead, Moulton Niguel Water District | Karen McLaughlin, Irvine Ranch Water District |
| Mike Frost, City of Dana Point | |

**ITEM # 2 Public Comments (Non-Agenda Items) (Recording: 00:08:03)**

Mr. Mike Beanan, Laguna Bluebelt Coalition thanked everyone for working together to reduce dry weather flows in Aliso Creek, especially the County of Orange and Moulton Niguel Water District for their leadership by working with non-government organizations.

**ITEM # 3 Approval of Minutes (Recording: 00:09:38)**

The minutes of the August 6, 2020 meeting were presented to the Executive Committee for approval.

**Recommended Action:** Approve the minutes of the August 6, 2020 meeting.

| | |
|---|---|
| *Motion:* | *Approve minutes* |
| *First/Second:* | *Saundra Jacobs/ Ed Mandich* |
| *Abstained:* | *Karen McLaughlin, Dave Wheeler, Rick Erkeneff, Mike Frost, Doug Erdman* |
| *Outcome:* | *Approved unanimously* |

**ITEM # 4 Approve Proposed 2021 Meeting Dates (Recording: 00:11:18)**

The 2021 meeting dates of May 6, August 5 and November 4 were presented to the Executive Committee for approval.

**Recommended Action:** Approve the proposed 2021 meeting dates of May 6, August 5 and November 4.

| | |
|---|---|
| *Motion:* | *Approve proposed 2021 meeting dates* |
| *First/Second:* | *Saundra Jacobs/Dave Wheeler* |
| *Abstained:* | *None* |
| *Outcome:* | *Approved unanimously* |

**ITEM # 5 Committee Chair and Vice Chair Nominations (Recording: 00:12:45)**
***Jenna Voss, County of Orange County***

Ms. Debbie Neev, Chair, requested volunteers for a nominating committee to nominate a Chair and Vice Chair, for terms starting July 1, 2021 and ending June 30, 2023.

Ms. Saundra Jacobs, Santa Margarita Water District, Ms. Betty Burnett, South OC Wastewater Authority (SOCWA)*, and Ms. Megan Yoo Schneider, Municipal Water District of OC, volunteered.

*Note: Subsequent to the meeting, it was brought to staff's attention that two members of SOCWA spoke during the Committee meeting during Executive Committee discussion/comment. It was later clarified with SOCWA representatives that the commitment to participate in the ad hoc expressed by Ms. Betty Burnett during the meeting was on behalf of SOCWA as a Member Agency, as she was the alternate in attendance. As such, Mr. Rick Erkeneff, SOCWA would serve on the nominating committee. Going forward, staff will ensure that only one representative from each Member Agency is acting as a Committee member; any others wishing to participate will do so during public comment as either alternates to Committee members or members of the public (general staff).

**Recommended Action:** Form a nominating committee to nominate a Chair and Vice Chair to serve a two-year term ending June 30, 2023.

**ITEM # 6 FY 2021 – 2023 Cost-Share Budget & Work Plan Discussion (Recording: 00:15:11; 00:58:12)**
***Jenna Voss, County of Orange***

Ms. Saundra Jacobs, Santa Margarita Water District, requested to review *Item #8 Executive Officer's Report* first because it has items that will help the Executive Committee understand *Item #6 FY21-23 Cost-Share Budget & Work Plan Discussion.*

| | |
|---|---|
| *Motion:* | *Approve reviewing Item #8 before Item #6* |
| *First/Second:* | *Saundra Jacobs/Betty Burnett** |
| *Abstained:* | *None* |
| *Outcome:* | *Approved* |

Ms. Jenna Voss, County of Orange, provided an overview of the FY 2021 – 2023 proposed Work Plan and Cost Share Budget. Ms. Voss emphasized that any portion of the budget not expended is refunded to the Member Agencies in the next year's invoice.

Ms. Saundra Jacobs, Santa Margarita Water District, requested more information on the Aliso Creek Watershed Collaboration Group included in line items #5 and #13. The Committee was asked to consider how a similar group in the San Juan Creek Watershed (proposed in item #13) could function within existing watershed-based efforts led by the San Juan Basin Authority. Mr. Rick Erkeneff added that duplicative efforts should be avoided.

Ms. Debbie Neev asked staff to include support for a Committee strategic visioning ad hoc without increasing the proposed budget. She subsequently asked Committee members to communicate any other requested modifications to staff. No modification requests were received.

*Note: See note on Item #5 above

**Recommended Action:** Discuss proposed FY 2021 – 2023 Cost Share Budget and Work Plan and provide direction to staff.

**ITEM # 7 Presentation: 2019 Volumetric Water Reuse Report (Recording: 01:44:09)**
***Rebecca Greenwood, State Water Resources Control Board***

Ms. Rebecca Greenwood, State Water Resources Control Board (SWRCB), provided an overview of the results from the 2019 Volumetric Annual Report of Wastewater and Recycled Water in California.

Mr. Dave Wheeler, City of Laguna Hills, requested a definition of injected water; Ms. Greenwood defined as water that not treated to Title 22 standards.

Mr. Rick Erkeneff, South OC Wastewater Authority, inquired about how the State Water Board supports reductions in ocean water effluent volume discharge. Ms. Greenwood noted the availability of a Water Research Foundation grant focused on the feasibility of increasing recycled water.

**Recommended Action:** Receive and file.

**ITEM # 8 Executive Officer's Report (Recording: 00:16:45)**
***Amanda Carr, County of Orange***

Ms. Amanda Carr, County of Orange, provided updates on multiple items related to water resources.

Ms. Betty Burnett requested clarification on where the funds to implement items included in the report come from. Ms. Amanda Carr responded that everything discussed in the report was informational, funded by other entities, and not related to the SOCWMA Cost Share Budget discussed in Item #6.

**ITEM # 9 Executive Committee Member Comments (Recording: 02:06:30)**

Ms. Debbie Neev, Committee Chair, thanked everyone and stated she is thrilled that the scheduled Executive Committee meetings are back in session.

**ITEM #10 Adjournment (Recording: 02:07:17)**

| **Non-Committee Attendees** | |
|---|---|
| Devin Slaven | City of Lake Forest |
| Mike Beanan | Laguna Blue Belt Coalition |
| Jinger Wallace | Laguna Blue Belt Coalition |
| Betty Olson | San Diego Water Board |
| Rich Schlesinger | City of Mission Viejo |
| Steve Dishon | South Coast Water District |
| Betty Burnett | South OC Wastewater Authority |
| Bill Green | South Coast Water District |
| **County Staff**: Amanda Carr, Grant Sharp, Cindy Rivers, Jenna Voss, Beatrice Musacchia, Andrew McGuire, Maria Tamez | |

## END MEETING MINUTES OF MARCH 4, 2021

**Recommended Action: Approve the minutes of the March 4, 2021 meeting.**

## ITEM # 4. ELECTION OF CHAIR AND VICE-CHAIR

At the March 4, 2021 meeting, the Executive Committee appointed an ad hoc nominating committee to nominate Committee members to serve as Chair and Vice Chair for term ending June 30, 2023. The nominating committee will present nominees to the Executive Committee for election. The elected Chair and Vice-Chair will assume their responsibilities at the next Executive Committee meeting in 2021, following approval.

**Recommended Action: Elect Chair and Vice-Chair based upon recommendations presented by nomination ad hoc.**

## ITEM # 5. BENEFITS OF WATERSHED-LEVEL COORDINATION IN ALISO CREEK

Ms. Jenna Voss and Ms. Jennifer Shook, County of Orange, will present an overview of the Aliso Creek Watershed Project Collaboration Group (Aliso Collaboration Group). Originating from the South Orange

County Project Development Framework (Framework) workshop in July 2019, the Aliso Collaboration Group represents a stakeholder-driven process to support implementation of local/regional water resource projects. Regional project development and locally-driven projects supported through this effort meet the goals of the IRWM Plan – the driving document for the SOCWMA IRWM Group. The Framework and Aliso Collaboration Group are a direct result of the 2015-16 Committee Strategic Visioning Process. Slides on the Strategic Visioning Process are included in **Appendix A** for your reference.

Since the inaugural July 18, 2019 meeting of the Aliso Creek Watershed Collaboration Group, regular participation has involved almost 50 participants including (but not limited to) cities, water agencies, local NGOs, wastewater agencies, resource agencies (e.g. California Department of Fish and Wildlife), transportation agencies, mitigation-based interests, academic organizations, and the County. The purpose of these meetings is to define a locally supported project coordination process that balances water resource and habitat priorities in the Aliso Creek Watershed by establishing and maintaining open and transparent communication and collaboration between local NGOs, municipal, state, federal, transportation, natural resource agencies, and the SOCWMA IRWM Group. The group met four times in 2019-2020; the meeting reports are posted on the SOCWMA IRWM website and included as **Appendix B** for your reference.

Essential to the practice of IRWM, the watershed-scale approach provides a platform for communication to watershed-specific stakeholders on progress made toward improving watershed health through multi-benefit projects. The intention is to create a process that continues moving projects forward, reporting to the SOCWMA IRWM Group over time. The key metrics are project-based – regional projects collaboratively developed, and completed projects by individual or partner agencies that meet desired outcomes. The desired outcomes developed by the group are included in **Figure 1**. The overarching intent for the Aliso Collaboration Group is included as **Figure 2**. The IRWM Plan Goals represent the most important project goals for SOCWMA, and are included as **Appendix C**. A map of existing projects ranging from concept to in-design the group seeks to support is included as **Figure 3**.

**Figure 1: Aliso Collaboration Group – Desired Outcomes for the Aliso Creek Watershed**

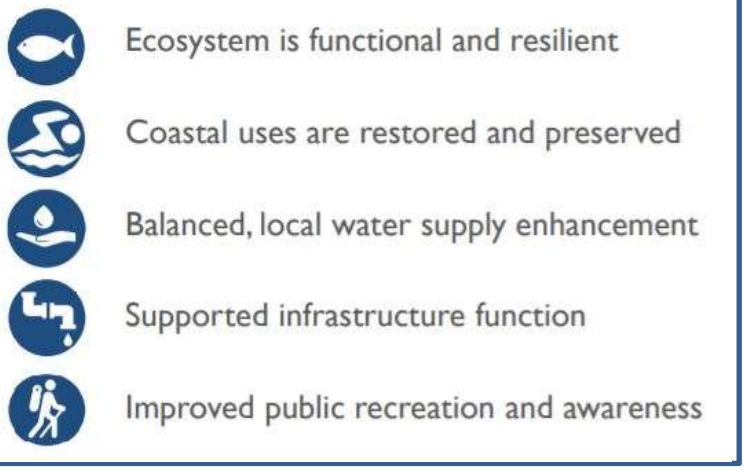



**Figure 2: Framework to Develop and/or Support Project Implementation – Aliso Collaboration Group**

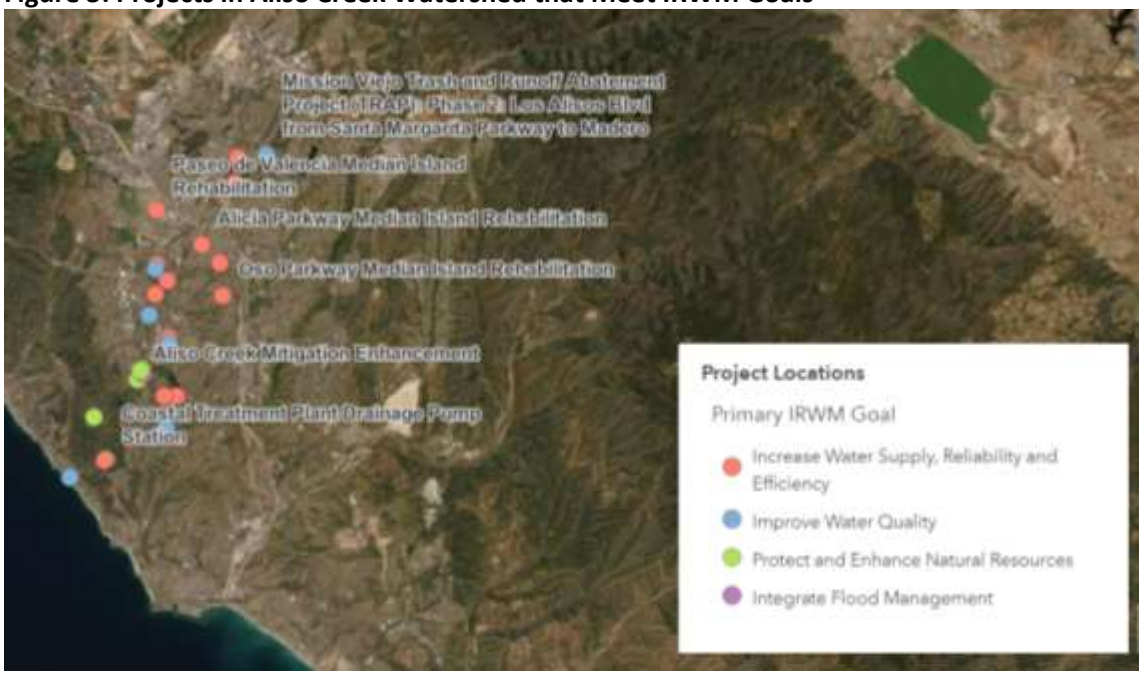
The following needs were identified through the Framework, and are being addressed through the Aliso Collaboration Group to complete more regionally beneficial projects:

- Established relationships between stakeholders;
- Engagement of resource agency representatives at earlier stages in project development;
- Identification of funding opportunities and potential partnerships – metrics process will help define projects for funders;
- Identification of overlapping regulatory drivers as baseline, but not limitations; and
- Overarching regulatory processes with associated schedules for projects (i.e. as a driver).

<u>Accomplishments of the Aliso Collaboration Group to date include:</u>

a. Engaged 30-40 different organizations ranging from water agencies, cities, environmental non-profits, academia, transportation representatives, to regulatory entities;
b. Established desired objectives for the watershed developed collaboratively and approved by the group to describe model watershed conditions with quantitative metrics;
c. Compiled and analyzed a project list comprising projects in all phases of concept and design that will meet objectives if completed – not all conceptual or single-benefit projects are listed in the IRWM Project List so analysis of overall project funding and support needs were incomplete;
d. Completed an Aliso Creek Watershed Reference Guide, representing a compendium of watershed data, a summary of overall watershed health, applicable regulatory challenges and potential options for project permitting. The Reference Guide is intended to provide a vehicle to obtain project funding and enhance regulatory support for early engagement and streamlined permitting where feasible; and
e. Initiated an alternative analysis to the US Army Corps of Engineer Mainstem Ecosystem Restoration Feasibility Study preferred alternative for the lower 6 miles of Aliso Creek to enhance habitat, protect infrastructure, and provide recreational benefits considering the Locally Preferred Plan and other stakeholder feedback.

**Figure 3: Projects in Aliso Creek Watershed that Meet IRWM Goals**



The next meeting of the Aliso Collaboration Group is planned for mid-May 2021 and will focus on the alternative analysis for a regional approach to the lower six miles of the watershed, above the Coastal Treatment Plant. A subsequent meeting is also planned for late June 2021 to advance project collaboration on categorized projects, with consideration for programmatic permitting options.

**Recommended Action: Receive and file.**

## ITEM # 6. 2021-2023 PROPOSED WORK PLAN AND COST-SHARE BUDGET

The South OC WMA Cooperative Agreement states that the Executive Committee shall approve an annual work plan and budget for the administration and activities of the WMA, its committees, projects, actions, and administrative support. The budget shall be equally divided amongst the participating Member Agencies in the agreement, and shall be budgeted by each agency in their annual budget.

On June 6, 2019 the Executive Committee approved a two-year budget and work plan for Fiscal Year (FY) 2019 – 2021. The cost share budget for FY 2019 – 2020 was $11,250 and the cost share budget for FY 2020 – 2021 was $10,795.45. The proposed FY 2021 – 2023 cost-share budget represents the same level of planned expenditure as FY 2019 – 2020. Additionally, as stated in the Cooperative Agreement, any unspent funds from the current FY not otherwise re-allocated by the Committee will be refunded to the Member Agencies on the FY 2021-2022 invoice.

Ms. Jenna Voss, County of Orange, provided an overview of the work plan and budget at the March 4, 2021 Committee meeting and opened the item for discussion. Committee members requested clarification on two primary budget categories – Committee Support (Items #5 and #13 in **Table A**), and Regional Project Development & Stakeholder Framework (Items #6 and #14 in **Table A**). Staff were asked to consider each item in advance of the May meeting; however, no specific amendments to the budget were requested. In response, please find below additional information for Committee consideration:

- Committee support (Items #5 and #13): Committee members requested initiation of a new strategic visioning process to update the results of the last effort in 2015-16. Staff were asked if funds were available in the proposed budget for this initiative; the proposed budget did not include a line item for this task. Staff were asked to consider ways to support a strategic visioning ad hoc in FY21-22 without increasing the proposed budget. In response, staff propose the following:

    1) The current FY 2020 – 2021 budget will have cost savings for Committee Support as fewer meetings were held in 2020 resultant from the pandemic. These remaining funds can be utilized to support initiation of an ad hoc through June 30, 2021.
    2) Additional support needed to continue a visioning process into FY 2021 – 2022 can be drawn from either Committee Support (Item #5), or Proposition 1 IRWM Grant support (Item #1). The latter may have available funds if DWR's anticipated schedule to release Proposition 1 – Round 2 IRWM Grant funds is delayed. To utilize funds from Item #1, the Committee may need to formally move funds to Committee Support (Item #5) at a subsequent meeting.

- Regional Project Development & Stakeholder Framework (Items #6 and #14): Staff provided a basic overview of the Aliso Creek Watershed Project Collaboration Group during the March 4, 2021 meeting in response to several questions from the Committee and the public. Notably, the Committee did not request any changes to the budget for consideration at the May 6, 2021 meeting; however, questions arose as to what funds proposed in this budget category would support. To be responsive to the Committee's questions, staff have prepared a presentation on the

Aliso Creek Watershed Project Collaboration Group (see Item 5 of this agenda). More context for the proposed efforts in FY 2021 - 2022 and FY 2022 - 2023 is provided in the work plan narrative below.

**Proposed Budget for FY 2021 – 2023**

The proposed work plan and budget for FY 2021 – 2023 is included below, broken out into FY 2021 – 2022 and FY 2022 – 2023. As requested by the Committee in 2019, each budget line item and associated planned activities are explained in the following Work Plan budget narrative:

- **Proposition 1 Implementation Grants (Items #1 and #9)**: Department of Water Resources (DWR) administers a grant program throughout the state for multi-benefit projects through the IRWM Program. These grants make available a specific amount of funding for each Funding Area – the South Orange County WMA is in the San Diego Funding Area and will receive approximately $2.5 million for implementation projects in the next round of IRWM Grant funding. The line item for FY 2021-22 is to start the grant application process and support for Round 2 – the solicitation for which is slated for late 2021/early 2022. Funding proposed for FY 2022-2023 also includes funds for Round 2, as the process is expected to take approximately a year and will likely bridge both FYs. Stakeholder coordination for Round 2 will include working with the Management Committee, Executive Committee, and stakeholders to prioritize and approve projects for inclusion in the application to DWR. *This item includes funding for County staff time and consultant support in the shared-cost budget; FTEs are included in* **Table A**.

- **Call for projects and IRWM Plan/Orange County Stormwater Resource Plan (OC SWRP) Project List management (Items #2 and #10)**: Each round of IRWM Grant funding begins with a call for projects, whereby member agencies and stakeholders will be solicited for projects to consider in the grant application to DWR. County staff conducts the call for projects and brings the projects to the Management and Executive Committees. Both the IRWM Plan and OC SWRP (appended and incorporated into the IRWM Plan per SB 985) require maintenance of prioritized project lists; support is ongoing, and the Data Management System (DMS)/website provides for submittal of projects any time, in addition to supplemental support provided during a Call for Projects. *This budget includes funding for both County staff time and consultant support in the shared-cost budget; FTEs are included in* **Table A**.

- **Grant administration – Proposition 84 & 1 Implementation Grants (Items #3 and #11)**: Grants previously garnered by the WMA include County staff time to administer the associated state and project agreements, process invoices, generate reports, and comply with DWR requirements for grant processing. *County staff time is refunded by the grants themselves; this budget item does not include shared-cost funding.*

- **Data management (Items #4 and #12)**: DWR requires that IRWM Plans include a "Data Management System" for collecting and making publicly available data associated with implementation of projects funded within each IRWM Region. To comply, the County produced on behalf of the South OC WMA a Data Management System (DMS) website (www.southocirwm.org) in the FY 2017 – 2019 budget cycle, updated in 2020 to better support project submittal. This budget item includes maintaining and updating this geospatial-based website to include data and reports for each of the projects funded through IRWM Grants in the WMA, and ongoing updates to serve stakeholders. Data management represents a continuation of the previous budgeted tasks and ongoing County staff support. *This budget item includes shared-cost funding for County staff time; FTEs are included in* **Table A**.

- **Committee support (Items #5 and #13)**:
  - 4 Executive Committee meetings, including agenda package preparation and minutes
  - 6 Management Committee and/or Stakeholder meetings

- 6 Ad hoc Committee meetings

Committee support includes administration of Executive Committee, Management Committee, and Stakeholder meetings; funding also includes allocations for ad hoc meetings, where necessary. This item includes support elements such as preparation of agendas, presentations, agenda staff reports, responding to member agency requests and supporting administration of the program. *This budget item is County staff time to administer the program; FTEs are included in* **Table A**.

- **Regional Project Development & Stakeholder Framework (Items #6 and #14)**: Through the 2015-16 Strategic Visioning process, the Executive Committee expressed interest in supporting development of regional projects for implementation through the IRWM Grant program or by Member Agencies to meet regional water resource needs. The process to meet this need began in 2018-2019; attendees at an inaugural workshop in 2019 determined watershed-scale collaboration groups would be the most advantageous, choosing to first focus on the Aliso Creek watershed. After four meetings of the Aliso Creek Watershed Project Collaboration Group, significant progress has been made to identify and support project development throughout the watershed. The intention is to support watershed collaboration, fostering projects that meeting watershed objectives and IRWM Plan goals. The product of this collaboration will be regional projects, and more completed projects over time supportive of those goals and representing IRWM. *The shared-cost budget includes funding for County staff time and consultant services for this item; FTEs are included in* **Table A**.

  Proposed funds in FY 2021-2022 would support:

  a. Staff for bi-annual watershed-scale group meetings to provide updates on projects, discuss data associated with watershed conditions (as applicable), and to develop a report-out for the Executive Committee and IRWM Group;
  b. Engage stakeholders in project options for the Aliso Creek watershed mainstem based upon alternative analysis to alleviate erosion, habitat degradation, and promote stream stability;
  c. Establish best practices to support and foster projects throughout the watershed, including resource agency coordination, and potential programmatic permitting for projects that achieve IRWM goals and desired outcomes;
  d. Assist project coordination to meet multiple benefits, and seek funding opportunities; and
  e. Continue to engage regulatory agencies to address competing and/or misaligned requirements that hinder and/or significantly delay projects.

  Proposed funds in FY 2022-2023 would support:

  a. Staff for bi-annual watershed-scale group meetings to provide updates on projects, discuss data associated with watershed conditions (as applicable), and to develop a report-out for the Executive Committee and IRWM Group;
  b. Periodic support for project partners in Aliso Creek Watershed seeking regulatory or funding assistance; and
  c. Establishing a similar group for the San Juan Creek watershed, based upon conditions specific to the watershed – structure and stakeholders would not carry over from Aliso Creek Watershed Project Collaboration Group as watershed drivers differ; however, collaboration, summary of watershed conditions and recognition of project needs would be similar and reflect IRWM principles.

- **Roundtable of Regions (Items #7 and #15)**: The California Integrated Regional Water Management (IRWM) Roundtable of Regions is a well-established collaborative of representatives from organizations and agencies engaged in the current, ongoing and future success of the IRWM Program in California. The Roundtable of Regions has effectively coordinated with DWR on state initiatives impacting funding for

water resource projects in California since 2006. The primary role of the group is to a) promote IRWM and coordinate with DWR and the State Water Resources Control Board on policy applicable to water resource projects, and to b) equip those engaged in the work of integrated water resource management with the tools and partnerships necessary for success. County staff have been engaged with the Roundtable of Regions for several years. This participation has provided exceptional support for the South OC WMA IRWM Group and County staff propose re-instating funds for staff participation in Roundtable meetings, workshops and coordination. *This budget item is for County staff time and travel on behalf of the IRWM Group; FTEs are included in* **Table A**.

- **Team Arundo program oversight (Items #8 and #16)**: The South OC IRWM Group has supported Team Arundo for over a decade; this important work continues in South OC watersheds. Funding is included in the draft budget to maintain environmental permitting (as necessary), develop map-based tracking of historic and planned removal efforts, and for County staff to advise project proponents utilizing environmental permits on existing, and/or creation of new projects to address Arundo, wherever applicable. *The shared-cost budget includes funding for County staff time and consultant services for this item; FTEs are included in* **Table A**.

**Table A** below summarizes the two-year budget described above. Budget totals for each FY are highlighted in orange; the total cost-share amount per Member Agency is highlighted in light blue. The proposed work plan and budget are presented at this meeting for approval and will take effect July 1, 2021.

**Table A: FY 2021 – 2023 Shared-cost Budget, broken down by program element and by fiscal year**

| LINE ITEM | Consultant Services | County Contribution (non-cost share) - Staff FTE, Grant Funded, or Consultant Services | Cost-Shared Staff FTE ($, FTE, hours) | Total Budget | Net Cost to 22 Member Agencies (Shared Costs) |
|---|---|---|---|---|---|
| **FY 2021-2022** | | | | | |
| 1. Proposition 1 Implementation Grant Submittals, IRWM Plan Updates, Stakeholder Support | $80,000.00 | $10,000.00 | $5,000<br>0.0355 (74) | $95,000 | **$85,000.00** |
| 2. Call for Projects & IRWM/OC SWRP Project List Management | $7,500.00 | $5,000.00 | $5,000<br>0.0355 (74) | $17,500 | **$12,500.00** |
| 3. Grant Administration | $0.00 | $60,000.00 | N/A | $60,000 | **$0.00** |
| 4. Data Management & Monitoring | $5,000.00 | $5,000.00 | $15,000<br>0.1025 (213) | $25,000 | **$20,000.00** |
| 5. Committee Support: 4 EC, 6 MC/Stakeholder, 6 Ad Hoc | $0.00 | $0.00 | $60,000<br>0.4075 (848) | $60,000 | **$60,000.00** |
| 6. Regional Project Development & Stakeholder Framework | $45,000.00 | $12,500.00 | $15,000<br>0.10 (208) | $72,500 | **$60,000.00** |
| 7. Roundtable of Regions | $0.00 | $0.00 | $2,500<br>0.0155 (32) | $2,500 | **$2,500.00** |
| 8. Team Arundo Program* | $5,000.00 | $0.00 | $2,500<br>0.0155 (32) | $7,500 | **$7,500.00** |
| **Total** | **$142,500.00** | **$92,500.00** | **0.712** | **$340,000** | **$247,500.00** |
| | | | ***Amount Per Member Agency*** | | ***$11,250*** |
| **FY 2022-2023** | | | | | |
| 9. Proposition 1 Implementation Grant Submittals, IRWM Plan Updates, Stakeholder Support | $70,000.00 | $5,000.00 | $5,000<br>0.0355 (74) | $80,000 | **$75,000.00** |
| 10. Call for Projects & IRWM/OC SWRP Project List Management | $2,500.00 | $5,000.00 | $5,000<br>0.0355 (74) | $12,500 | **$7,500.00** |
| 11. Grant Administration | $0.00 | $60,000.00 | N/A | $60,000 | **$0.00** |
| 12. Data Management & Monitoring | $5,000.00 | $5,000.00 | $15,000<br>0.1025 (213) | $25,000 | **$20,000.00** |
| 13. Committee Support: 4 EC, 6 MC/Stakeholder, 6 Ad Hoc | $0.00 | $0.00 | $60,000<br>0.4075 (848) | $60,000 | **$60,000.00** |
| 14. Regional Project Development & Stakeholder Framework | $57,500.00 | $10,000.00 | $17,500<br>0.11 (234) | $85,000 | **$75,000.00** |
| 15. Roundtable of Regions | $0.00 | $0.00 | $2,500<br>0.0155 (32) | $2,500 | **$2,500.00** |
| 16. Team Arundo Program* | $5,000.00 | $0.00 | $2,500<br>0.0155 (32) | $7,500 | **$7,500.00** |
| **Total** | **$145,000.00** | **$85,000.00** | **0.722** | **$332,500** | **$247,500.00** |
| | | | ***Amount Per Member Agency*** | | ***$11,250*** |

*Renewal of regulatory permits to maintain Team Arundo (e.g. CDFW 1600, RGP 41)

**Recommended Action: Approve proposed 2021-2023 Work Plan and Cost-Share Budget.**

## ITEM # 7. PRESENTATION: UPDATE ON THE 3A WATER RECYCLING PLANT TERTIARY EXPANSION

Mr. Don Bunts, Santa Margarita Water District (SMWD), will provide an update on the 3A Water Recycling Plant/Oso Creek Water Recycling Tertiary Expansion project. This project received $1,000,000 Prop 84 2015 Implementation Grant funding in 2015.

The 3A Water Recycling Plant (WRP) Tertiary Expansion Project (3A Project) includes planning and design work related to the expansion of the existing 3A Water Reclamation Plant to provide at least 3,000 AFY of new recycled water. The Project benefits Moulton Niguel Water District (MNWD), which is a project partner. Though the subject of the original grant allocation in 2015, full planning, design and construction of the 3A Project will now be completed at a later date. The Oso Creek Water Recycling Plant (WRP) Tertiary Expansion Project (Oso Creek Project) replaced the 3A project site location in 2019. The revised project similarly includes the planning, and design and construction work related to the enhancement and expansion of the existing Oso Creek Water Reclamation Plant to provide up to 3,000 AFY of new recycled water. The Project also benefits the Moulton Niguel Water District, as well as the Cities of San Juan Capistrano and Mission Viejo by providing a higher quality and increased volume of recycled water that will be made available through regional facilities.

A grant execution agreement with the state Department of Water Resources (DWR) was to conclude along with the remaining projects in June 2021. Due to unforeseen project implementation delays and in recognition of the impacts from COVID-19 on local communities, DWR has agreed to extend the grant agreement by 18 months to allow completion of the Oso Creek Project. Mr. Don Bunts will provide an update on the project and anticipated timeline moving forward.

**Recommended Action: Receive and file.**

## EXECUTIVE OFFICER'S REPORT

Ms. Amanda Carr, County of Orange, will provide an update on several ongoing projects and efforts within the South Orange County Watershed Management Area including, but not limited to the following:

- **Water Sustainability Atlas**: The Water Sustainability Atlas is a comprehensive database of all water resource projects in IRWM Plans across the state. The intention is to demonstrate to state agencies and lawmakers the overall need for project funding support, as well as document the work being done throughout the state to address water resiliency goals. South OC IRWM has now been enrolled as a pilot IRWM Region and staff have begun entering project data. Projects funded through the SOCWMA IRWM program, as well as those currently listed in the plan for future consideration will be included. A demonstration of the tool is planned for the August 2021 or November 2021 Committee meetings.

- **South OC IRWM and Statewide IRWM Factsheets**: The IRWM Roundtable of Regions and Association of California Water Agencies (ACWA) developed standardized factsheets for all of the IRWM Regions in the state to communicate the value of IRWM as it is implemented at the local level – each of the 48 IRWM Regions have different governance, goals, and challenges; the factsheets provide a forum to showcase each unique region as well as the collective benefit of IRWM. Staff are currently working with the Management Committee to finalize the South OC IRWM factsheet which will be included in a future staff report, and made available on the website.

- **Roundtable of Regions/State IRWM Updates**: On April 21, 2021 a workshop focused on the future of IRWM in the state and potential recommendations to the state legislature was held. Participants included Roundtable members representing most IRWM Regions. Discussion topics included the desire for IRWM to be flexible to address climate resilience challenges and priorities; to prevent the formation of another potential layer of regional governance (i.e. climate resilience regions); and legislative outreach assistance for regions to express support for the inclusion of IRWM funding in the climate resilience bond expected for the June 2022 ballot. It is anticipated that a series of recommendations regarding proposed bills, a template comment letter to express the need for bond funding for IRWM ($510 million), and other legislative outreach materials will be developed over the coming weeks. In the interim, regions are encouraged to develop their regional factsheets and consider expressing support for IRWM funding. Subsequent to the Roundtable meeting, the Water Bond Coalition provided their letter of support for $500 million in IRWM funds to be allocated in AB 1500 as it advances through the legislature. This draft letter is being used as a template for regions.

- **IRWM Workshops/Webinars**:
    1) IRWM Summit: Watershed Health and People Experiencing Homelessness – Spotlight on the Central Coast and Ventura Counties, Statewide Impact – held May 5, 2021
    2) Proposition 1 IRWM Implementation Grant Program – Round 1 Survey Results and Round 2 Concepts Webinar – held May 6, 2021

- **Ocean Protection Council (OPC) Coastal Environmental Justice Grant**: the County of Orange submitted a letter of interest on April 23, 2021 requesting $1 million to implement small-scale green infrastructure projects in qualifying coastal communities. This effort reflects the South OC IRWM Plan commitments to address environmental justice in disadvantaged and severely disadvantaged communities in South Orange County. The grant will benefit communities throughout Orange County, and improve surface water quality in 303(d) listed waterbodies.

- **Grant programs administered on behalf of the SOCWMA IRWM Group**:
    1) Proposition 1 – Round 1 IRWM Implementation Grant: agreement is awaiting management approval with DWR; after which project proponents will finalize implementation agreements with the County as the grant administrator.
    2) Proposition 1 Storm Water Grant funding (Round 2): Re-certification of the Orange County Stormwater Resources Plan (OC SWRP) by the SWRCB will occur by May 6, 2021. The OC SWRP represents Appendix L of the South OC IRWM Plan (inclusion in the plan is required by SB 985) and facilitates funding for stormwater capture projects through State bond-funded grant programs (e.g. Santa Margarita Water District's Upper San Juan Creek Storm Water Capture, Infiltration, and Potable Reuse Project awarded $5,967,691).

**Recommended Action: Receive and file.**

## EXECUTIVE COMMITTEE MEMBER COMMENTS

## ADJOURNMENT

Next meeting date: August 5, 2021

## APPENDIX A: 2015 – 2016 STRATEGIC VISIONING SLIDES

# Item 5

## Ad Hoc Strategic Visioning Process Update

**Establish priorities for the next 10 to 50 years.**

**Short and long term projects with and without grant funding**

# Ad Hoc Committee Members

* **Saundra Jacobs**, Santa Margarita Water District
* **Wayne Rayfield**, South Coast Water District
* **Andrew Hamilton**, City of Lake Forest
* **Susan Hinman**, Municipal Water District of OC
* **Rob Zur Schmiede**, City of Laguna Beach
* **Dave Harrington**, City of Aliso Viejo
* **Mary Eileen Matheis**, Irvine Ranch Water District
* **Jerry McCloskey**, City of Laguna Niguel

# IRWM Plan Goals

* Goals in 2013 IRWM Plan:
  * Integrate Flood Management
  * Improve Water Quality
  * Increase Water Supply & Reliability
  * Promote Water Use Efficiency
  * Protect & Enhance Natural Resources

# IRWM Plan Goals

* Ad Hoc Recommendation:
  * *Increase Water Supply, Reliability and Efficiency*
  * Improve Water Quality
  * Integrate Flood Management
  * Protect & Enhance Natural Resources

# Establishment of Priorities for the Region

* Regional priorities to provide guidance on projects that will meet the goals; these include:
  * Develop Sustainable Water Supplies
  * Cultivate storage for potable and recycled water, and stormwater/low flow capture
  * Foster regional projects to maximize water resources

# IRWM Plan Updates

* Ad Hoc recommends that:
  * The Management Committee develop objectives & metrics to achieve goals and priorities
  * The IRWM Plan be updated to formally revise goals, incorporate new objectives, add Laguna Beach County Water District as a member

# Adjustment of FY 2015-16 Budget for Plan Update

* FY 2015-16 Budget did not include a line item for IRWM Plan updates
* Recommended funding allocation for consultant support to update the IRWM Plan and develop metrics/weighting to assess project alignment with regional goals (Management Committee will report out on progress made)

# Recommended Actions:

1) Approve Ad Hoc recommendation to combine Integrated Regional Watershed Management Plan (Plan) goals for promoting water use efficiency and increasing water supply and reliability.
2) Approve three strategic priorities recommended by the Ad Hoc committee:
   a. Develop sustainable water supplies;
   b. Cultivate storage for potable and recycled water, and stormwater/low flow capture; and
   c. Foster regional projects to maximize water resources.

# Recommended Actions:

3) Direct Management Committee to develop recommendations for objectives and weighting for the Plan.

4) Approve modification of the FY 2016-17 budget to reallocate line item 11 – Water Bond grant submittals – of $60,000 for an update to the Plan. In addition, approve using the re-allocated funding in FY 2015-16 as well as FY 2016-17.

## APPENDIX B: ALISO CREEK WATERSHED PROJECT COLLABORATION GROUP MEETING REPORTS

# MEETING REPORT

## Aliso Creek Watershed Collaboration Group Meeting #1

| | |
|---|---|
| Date: | July 18, 2019 |
| Time: | 9:00 AM – 11:00 AM |
| Location: | Laguna Hills Community Center, 25555 Alicia Parkway, Laguna Hills, CA 92653 |
| Facilitators: | Darren Haver (University of California Cooperative Extension), Chad Praul (Environmental Incentives) |

## MEETING PURPOSE & OBJECTIVE

**Purpose:** Define a locally supported project coordination process that balances water resource and habitat priorities in the Aliso Creek Watershed by establishing and maintaining open and transparent communication and collaboration between local NGOs, municipal, state, federal, transportation, natural resource agencies, and the SOCWMA IRWM Group.

**Objectives**

- Identify and start to build agreement on goals for the Aliso Creek Watershed
- Agree on the planning approach and process for the Aliso Creek Watershed
  - The Open Standards for the Practice of Conservation were recommended

## SUPPORT FOR DECISIONS

The level of the group's support was signaled by thumb polling where thumbs up meant that the person can support the idea, thumb sideways indicated a need to speak, and thumb down meant the person cannot support the idea. *Results are shown in italics for each decision.*

1. **Meeting roles & norms:** The roles focused on three types of organization roles and common behavior to focus on objectives and moving forward, listening with an open mind and attacking problems rather than people. The norms focused on consistent organizational representation, agenda/meeting report timing, need for meeting prep and follow up effort, and signaling level of support. *These roles and norms were supported with a large majority of the 42 participants, 2 abstentions and no opposition.*
2. **Use of Open Standards:** The use of results chains and valuable components of the Open Standards for the Practice of Conservation to provide a vision and tell the story of the Aliso watershed program was *supported by a large majority of the 42 participants with a couple of abstentions and no opposition.*
3. **Organization commitment to process:** Participants were asked to quickly signal their level of commitment at the end of the meeting, where 5= contribute no matter what it takes, 3= I'm fairly sure my organization is in for the duration and 1= I don't think my organization needs to be involved. *The large majority of 42 participants signaled a 5 while some signaled at a 4 or 3 level of commitment.*

## ACTION ITEMS

| RESPONSIBLE PARTY | DUE DATE | DESCRIPTION |
|---|---|---|
| **All participants** | **August 1** | **Identify organization representative, contact information, and availability for the August 29th meeting of the Aliso Creek Watershed Collaboration Group by responding to this email.** |
| Andy & Jenna | July/August | Plan logistics and manage invitations for meeting #2 |
| Darren & Chad | August | Prepare Desired Outcome proposals and meeting materials for meeting #2 |

**Action items for all participants will be noted in bold text for reference*

## KEY DISCUSSION POINTS

This section reflects the major points contributed by participants rather than the content from presenters. See meeting materials for presenter content. Additional details of these comments and smaller points from participants have been captured in the facilitators' individual notes for use in the Aliso Creek Watershed Collaboration Group (Aliso Group) process.

### Aliso Group Process & Participation

- Amanda Carr, Deputy Director of OC Public Works noted (1) the USACE project is no longer proceeding as there was not local interest in that approach, (2) the County is serving the SOCWMA Executive committee and (3) the County is an equal stakeholder in the room rather than the lead agency.
- There are valuable special studies that have already been done and there is a need to inventory what is already known about the Aliso Creek Watershed.
- Not all agencies that have a say are present. It was stressed that all stakeholders should be invited into the process to ensure buy-in and that we are at the beginning of a what could be a long and ongoing process. Particularly the County's 5th Supervisorial District should be represented.
- A participant noted that a lead agency for projects and environmental assessments (EIS/EIR) will be needed.
- It was also noted that when considering project planning and budget, the group should consider revenues from stormwater harvesting and property values post ecosystem restoration.
- Members of the Aliso Watershed Collaboration Group can both participate in this group and work on other Aliso Creek Watershed projects for which this group is not involved, or is included on an update basis only.

### Findings: Desired Outcome Activity

- The desired outcome concepts created by attendees roughly fell into five categories:
  - Comprehensive Ecosystem Restoration: reestablishing ecosystem function, native biodiversity, removing anthropogenic stress and barriers to fish passage, reduce fuels, restoring and creating habitat (including addressing gaps between mitigation sites)
  - Base of the Watershed – Coastal Uses: monitoring the coastal receiving water, climate resiliency, estuary conditions achieving fishable/swimmable, and berm monitoring
  - Stream Channel Morphology: restore natural hydraulic function (reduce incising, erosion, peak wet weather flows), restore habitat and eliminate unnatural dry weather flows.
  - Natural Dry Weather Flows: wetland enhancement and reduce dry weather flows (especially to estuary)
  - Governance and Administration: development of a process that involves the entire community, uses science appropriately, has a clear vision for the watershed, finds a lead agency and has a plan to obtain funding.
- Other desired outcomes included: protection of existing infrastructure and climate change resiliency.
- The activity sparked discussion on restoration scope and scale for the Aliso Creek Watershed; whether there should be one large vision for the entire watershed or address individual issues through a program of individual projects. Facilitators expressed that one aspect of a results chain is to define the scope and scale of the program. The next meeting will allow the group to decide the scope and scale of the Aliso Creek Watershed program.
- During development of desired outcomes the group should keep in mind that the Coastal Treatment Plant can pull dry weather flows from Aliso Creek and that projects should not affect the plant's ability to pull water.

## MEETING ATTENDEES

Mary Vondrak (City of Laguna Beach), Emerich Hlava (Concerned Citizen), Michael Beanan (Laguna Blue Belt Foundation), Jennifer Shook (OCPW), Leslie Hill (OCTA), Charles Baker (Cal Trans), Tracy Ingebrigtsen (OCPW), Amanda Carr (OCPW), Grant Sharp (OCPW), Ed Almanza (Laguna Ocean Foundation), Sandra Jacobson (Cal Trout), Mary Larson (CDFW), Jennifer Turner (CDFW), Simona Altman (CDFW), Gail Sevrens (CDFW), Joe Ames (Mission Viejo), Bill Griffin (City of Laguna Woods), Steve Dishon (SCWD), Rick Erkeneff (SCWD/SOCWA/Surfrider), Samantha Pilon (OCPW), Jim Burror (SOCWA), Roger Butow (Clean Water Now), Michael Whipple (Orange Coast Watershed Protection Center), Josie Bennett (Laguna Canyon Foundation), Hallie Jones (Laguna Canyon Foundation), Cindy Rivers (OCPW), Kris Taniguchi-Quan (SCCWRP), Penny Lew (OCPW/OC Flood), Hal Ghafari (City of Laguna Niguel), Drew Atwater (MNWD), Mark Mount (MNWD), Natalia Gaerlan (OC Parks), Robin Lamont (OC Parks), Susan Brodeur (OC Parks) , Christy Suppes (OCPW), Eric Smalstig (Geosyntec), Moy Yahya (Aliso Viejo), Hasan Nouri (Fluvial Tech), Jenna Voss and Andy McGuire (OCPW); Avery Blackwell (Geosyntec), Lisa Austin (Geosyntec); Chad Praul (Environmental Incentives); Darren Haver (UCCE)

## MEETING MATERIALS

- Meeting presentation: PDF attached to email
- Open Standards Booklet: PDF attached to email
- Desired Outcome Concepts: PDFs attached to email

## AGENDA (REPEATED FOR CONTEXT)

| Time | Description | Lead & Support |
|---|---|---|
| 9:00 | **Meeting Introduction & Norms**<br>• Introduction round robin<br>• Discuss & agree on group norms and ground rules | **Lead:** Darren |
| 9:20 | **Approach & Process for Planning Aliso Creek Watershed Projects**<br>• Understand Results Chains<br>• Determine level of support for using the Open Standards for Conservation | **Lead:** Chad |
| 9:50 | **Activity: Develop Supported Goals for Aliso Creek Watershed**<br>• Respond to an initial set of goals for the watershed<br>• Suggest missing goals that are essential<br>• Work toward a manageable number of SMART goals | **Lead:** Darren<br>**Support:** Chad |
| 10:50 | **Next Steps**<br>• Understand timeframes for next meeting and meeting report | **Lead:** Chad |
| 11:00 | **Adjourn** | |

# MEETING REPORT

## Aliso Creek Watershed Collaboration Group Meeting #2

| | |
|---|---|
| Date: | August 29, 2019 |
| Time: | 9:00 AM – 11:30 AM |
| Location: | Laguna Hills Community Center, 25555 Alicia Parkway, Laguna Hills, CA 92653 |
| Facilitators: | Darren Haver (University of California Cooperative Extension), Chad Praul (Environmental Incentives) |

## MEETING PURPOSE & OBJECTIVE

**Purpose:** The original purpose of this meeting was to demonstrate how linking project actions, intermediate results, and desired outcomes enables clear communication among stakeholders, accelerates project partnerships and strengthens proposals to project funders. However, to be responsive to the group's needs, the meeting focused on review and discussion of the Desired Outcome statements and the group collectively decided to discuss projects in a more detailed fashion at the next meeting.

### Objectives

- Determine level of support and conceptual changes needed for Desired Outcome statements
- Discuss projects and how they connect to the desired outcomes identified by the group

## LEVELS OF SUPPORT & DECISIONS

Ideas for changes to desired outcomes were provided via feedback frames and then discussed as a group. The level of the group's support for the original desired outcomes was signaled by feedback frame voting. After discussing potential adjustments, the level of support was signaled via thumb polling. *Results are shown in italics for each decision.*

1. **Changes to Desired Outcome Statements:** During the Understanding and Adjusting Desired Outcome Statements Activity, participants were asked to signal their level of support for the following Desired Outcomes and comment on the strengths and weaknesses of the statements:
    - Desired Outcome 1 – Stable & Resilient Ecosystem
        - *Vote tally before adjustments: 9 strong agreement, 7 agreement, 2 neutral and 0 disagreement/strong disagreement*
        - Key adjustment: Replace "Stable" with "Functional" in Desired Outcome headline
    - Desired Outcome 2 – Functional Creek Geomorphology and Flows
        - *Vote tally before adjustments: 9 strong agreement, 8 agreement, 0 neutral, 0 disagreement/strong disagreement*
        - Key adjustment: Change to an Intermediate Result/Critical Threat Reduction Result
        - [1]
    - Desired Outcome 3 – Coastal Uses are Restored and Preserved
        - *Vote tally before adjustments: 7 strong agreement, 8 agreement, 3 neutral, 0 disagreement/strong disagreement*
        - Key adjustments: Incorporate the concept of Recreation and reference to the beneficial uses in regulatory language to the Desired Outcome narrative
    - Desired Outcome 4 – Existing Infrastructure Protected and Water Supply Diversified

[1] According to the Open Standards for the Practice of Conservation, a Critical Threat Reduction Result is the direct threat to achieving your Desired Outcome

- *Vote tally before adjustments: 5 strong agreement, 7 agreement, 2 neutral, 4 disagreement, 0 strong disagreement*
- Key adjustments:
  - Provide a definition for the term "Infrastructure"
  - Split infrastructure and water supply into two separate Desired Outcome statements

2. **Support for Package of Desired Outcomes:** After discussing adjustments, level of support was signaled via thumb voting. Overall the package of Desired Outcome statements was generally supported with some conceptual adjustments.
   - *19 participants felt the package is pretty close and can support with additional concepts from the group*
   - *9 indicated the package is generally on target with a need to review exact wording*
   - *0 votes of no support.*

## ACTION ITEMS

| RESPONSIBLE PARTY | DUE DATE | DESCRIPTION |
|---|---|---|
| Chad w/ Darren | September 27 | Revise text of Desired Outcomes to reflect concepts from Aug 29 |
| All participants | September 27 | Send details of current and proposed projects that your organization is comfortable sharing with the group. |
| All participants | October 16 or 24 | Come to meeting #3 prepared to use knowledge of current and proposed projects to create a Results Chain as a group. Venue changed to Laguna Niguel City Hall. |
| Andy | September/October | Plan logistics and manage invitations for meeting #3 |

## KEY DISCUSSION POINTS

This section reflects the major points contributed by participants rather than the content from presenters. See meeting materials for presenter content. Additional details of these comments and other points from participants have been captured in the facilitators' individual notes for use in the Aliso Creek Watershed Collaboration Group process.

### Findings: Rapid Response to Desired Outcome Statements Activity

- General approval with minor changes including the addition of recreation, particularly trails.
- The activity sparked discussion on the possibility of competition between projects, need for an overarching structure to facilitate planning, and considerations for long-term project maintenance and feasibility.

### Findings: Understanding and Adjusting Desired Outcome Statements Activity

Feedback Frames were used to gage acceptance of the Desired Outcome statements and provide participants a chance to submit comments/propose changes. This was followed by detailed discussion by the group to make conceptual suggestions for Desired Outcome statements. Major points contributed by participants for each Desired Outcome Statement include:

- Desired Outcome 1 – Stable & Resilient Ecosystem
  - Discussion that the ecosystem is not something different than the watershed or the stream. It is inclusive of upland and riparian areas and should recognize the interconnectedness of all parts of the watershed.

- There was significant discussion surrounding the addition of the term "Functional" to the Desired Outcome statement. Stable is not necessarily desirable if the stability compromises watershed functions. The concept of "functional" sets a clearer trajectory for restoration of the watershed as an integrated system. It is consistent with the concept of "functional" used in Desired Outcome #2.
- Desired Outcome should recognize a balance between water needed to maintain habitat, local water supply diversification, and regulatory drivers.
- Agencies could disagree over the definition of "non-controllable factors" and must be aware of the give and take that is necessary for a project to be implemented.
- Educating the public on the monetary value of quality open space can help with community buy in, and a focus on local funding will save time and resources.

- Desired Outcome 2 – Functional Creek Geomorphology and Flows
  - This Desired Outcome statement is critically important to all other Desired Outcomes and should be re-categorized as an Intermediate Result or Critical Threat Reduction Result.
  - Differences in flow can be perceived by the public through stream aesthetics and water quality (both instream and coastal receiving waters). This supports desired outcomes related to ecosystem restoration and recreation.
  - Hydrologic source controls in tributary watersheds can play a role in both dry weather and wet weather flows.
  - There are limits to what is possible in terms of watershed boundaries/geographic constraints.
- Desired Outcome 3 – Coastal Uses are Restored and Preserved
  - A small demonstration project could drum up support for watershed level efforts.
  - There is conflict between different kinds of "uses" and the values they reflect.
  - Community education is not in the Desired Outcome Statements and should be added.
  - Recreation is not in the Desired Outcome Statements and should be added.
- Desired Outcome 4 – Existing Infrastructure Protected and Water Supply Diversified
  - Existing infrastructure and water supply diversification are two distinct Desired Outcomes.
  - Infrastructure examples need to be defined to prevent bias and approach the problem holistically.
  - Shift from "protection" of today's infrastructure to "supporting" future infrastructure needs. Using smart infrastructure, that meets needs and balances competing interests, could be a way forward.
- Administrative Features of the Aliso Creek Watershed Collaboration Group
  - There are other administrative efforts present which will determine the future of the watershed. We need to figure out how to integrate these different initiatives.
  - The IRWM process can serve this purpose and support projects. The goal of IRWM is to ensure nothing is looked at in isolation. Connections between these initiatives already exist.

## MEETING ATTENDEES

Andy McGuire (SOCWMA), Avery Blackwell (Geosyntec), Milan Mitrovich (Natural Communities Coalition), Hallie Jones (Laguna Coastal Foundation), Christy Suppes (NOCWMA), Dennis Cafferty (El Toro Water District), Mark Tettemer (Irvine Ranch Water District), Kay Havens (El Toro Water District), Michael Beannen (Laguna Blue Belt Coalition), Jinger Wallace (Laguna Blue Belt Coalition), Ray Hiemstra (Orange County CoastKeeper), Charles Baker (CalTrans), Simona Altman (California Department of Fish and Wildlife), Kyle Rice (California Department of Fish and Wildlife), Jennifer Shook (OC Mitigation), Hasan Nouri (Fluvial Tech), Rick Erkeneff (South Coast Water District), Denise Erkeneff (Surfrider Foundation), Grant Sharp (SOCWMA), Ed Almanza (Laguna Ocean Foundation), Cindy Rivers (SOCWMA), Ed Maurer (Sierra Club, OC Group), Moy Yaya (City of Aliso Viejo), Debbie Neev (Laguna Beach County Water District, Executive Committee), Karen Martin (Pacific Planning Group), Drew Atwater (MNWD), Joe Ames (City of Mission Viejo), Eric Smalstig (Geosyntec), Roger Butow (Clean Water Now), Jim Burror (South Orange County Wastewater Authority), Jenna Voss (SOCWA), Mary Vondrak (City of Laguna Beach), Natalia Gaerlan (OC Parks), Richard Gardener (Resident), Robin Lamont (OC Parks), Megan Yoo Schneider (MWDOC, Executive Committee), Aaron Poresky (Geosyntec)

## MEETING MATERIALS

- Meeting presentation: PDF attached to email
- Project map and list: PDF attached to email

## AGENDA (REPEATED FOR CONTEXT)

| Time | Description | Lead & Support |
|---|---|---|
| 9:00 | **Meeting Introduction**<br>• Introductions<br>• Review results of meeting #1 and the goal of meeting #2 | **Lead:** Darren |
| 9:10 | **Activity: Understanding and adjusting Desired Outcome statements**<br>• Vote on each goal statement and provide comments on specific concepts needed<br>• Recap of activity result | **Lead:** Darren<br>**Support:** Chad |
| 10:10 | **Break** | |
| 10:20 | **Activity: map projects and develop initial results chain**<br>• Map projects using post-its<br>• Clarify linkages between project actions and desired outcomes<br>• Signal whether the results chain is representative of the Aliso Creek Watershed Collaboration Group | **Lead:** Darren<br>**Support:** Chad & Jenna |
| 11:20 | **Next Steps**<br>• Understand next steps – start focusing on projects<br>• Agree on proposed date for next meeting | **Lead:** Darren<br>**Support:** Jenna |
| 11:30 | **Adjourn** | |

# MEETING REPORT

## Aliso Creek Watershed Collaboration Group Meeting #3

| | |
|---|---|
| Date: | October 16, 2019 |
| Time: | 9:00 AM – 12:00 PM |
| Location: | Laguna Niguel City Hall, 30111 Crown Valley Parkway, Laguna Niguel, CA 92677 |
| Facilitators: | Darren Haver (University of California Cooperative Extension), Chad Praul (Environmental Incentives) |

## MEETING PURPOSE & OBJECTIVE

**Purpose:** Gain clarity on project types, implementation barriers that can be resolved and expected results of projects as the group begins to move past watershed visioning toward project-specific planning and coordination.

**Objectives**

- Align group understanding of current and future projects including project type, implementation barriers, sequencing and collaboration efforts that are needed to overcome barriers
- Determine watershed-wide and specific project results and success metrics, recognizing that there are knowledge gaps now that will be filled by science efforts
- Agree on the way project groups will be structured so that they enable participation without overwhelming available time

## SUPPORT FOR DECISIONS

In general the group signals its level of support by thumb polling where thumbs up meant that the person can support the idea, thumb sideways indicated general support but a need for review, and thumb down meant the person cannot support the idea. *Results are shown in italics for each decision.*

1. **Desired Outcomes:** Although no vote was taken, the group accepted the Desired Outcomes that were circulated on 10/11/2019 as operational for now.
2. **Project Groups and Meeting Structure:** Although a vote was not taken, it was made clear through group discussion that there was little support for project groups to be defined and selected at this meeting. The group requested that a meeting structure form organically from project-based discussions.

## ACTION ITEMS

| RESPONSIBLE PARTY | DUE DATE | DESCRIPTION |
|---|---|---|
| All participants | November | Watch for email scheduling next meeting in mid/late January |
| Andy & Jenna | November/December | Plan logistics and manage invitations for meeting #4 |
| Chad | November 20 | Circulate updated results chain summary of project types and linkages to operational desired outcomes including metrics. |

## KEY DISCUSSION POINTS

This section reflects the major points contributed by participants rather than the content from presenters. See meeting materials for presenter content. Additional details of these comments and other points from participants have been captured in the facilitators' individual notes for use in the Aliso Creek Watershed Collaboration Group (Aliso Group) process.

## Build understanding of current and future projects

Six (6) members of the group shared their experience regarding current and future project types to generate discussion around the types of projects in the watershed, benefits provided, regulatory review process and associated permit requirements, and barriers that slow implementation.

- **Project Type 1 – Outfall Capture & Recycling**: These types of structural projects manage flows from the upper watershed's developed areas by infiltrating or recycling runoff.
  - **Benefits:** recycled water supply; mitigation of dry weather flows; reducing flows during wet weather
  - **Barriers:** knowledge gaps on necessity of flows, construction, and possible conveyance system overflow
  - **Example permit types or regulatory reviews :** Reg. Board 401, CEQA/NEPA, connection permit from sewerage agency
  - **Group input:**
    - These projects are one approach within a hierarchy of water resources management of reduction, intervention and conservation. This group can serve as a forum to discuss which approach is best.
    - Reduction in unnatural flow has unknown consequences to critical riparian habitat. Finding a balance between human and ecological water use is necessary to move forward with these projects
- **Project Type 2 – Large-scale Restoration Projects:** such as previous USACE Mainstem project
  - **Benefits:** many, including riparian habitat enhancement, invasive species control, barrier removal, infrastructure protection or removal when unnecessary
  - **Barriers:** number and diversity of necessary regulatory review and permits; diversity of agencies that need to be involved/aligned; data gaps
  - **Example permit types or regulatory reviews:** Reg Board 401, USACE 404, CDFW1600, CEQA/NEPA
  - **Group input:**
    - Climate change should be of concern when planning for these types of projects. Planting of new trees, and repurposing runoff to water them, has multiple benefits including recreation, temperature control and carbon sequestration.
    - The ACWHEP structure is not functioning properly and requires a holistic solution due to both its upstream (undercutting) and downstream (erosion) effects. Shifting focus to the stream, instead of the structure, will make this project more feasible.
    - Any large-scale restoration project should focus on local needs, and consider new sources of data to prioritize project elements.
- **Project Type 3 – Habitat Mitigation Projects:** The lower six miles of Aliso Creek, largely through Aliso and Wood Canyon Wilderness Park, provides an opportunity to offset environmental impact from development through riparian and upland habitat restoration. The County manages land in perpetuity, augments habitat for endangered species and seeks to create trails and multi-use areas where possible.
  - **Benefits:** area of habitat enhancement, habitat connectivity, area of invasive species treated; channel geomorphology enhancement
  - **Barriers:** need for regulatory alignment, contract timing vs. growing season, land ownership, and balancing habitat vs. maintenance in flood control channels, trespassing and vandalism are consistent issues.
  - **Example permit types or regulatory reviews :** Reg Board 401, USACE 404, CDFW1600, CEQA/NEPA

- **Group input:** none

- **Project Type 4 –Dairy Fork Wetland Complex (example of a Regional Multi-Benefit Water Quality Basin)**: This multi-benefit project in Aliso Viejo enhanced wetland habitat, improves water quality, and is an example of how collaboration across municipalities, water agencies, and NGOs in Aliso Creek can work. An example is the multi-city maintenance commitment.
  - **Benefits:** wetland habitat, water quality improvement, trash reduction
  - **Barriers:** permitting, funding, and agency alignment.
  - **Example permit types or regulatory reviews :** Reg Board 401, USACE 404, CDFW1600, CEQA/NEPA
  - **Group input:**
    - Identifying who needs to be involved and what needs to be done beforehand will help future projects like this one streamline permitting processes.
- **Project 5 – Aliso Creek Estuary Project**: restore the function of the Aliso Creek Estuary which can act as an indicator to gage the health of the watershed. The next step for this project is engagement of a science team to set achievable ecosystem function parameters and target ranges.
  - **Benefits:** habitat area for aquatic species, coastal WQ improvement, beneficial use protection
  - **Barriers:** include data gaps, number of permits required, and disparate initiatives of government agencies and NGOs.
  - **Example permit types or regulatory reviews :** Reg Board 401, USACE 404, CDFW1600, Rights of Entry, CEQA/NEPA
  - **Group input:** none
- **Project Type 6 – Water Use Efficiency Programs:** MWDOC, in partnership with local water agencies, has intensified their focus on rebate programs aimed at reducing outdoor water use and stress the importance of keeping water on site, as well as reduce dry/wet weather runoff.
  - **Benefits:** unnatural flow reduction, water conservation (local supply gap reduction)
  - **Barriers:** participation during wet years; understanding and promoting behaviors with the highest potential impact
  - **Example permit types or regulatory reviews :** CEQA MND
  - **Group input:**
    - Changing yard gradient and building retention walls could be added to these programs. Sharing data and using technology to understand the quantitative benefits of behavior change.
- **Additional discussion on project types** - One participant suggested Kelp Forest Restoration be considered as a possible project type.

## Summary of Project Results and Connections to Desired Outcomes

Facilitators walked the group through the results chain created from operational Desired Outcomes, review of current planning documents and input from previous meetings. *Please see accompanying Results Chain handout that includes additions suggested during the meeting.*

Suggested changes to project types:

- Add: Distributed green stormwater infrastructure (LID/Greenstreets)
- Add: Research Ecosystem Water Needs
- Focus on two project types: Improving Water Quality and Increasing Water Supply

Suggested changes to intermediate results:

- Water Withdrawals are Aligned with Ecosystem Functions

- Space to Handle Extreme Events (another suggestion: Larger Flow Path for Climate)
- Eutrophication Reduced
- Dissolved Oxygen Increased
- Integrate & Protect Existing Infrastructure - Hardscape is necessary; however, it needs to be integrated into the larger system. We need to look at balance between water capture, water withdrawal, and ecosystem services to ensure all needs are met. Infrastructure should only be implemented in areas where the watershed is unable to mitigate pollutant loads.

Suggestions related to metrics:

- A better understanding of the state of the science is needed before moving forward with specific metrics and target ranges for the estuary.

General comments:

- There is a need for runoff treatment, but outfall capture may adversely affect riparian habitat.
- There was debate about multi-use paths being distracting from the core need (because of land acquisition and high ebike speeds) but some agencies see this as their core mission.
- Make clear that left side of the Results Chain is only projects (currently it is a mix of actions and outcomes)

### Determine structure of upcoming project coordination groups

Facilitators presented an analysis of interest group structure focusing on project type, geography, and common barriers. These were then analyzed to understand the level of effort, attendance conflicts, and decision-making potential inherent in each alternative. Participant input focused on:

The group is not ready to break out into smaller interest groups yet, and the next meeting does not require this. Transparency is important. An ad hoc approach to group formation may be necessary.

- Group meetings should be about 2 hours long (3 hours was too long).
- If interest groups are necessary, consider breakouts within the meeting and report back.
- Consider a virtual collaboration site with calendar, all documents and comment capability.

## MEETING ATTENDEES

Andy McGuire (SOCWMA), Avery Blackwell (Geosyntec), Christy Suppes (NOCWMA), Michael Gaskins (El Toro Water District), Kay Havens (El Toro Water District), Michael Beanan (Laguna Blue Belt Coalition), Charles Baker (CalTrans), Simona Altman (California Department of Fish and Wildlife), Kyle Rice (California Department of Fish and Wildlife), Jennifer Shook (OC Mitigation), Hasan Nouri (Fluvial Tech), Grant Sharp (SOCWMA), Ed Almanza (Laguna Ocean Foundation) Michael Sappingfield (Sierra Club), Moy Yaya (City of Aliso Viejo), Debbie Neev (Laguna Beach County Water District, Executive Committee), Drew Atwater (MNWD), Joe Ames (City of Mission Viejo), Eric Smalstig (Geosyntec), Roger Butow (Clean Water Now), Amber Baylor (South Orange County Wastewater Authority), Jenna Voss (SOCWMA), Mary Vondrak (City of Laguna Beach), Natalia Gaerlan (OC Parks), Richard Gardener (Resident), Robin Lamont (OC Parks), Rachel Waite (MWDOC), Aaron Poresky (Geosyntec), Lisa Austin (Geosyntec), Hal Ghafari (City of Laguna Niguel), John Ehlers (Laguna Blue Belt Coalition), Jennifer Turner (California Department of Fish and Wildlife), Christine Medak (United States Fish and Wildlife Service), Lesley Hill (OCTA), Scott Thomas (OC Parks), Susan Broduer (OC Parks), Giles Matthews (OC Infrastructure), Samantha Pilon (OC Infrastructure), Rupert Barnett (CSUF), Amanda Carr (OC Environmental Resources), Tracy Ingebrigsten (OC Countywide Compliance), Steve Dishon (SCWD)

## MEETING MATERIALS

- Meeting presentation: PDF attached to email
- Results Chain with participant edits: PDF attached to email

## AGENDA (REPEATED FOR CONTEXT)

| Time | Description | Lead & Support |
|---|---|---|
| 9:00 | **Introduce Meeting**<br>• Review agenda and results of previous meeting | **Lead:** Darren |
| 9:25 | **Build understanding of current and future project types**<br>• Presenters describe project types and direct results while team captures contributions from participants<br>• Participants role: contribute common barriers, typical benefits and how collaboration may be helpful | **Lead:** Darren<br>**Support:** Chad |
| 11:05 | **Break** | |
| 11:15 | **Determine structure of upcoming project coordination groups**<br>• Presenter describes analysis of possible structures and recommends one<br>• Participants role: provide feedback on recommendation and select one | **Lead:** Chad<br>**Support:** Darren |
| 11:45 | **Next Steps**<br>• Summarize plan for next meeting and offer recommended date(s)<br>• Participants role: confirm next meeting date | **Lead:** Darren |
| 12:00 | **Adjourn** | |

# MEETING REPORT

## Aliso Creek Watershed Collaboration Group Meeting #4

| | |
|---|---|
| Date: | January 8, 2020 |
| Time: | 10:00 AM – 12:00 PM |
| Location: | Southern California Coastal Water Research Project, 3535 Harbor Blvd #110 Costa Mesa, CA 96262 |
| Facilitators: | Darren Haver (University of California Cooperative Extension), Chad Praul (Environmental Incentives – on phone) |

## MEETING PURPOSE & OBJECTIVE

**Purpose:** Memorialize the key collaboration tools developed for the Aliso Creek Watershed Collaboration Group and present watershed studies conducted, and data gaps identified, to further discussion on the state of the science in the watershed.

### Objectives

- Briefly recap key collaboration tools developed and input received during the first three Aliso Creek Watershed Collaboration Group meetings.
- Get the group up to speed on watershed studies that have been done and are ongoing, and identify data gaps/needs for other studies. Help attendees understand how these studies tie together to support development and permitting of projects.
- Provide opportunity for participants to present project ideas to spark collaboration on benefits and approaches to barriers.

## SUPPORT FOR DECISIONS

The purpose of this meeting was to share information regarding the state of the science in the Aliso Creek Watershed and identify data gaps. No decisions were made by the group at this meeting.

## ACTION ITEMS

| RESPONSIBLE PARTY | DUE DATE | DESCRIPTION |
|---|---|---|
| All participants | January 31 | Review attached PowerPoint presentation and provide feedback to the facilitation team |
| All Participants | February | Watch for email scheduling next meeting in mid/late March |
| County Staff | January/February | Develop living project list and upload meeting information on the SOCWMA website. |
| Facilitation Team | 3 weeks before March meeting | Incorporate Stakeholder input into Reference Guide development |
| Facilitation Team | 1 week before March meeting | Complete and distribute Reference Guide to Aliso Creek Stakeholders |

## KEY DISCUSSION POINTS

This section reflects the major points contributed by participants rather than the content from presenters. See meeting materials for presenter content. Additional details of these comments and other points from participants have been captured in the facilitators' individual notes for use in the Aliso Creek Watershed Collaboration Group (Aliso Group) process.

### Recap Aliso Creek Watershed Collaboration Group Framework Development

Facilitators summarized the progress made by the group through its first three (3) meetings including the development of working desired outcomes, project actions and a set of intermediate results that explain the logical connection between likely restoration actions and desired outcomes. This information is summarized in a diagram known as a Results Chain. The facilitation team also updated the group on the development of a living project list that captures ideas for projects and their current stage of development. This database will be housed on the SOCWMA's website (www.southocirwm.org). A "Reference Guide" will serve as the living documentation of the progress made by the Aliso Group.

General Comments:

- Need to define the role of this group in identifying and developing projects in a holistic manner. Application of this process to other watersheds should be considered. Current focus of the group is on trust building and collective development of project ideas.
- Need to consider how the permitting/CEQA process would apply to master plans or projects. We anticipate discussing permitting options in the next meeting.
- A participant noted that discussions will be more insightful, and questions will be more relevant if an advanced copy of meeting materials (presentations, handouts, etc.) is distributed at least 3 days before the meeting.

### State of the Science in the Aliso Creek Watershed

Aaron Poresky (Geosyntec) provided an overview of current and complete studies in the watershed and Eric Stein (SCCWRP) presented on the Flow Ecology Special Study. This information was provided to inform stakeholders of the state of the science in the watershed and spark conversation around possible data gaps – both key areas of concern previously identified by the Aliso Group.

- **Summary of Participant Input on Technical Topics (topics that did not elicit comments are not listed)**
  - **Climate**
    - Historic baseline for temperature and precipitation from the last 30 years may provide an incomplete picture of climate.
    - In support of considering future climate projections and how these would influence habitat/environmental conditions, consider impacts of vegetation on localized climate, precipitation and hydrology.
    - MWDOC climate projections could be of use.

- **Water Supply and Water Conservation**
  - Future water usage projections indicate continued reduction in overall water use despite expected population growth. Clarification as to how recycled water fits into this trend is needed.
  - Dependence of existing mitigation habitat on current flow levels needs to be assessed before flow reduction takes place.
- **Urban Runoff and Pollutant Loading**
  - The proposed Reference Guide should outline the various County databases/web services available to the public. It should provide an explanation of the QA/QC process that these data go through. Some are presented in real-time without QA/QC, other data are QA/QC'd before they are posted.
- **Streamflow**
  - Discrepancies in flow data between Jeronimo Rd. and Coastal Treatment Plant (CTP) monitoring stations should be looked at. This likely relates to real-time data that are not QA/QC'd before posting. Presenters clarified that only QA/QC'd data are used in analyses.
    - The structure of this data system and process used for QA could be useful content for the Reference Guide.
  - There is a need for more flow monitoring stations in Aliso Creek. The Smart Watershed Network will address this issue and results of the project will be made public.
  - The beach sand berm at the mouth of Aliso Creek protects the water quality of the marine area. The number of breached days per year may be a good indicator of a healthy system.
  - Dependence of existing mitigation habitat on current flow levels needs to be assessed before flow reduction takes place.
- **Geomorphology**
  - Arundo removal at specific reaches throughout the creek over the past several years has resulted in geomorphological changes. This may require that the 2014 geomorphology model be updated. This is a potential data gap.
  - Creation of basins for flood control and erosion mitigation is needed throughout the watershed.
- **Habitat and Species**
  - Through restoration efforts, riparian and upland habitat have started to establish along the stream. The group needs to understand how this has changed stream hydrology and may warrant biological studies to establish a new baseline. The riparian corridor has changed the most since previous biological surveys. Upland areas have changed, but not as much.
- **Estuary**
  - A holistic definition of a healthy watershed will determine the data needed and is essential before moving forward.

- **Flow Ecology Special Study**
  - Holistic suite of monitoring tools will provide information on water quality (CSCI, ASCI), habitat (higher level megafauna), and landscape level (remote sensing, land use data) conditions.
  - Data gaps in the Flow Ecology Special Study for the entire watershed management area include comprehensive stream flow gaging, especially at confluence points, and continuous water temperature data. Addressing these data gaps will help in answering questions including:
    - How do we anticipate streamflow will respond to ongoing water conservation efforts and projected climate change?
    - What flow ranges are needed to support desired habitat?
    - How does temperature influence these factors?

## MEETING ATTENDEES

Andy McGuire (SOCWMA IRWM), Avery Blackwell (Geosyntec), Christy Suppes (OC Public Works – NOCWMA), Kay Havens (El Toro Water District, Executive Committee), Michael Beanan (Laguna Blue Belt Coalition), Charles Baker (Caltrans), Simona Altman (California Department of Fish and Wildlife), Kyle Rice (California Department of Fish and Wildlife), Hasan Nouri (Fluvial Tech), Grant Sharp (OC Public Works – SOCWMA), Ed Almanza (Laguna Ocean Foundation), Debbie Neev (Laguna Beach County Water District, Executive Committee), Drew Atwater (MNWD), Joe Ames (City of Mission Viejo), Eric Smalstig (Geosyntec), Roger Butow (Clean Water Now), Amber Baylor (South Orange County Wastewater Authority), Jenna Voss (SOCWMA IRWM), Richard Gardener (Resident), Robin Lamont (OC Parks), Rachel Waite (MWDOC), Aaron Poresky (Geosyntec), John Ehlers (Laguna Blue Belt Coalition), Lesley Hill (OCTA), Samantha Pilon (OC Public Works - OC Infrastructure), Tracy Ingebrigtsen (OC Public Works – Countywide Compliance), Steve Dishon (SCWD), Mark Wildermuth (WEI Water), Rich Wildman (Geosyntec), Eric Hull (OC Parks), Mitch Mysliwiec (Larry Walker Associates), Jessie Lane (California Department of Fish and Wildlife), Josie Bennet (Laguna Canyon Foundation), Sandra Jacobson (CalTrout), Rick Erkeneff (SCWD, Executive Committee), Denise Erkeneff (SOC Surfrider), Laura Rocha (MNWD), Mike Whipple (Orange County Watershed Education Center), Amber Shah (City of Laguna Hills), Devin Slaven (City of Lake Forest), Bryan Pastor (OC Public Works - SOCWMA), Cindy Rivers (OC Public Works - SOCWMA), Mark Tettemer (IRWD), Ali Fayad (OC Public Works – Flood Programs), Katie Irving (SCCWRP), Hallie Jones (Laguna Canyon Foundation), Kris Taniguchi-Quan (SCWRRP), Eric Stein (SCCWRP)

## MEETING MATERIALS

- Meeting presentation: PDF attached to email
- Desired Outcomes handout: PDF attached to email

## AGENDA (REPEATED FOR CONTEXT)

| Time | Description |
|---|---|
| 10:00 | **Introduce Meeting**<br>• Round-table introductions and review agenda<br>• Present purpose and goals of the meeting |
| 10:15 | **Recap Aliso Creek Watershed Collaboration Group Framework Development**<br>• Review the collaboration tools developed during previous meetings<br>• Describe ongoing updates and usage of living project list<br>• Summarize key input received during the collaboration group |
| 10:35 | **State of the Science in the Aliso Creek Watershed**<br>• High-level overview of current and complete studies (by Aaron Poresky)<br>• Medium-depth presentation of Flow Ecology Study (by Eric Stein)<br>• Discuss data gaps identified |
| 11:40 | **Project Round-table**<br>• Participants may present project ideas for discussion |
| 12:00 | **Adjourn** |

## APPENDIX C: IRWM PLAN GOALS

**Polly Welsch**

**From:** ISDOC <hbaez@mwdoc.com>
**Sent:** Wednesday, April 28, 2021 9:50 AM
**To:** Polly Welsch
**Subject:** TOMORROW! - ISDOC Quarterly Luncheon - April 29

Having trouble viewing this email? Click here

ISDOC

**Independent Special Districts of Orange County**

**When**
Thursday, April 29, 2021 at
11:30AM to 1:00PM PDT

Add to Calendar

Please join us tomorrow for the next
**Quarterly "Luncheon" Meeting of the Independent Special Districts of Orange County (ISDOC)** via Zoom on
**Thursday, April 29, 2021** from
**11:30 a.m. - 1:00 p.m.**

# John Wayne Airport Overview - Sunnier Skies Ahead

Featuring guest speaker ...

## Rick Francis
## Assistant Airport Director

Please join us to hear to from Rick Francis, Assistant Airport Director of the John Wayne Airport. Mr. Francis will provide a high-level overview of the airport's operations, including the impacts of, and response to, the COVID-19 pandemic. We will look ahead to exciting new opportunities for airport guests as we envision sunnier skies ahead. This is sure to be a very timely and informative program!

Our ISDOC Member Spotlight this quarter is the **Yorba Linda Water District**, who will highlight the work they've been doing to mitigate PFAS and share the success of wildfire hardening with their Heli-Hydrant and Natural Gas Generator. They have a fantastic video that you won't want to miss!

While we are unable to meet for lunch in person, we will still have the same great content. As the meeting time is the same, feel free to enjoy your lunch while learning from your fellow ISDOC members, and hearing timely updates that affect special districts locally and statewide.

**Once you register, the Zoom login information will be sent via email confirmation.**

**Register Now!**

For additional information regarding this event, please contact Heather Baez at (714) 593-5012.

**Sincerely,**

*Mark Monin*

President

Independent Special Districts of Orange County

**Mailing Address**

P.O. Box 20895
Fountain Valley, CA 92728

**Meeting Location**

MWDOC/OCWD
18700 Ward Street
Fountain Valley, CA 92708

(714) 963-3058
(714) 964-5930 *fax*

www.mwdoc.com/isdoc



# Executive Committee Meeting

Tuesday, May 4, 2021
7:30 a.m.

**The next meeting of the ISDOC Executive Committee will be via teleconference only. The MWDOC/OCWD offices are closed to the public. Please use the information below to access the meeting.**

Join Zoom Meeting

https://zoom.us/j/99287384726

Dial by your location
669 900 9128 US (San Jose)
877 853 5247 US Toll-free
888 788 0099 US Toll-free

Meeting ID: 992 8738 4726

## AGENDA

**I. Welcome, Introductions – 7:30 am**

**[Please mute yourself when not speaking. Please raise hand on Zoom if you have a question or comment.]**

**II. Approval of Minutes – 7:35 am**

- Consider approval of the minutes for the April 6, 2021 meeting.

**III. Public Comments on items not on the agenda- 7:40 am**

**IV. New Business – 7:45 am**

- Discussion of ISDOC Web Committee Results
- Topics for the next Quarterly Luncheon Program (Thursday, 7/29/2021)

**V. Old Business – 8:00 am**

- Review of 4/29/2021 Quarterly Lunch Program – Director Schafer

**VI. Treasurer's Report – 8:05 am – Director Green**

- Report of accounts

**VII. CSDA Report – 8:10 am – Director Schafer/Chris Palmer**

- Receive, discuss and file the CSDA Report

**VIII. LAFCO Report – 8:15 am – Director Fisler**

- Receive, discuss and file the LAFCO report

**IX. ACWA Report – 8:20 am – Director Jacobs**

- Receive, discuss and file the ACWA report

**X. OCCOG Report – 8:25 am – Director Scheafer**

- Receive, discuss and file OCCOG report

**XI. Orange County Operational Area Report - 8:30 am – Vicki Osborn**

- Receive, discuss and file OCOA report

**XII. Subcommittee Reports – 8:35 am**

- Programs – Director Schafer
- Membership - Director McVicker
- Legislative – Director Jones

**XIII. Adjourn – 8:40 am**

Independent Special Districts of Orange County

# ISDOC Executive Committee (Virtual Meeting via Zoom)

April 6, 2021

## Minutes

I. Welcome

President Mark Monin called the meeting to order at 7:31 a.m.

Mark Monin, President (ETWD)
Arlene Schafer, 1st Vice President (CMSD) – **Not present**
Bob McVicker, 2nd Vice President (MWDOC)
Brooke Jones, 3rd Vice President (YLWD)
Greg Mills, Secretary (SWD)
Bill Green, Treasurer (SCWD)
Saundra Jacobs, Immediate Past President (SMWD)

Others Present:

Larry Dick, Board Member (MWDOC)
Mike Scheafer, Board Member (CMSD)
Stacy Taylor, Water Policy Manager (Mesa WD)
Heather Baez, Government Affairs Manager (MWDOC)
Laura Heflin, Administrative Assistant (Serrano WD)
Brooke Jones, Board Member (YLWD)
Chris Palmer, Senior Public Affairs Field Coordinator (CSDA)
Hilaire Shioura, Placentia Library Trustee (PLD)
Kay Havens, Director (ETWD)
Jim Fisler, Director (Mesa WD)
Alison Martin (YLWD)
Alicia Dunkin (OCWD)
Paul Mesmer (Sunset Sanitation District)
Carolyn Emery, Executive Officer (LAFCO)
Raymond Barragan, Assistant Executive Officer (LAFCO)
Jerry Vilander, General Manager (SWD)
Gayle Carline, Placentia Library Trustee (PLD)
William Nelson
Tina Dubuque (MWDOC)
Pari Francisco (MWDOC)

II. Minutes

The minutes of the March 2, 2021 meeting were reviewed and unanimously approved via roll call vote with a motion made by Director Jacobs and seconded by Director Green.

III. Public Comments

- Carolyn Emery introduced Raymond Barragan the new Assistant Executive officer for LAFCO who will be participating moving forward. Raymond provided a brief overview of his background. Director Mills welcomed Raymond and thanked everybody present for their active participation.

IV. New Business

- Gayle Carline introduced herself as a candidate for the 2nd VP position and stated that she is a trustee of the Placentia Library District and provided a brief description of her experience and background including her qualifications for the Board, in particular her software engineering experience. Gayle was thanked for providing this information.
- Paul Mesmer introduced himself as a candidate for the 2nd VP position and thanked the Board for their consideration. He will be retiring on Friday and will have much more disposable time for the public sector. His experience includes his work with the Sons of the American Legion and his career with Sunset Sanitation District. He was thanked for providing the Board with this information.
- Bob McVicker introduced himself as candidate for the position of 2nd VP and stated that he is a longtime water engineer and currently a Director on the Board of MWDOC and discussed his educational background. He has worked extensively with IRWD and other water districts. Director McVicker asked for the Board's support. He was thanked for his time.
- Director Jacobs expressed her support for Gayle Carline and stated that ISDOC has not had a Placentia Library representative on the Board for about ten years. Additionally, women are less represented on the ISDOC Board.
- Director Fisler stated that he knew all three candidates and was happy with the diversity represented. Paul Mesmer has extensive experience with shared services and stated that he is asking for support for him.
- Director Mills expressed his support of Paul Mesmer and echoed Director Fisler's comments in terms of diversity and his extensive experience with Special Districts and CSDA.
- Director Green spoke about the importance of MWDOC representation and diversity and encouraged the other candidates to stay involved but expressed support for Bob McVicker.
- Director Dick stated that Director McVicker has a lot to offer the ISDOC Board.

- Following discussion, the Directors voted to appointed Director Bob McVicker to the position of 2nd V.P. The other candidates were encouraged to continue their participation and thanked for their time.

V. Old Business

- Chris Palmer provided the committee with an update on Streamline's services and noted that they are ready to meet with the Technology Committee. Information has been forwarded. The cost to ISDOC to create and host the website is free of charge. If you are interested in participating on the IT Committee, please email President Monin. An update will be provided at the next meeting.
- President Monin provided an update on reaching out to local elected officials on the Federal and State levels in order to boost ISDOC and CSDA presence and requested comments on the letter. He thanked Stacy and Chris for their assistance with this draft. Director Jacobs thanked Stacy and Chris for their participation in the process and stated that she thought that the letter was great and did not have any suggested changes. Director Mills stated that he thought the letter was very well done. Director Mills, Green, Jacob, Jones, McVicker and Monin voted unanimously to approve the letter.

VI. Treasurer's Report – Director Green

- Director Green reported that there is currently $12,312.54 in the Union Bank account as of April 2nd.

VII. CSDA Report – Chris Palmer

- Chris Palmer provided an extensive CSDA report and stated that they are asking that Special Districts have the same access to COVID-19 funds as other Districts. May 18 and 19 are special legislative days. The buy one get one free option is being offered. More information can be found at the CSDA website. PFAS is hosting a free webinar workshop on PFAS on April 20th. Award nominations for chapter and individual submission period just started through May 14th. There are nine candidates for the CSDA Southern Network, and ballots will be going out in May.

VIII. LAFCO Report – Director Fisler

- Director Fisler announced that the next LAFCO meeting is scheduled for May 12th at 8:15 a.m. and you can visit www.oclafco.org for more information. The April meeting was cancelled.

IX. ACWA Report – Director Jacobs

- Director Jacobs reported that Cathy Green is going to run for the ACWA Vice President seat. The election for this won't be until December which will be a virtual conference. All members will be encouraged to attend. Director Charles Gibson is running for the ACWA Region 10 Chair. For 2021, it appears that the majority of the agencies of ACWA are going to stay on the virtual level. The Spring Conference is May 12 and 13. There are quite a few important legislative items including AB-1434 that are particularly important to ACWA. Director Green reported that Cal Desal meetings will be held at the ACWA meeting, and he encouraged participation.

X. OCCOG Report – Director Scheafer

- Director Scheafer reported that OCCOG meetings have been held mostly in closed session and anticipates that this will continue going forward. Recommendations regarding legislation are on the OCCOG website. Director Scheafer reported that he will be happy to report out on the closed session results when he is able to.

XI. Orange County Operational Area Report – Mark Monin

- No report given.

XII. Subcommittee Reports

- Programs – President Monin reported that Richard Francis, Assistant Airport Director at John Wayne Airport, will speak at the next quarterly luncheon. This will include a high-level overview of the airport's operations. The Special District highlighted will be the YLWD discussing the PFAS system to handle the groundwater and natural gas generators to ensure reliability in the event of electricity loss. Director Mills queried Director Jones about other reliability sources which may be in place.
- Membership - Director McVicker thanked the Board for their support and looks forward to working with staff.
- Legislative – Director Jones reported on legislation including the written legislative report previously submitted. HR 131, AB 1434 and other bills were highlighted. Director Jacobs noted that sample letters are available on the website. Director Mills reported that we need to watch AB 622 closely as this may be a very expensive proposition and discussed the impacts of mercury. It is important to be cognizant of the related items. Stacy thanked Director Jones for his very informative presentation and noted that Mesa Water does have some concern with SB 323 and is suggesting amendments. She is happy to share these amendments. Director Jacobs thanked Stacy for her comments. President Monin thanked Director Jones for his thorough presentation.

XIII. Adjourn: President Monin thanked the various attendees for their assistance and participation and reminded attendees of the upcoming meetings. The quarterly meeting is scheduled for April 29th at 11:30 a.m. to 1:00 p.m. The meeting adjourned at 8:35 a.m.

Signed:_____

ISDOC Secretary

Date: April 7, 2021

# AGENDA

**Friday, May 7, 2021**
**7:30 a.m. - 9:00 a.m.**

Register:
**https://us06web.zoom.us/meeting/register/tJwqfu-gpjopH92sCzkZjzx9g_HoaLrdDzDn**

## 1. Welcome

- Cathy Green, Orange County Water District

## 2. Housekeeping & Meeting Etiquette

## 3. Pledge of Allegiance

## 4. Program:

- Sandy Kerl, San Diego County Water Authority General Manager: Current Perspectives and Future Prospects

## 5. Reports

- Association of California Water Agencies (ACWA) Report – Cathy Green, Orange County Water District

## 6. Adjourn

……..……..

***Next WACO Meeting***

Friday, June 4, 7:30 a.m. via Zoom

***Next WACO Planning Committee Meeting***

Tuesday, May 18, 7:30 a.m. via Zoom


**Mailing Address**
P.O. Box 8300
Fountain Valley, CA 92708

**Meeting Location**
Via Zoom

(714) 378-3200
(714) 963-0291 *fax*

www.ocwd.com/news-events/events/waco
www.mwdoc.com/waco

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/orangecountywater

**WACO Planning Committee**
**Tuesday, May 18, 2021**
**7:30 A.M.**

**Join Zoom Meeting**
**https://zoom.us/j/92882659982**

**Meeting ID: 928 8265 9982**
**Phone Audio: 669-900-9128**

# AGENDA

## WELCOME

## ACTION ITEMS

1. June 4 WACO meeting *(Virtual)*
   - Topic: Comprehensive Water Supply Update
   - Speaker: Demetri Polyzos, Met
   - Reports: ACWA, Met, CSDA
     - Confirm presentation details/talking points
     - Confirm reports

2. July 2 WACO meeting *(Virtual)*
   - Topic: South Coast Water District Desal & Tunnel Project Update
   - Speaker: Rick Shintaku, SCWD
   - Reports: ACWA, Met
     - Confirm presentation details/talking points
     - Confirm reports

## DISCUSSION ITEMS

1. Discuss potential topics for future meetings *(Most likely virtual)*

2. Future topics for virtual and in person meetings
   - Tim Quinn's memoir: 40 years of water policy (Brooke Jones)
   - Water storage in California with Ellen Hannak/Jay Lund (Karl Seckel)
   - Delta efforts with Delta Stewardship Council (Karl Seckel)
   - New MWD GM – Fall (Al Nederhood)
   - Balance SGMA with food production and water supply (Karl Seckel)
   - What does reduced reliance on the Delta mean for SoCal? (Peer Swan)
   - Update on Prop 1 funding (Larry Dick)
   - Huntington Beach desal (Peer Swan)
   - Various MWD Plans: Urban Water Management Plan (Bob McVicker), Integrated Water Resources Plan– Brad Coffey (Bob McVicker/Don Froelich), Local Resources Plan (Peer Swan)
   - Ways water districts add to their income stream w/o rate payers (Larry Dick)
   - 1,2,3-TCP in the Central Valley (Cathy Green)
   - Extreme dry/fire conditions - YLWD Heli-hydrants/OCFA (Mark Monin)

3. Discussion of May 7 meeting:
   - Sandy Kerl, San Diego County Water Authority General Manager: Current Perspectives and Future Prospects

## INFORMATIONAL ITEMS

1. Please let staff know if there is anyone who should be added to or removed from the planning meeting invite list.

2. Please note Zoom meeting ID and meeting link changes monthly for WACO Meetings; However, the Planning Meetings for WACO are the same link.

## ADJOURN


**Mailing Address**
P.O. Box 20895
Fountain Valley, CA 92728

**Meeting Location**
Virtual - Zoom

(714) 378-8232
(714) 963-0291 *fax*

www.mwdoc.com/waco
www.ocwd.com/news-events/events/waco

**DATES TO REMEMBER**

**MAY/JUNE 2021**

1. May 27 – 9:00 a.m. – SLDA Module 4 Training
2. May 27 – 12 noon – South County Agencies Meeting
3. May 28 - 12 noon – Pres/VP/GM Meeting
4. May 28 – 12 noon – South Orange County Economic Coalition
5. May 31 – MEMORIAL DAY – DISTRICT OFFICE CLOSED
6. Jun 1 – 7:30 a.m. – ISDOC Executive Committee
7. Jun 1 – 10:00 a.m. – RRC Meeting
8. Jun 2 – 8:30 a.m. – MWDOC/MET Directors Workshop
9. Jun 3 – 8:30 a.m. – SOCWA Board Meeting
10. Jun 4 – 7:30 a.m. - WACO
11. Jun 4 – DISTRICT OFFICE CLOSED
12. Jun 4 – OC Water Summit (Disneyland Grand California Hotel)
13. Jun 7 – 1:30 p.m. – SOCWMA Management Committee
14. Jun 9 – 8:15 a.m. – LAFCO
15. Jun 9 – 8:30 a.m. – MWDOC Admin/Finance Committee
16. Jun 10 – 8:30 a.m. – SOCWA Engineering Committee
17. Jun 11 – 12 noon – Pres/VP/GM Meeting
18. Jun 14 – 8:30 a.m. – MWDOC Planning/Operations Committee
19. Jun 14 – 9:00 a.m. – Agenda Review
20. Jun 15 – 7:30 a.m. – WACO Planning Committee
21. Jun 15 – 10:30 a.m. – SOCWA Finance Committee
22. Jun 16 – 8:30 a.m. – MWDOC Board Meeting
23. Jun 17 – 8:30 a.m. – SAC Meeting
24. Jun 17 – 10:30 a.m. – MWDOC Managers Meeting
25. Jun 17 – 12 noon – WateReuse Meeting

26. Jun 18 – DISTRICT OFFICE CLOSED
27. Jun 21 – 7:30 a.m. – Regular Engineering/Finance Committee
28. Jun 24 – 7:30 a.m. – Regular Board Meeting/Public Hearing
29. Jun 25 – 12 noon – Pres/VP/GM Meeting
30. Jun 29 – 10:00 a.m. – RRC Meeting

# EL TORO WATER DISTRICT
## Glossary of Water Terms

**Accumulated overdraft:** The amount of water necessary to be replaced in the intake area of the groundwater basin to prevent the landward movement of ocean water into the fresh groundwater body.

**Acre-foot, AF:** A common water industry unit of measurement. An acre-foot is 325,851 gallons, or the amount of water needed to cover one acre with water one foot deep. An acre-foot serves annual needs of two typical California families.

**ACWA:** Association of California Water Agencies.
A statewide group based in Sacramento that actively lobbies State and Federal Government on water issues.

**Advanced treatment:** Additional treatment processes used to clean wastewater even further following primary and secondary treatment. Also known as tertiary treatment.

**AFY:** Acre-foot per year.

**Alluvium:** A stratified bed of sand, gravel, silt, and clay deposited by flowing water.

**AMP:** Allen McCulloch pipeline.

Major pipeline transporting treated water to water districts between Yorba Linda, where it starts to El Toro Water District reservoir, where it terminates.

**Annexation:** The inclusion of land within a government agency's jurisdiction.

**Annual overdraft:** The quantity by which the production of water from the groundwater supplies during the water year exceeds the natural replenishment of such groundwater supplies during the same water year.

**Aqueduct:** A man-made canal or pipeline used to transport water.

**Aquifer:** An underground geologic formation of rock, soil or sediment that is naturally saturated with water; an aquifer stores groundwater.

**Arid:** Dry; deserts are arid places. Semi-arid places are almost as dry as a desert.

**Artesian:** An aquifer in which the water is under sufficient pressure to cause it to rise above the bottom of the overlying confining bed, if the opportunity is provided.

**Artificial recharge:** The addition of surface water to a groundwater reservoir by human activity, such as putting surface water into recharge basins. (See also: groundwater recharge and recharge basin.)

**AWWA** American Water Works Association
Nationwide group of public and private water purveyors and related industrial suppliers.

**Base flow:** The portion of river surface flow which remains after deduction of storm flow and/or purchased imported water.

**Bay-Delta**: The Sacramento-San Joaquin Bay-Delta is a unique natural resource of local, state and national significance. The Delta Is home to more than 500,000 people; contains 500,000 acres of agriculture; provides habitat for 700 native plant and animal species; provides water for more than 25 million Californians and 3 million acres of agriculture; is traversed by energy, communications and transportation facilities vital to the economic health of California; and supports a $400 billion economy.

**BIA:** Building Industry Association.

**Biofouling:** The formation of bacterial film (biofilm) on fragile reverse osmosis membrane surfaces.

**Biosolids**: Solid organic matter recovered from a sewage treatment process and used especially as fertilizer.

**BMP:** Best Management Practice. An engineered structure or management activity, or combination of these, that eliminates or reduces adverse environmental effects.

**Brackish water:** A mixture of freshwater and saltwater.

**Brown Act:** Ralph M. Brown Act enacted by the State legislature governing all meetings of legislative bodies. Also know as the Open Meeting requirements.

**Canal:** A ditch used to move water from one location to another.

**CASA:** California Association of Sanitation Agencies The sanitation equivalent of ACWA concerned solely with issues affecting the treatment and disposal of solid waste and wastewater.

**CEQA:** California Environmental Quality Act.

**CERCLA:** Comprehensive Environmental Response, Compensation and Liability Act. This federal law establishes the Superfund program for hazardous waste sites. It provides the legal basis for the United States EPA to regulate and clean up hazardous waste sites, and if appropriate, to seek financial compensation from entities responsible for the site.

**CFS:** Cubic feet per second.

**Chloramines:** A mixture of ammonia and chlorine used to purify water.

**Clarify:** To make clear or pure by separation and elimination of suspended solid material.

**Coagulation:** The clumping together of solids so they can more easily be settled out or filtered out of water. A chemical called aluminum sulfate (alum) is generally used to aid coagulation in water treatment and reclamation.

**Coastkeepers**: A non-profit organization dedicated to the protection and preservation of the marine habitats and watersheds of Orange County through programs of education, restoration, enforcement and advocacy.

**Colored water:** Groundwater extracted from the basin that is unsuitable for domestic use without treatment due to high color and odor exceeding drinking water standards.

**Condensation:** The process of water vapor (gas) changing into liquid water. An example of condensation can be seen in the tiny water droplets that form on the outside of a glass of iced tea as warmer air touches the cooler glass.

**Confined aquifer:** An aquifer that is bound above and below by dense layers of rock and contains water under pressure.

**Conjunctive use:** Storing imported water in a local aquifer, in conjunction with groundwater, for later retrieval and use.

**Contaminate:** To make unclean or impure by the addition of harmful substances.

**CPCFA:** California Pollution Control Financing Authority. State agency providing funds for wastewater reclamation projects.

**Crisis:**
1. **a:** The turning point for better or worse **b:** a paroxysmal attack of pain, distress, or disordered function **c:** an emotionally significant event or radical change of status in a person's life <a midlife *crisis*>
2. The decisive moment (as in a literary plot)
3. **a:** An unstable or crucial time or state of affairs in which a decisive change is impending; *especially* **:** one with the distinct possibility of a highly undesirable outcome <a financial *crisis*> **b:** a situation that has reached a critical phase

**CTP** Coastal Treatment Plant

**CWPCA** California Water Pollution Control Association. A 7000 member non-profit educational organization dedicated to water pollution control.

**Dam:** A barrier built across a river or stream to hold water.

**Decompose:** To separate into simpler compounds, substances or elements.

**Deep percolation:** The percolation of surface water through the ground beyond the lower limit of the root zone of plants into a groundwater aquifer.

**Degraded water:** Water within the groundwater basin that, in one characteristic or another, does not meet primary drinking water standards.

**Delta:** Where the rivers empty; an outlet from land to ocean, also where the rivers deposit sediment they carry forming landforms.

**Delta Vision**: Delta Vision is intended to identify a strategy for managing the Sacramento-San Joaquin Delta as a sustainable ecosystem that would continue to support environmental and economic functions that are critical to the people of California.

**Demineralize:** To reduce the concentrations of minerals from water by ion exchange, distillation, electro-dialysis, or reverse osmosis.

**De-nitrification:** The physical process of removing nitrate from water through reverse osmosis, microfiltration, or other means.

**Desalting (or desalination):** Removing salts from salt water by evaporation or distillation. Specific treatment processes, such as reverse osmosis or multi-stage flash distillation, to demineralize seawater or brackish (saline) waters for reuse. Also sometimes used in wastewater treatment to remove salts other pollutants.

**Desilting:** The physical process of removing suspended particles from water.

**Dilute:** To lessen the amount of a substance in water by adding more water.

**Disinfection:** Water treatment which destroys potentially harmful bacteria.

**Drainage basin:** The area of land from which water drains into a river, for example, the Sacramento River Basin, in which all land area drains into the Sacramento River. Also called catchment area, watershed, or river basin.

**Drought:** A prolonged period of below-average precipitation.

**DPHS:** California Department of Public Health Services. Regulates public water systems; oversees water recycling projects; permits water treatment devices; certifies drinking water treatment and distribution operators; supports and promotes water system security; provides support for small water systems and for improving technical, managerial, and financial (TMF) capacity; provides funding opportunities for water system improvements.

**DVL:** Diamond Valley Lake. Metropolitan's major reservoir near Hemet, in southwestern Riverside County.

**DWR:** California Department of Water Resources. Guides development/management of California's water resources; owns/operates State Water Project and other water facilities.

**Endangered Species:** A species of animal or plant threatened with extinction.

**Endangered Species Act of 1973 (ESA)**: The most wide-ranging of the dozens of United States environmental laws passed in the 1970s. As stated in section 2 of the act, it was designed to protect critically imperiled species from extinction as a "consequence of economic growth and development untendered by adequate concern and conservation.

**Ecosystem:** Where living and non-living things interact (coexist) in order to survive.

**Effluent:** Wastewater or other liquid, partially or completely treated or in its natural state, flowing from a treatment plant.

**Evaporation:** The process that changes water (liquid) into water vapor (gas).

**Estuary:** Where fresh water meets salt water.

**Evapotransporation:** The quantity of water transpired (given off), retained in plant tissues, and evaporated from plant tissues and surrounding soil surface. Quantitatively, it is expressed in terms of depth of water per unit area during a specified period of time.

**FCH** Federal Clearing House – Environmental Review/Processing

**FEMA** Federal Emergency Management Agency

**Filtration:** The process of allowing water to pass through layers of a porous material such as sand, gravel or charcoal to trap solid particles. Filtration occurs in nature when rain water soaks into the ground and it passes through hundreds of feet of sand and gravel. This same natural process of filtration is duplicated in water and wastewater treatment plants, generally using sand and coal as the filter media.

**Flocculation:** A chemical process involving addition of a coagulant to assist in the removal of turbidity in water.

**Forebay:** A reservoir or pond situated at the intake of a pumping plant or power plant to stabilize water level; also, a portion of a groundwater basin where large quantities of surface water can recharge the basin through infiltration.

**Gray water reuse:** Reuse, generally without treatment, of domestic type wastewater for toilet flushing, garden irrigation and other non-potable uses. Excludes water from toilets, kitchen sinks, dishwashers, or water used for washing diapers.

**Green Acres Project (GAP):** A 7.5 million gallons per day (MGD) water reclamation project that serves tertiary treated recycled water to irrigation and industrial users in Costa Mesa, Fountain Valley, Huntington Beach, Newport Beach, and Santa Ana.

**God Squad**: A seven-member committee that is officially called the "Endangered Species Committee". Members consist of Secretary of the Interior, the Secretary of Agriculture, the Secretary of the Army, the Chairman of the Council of Economic Advisers, the Administrator of the National Oceanic and Atmospheric Administration and one individual from the affected state. The squad was established in 1978 by an amendment to the 1973 Endangered Species Act (ESA). It has only been called into action three times to deal with proposed federal agency actions that have been determined to cause "jeopardy" to any listed species. Such actions may receive an exemption from the ESA if five members of the committee determine that the action is of regional or national significance, that the benefits of the action clearly outweigh the benefits of conserving the species and that there are no reasonable and prudent alternatives to the action.

**Groundwater:** Water that has percolated into natural, underground aquifers; water in the ground, not water puddled on the ground.

**Groundwater basin:** A groundwater reservoir defined by the overlying land surface and the underlying aquifers that contain water stored in the reservoir. Boundaries of success-ively deeper aquifers may differ and make it difficult to define the limits of the basin.

**Groundwater mining:** The withdrawal of water from an aquifer in excess of recharge over a period of time. If continued, the underground supply would eventually be exhausted or the water table could drop below economically feasible pumping lifts.

**Groundwater overdraft:** The condition of a groundwater basin in which the amount of water withdrawn by pumping exceeds the amount of water that recharges the basin over a period of years during which water supply conditions approximate average.

**Groundwater recharge:** The action of increasing groundwater storage by natural conditions or by human activity. See also: Artificial recharge.

**Ground Water Replenishment System (GWRS):** A joint project of the Orange County Water District and the Orange County Sanitation District that will provide up to 100,000 acre-feet of reclaimed water annually. The high-quality water will be used to expand an existing underground seawater intrusion barrier and to replenish the groundwater basin underlying north and central Orange County.

**Groundwater table:** The upper surface of the zone of saturation (all pores of subsoil filled with water), except where the surface if formed by an impermeable body.

**GPM:** Gallons per minute.

**Ground Water Replenishment System (GWRS):** Orange County Water District's state-of-the-art, highly advanced, waste-water treatment facility.

**Hydrologic balance:** An accounting of all water inflow to, water outflow from, and changes in water storage within a hydrologic unit over a specified period.

**Hydrologic cycle:** The process of water constantly circulating from the ocean, to the atmosphere, to the earth in a form of precipitation, and finally returning to the ocean.

**Imported water:** Water that has originated from one hydrologic region and is transferred to another hydrologic region.

**Inflatable rubber dams:** Designed to replace temporary sand levees that wash out during heavy storm flow, the dams hold back high-volume river flows and divert the water into the off-river system for percolation.

**Influent:** Water or wastewater entering a treatment plant, or a particular stage of the treatment process.

**Irrigation:** Applying water to crops, lawns or other plants using pumps, pipes, hoses, sprinklers, etc.

**JPIA** Joint Powers Insurance Authority. A group of water agencies providing self-insurance to members of the ACWA.

**LAIF** Local Agency Investment Fund. Statewide pool of surplus public agency money managed by State Treasurer.

**Leach**: To remove components from the soil by the action of water trickling through.

**MAF:** Million acre feet.

**MCL:** Maximum contaminant level set by EPA for a regulated substance in drinking water. According to health agencies, the maximum amount of a substance that can be present in water that's safe to drink and which looks, tastes and smells good.

**MET**: Metropolitan Water District of Southern California.

**MGD:** Million gallons per day.

**Microfiltration:** A physical separation process where tiny, hollow filaments members separate particles from water.

**Microorganism:** An animal or plant of microscopic size.

**MWD**: Metropolitan Water District of Southern California.

**MWDOC**: Municipal Water District of Orange County. Intermediate wholesaler between MWD and 27 member agencies including ETWD.

**Non-point source pollution:** Pollution that is so general or covers such a wide area that no single, localized source of the pollution can be identified.

**NPDES** National Pollution Discharge Elimination System

**OCBC:** Orange County Business Council.

**OCEMA** Orange County Environmental Management Agency

**OCWD:** Orange County Water District.

**Opportunity:**
1. A favorable juncture of circumstances.
2. A good chance for advancement or progress .

**Organism:** Any individual form of life, such as a plant, animal or bacterium.

**PCM** Professional Community Management, Inc. Property Management company providing services to Laguna Woods Village and other homeowner associations.

**Perched groundwater:** Groundwater supported by a zone of material of low permeability located above an underlying main body of groundwater with which it is not hydrostatically connected.

**Percolation:** The downward movement of water through the soil or alluvium to the groundwater table.

**Permeability:** The capability of soil or other geologic formations to transmit water.

**Point source:** A specific site from which waste or polluted water is discharged into a water body, the source of which is identified. See also: non-point source.

**Potable water:** Suitable and safe for drinking.

**PPB:** Parts per billion.

**Precipitation:** Water from the atmosphere that falls to the ground as a liquid (rain) or a solid (snow, sleet, hail).

**Primary treated water:** First major treatment in a wastewater treatment facility, usually sedimentation but not biological oxidation.

**Primary treatment:** Removing solids and floating matter from wastewater using screening, skimming and sedimentation (settling by gravity).

**Prior appropriation doctrine:** Allocates water rights to the first party who diverts water from its natural source and applies the water to beneficial use. If at some point the first appropriator fails to use the water beneficially, another person may appropriate the water and gain rights to the water. The central principle is beneficial use, not land ownership.

**Pumping Plant:** A facility that lifts water up and over hills.

**Recharge:** The physical process where water naturally percolates or sinks into a groundwater basin.

**Recharge basin:** A surface facility, often a large pond, used to increase the infiltration of surface water into a groundwater basin.

**Reclaimed wastewater:** Wastewater that becomes suitable for a specific beneficial use as a result of treatment. See also: wastewater reclamation.

**Reclamation project:** A project where water is obtained from a sanitary district or system and which undergoes additional treatment for a variety of uses, including landscape irrigation, industrial uses, and groundwater recharge.

**Recycling:** A type of reuse, usually involving running a supply of water through a closed system again and again. Legislation in 1991 legally equates the term "recycled water" to reclaimed water.

**Reservoir:** A place where water is stored until it is needed. A reservoir can be an open lake or an enclosed storage tank.

**Reverse osmosis:** (RO) A method of removing salts or other ions from water by forcing water through a semi-permeable membrane.

**RFP** Request for Proposal

**Riparian:** Of or on the banks of a stream, river, or other body of water.

**RO:** Reverse osmosis. See the listing under "reverse osmosis."

**R-O-W** Right-of-way

**Runoff**: Liquid water that travels over the surface of the Earth, moving downward due to gravity. Runoff is one way in which water that falls as precipitation returns to the ocean.

**RWQCB** Regional Water Quality Control Board. State agency regulating discharge and use of recycled water.

**Safe Drinking Water Act (SDWA):** The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. (SDWA does not regulate private wells which serve fewer than 25 individuals.) SDWA authorizes the United States Environmental Protection Agency (US EPA) to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. US EPA, states, and water systems work together to make sure that these standards are met.

**Safe yield:** The maximum quantity of water that can be withdrawn from a groundwater basin over a long period of time without developing a condition of overdraft, sometimes referred to as sustained yield.

**SAFRA** Santa Ana River Flood Protection Agency

**Salinity:** Generally, the concentration of mineral salts dissolved in water. Salinity may be measured by weight (total dissolved solids - TDS), electrical conductivity, or osmotic pressure. Where seawater is known to be the major source of salt, salinity is often used to refer to the concentration of chlorides in the water.

**SAWPA**: Santa Ana Watershed Project Authority.

**SCADA** Supervisory Control and Data Acquisition

**SCAP** Southern California Alliance of Publicly. Newly formed group of public agencies seeking reasonable regulation of sewer industry.

**SCH** State Clearing House – Environmental Review/Processing

**Seasonal storage:** A three-part program offered by Metropolitan Water District of Southern California:

> **STSS (Short Term Seasonal Storage)** financially encourages agencies with local groundwater production capabilities to produce a higher percentage of their demand in the summer from their local groundwater supplies, thus shifting a portion of their demand on the MWD system from the summer to winter;
>
> **LTSS (Long Term Seasonal Storage)** financially encourages retail agencies to take and store additional amounts of MWD water above their normal annual demands for later use; Replenishment Water provides less expensive interruptible water that is generally available and used to increase the operating yield of groundwater basins.

**Seawater intrusion:** The movement of salt water into a body of fresh water. It can occur in either surface water or groundwater basins.

**Seawater barrier:** A physical facility or method of operation designed to prevent the intrusion of salt water into a body of freshwater.

**Secondary treatment:** The biological portion of wastewater treatment which uses the activated sludge process to further clean wastewater after primary treatment. Generally, a level of treatment that produces 85 percent removal efficiencies for biological oxygen demand and suspended solids. Usually carried out through the use of trickling filters or by the activated sludge process.

**Sedimentation:** The settling of solids in a body of water using gravity.

**Settle:** To clarify water by causing impurities/solid material to sink to a container's bottom.

**Sewer:** The system of pipes that carries wastewater from homes and businesses to a treatment plant or reclamation plant. Sewers are separate from storm drains, which is a system of drains and pipes that carry rain water from urban streets back to the ocean. Overwatering your yard can also cause water to run into the streets and into storm drains. Storm drain water is not treated before it is discharged.

**SigAlert**: Any unplanned event that causes the closing of one lane of traffic for 30 minutes or more, as opposed to a planned event, like road construction, which is planned.

**SJBA** San Juan Basin Authority

**Sludge:** The solids that remain after wastewater treatment. This material is separated from the cleaned water, treated and composted into fertilizer. Also called biosolids.

**SOCWA** South Orange County Wastewater Authority. Regional Joint Powers Authority formed for collection and treatment of sewerage (previously known as AWMA/SERRA/SOCRA). SOCWA member agencies:

CSC – City of San Clemente

CSJC – City of San Juan Capistrano

CLB – City of Laguna Beach

ETWD – El Toro Water District

EBSD – Emerald Bay Service District

IRWD – Irvine Ranch Water District

MNWD – Moulton Niguel Water District

SCWD – South Coast Water District

SMWD – Santa Margarita Water District

TCWD – Trabuco Canyon Water District

**SRF** State Revolving Fund

**Storm Drain:** The system of pipes that carries rain water from urban streets back to the ocean. Overwatering your yard can also cause water to run into the streets and into storm drains. Storm drain

water is not treated before it is discharged. Storm drains are separate from sewers, which is a separate system of pipes to carry wastewater from homes and businesses to a treatment plant or reclamation plant for cleaning.

**Storm flow:** Surface flow originating from precipitation and run-off which has not percolated to an underground basin.

**SWP:** State Water Project. An aqueduct system that delivers water from northern California to central and southern California.

**SWRCB** State Water Resources Control Board

**TDS:** Total dissolved solids. A quantitative measure of the residual minerals dissolved in water that remain after evaporation of a solution. Usually expressed in milligrams per liter.

**Tertiary treatment:** The treatment of wastewater beyond the secondary or biological stage. Normally implies the removal of nutrients, such as phosphorous and nitrogen, and a high percentage of suspended solids.

**THM:** Trihalomethanes. Any of several synthetic organic compounds formed when chlorine or bromine combine with organic materials in water.

**TMA:** Too many acronyms.

**TMDL**: Total maximum daily load; A quantitative assessment of water quality problems, contributing sources, and load reductions or control actions needed to restore and protect bodies of water.

**Transpiration:** The process in which plant tissues give off water vapor to the atmosphere as an essential physiological process.

**Turbidity:** Thick or opaque with matter in suspension; muddy water.

**Ultraviolet light disinfection:** A disinfection method for water that has received either secondary or tertiary treatment used as an alternative to chlorination.

**VE** Value Engineering

**VOC:** Volatile organic compound; a chemical compound that evaporates readily at room temperature and contains carbon.

**Wastewater:** Water that has been previously used by a municipality, industry or agriculture and has suffered a loss of quality as a result.

**Water Cycle:** The continuous process of surface water (puddles, lakes, oceans) evaporating from the sun's heat to become water vapor (gas) in the atmosphere. Water condenses into clouds and then falls back to earth as rain or snow (precipitation). Some precipitation soaks into the ground (percolation) to replenish groundwater supplies in underground aquifers.

**Water rights:** A legally protected right to take possession of water occurring in a natural waterway and to divert that water for beneficial use.

**Water-use Efficiency**: The water requirements of a particular device, fixture, appliance, process, piece of equipment, or activity.

**Water year (USGS):** The period between October 1st of one calendar year to September 30th of the following calendar year.

**Watermaster:** A court appointed person(s) that has specific responsibilities to carry out court decisions pertaining to a river system or watershed.

**Water Reclamation:** The treatment of wastewater to make it suitable for a beneficial reuse, such as landscape irrigation. Also called water recycling.

**Watershed:** The total land area that from which water drains or flows to a river, stream, lake or other body of water.

**Water table:** The top level of water stored underground.

**WEF** Water Environment Federation. Formerly – Water Pollution Control Federation (WPCF). International trade group advising members of sewage treatment techniques and their effect on the environment.

**Weir box:** A device to measure/control surface water flows in streams or between ponds.

**Wellhead treatment:** Water quality treatment of water being produced at the well site.

**Wetland:** Any area in which the water table stands near, at, or above the land surface for a portion of the year. Wetlands are characterized by plants adapted to wet soil conditions.

**Xeriscape:** Landscaping that requires minimal water.