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.

D-PCH

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
FINANCE AND INSURANCE COMMITTEE MEETING
AND
ENGINEERING COMMITTEE MEETING

October 25, 2021

7:30 a.m.

Vice President Freshley will be attending via Zoom from:
The Inn at Opryland
2401 Music Valley Drive
Nashville, Tennessee 37214

And

Director Vergara will be attending via Zoom from:
The Blue Sky Lodge
10 Flight Road
Carmel Valley, CA 93924

Members of the public who wish to comment on any item within the jurisdiction of the District or on any item on the agenda, attend the meeting in person at the District's office or may observe and address the Meeting by joining at this link: https://us02web.zoom.us/j/86068066695 (Meeting ID: 860 6806 6695).

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 TO ORDER – President Gaskins

PLEDGE OF ALLEGIANCE – President Gaskins

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 times set aside for "COMMENTS REGARDING NON-AGENDA ENGINEERING COMMITTEE ITEMS" or for "COMMENTS REGARDING NON-AGENDA FIC 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 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 of those members present.)

1. AB 361 & Remote Meeting Requirements (Reference Material Included)

Staff will provide an update on the requirements for remote meetings pursuant to AB 361.

FINANCE AND INSURANCE COMMITTEE MEETING

CALL MEETING TO ORDER – Director Havens

2. 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 September 20, 2021 Finance and Insurance Committee meeting (Minutes Included)

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

APPROVAL OF ITEMS REMOVED FROM TODAY'S FINANCE AND INSURANCE COMMITTEE CONSENT CALENDAR

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

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

FINANCIAL INFORMATION ITEMS

3. Other Post Employment Benefits (OPEB) Update
(Reference Material Included)

Staff will review and comment on the updated analysis of the District's OPEB liability for the fiscal year ended June 30, 2021.

4. Update on Financing Plan for Near-term Future Capital Projects
(Reference Material Included)

Staff will provide an update on the status of the financing plan for upcoming large capital projects.

5. Tiered Water Usage and Revenue Tracking (Reference Material Included)

Staff will review and comment on monthly and year to date Tiered Water Usage and Revenue tracking.

6. Update on the Implementation of the Springbrook Software System

Staff will provide an update on the status of the implementation of the Springbrook Software System.

FINANCIAL ACTION ITEMS

7. Quarterly Insurance Report (Reference Material Included)

Staff will review and comment on the Quarterly Insurance Report for the period July 1, 2021 through September 30, 2021.

Recommended Action: Staff recommends that the Board Receive and File the Quarterly Insurance Report for the period of July 1, 2021 through September 30, 2021.

8. **Resolution No. 21-10-1 Capitalization Policy for Capital Assets** (Reference Material Included)

Staff will review and comment on proposed changes to the District's Capitalization Policy for Capital Assets.

Recommended Action:

Staff recommends that the Board adopt Resolution No. 21-10-1 approving the Capitalization Policy for Capital Assets.

RESOLUTION NO. 21-10-1

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EL TORO WATER DISTRICT
ADOPTING A CAPITALIZATION POLICY FOR
CAPITAL ASSETS

9. **Financial Package - Authorization to Approve Bills for Consideration dated October 25, 2021 and Receive and File Financial Statements as of September 30, 2021** (Reference Material Included)

The Board will consider approving the Bills for Consideration dated October 25 20, 2021 and Receive and File Financial Statements as of September 30, 2021.

Recommended Action: Staff recommends that the Board 1) approve, ratify and confirm payment of those bills as set forth in the schedule of bills for consideration dated October 25, 2021, and 2) receive and file the Financial Statements for the period ending September 30, 2021.

COMMENTS REGARDING NON-AGENDA FIC ITEMS

CLOSE FINANCE AND INSURANCE COMMITTEE MEETING

ENGINEERING COMMITTEE

CALL MEETING TO ORDER – Director Vergara

10. 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 September 20, 2021 Engineering Committee meeting. (Minutes Included)

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

APPROVAL OF ITEMS REMOVED FROM TODAY'S ENGINEERING COMMITTEE CONSENT CALENDAR

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

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

ENGINEERING ACTION ITEMS

11. ETWD Filter Plant Site Use Investigation and Design Project
(Reference Material Included)

Staff will review and comment on the proposal received from Richard Brady & Associates for the ETWD Filter Plant Site Use Investigation and Design Project to facilitate the demolition of the existing Filter Plant Building and the construction of an ETWD warehouse facility and the WEROC EOC building. Staff will further review and comment on the cost share agreement between ETWD and the Municipal Water District of Orange County to allocate the costs of the consulting services between the two agencies.

Recommended Action: Staff recommends that the Board of Directors authorize the General Manager to 1) enter into a contract with Richard Brady & Associates in the amount of $475,633 for engineering design services for the ETWD Filter Plant Site Use Investigation and Design Project, and 2) enter into a cost share agreement with the Municipal Water District of Orange County (MWDOC) to allocate the proportional share of consultant service costs between ETWD and MWDOC.

GENERAL INFORMATION ITEMS

12. Joint Transmission Main (JTM) Pump Station Project
(Reference Material Included)

Staff will review and comment on the benefits as well as preliminary cost estimate for the JTM Pump Station Project.

13. El Toro Water District Capital Project Status Report
(Reference Material Included)

Staff will review and comment on the El Toro Water District Capital Project Status Report.

14. Engineering Items Discussed at Various Conferences and Meetings
(Oral Report)

The Committee will discuss any pertinent Engineering items discussed at Conferences.

COMMENTS REGARDING NON-AGENDA ENGINEERING COMMITTEE ITEMS

CLOSE ENGINEERING COMMITTEE MEETING

ATTORNEY REPORT

CLOSED SESSION

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

1. Pursuant to Government Code Section 54956.9 (d) (1) to consult with legal counsel and staff on a matter of pending litigation. *Kessner et al. v. City of Santa Clara, et al. (Santa Clara County Superior Court - Case No. 20 CV 364054*).

2. In accordance with Government Code Section 54956.96 in order to receive, discuss, and/or take action concerning information obtained by the District's representative pertaining to a closed session of the South Orange County Wastewater Authority ("SOCWA"), a joint powers agency.

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.

Request for Disability-Related Modifications or Accommodations

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.

Agenda Item No. 1

STAFF REPORT

To: **Board of Directors** **Meeting Date: October 28, 2021**

From: **Dennis Cafferty, General Manager**

Subject: **AB 361 & Remote Meeting Requirements**

Due to the COVID-19 pandemic California has been in a declared state of emergency since March of 2020. The Governor's Executive Order N-29-20 suspended certain Brown Act requirements that facilitated the transition to remote or virtual meetings for public agencies across the State. Executive Order N-29-20 and the associated Brown Act suspensions expired on September 30, 2021.

Most recently AB 361 was signed by the Governor on September 16, 2021. AB 361 allows further remote meetings through January 1, 2024 under certain conditions. The required conditions per AB 361 include:

- There is a proclaimed state of emergency; and
- State or local officials have imposed or recommended measures to promote social distancing; or
- The legislative body determines by majority vote that meeting in person would present imminent risks to the health and safety of attendees.

If the above conditions are met the Board may decide to continue remote meetings with the required findings. There is no requirement for the Board to take any action if the Board is conducting live meetings in full compliance with the Brown Act.

Per the provisions of AB 361, should the Board determine that the above conditions exist and virtual meetings are appropriate and necessary, the Board must make findings every 30 days that said conditions exist and the Board will meet virtually.

Given that the ETWD Board has been meeting live since July, staff is not proposing any action associated with the provisions of AB 361.

MINUTES OF THE REGULAR MEETING
OF THE
FINANCE & INSURANCE COMMITTEE

September 20, 2021

At approximately 7:30 a.m. President Gaskins called the regular meeting to order.

Director Monin led in the Pledge of Allegiance to the flag.

Committee Members MIKE GASKINS (via Zoom), KATHRYN FRESHLEY, JOSE VERGARA, MARK MONIN (via zoom), and KAY HAVENS participated.

Also participating were DENNIS P. CAFFERTY, General Manager, JUDY CIMORELL, Human Resources Manager, JASON HAYDEN, CFO, SHERRI SEITZ, Public Relations/Emergency Preparedness Administrator, GILBERT J. GRANITO, General Counsel, SCOTT HOPKINS, Operations Superintendent, HANNAH FORD, Engineering Manager, CAROL MOORE, Laguna Woods Council Member (via zoom), and POLLY WELSCH, Recording Secretary.

Oral Communications/Public Comments

There were no comments.

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.

Finance & Insurance Committee Meeting

At approximately 7:32 a.m. Director Havens called the Finance meeting to order.

Consent Calendar

Director Havens asked for a Motion.

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

Roll Call Vote:

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

Financial Information Items

Update on Financing Plan for Near-term Future Capital Projects

Mr. Hayden provided a short update on the status of the financing process for upcoming large capital projects. Mr. Hayden noted that Staff had been meeting with NHA Advisors regarding the financial analysis and was recommending engaging the services of Stradling, Yocca, Carlson, & Rauth as bond counsel for the District.

Tiered Water Usage and Revenue Tracking

Mr. Cafferty stated that August water usage was down relative to last year, but the District has not achieved a 15% reduction in water usage as requested by the Governor. Mr. Cafferty further stated that it is extremely challenging to ask our customers to conserve another 15% when the previous 24% mandate was achieved and has been sustained.

Vice President Freshley stated that United is way out of line with their irrigation use as they have less area to water than Third Mutual. Mr. Cafferty reminded the Board that Third Mutual is using recycled water which does not show on this chart.

Update of the Implementation of the Springbrook Software System

Mr. Hayden provided a short update on the implementation of the Springbrook software system. He further stated that staff is discussing whether or not to use Civic

Pay which is Springbrook's online payment portal.

Vice President Freshley asked what the fee will be to use Civic Pay. Mr. Hayden replied that it will cost the District approximately $6,000, depending on the transaction fee amount that would be charged to customers paying by credit card.

Financial Action Items

Financial Package – Authorization to Approve Bills for Consideration dated September 20, 2021 and Receive and File Financial Statements as of August 31, 2021

Vice President Freshley stated that on page 40, Balance Sheet, total current liabilities payable from current assets, and asked for an explanation. Mr. Hayden replied that our current liabilities are much less than current assets and this was a positive financial indicator.

Director Havens asked about our electrical power use. Mr. Cafferty replied that it was much higher than anticipated due to seasonal variation.

Director Vergara asked if the State plans to compensate the District for lost Revenue due to the non-payment of water bills from some customers. Mr. Cafferty replied that the Survey in the Arrearages Program got $995 million dollars of funding, and was designed to do just that. He further stated that staff has completed and submitted the Survey a few weeks ago.

Director Havens asked for a Motion.

Motion: Director Vergara made a Motion, seconded by Vice President Freshley and unanimously carried across the Board to approve, ratify, and confirm payment of those bills as set forth in the schedule of bills for consideration dated September 20, 2021, and receive and file the financial statements for the period ending August 31, 2021.

Roll Call Vote:

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

Comments Regarding Non-Agenda FIC Items

There were no comments.

Close Finance and Insurance Committee Meeting

There being no further business the Finance Committee meeting was closed at approximately 7:50 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

STAFF REPORT

To: **BOARD OF DIRECTORS** **Meeting Date: October 25, 2021**

From: **Jason Hayden, Chief Financial Officer**

Subject: **Other Post Employment Benefits (OPEB) Update**

Attached to this memo please find a presentation that illustrates the change in the District's Other Post Employment Benefits (OPEB) liability for the fiscal year ended June 30, 2021. As a reminder, the Governmental Accounting Standards Board (GASB) requires all local governments to perform an OPEB analysis every two years and incorporate the result of the analysis into annual financial reports.

As a result of this mandated requirement, the District will recognize a non-cash charge of $1,926,591 in OPEB liability in the 2020-2021 financial statements, this will be incorporated as an expense into the District's Statement of Revenues, Expenses, and Changes in Net Position (equivalent to an Income Statement for a private sector entity). This has a significant impact on the District's financial results for 2020-2021, changing a fairly small negative Change in Net Position of $252,990 to a significant negative Change in Net Position of $2,179,581, as displayed below:

Statements of Revenues, Expenses, and Changes in Net Position
Fiscal Year 2020 - 2021

	Budget	Actual w/out OPEB	Actual with OPEB
Revenues			
Operating Revenues	25,995,387	26,709,980	26,709,980
Non-operating Revenues	1,658,500	1,398,277	1,398,277
Capital Contributions	-	8,708	8,708
Total Revenues	27,653,887	28,116,965	28,116,965
Expenses			
Operating Expenses	27,670,602	27,611,616	27,611,616
Interest Expense	756,649	758,339	758,339
OPEB Expense	-	-	1,926,591
Total Operating Expenses	28,427,251	28,369,954	30,296,545
Change in Net Position	(773,364)	(252,990)	(2,179,581)
Beginning Net Position	62,739,280	62,739,280	62,739,280
Ending Net Position	61,965,916	62,486,290	60,559,699

There are several considerations to think about when reviewing the OPEB information:

- As previously noted, this is a non-cash accounting charge and the expense recognized in 2020-2021 will be added to the OPEB liability amount on the Balance Sheet;
- The calculation of the OPEB liability is mandated by GASB standards and actuarial valuation methods. The District has no control over these calculations or the requirement to include them in the annual financial statements.
- The District could establish an OPEB trust to pre-fund this liability. This would allow the District to have control over some of the actuarial valuation methods, including setting the discount rate which is a key variable in the actuarial valuation. However, the District would need to have a significant amount in the OPEB Trust and a policy that shows how the OPEB trust will become fully funded in a foreseeable time period. Usually, GASB and actuarial standards require 50% to 75% of the OPEB Liability in the OPEB Trust before the District can set the discount rate. This amount would be $9.6 to $14.4 million for the District's OPEB Trust.
- The discount rate used in the OPEB actuarial valuations is equal to the Municipal Bond Rate which is what is required by GASB if an entity has not established an OPEB Trust. The Municipal Bond Rate is at historically low levels and as a result the District's OPEB liability is very elevated. Assuming the Federal Reserve begins tapering its bond buying program and long term interest rates begin increasing as a result of this action, the municipal bond rate is likely to increase in the next couple of years. The increase in the municipal bond rate should cause a reduction in the District's OPEB liability because the discount rate in the actuarial valuation will increase (please see Page 5 of the OPEB Valuation report which shows that if the municipal bond rate increases by 1%, the District's OPEB liability would decrease $2.8 million). In future years, if the municipal bond rate increases from the current extremely low level, the District may actually realize an accounting gain from the reversal of the OPEB liability which would make a positive contribution to future financial statements.

Attachments

- Draft El Toro Water District Retiree Healthcare Plan June 30, 2021 GASBS 75 Accounting Information Report from Bartel Associates LLC

DRAFT

El Toro Water District
Retiree Healthcare Plan

June 30, 2021 GASBS 75 Accounting Information
As of Measurement Date June 30, 2020
Based on the June 30, 2020 Actuarial Valuation

Mary Elizabeth Redding, Vice President
Kelcie Opp, Actuarial Analyst
Joseph Herm, Senior Actuarial Analyst
Bartel Associates, LLC

September 20, 2021

Contents

Applicable Dates and Periods

	Fiscal Year Ended June 30, 2021
■ Measurement date	June 30, 2020
■ Measurement period	July 1, 2019 to June 30, 2020
■ Actuarial valuation date	June 30, 2020

Plan Information

	Fiscal Year Ended June 30, 2021
■ Plan type	Single Employer
■ OPEB trust	No
■ Special funding situation	No
■ Nonemployer contributing entities	No

Covered Participants

At June 30, 2020, the measurement date, the following numbers of participants were covered by the benefit terms:

	Number of Covered Participants
■ Inactives currently receiving benefits	22
■ Inactives entitled to but not yet receiving benefits	-
■ Active employees	59
■ Total	81

Total OPEB Liability/(Asset)

	Fiscal Year Ended	
	6/30/20	6/30/21
	Measurement Date 6/30/19	Measurement Date 6/30/20
■ Total OPEB Liability (TOL)	$ 16,843,879	$ 19,149,868

Changes in Total OPEB Liability/(Asset)

	Total OPEB Liability
■ Balance at 6/30/20 (6/30/19 measurement date)	$16,843,879
■ Changes for the year	
● Service Cost	468,321
● Interest	600,602
● Changes of benefit terms	-
● Actual vs. expected experience	(1,334,563)
● Assumption changes	2,875,924
● Benefit payments*	(304,295)
■ Net Changes	2,305,989
■ Balance at 6/30/21 (6/30/20 measurement date)	$19,149,868

* See the measurement period column on page 16 for details.

Sensitivity of Total OPEB Liability/(Asset)

■ Changes in the Discount Rate

	Discount Rate		
	1% Decrease (1.21%)	Current Rate (2.21%)	1% Increase (3.21%)
■ Total OPEB Liability	$ 22,705,271	$ 19,149,868	$ 16,337,176

■ Changes in the Healthcare Trend Rate

	Healthcare Trend Rate		
	1% Decrease	Current Trend	1% Increase
■ Total OPEB Liability	$ 16,064,425	$ 19,149,868	$ 23,103,282

OPEB Expense/(Income) for Fiscal Year

	2020/21 Measurement Period 2019/20
■ OPEB Expense/(Income)*	$ 1,926,591

* See page 21 for OPEB expense/(income) detail, which is not a required disclosure.

Deferred Outflows/Inflows Balances at June 30, 2021

	June 30, 2021	
	Deferred Outflows of Resources	Deferred Inflows of Resources
■ Differences between expected and actual experience	$ 564,234	$ 1,143,911
■ Changes in assumptions	4,593,749	-
■ Employer contributions made subsequent to the measurement date*	311,125	-
■ Total	5,469,108	1,143,911

* See page 16 for details.

Recognition of Deferred Outflows and Inflows of Resources in Future OPEB Expense

FYE June 30	Deferred Outflows/(Inflows) of Resources
■ 2022	$ 857,668
■ 2023	857,668
■ 2024	857,668
■ 2025	857,665
■ 2026	350,207
■ Thereafter	233,196

Significant Actuarial Assumptions Used for Total OPEB Liability

Actuarial Assumption	June 30, 2020 Measurement Date
■ Actuarial Valuation Date	■ June 30, 2020
■ Contribution Policy	■ No pre-funding
■ Discount Rate	■ 2.21% at June 30, 2020 (Bond Buyer 20-Bond Index) ■ 3.50% at June 30, 2019 (Bond Buyer 20-Bond Index)
■ General Inflation	■ 2.75% annually
■ Mortality, Retirement, Disability, Termination	■ CalPERS 1997-2015 Experience Study (2%@55 rates for Tiers 1-3, modified rates for Tier 4)
■ Mortality Improvement	■ Mortality projected fully generational with Scale MP-2020

Significant Actuarial Assumptions Used for Total OPEB Liability

Actuarial Assumption	June 30, 2020 Measurement Date
■ Salary Increases	■ Aggregate - 3% annually ■ Merit - CalPERS 1997-2015 Experience Study
■ Medical Trend	■ Non-Medicare - 7% for 2022, decreasing to an ultimate rate of 4% in 2076 ■ Medicare (Non-Kaiser) - 6.1% for 2022, decreasing to an ultimate rate of 4% in 2076 ■ Medicare (Kaiser) - 5% for 2022, decreasing to an ultimate rate of 4% in 2076
■ Healthcare Participation at Retirement	■ Actives: 95% Tiers 1-3, 90% Tier 4 ■ Retirees: 100%
■ Spouse Healthcare Participation at Retirement	■ 100% Tiers 1-3, 50% Tier 4, if spouse currently covered ■ 0% if spouse not currently covered
■ Medical Plan Election at Retirement	■ Same as currently elected

Changes Since June 30, 2019 Measurement Date

	June 30, 2020 Measurement Date
■ Changes of assumptions	■ Discount rate was updated based on municipal bond rate as of the measurement date ■ Decreased medical trend rate for Kaiser Senior Advantage plans ■ Mortality improvement scale was updated to Scale MP-2020
■ Changes of benefit terms	■ None

Required Supplementary Information

Schedule of Changes in Total OPEB Liability/(Asset) and Related Ratios

	2020/21 Measurement Period 2019/20
■ Changes in Total OPEB Liability	
● Service Cost	$ 468,321
● Interest	600,602
● Changes of benefit terms	-
● Actual vs. expected experience	(1,334,563)
● Assumption changes	2,875,924
● Benefit payments	(304,295)
■ Net Changes	2,305,989
■ Total OPEB Liability (beginning of year)	16,843,879
■ Total OPEB Liability (end of year)	19,149,868

Required Supplementary Information

Schedule of Changes in Total OPEB Liability/(Asset) and Related Ratios

	2020/21
■ Total OPEB Liability/(Asset)	$ 19,149,868
■ Covered employee payroll*	5,980,908
■ Total OPEB Liability as a percentage of covered employee payroll	320.2%

* For the 12-month period ended on June 30, 2020 (Measurement Date).
As reported by the District.

Actuarial Certification

This report presents the El Toro Water District Retiree Healthcare Plan 2020/21 disclosure under Governmental Accounting Standards Board Statement No. 75 (GASBS 75). This report may not be appropriate for other purposes, although it may be useful to the District for the Plan's financial management.

This report is based on information provided by the District which we relied on and did not audit. The June 30, 2020 valuation is based on plan provisions and participant data provided by the District, all of which we relied on and did not audit. We reviewed the census data for reasonableness.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the assumptions; changes in assumptions; changes expected as part of the natural progression of the plan; and changes in plan provisions or applicable law. Actuarial models necessarily rely on the use of estimates and are sensitive to changes. Small variations in estimates may lead to significant changes in actuarial measurements. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of such measurements.

The Journal Entries in this report are provided for the District's convenience and are not an actuarial communication. Therefore, this actuarial certification does not apply to the Journal Entries.

To the best of my knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principles and practices and complies with applicable Actuarial Standards of Practice. Additionally, in my opinion, actuarial methods and assumptions comply with GASBS 75. As the actuary, I have recommended the assumptions used in this report, and I believe they are reasonable. As a member of the American Academy of Actuaries meeting the Academy Qualification Standards, I certify the actuarial results and opinions herein.

Respectfully submitted,

DRAFT

Mary Elizabeth Redding, FSA, EA, FCA, MAAA
Vice President
Bartel Associates, LLC
September 20, 2021

Supporting Calculations

Employer Contributions

	Measurement Period	Measurement Date to FYE	Prior Measurement Date to Prior FYE
	7/1/19 to 6/30/20	7/1/20 to 6/30/21	Same as Measurement Period
■ Cash benefit payments	$ 262,279	$ 280,577	$ 262,279
■ Implied subsidy benefit payments	42,016	30,548	42,016
■ Total benefit payments	304,295	311,125	304,295
■ Administrative expenses	-	-	-
■ Total employer contributions	304,295	311,125	304,295

Measurement period (7/1/19 to 6/30/20): $304,295
Fiscal year (7/1/20 to 6/30/21): $311,125

Average of the Expected Remaining Service Lives

July 1, 2019 (beginning of the measurement period) was not a valuation date and no census data was available to the actuary as of that date. Therefore, the average of the expected remaining service lives was estimated as follows:

Valuation Date	Total expected remaining service lives*	Covered participants*	Average of the expected remaining service lives as of valuation date	Average of the expected remaining service lives as of 7/1/19 (not less than 1 yr)
6/30/20	537.6 years	77	7.0 years	7.0 years
6/30/18	550.0 years	78	7.1 years	

* Participants with no liability excluded for the purpose of calculating the average.

Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2021

Differences between Expected and Actual Experience

Fiscal Year	Initial Amt	Initial Recog Period	Amount Recognized in OPEB Expense for FY							Deferred Balances June 30, 2021	
			20/21	21/22	22/23	23/24	24/25	25/26	26/27+	Outflows	(Inflows)
18/19	987,411	7.0	141,059	141,059	141,059	141,059	141,057	-	-	564,234	-
19/20	-	-	-	-	-	-	-	-	-	-	-
20/21	(1,334,563)	7.0	(190,652)	(190,652)	(190,652)	(190,652)	(190,652)	(190,652)	(190,651)	-	(1,143,911)
Total			(49,593)	(49,593)	(49,593)	(49,593)	(49,595)	(190,652)	(190,651)	564,234	(1,143,911)

Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2021

Changes of Assumptions

Fiscal Year	Initial Amt	Initial Recog Period	Amount Recognized in OPEB Expense for FY							Deferred Balances June 30, 2021	
			20/21	21/22	22/23	23/24	24/25	25/26	26/27+	Outflows	(Inflows)
18/19	2,564,813	7.0	366,402	366,402	366,402	366,402	366,401	-	-	1,465,607	-
19/20	923,090	7.1	130,013	130,013	130,013	130,013	130,013	130,013	12,999	663,064	-
20/21	2,875,924	7.0	410,846	410,846	410,846	410,846	410,846	410,846	410,848	2,465,078	-
Total			907,261	907,261	907,261	907,261	907,260	540,859	423,847	4,593,749	-

Supporting Calculations

Recognition of Deferred Outflows/Inflows in Future OPEB Expense

	21/22	22/23	23/24	24/25	25/26	Thereafter 26/27+
■ Differences between Expected and Actual Experience	(49,593)	(49,593)	(49,593)	(49,595)	(190,652)	(190,651)
■ Changes of Assumptions	907,261	907,261	907,261	907,260	540,859	423,847
■ Total	857,668	857,668	857,668	857,665	350,207	233,196

Components of GASBS 75 OPEB Expense

	2020/21 Measurement Period 2019/20
■ Service Cost	$ 468,321
■ Interest on Total OPEB Liability	600,602
■ Administrative expense	-
■ Changes of benefit terms	-
■ Recognition of deferred outflows/(inflows)	
● Experience	(49,593)
● Assumptions	907,261
■ OPEB Expense/(Income)	1,926,591

Components of GASBS 75 OPEB Expense
Calculation of Interest on Total OPEB Liability

	Dollar Amount	Discount Rate	Portion of Year	Interest
■ Total OPEB Liability	$ 16,843,879	3.50%	100%	$ 589,536
■ Service Cost	468,321	3.50%	100%	16,391
■ Changes of benefit terms	-	3.50%	0%	-
■ Experience*	(1,334,563)	3.50%	0%	-
■ Assumption changes*	2,875,924	3.50%	0%	-
■ Benefit payments	(304,295)	3.50%	50%	(5,325)
■ Total interest				600,602

* Liability determined as of the end of the measurement period, so no interest charge is applicable.

GASBS 75 Balance Equation

	Fiscal Year Ended	
	6/30/20	6/30/21
	Measurement Date 6/30/19	Measurement Date 6/30/20
■ Total OPEB Liability/(Asset)	$ 16,843,879	$ 19,149,868
■ Fiduciary Net Position	-	-
■ Net OPEB Liability/(Asset)	16,843,879	19,149,868
■ Deferred inflows of resources	-	1,143,911
■ Deferred (outflows) of resources	(3,330,379)	(5,157,983)
■ Balance Sheet	13,513,500	15,135,796

Check:

■ Balance Sheet 6/30/20	$ 13,513,500
● OPEB Expense/(Income)	1,926,591
● Employer Contributions*	(304,295)
■ Balance Sheet 6/30/21	15,135,796

* See the measurement period column on page 16 for details.

This page intentionally blank

Employer Contributions

The entries below assume cash benefit payments, Trust contributions, and administrative expenses have been charged to OPEB Expense when paid, and that no accounting entries have been made for the current year implied subsidy payment, which is recorded as a reduction to active employee health care costs. See page 16 for details.

Following records the impact of employer contributions as deferred outflows of resources and as a reduction to Net OPEB Liability.

	Debit	(Credit)
■ Net OPEB Liability - (for Contributions paid 7/1/19 to 6/30/20)	$ 304,295	$ -
■ OPEB Expense - (for admin fees paid 7/1/19 to 6/30/20)	-	-
■ Deferred Outflow - 7/1/19 to 6/30/20 contributions	-	(304,295)
■ Deferred Outflow - 7/1/20 to 6/30/21 contributions	311,125	-
■ Active employee health care costs - (implied subsidy payments 7/1/20 to 6/30/21)	-	(30,548)
■ OPEB Expense - (for contributions paid 7/1/20 to 6/30/21)	-	(280,577)
Check	*615,420*	*(615,420)*

Summary Journal Entries - OPEB Expense

Following records the impact of current year OPEB expense

	Debit	(Credit)
■ Deferred Outflows*	$ 1,968,663	$ (141,059)
■ Deferred Inflows**	-	(1,143,911)
■ OPEB Expense/Credit	1,926,591	-
■ Net OPEB Liability/Asset	-	(2,610,284)
Check	*3,895,254*	*(3,895,254)*

* See page 28 ('Subtotal' row) for details.

** See page 29 for details.

Ending Balances at June 30, 2021

	Debit	(Credit)
■ Deferral: Differences between expected and actual experience	$ 564,234	$ (1,143,911)
■ Deferral: Changes of assumptions	4,593,749	-
■ Total deferred outflow/inflow	5,157,983	(1,143,911)
■ Net OPEB Liability (NOL)	-	(19,149,868)
■ Contributions after the Measurement Date	311,125	-
■ Net Impact	14,824,671	-
Check:	*20,293,779*	*(20,293,779)*
■ Total OPEB expense/(income) for FYE 2021	1,926,591	-

Reconciliation of Deferred Outflows

Detail for page 26

Deferred Outflows	Opening Balance - Debit	Journal Entry - Debit	Journal Entry - (Credit)	Ending Balance - Debit
■ Differences between actual and expected experience	$ 705,293	$ -	$ (141,059)	$ 564,234
■ Change in assumptions	2,625,086	1,968,663	-	4,593,749
■ Subtotal - actuarial deferrals	3,330,379	1,968,663	(141,059)	5,157,983
■ Contributions after the Measurement Date	304,295	311,125	(304,295)	311,125
■ Total Deferred Outflows	3,634,674	2,279,788	(445,354)	5,469,108

Reconciliation of Deferred Inflows

Detail for page 26

Deferred Inflows	Opening Balance - (Credit)	Journal Entry - (Credit)	Journal Entry - Debit	Ending Balance - (Credit)
■ Differences between actual and expected experience	$ -	$ (1,143,911)	$ -	$ (1,143,911)
■ Change in assumptions	-	-	-	-
■ Total Deferred (Inflows)	-	(1,143,911)	-	(1,143,911)

Reconciliation of Deferred Outflows/(Inflows)

Summary of Balances

	Fiscal Year Ended	
	6/30/20	6/30/21
	Measurement Date 6/30/19	Measurement Date 6/30/20
■ Total OPEB (Liability)/Asset	$ (16,843,879)	$ (19,149,868)
■ Fiduciary Net Position	-	-
■ Net OPEB (Liability)/Asset	(16,843,879)	(19,149,868)
■ Deferred (inflows) of resources	-	(1,143,911)
■ Deferred outflows of resources	3,634,674	5,469,108
■ Balance Sheet Impact	(13,209,205)	(14,824,671)

Deferred Outflows include contributions after the measurement date.

Plan Summary

Item	Description
■ Eligibility	■ Eligible for retiree medical benefits if retire directly from the District at the time of retirement and meet the following requirements: Tier — Minimum eligibility requirements 1 — Retired before 4/1/2001, age 65, 15 years of service; 2 — Hired before 4/1/2001, age 55 & 10 years of service; 3 — Hired between 4/1/2001 - 6/1/2008, age 55 & 10 years of service; 4 — Hired after 6/1/2008, age 60 & 20 years of service. ■ Eligibility for regular full-time employees only; directors not eligible. ■ No District paid dental or vision care coverage is provided.
■ Retiree Benefits	■ Health benefits are provided by the ACWA/JPIA - Association of California Water Agencies/Joint Powers Insurance Authority. ■ Benefits are based on the eligiblity at retirement: Tier — Benefits 1 — District will pay 100% of the monthly premium for the member only; 2 — District and member will share in the cost of the monthly premium for the member and spouse; 3 — District and member will share in the cost of the monthly premium for the member and spouse; 4 — District and member will share in the cost of the monthly premium for the member only. ■ The District will determine at their discretion the shared percentage of the cost between the District and the member. Currently, the District covers: ● 100% of the cost if Kaiser member only coverage is selected; ● 95% of the cost for the member and spouse if Kaiser two-party or family coverage is selected; ● 90% of the cost for the member and spouse if any non-Kaiser plan is selected. ■ Spouses are eligible to participate under Tier 4 but are responsible for 100% of their costs. No District paid benefits. ■ Surviving spouses are also eligible for District paid benefits under Tiers 2 & 3.
■ Implied Subsidy	■ Employer cost for allowing retirees to participate at actives rates. ■ Implied subsidy valued for retirees and spouses for their lifetime.

Actuarial Valuation Information

Premiums

2021 Monthly Premiums

Southern California Region

Plan	Non-Medicare Eligible			Medicare Eligible		
	Single	2-Party	Family	Single	2-Party	Family
Anthem CalCare HMO	$ 888.10	$1,776.20	$2,353.46	$ 623.54	$1,247.08	$1,913.48
Anthem Classic PPO	858.88	1,717.76	2,276.03	547.42	1,094.85	1,685.09
Kaiser South HMO	697.92	1,378.84	1,944.00	193.74	370.48	935.64

Participant Statistics

June 30, 2020

	6/30/18 Valuation	6/30/20 Valuation
■ Actives		
● Counts	61	59
» Tier 1	-	-
» Tier 2	22	21
» Tier 3	12	11
» Tier 4	27	27
● Average		
» Age	49.5	50.6
» District Service	14.5	15.9
■ Retirees		
● Counts	22	22
» Tier 1	1	-
» Tier 2	19	19
» Tier 3	2	3
» Tier 4	-	-
● Average		
» Age	70.1	70.4
» Retirement Age*	62.5	62.4

* Service Retirees only.

Active Medical Coverage by Age Group

June 30, 2020

Age	Single	2-Party	Family	Waived	Total
Under 30	1	2	-	-	3
30-34	2	4	1	-	7
35-39	1	1	4	-	6
40-44	1	-	3	-	4
45-49	-	2	1	-	3
50-54	3	-	6	-	9
55-59	2	3	6	-	11
60-64	2	7	1	1	11
65+	1	3	1	-	5
Total	13	22	23	1	59

Active Medical Coverage

June 30, 2020

Medical Plan	Single	2-Party	Family	Waived	Total
Anthem CalCare HMO	1	7	11	-	19
Anthem Classic PPO	4	5	3	-	12
Kaiser South HMO	8	10	9	-	27
Waived	-	-	-	1	1
Total	13	22	23	1	59

Active Age Service Distribution

June 30, 2020

Age	District Service							
	<1	1-4	5-9	10-14	15-19	20-24	25+	Total
Under 25	-	-	-	-	-	-	-	-
25-29	-	3	-	-	-	-	-	3
30-34	1	5	1	-	-	-	-	7
35-39	-	2	2	2	-	-	-	6
40-44	-	1	1	-	2	-	-	4
45-49	-	-	2	-	1	-	-	3
50-54	-	1	1	-	3	-	4	9
55-59	-	1	1	2	2	1	4	11
60-64	-	2	1	3	-	1	4	11
65+	-	-	-	-	-	1	4	5
Total	1	15	9	7	8	3	16	59

Retiree Medical Coverage by Age Group

June 30, 2020

Age	Single	2-Party	Family	Waived	Total
Under 50	-	-	-	-	-
50-54	-	-	-	-	-
55-59	-	3	-	-	3
60-64	-	1	1	-	2
65-69	1	2	-	-	3
70-74	3	5	-	-	8
75-79	2	3	-	-	5
80-84	-	1	-	-	1
Over 85	-	-	-	-	-
Total	6	15	1	-	22
Average Age	73.3	69.8	62.1	-	70.4

Retiree Medical Coverage

June 30, 2020

Medical Plan	Single	2-Party	Family	Waived	Total
Anthem CalCare HMO	-	3	-	-	3
Anthem Classic PPO	6	12	1	-	19
Waived	-	-	-	-	-
Total	6	15	1	-	22

Actuarial Obligations
June 30, 2020

	Cash Subsidy	Implied Subsidy	Total
■ Present Value of Benefits			
● Actives	$ 15,115,671	$ 2,157,077	$ 17,272,748
● Retirees	6,924,794	432,510	7,357,304
● Total	22,040,465	2,589,587	24,630,052
■ Actuarial Accrued Liability			
● Actives	10,455,552	1,337,012	11,792,564
● Retirees	6,924,794	432,510	7,357,304
● Total	17,380,346	1,769,522	19,149,868
■ Service Cost (2020/21)	520,043	78,608	598,651
■ Pay-As-You-Go Cost (Projected 2020/21)	298,238	30,548	328,786

Projected Benefit Payments
June 30, 2020

Fiscal Year Ended	Cash Subsidy	Implied Subsidy	Total
2021	$ 298,238	$ 30,548	$ 328,786
2022	360,378	57,763	418,141
2023	424,032	79,062	503,094
2024	480,571	93,898	574,469
2025	538,836	106,414	645,250
2026	597,597	114,381	711,978
2027	652,822	111,415	764,237
2028	702,911	103,907	806,818
2029	728,411	96,783	825,194
2030	766,616	110,998	877,614

Additional Actuarial Assumptions

FYE 2021 Sample Estimated Monthly Claims

Based on ACWA/JPIA pooled plan: Southern California Region

Age	Anthem CalCare		Anthem Classic		Kaiser HMO	
	Male	Female	Male	Female	Male	Female
25	$296	$581	$258	$424	$249	$490
35	387	710	383	588	327	599
45	616	746	608	666	520	629
55	1,034	1,042	903	872	873	879
60	1,323	1,242	1,085	1,009	1,116	1,049
65	507	476	460	489	171	161
75	669	599	555	577	226	203
85	714	634	566	588	242	214

Additional Actuarial Assumptions

June 30, 2020

	Actuarial Assumption
■ Waived Retiree Re-election	■ None
■ Surviving Spouse Participation	■ 100% if eligible
■ Spouse Age	■ Actives: Males 3 years older than females ■ Retirees: Males 3 years older than females if spouse birth date not available
■ PPACA Excise Tax	■ 2% on cash benefit for PPACA High Cost Plan Excise Tax Removed
■ Medicare Eligibility	■ All participants assumed to be Medicare eligible and elect Medicare plans at age 65
■ Tier 4 Retirement Rates	■ Based on 50% of the CalPERS 2%@ 55 rates before age 60 and 20 years of service

Additional Actuarial Assumptions

June 30, 2020

	Actuarial Assumption
■ Basis for Assumptions	■ No experience study performed for this Plan ■ CalPERS 1997-2015 experience study was used ■ Mortality improvement is a Society of Actuaries table ■ Inflation based on our estimate for the Plan's long time horizon ■ Age-based claims are based on ACWA health plans demographics and factors published by the Society of Actuaries ■ Short-term medical trend was developed in consultation with Axene Health Partners' healthcare actuaries. Long-term medical trend developed using the Society of Actuaries Getzen Model of Long-Run Medical Cost Trends ■ Medical coverage and participation based in part on Plan experience

This page intentionally blank

Agenda Item No. 4

STAFF REPORT

To: BOARD OF DIRECTORS **Meeting Date: October 25, 2021**

From: Jason Hayden, Chief Financial Officer

Subject: Capital Project Financing Update

As previously reported, El Toro Water District Staff has been working with NHA Advisors to analyze several alternative concepts for financing future capital projects. This analysis of alternative concepts has produced six different scenarios for financing the capital projects and these are presented in the following pages.

As previously discussed, the capital projects the District intends to complete include:

- Reservoir 6 Cover – Estimated Project Cost: $5.3 million allocated to the District from a $12 million total cost, with project construction occurring in the 2022-2023 and 2023-2024 Budget years.
- South Orange County Turnout Main – Estimated Project Cost: $2.6 million allocated to the District with an uncertain project timeline.
- Joint Turnout Main Pump Station – Estimated Project Cost: $1.5 million with a project timeline that can be determined by the District.
- Demolition of the old filtration plant and construction of a cold storage facility – Estimated Project Cost: $2.8 million with a flexible project timeline that depends to some extent on WEROC.
- SOCWA Capital Projects – Estimated Project Cost: $6.8 million in projects that will occur primarily in the 2022-2023 to 2024-2025 Budget years.

Some of the key questions that need to be determined by the Board and are explored in the various scenarios that are presented in the following page include:

1. What amount of new debt should the District issue in 2022? Is $18.4 million sufficient or should the District issue $29.4 million to include the AMI Meter Reading program and a potential Recycled Water expansion project? Should the $2,270,150 that is currently restricted by the SRF Loan agreements be used to reduce the amount of debt that is issued?
2. Should the District refinance the existing the State Revolving Fund Loans from 2010, 2013, and 2018? If so, should the maturities of the refinanced SRF debt by maintained or extended?

Synopses of various financing scenarios and the associated debt service schedules and rate impacts are presented in the following pages.

Scenario 1 – This is the base scenario and was analyzed during the 2021-2022 Budget Process. In this scenario, ETWD issues Certificates of Participation in the amount of $18.4 million to finance the capital projects and does not refinance any of the outstanding SRF Loans. The 2021-2022 Budget process included a rate forecast based on this scenario. Issues to consider when reviewing this scenario include:

- This scenario maintains the current debt structure of the District with the SRF Loans as Senior Debt and the 2017 Baker Water Treatment Plant Loan and the newly issued 2022 Certificates of Participation (2022 COPs) as equal junior debt.
- Because the 2022 Certificates of Participation would be subordinate to SRF Loans, the bond rating for this debt will be lower and therefore the interest rate on the 2022 COPs will be approximately 25 basis points (0.25%) higher than it would be if the SRF Loans were refinanced.
- Impact on Cash Outlays for Debt Service and Rates: Due to lower interest rates for the new debt in 2022 compared to the 2021-2022 Budget forecast, the annual cash outlays for the new debt in 2022 would equal $640,400, lower than forecast in 2021-2022 Budget. As a result, beginning in the 2026-2027 fiscal year, the Water and Wastewater Capital Rates could be slightly lower than the rates projected in the 2021-2022 Budget forecast. ETWD customers in 2026-2027 could pay $0.42 per month (-0.3%) less than the 2021-2022 Budget rate forecast and this would continue to decline until fiscal year 2030-2031 when an ETWD customer could pay an estimated $0.50 per month less than the 2021-2022 Budget rate forecast.
- Total Debt Service Cost: $26,692,282 for current SRF Loans (equal to the District's current obligation) and $30,855,700 for the new debt in 2022. The total cost for principal and interest over 30 years would equal $57,547,982.
- The District is projected to receive $2,097,355 in Local Resources Program (LRP) Rebates from the Metropolitan Water District of Southern California through 2031 as a result of the SRF Loans that were used to construct the Recycled Water facilities and infrastructure.

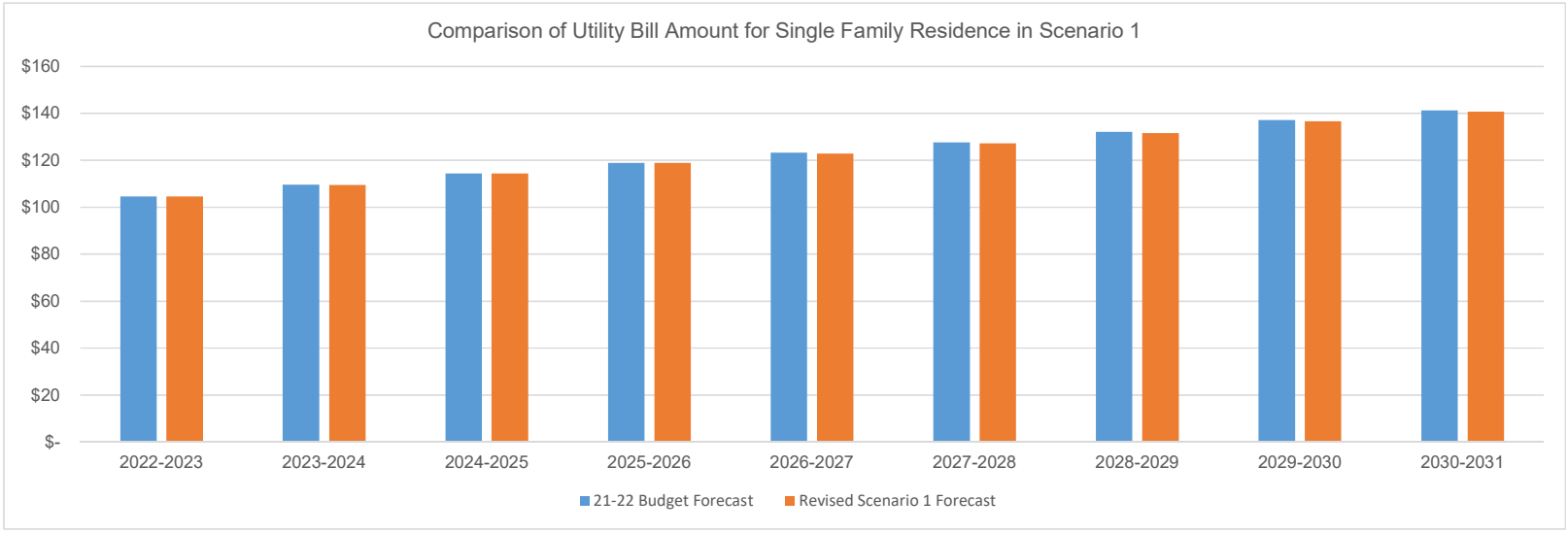
Scenario 1 Summary	
2022 COPs Amount:	$18.4 million
SRF Loans Refinance:	No
Total cost of debt:	$57,547,982
Debt Service Coverage Ratio:	1.50x
Projected LRP Rebate:	$2,097,355
Change in Rates in 2030-2031 compared to 2021-2022 Rate Forecast:	($0.50) per month

Table 1. Scenario 1 - ETWD Issues $18.4 Million in 2022 Certificates of Participation, Does Not Refund SRF Loans

Year Ended	2010 SRF Loan Total P&I	2013 SRF Loan Total P&I	2018 SRF Loan Total P&I	Current Total SRF Loan Debt Service	2022-2023 COPs Total P&I	Debt Service Total after COPs	Local Resources Program (LRP) Rebate	Debt Service Coverage Calculations Baker Debt Service	Net Revenues	Coverage Ratio
6/30/2023	258,146	1,602,958	409,046	2,270,150	800,500	3,070,650	340,819	684,263	5,633,269	1.50
6/30/2024	258,146	1,602,958	409,046	2,270,150	640,400	2,910,550	331,536	684,263	5,995,471	1.67
6/30/2025	258,146	1,602,958	409,047	2,270,151	640,400	2,910,551	319,978	684,263	6,337,365	1.76
6/30/2026	258,146	1,602,958	409,046	2,270,150	640,400	2,910,550	278,827			
6/30/2027	258,146	1,602,958	409,046	2,270,150	640,400	2,910,550	245,214			
6/30/2028	258,146	1,602,958	409,047	2,270,150	640,400	2,910,550	213,053			
6/30/2029	258,146	1,602,958	409,046	2,270,150	640,400	2,910,550	173,824			
6/30/2030	258,146	1,602,958	409,047	2,270,150	640,400	2,910,550	128,751			
6/30/2031	258,146	1,602,958	-	1,861,104	640,400	2,501,504	65,355			
6/30/2032	258,146	1,602,958	-	1,861,104	640,400	2,501,504	-			
6/30/2033	-	1,602,958	-	1,602,958	640,400	2,243,358	-			
6/30/2034	-	1,602,958	-	1,602,958	640,400	2,243,358	-			
6/30/2035	-	1,602,958	-	1,602,958	640,400	2,243,358	-			
6/30/2036	-	-	-	-	1,315,400	1,315,400	-			
6/30/2037	-	-	-	-	1,318,400	1,318,400	-			
6/30/2038	-	-	-	-	1,315,200	1,315,200	-			
6/30/2039	-	-	-	-	1,316,000	1,316,000	-			
6/30/2040	-	-	-	-	1,315,600	1,315,600	-			
6/30/2041	-	-	-	-	1,319,000	1,319,000	-			
6/30/2042	-	-	-	-	1,316,000	1,316,000	-			
6/30/2043	-	-	-	-	1,316,800	1,316,800	-			
6/30/2044	-	-	-	-	1,316,200	1,316,200	-			
6/30/2045	-	-	-	-	1,314,200	1,314,200	-			
6/30/2046	-	-	-	-	1,315,800	1,315,800	-			
6/30/2047	-	-	-	-	1,315,800	1,315,800	-			
6/30/2048	-	-	-	-	1,314,200	1,314,200	-			
6/30/2049	-	-	-	-	1,316,000	1,316,000	-			
6/30/2050	-	-	-	-	1,316,000	1,316,000	-			
6/30/2051	-	-	-	-	1,314,200	1,314,200	-			
6/30/2052	-	-	-	-	1,315,600	1,315,600	-			
Total	2,581,458	20,838,454	3,272,370	26,692,282	30,855,700	57,547,982	2,097,355			

Table 2. Water & Wastewater Rate Forecast for 2022 Debt Issuance Scenario 1

	Projected Utility Bill Cost for Single Family Residence Projected through the 2030-2031 Fiscal Year									
	21-22 Rates	22-23 Rates	23-24 Rates	24-25 Rates	25-26 Rates	26-27 Rates	27-28 Rates	28-29 Rates	29-30 Rates	30-31 Rates
As Projected in 2021-2022 Budget										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	5.08	5.54	6.04	6.58	7.20	7.56	7.94	8.34	8.76
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	5.37	5.76	5.99	6.23	6.48	6.74	7.01	7.29	7.29
Total Monthly Charge:	100.34	104.66	109.55	114.40	118.84	123.30	127.59	132.13	137.10	141.30
Total Rate % Change		4.3%	4.7%	4.4%	3.9%	3.8%	3.5%	3.6%	3.8%	3.1%
Revised for Debt Service Needs in Scenario 1										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	5.08	5.54	6.04	6.58	6.82	7.16	7.52	7.90	8.30
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	5.37	5.72	5.95	6.19	6.44	6.70	6.97	7.25	7.25
Total Monthly Charge:	100.34	104.66	109.51	114.36	118.80	122.88	127.15	131.67	136.62	140.80
Total Rate % Change		4.3%	4.6%	4.4%	3.9%	3.4%	3.5%	3.6%	3.8%	3.1%
Differenc to Original 21-22 Rate Forecast		0.0%	0.0%	0.0%	0.0%	-0.3%	-0.3%	-0.3%	-0.4%	-0.4%
						$ 0.42	$ 0.44	$ 0.46	$ 0.48	$ 0.50



Scenario 2 – This Scenario assumes ETWD issues $18.4 million in Certificates of Participation for the capital projects but also refinances the outstanding SRF Loans and maintains the current maturities for those loans (principal payments on the SRF debt would end in the same year as currently scheduled). The $2,270,150 that is currently restricted for debt service in the Statement of Net Position due to the SRF Loan Agreements would no longer need to be restricted and could be utilized by the District for capital projects or operations & maintenance activities. Issues to consider when reviewing this scenario include:

- This Scenario provides the District with the opportunity to utilize the $2,270,150 in Restricted Net Position for capital projects or operations & maintenance activities.
- A positive aspect of this Scenario is the refinancing of the SRF Loans removes the seniority of this debt and the refinanced SRF and new debt COPs will be equivalent in the District's debt structure to the Baker Water Treatment Plant Loan. There would no longer be senior and junior debt tranches. This would likely improve the bond rating for the 2022 Certificates of Participation (COPs) and would have a positive impact on their associated interest rates. This could be positive development for future financing activities such as the possibility of refinancing the Baker Water Treatment Plant Loan once it becomes callable in 2026.
- The total Principal and Interest that would be paid on the SRF debt would be slightly lower in this scenario, saving $12,082 compared to the base scenario until the end of the debt payments.
- Impact on Cash Outlays for Debt Service and Rates: Similar to the base scenario, due to lower interest rates for the new debt in 2022 compared to the 2021-2022 Budget forecast, the annual cash outlays for the new debt in 2022 would equal $640,400, lower than forecast in the 2021-2022 Budget. As a result, beginning in the 2026-2027 fiscal year, the Water and Wastewater Capital Rates could be slightly lower than the rates projected in the 2021-2022 Budget forecast. ETWD customers in 2026-2027 could pay $0.42 per month (-0.3%) less than the 2021-2022 Budget rate forecast and this would continue to decline until fiscal year 2030-2031 when an ETWD customer could pay an estimated $0.50 per month less than the 2021-2022 Budget rate forecast.
- Total Debt Service Cost: $26,680,200 for current SRF Loans, slightly lower than the base scenario due to interest savings for the 2010 and 2018 SRF Loans. The $30,855,700 for the Certificates of Participation is the same as in the base scenario, total cost of debt over 30 years equals $57,535,900.
- The District is projected to receive $2,097,355 in Local Resources Program (LRP) Rebates from the Metropolitan Water District of Southern California through 2031 as a result of the SRF Loans that were used to construct the Recycled Water facilities and infrastructure.

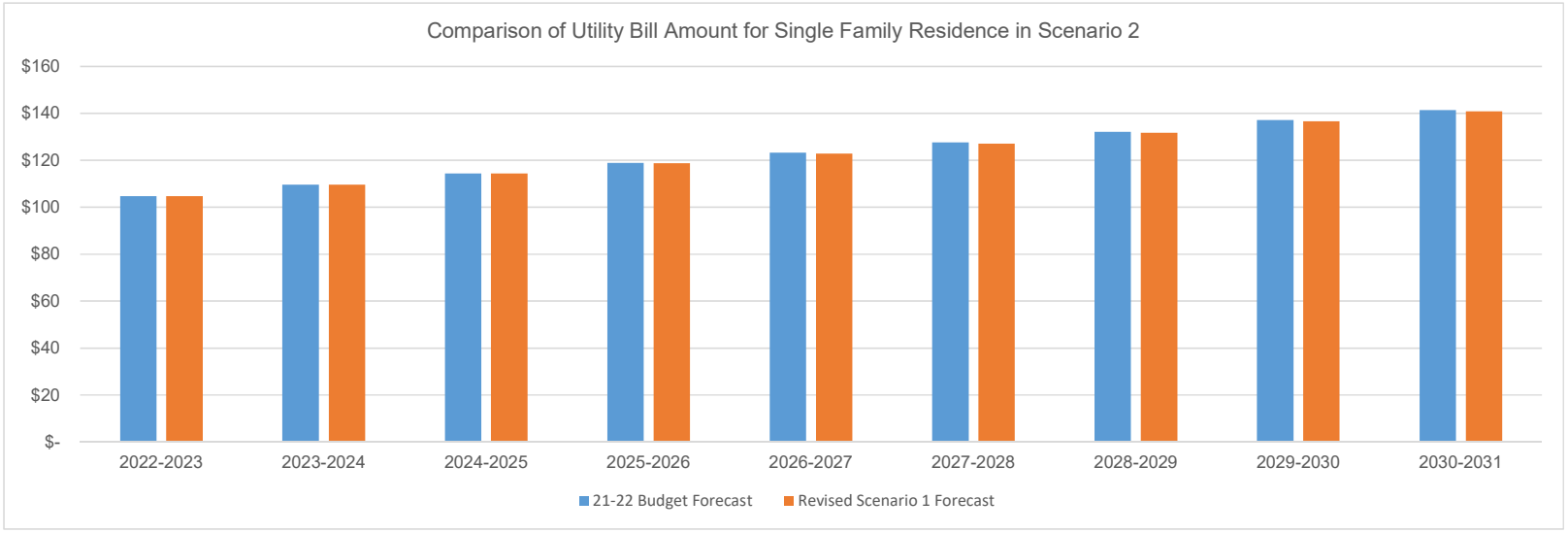
Scenario 2 Summary	
2022 COPs Amount:	$18.4 million
SRF Loans Refinance:	Yes
SRF Refinanced Debt Maturity:	Current Maturity Years
Use of Net Position Restricted for Debt:	Capital Projects or O&M Expenses
Total cost of debt:	$57,535,900
Projected LRP Rebate:	$2,097,355
Debt Service Coverage Ratio:	1.50x
Change in Rates in 2030-2031 compared to 2021-2022 Rate Forecast:	($0.50) per month

Table 3. Scenario 2 - ETWD Issues $18.4 Million in New Debt in 2022, Refunds SRF Loans to the Same Maturities
$2,270,150 in Restricted Net Position is Released to be Used for Capital Projects or Operations & Maintenance

Year Ended	2010 SRF Loan Total P&I	2013 SRF Loan Total P&I	2018 SRF Loan Total P&I	Current Total SRF Loan Debt Service	2022-2023 COPs Total P&I	Debt Service Total after COPs	Local Resources Program (LRP) Rebate	Debt Service Coverage Calculations: Baker Debt Service	Net Revenues	Coverage Ratio
6/30/2023	242,750	1,613,250	406,000	2,262,000	800,500	3,062,500	340,819	684,263	5,633,269	1.50
6/30/2024	242,400	1,616,000	408,000	2,266,400	640,400	2,906,800	331,536	684,263	5,995,471	1.67
6/30/2025	245,600	1,615,600	410,600	2,271,800	640,400	2,912,200	319,978	684,263	6,337,365	1.76
6/30/2026	243,400	1,613,600	407,600	2,264,600	640,400	2,905,000	278,827			
6/30/2027	241,000	1,615,000	409,200	2,265,200	640,400	2,905,600	245,214			
6/30/2028	243,400	1,614,600	410,200	2,268,200	640,400	2,908,600	213,053			
6/30/2029	245,400	1,612,400	405,600	2,263,400	640,400	2,903,800	173,824			
6/30/2030	242,000	1,613,400	405,600	2,261,000	640,400	2,901,400	128,751			
6/30/2031	243,400	1,612,400	-	1,855,800	640,400	2,496,200	65,355			
6/30/2032	244,400	1,614,400	-	1,858,800	640,400	2,499,200	-			
6/30/2033	-	1,614,200	-	1,614,200	640,400	2,254,600	-			
6/30/2034	-	1,616,800	-	1,616,800	640,400	2,257,200	-			
6/30/2035	-	1,612,000	-	1,612,000	640,400	2,252,400	-			
6/30/2036	-	-	-	-	1,315,400	1,315,400	-			
6/30/2037	-	-	-	-	1,318,400	1,318,400	-			
6/30/2038	-	-	-	-	1,315,200	1,315,200	-			
6/30/2039	-	-	-	-	1,316,000	1,316,000	-			
6/30/2040	-	-	-	-	1,315,600	1,315,600	-			
6/30/2041	-	-	-	-	1,319,000	1,319,000	-			
6/30/2042	-	-	-	-	1,316,000	1,316,000	-			
6/30/2043	-	-	-	-	1,316,800	1,316,800	-			
6/30/2044	-	-	-	-	1,316,200	1,316,200	-			
6/30/2045	-	-	-	-	1,314,200	1,314,200	-			
6/30/2046	-	-	-	-	1,315,800	1,315,800	-			
6/30/2047	-	-	-	-	1,315,800	1,315,800	-			
6/30/2048	-	-	-	-	1,314,200	1,314,200	-			
6/30/2049	-	-	-	-	1,316,000	1,316,000	-			
6/30/2050	-	-	-	-	1,316,000	1,316,000	-			
6/30/2051	-	-	-	-	1,314,200	1,314,200	-			
6/30/2052	-	-	-	-	1,315,600	1,315,600	-			
Total	2,433,750	20,983,650	3,262,800	26,680,200	30,855,700	57,535,900	2,097,355			

Table 4. Water & Wastewater Rate Forecast for 2022 Debt Issuance Scenario 2

	Projected Utility Bill Cost for Single Family Residence Projected through the 2030-2031 Fiscal Year									
	21-22 Rates	22-23 Rates	23-24 Rates	24-25 Rates	25-26 Rates	26-27 Rates	27-28 Rates	28-29 Rates	29-30 Rates	30-31 Rates
As Projected in 2021-2022 Budget										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	5.08	5.54	6.04	6.58	7.20	7.56	7.94	8.34	8.76
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	5.37	5.76	5.99	6.23	6.48	6.74	7.01	7.29	7.29
Total Monthly Charge:	100.34	104.66	109.55	114.40	118.84	123.30	127.59	132.13	137.10	141.30
Total Rate % Change		4.3%	4.7%	4.4%	3.9%	3.8%	3.5%	3.6%	3.8%	3.1%
Revised for Debt Service Needs in Scenario 2										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	5.08	5.54	6.04	6.58	6.82	7.16	7.52	7.90	8.30
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	5.37	5.72	5.95	6.19	6.44	6.70	6.97	7.25	7.25
Total Monthly Charge:	100.34	104.66	109.51	114.36	118.80	122.88	127.15	131.67	136.62	140.80
Total Rate % Change		4.3%	4.6%	4.4%	3.9%	3.4%	3.5%	3.6%	3.8%	3.1%
Differenc to Original 21-22 Rate Forecast		0.0%	0.0%	0.0%	0.0%	-0.3%	-0.3%	-0.3%	-0.4%	-0.4%
						$ 0.42	$ 0.44	$ 0.46	$ 0.48	$ 0.50



Scenario 3 – This Scenario assumes ETWD issues $16.1 million in Certificates of Participation and utilizes the $2,270,150 in Restricted Net Position to fund the remainder of the capital projects. The District would refinance the outstanding SRF Loans and maintain the current maturities for refinanced SRF Debt. The $16.1 million in new debt in 2022 plus the $2,270,150 that is currently restricted for debt service by the SRF Loan Agreements would equal the $18.4 million needed to fund the capital projects. Issues to consider when reviewing this scenario include:

- This Scenario provides the District with the lowest cost for the debt service while still completing the capital projects.
- As in Scenario 2, refinancing the SRF Loans removes the seniority of this debt and the refinanced and new debt COPs will be equal in the District's debt structure to the Baker Water Treatment Plant Loan, thus providing bond rating, interest rate, and future financing advantages.
- As in to Scenario 2, The total principal and interest that would be paid on the refinanced SRF debt would be slightly lower in this scenario, a savings of $12,082 compared to the base scenario until the end of debt payments.
- Impact on Cash Outlays for Debt Service and Rates: This scenario provides lower principal and interest payment for the new debt in 2022 because the $2,270,150 restricted for debt service would be utilized to reduce the amount of debt. The annual cash outlays for the new debt in 2022 would equal $561,600 until 2036, lower than forecast in 2021-2022 Budget. As a result, beginning in the 2023-2024 fiscal year, the Wastewater Capital Rate could be slightly lower than the rates projected in the 2021-2022 Budget rate forecast. In addition, beginning in 2025-2026, the Water Capital Rate could be lower than in the 2021-2022 Budget rate forecast. ETWD customers in 2026-2027 could pay $0.66 per month (-0.5%) less than the original 2021-2022 Budget rate forecast and this would continue to decrease through fiscal year 2030-2031 when an ETWD customer could pay an estimated $0.81 per month less than the 2021-2022 Budget rate forecast.
- Total Debt Service Cost: $26,680,200 for current SRF Loans, slightly lower than the base scenario due to interest savings for the 2010 and 2018 SRF Loans. The Principal and Interest for the new debt in 2022 would equal $27,059,600, lower than in the base scenario or scenario 2. This would lower the total cost of debt over 30 years to $53,739,800.
- The District is projected to receive $2,097,355 in Local Resources Program (LRP) Rebates from the Metropolitan Water District of Southern California through 2031 as a result of the SRF Loans that were used to construct the Recycled Water facilities and infrastructure.

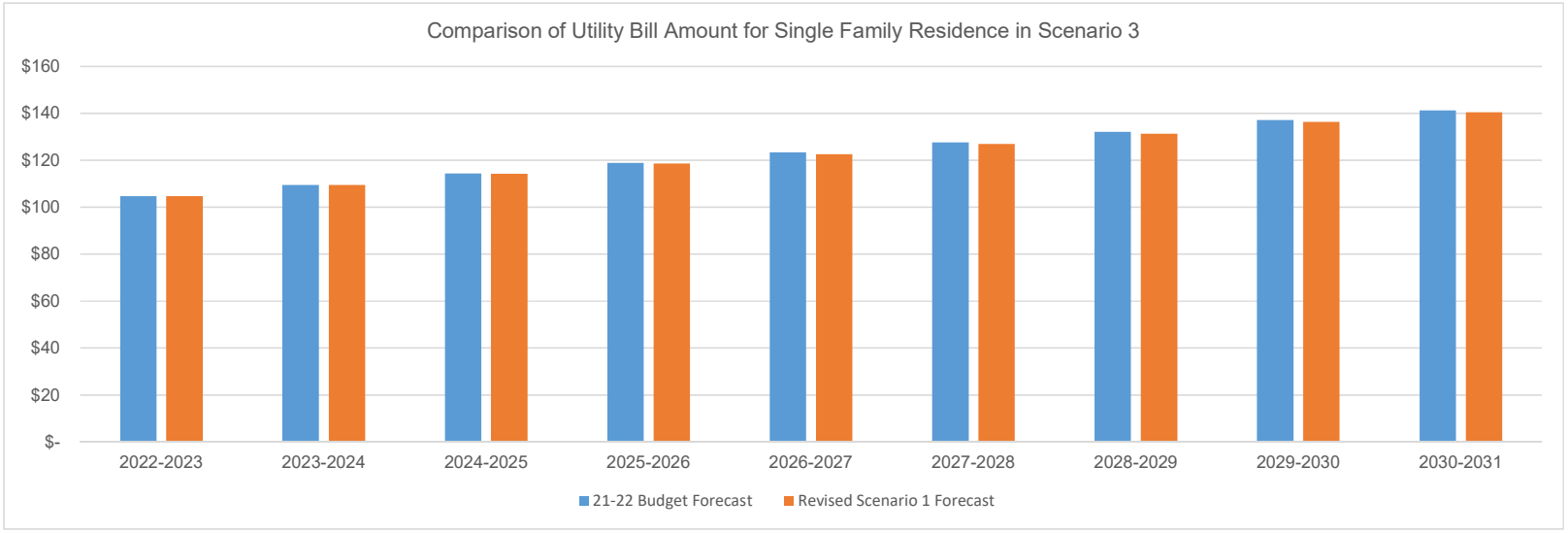
Scenario 3 Summary	
2022 COPs Amount:	$16.1 million
SRF Loans Refinance:	Yes
SRF Refinanced Debt Maturity:	Current Maturity Years
Use of Net Position Restricted for Debt:	Reduce 2022 new debt amount
Total cost of debt:	$53,739,800
Projected LRP Rebate:	$2,097,355
Debt Service Coverage Ratio:	1.54x
Change in Rates in 2030-2031 compared to 2021-2022 Rate Forecast:	($0.81) per month

Table 5. Scenario 3 - ETWD Issues $16.1 Million in New Debt in 2022, Refunds SRF Loans to the Same Maturities
$2,270,150 in Restricted Net Position is Used to Reduce 2022 New Debt Principal Amount

Year Ended	2010 SRF Loan Total P&I	2013 SRF Loan Total P&I	2018 SRF Loan Total P&I	Current Total SRF Loan Debt Service	2022-2023 COPs Total P&I	Debt Service Total after COPs	Local Resources Program (LRP) Rebate	Debt Service Coverage Calculations Baker Debt Service	Net Revenues	Coverage Ratio
6/30/2023	242,750	1,613,250	406,000	2,262,000	702,000	2,964,000	340,819	684,263	5,633,269	1.54
6/30/2024	242,400	1,616,000	408,000	2,266,400	561,600	2,828,000	331,536	684,263	5,995,471	1.71
6/30/2025	245,600	1,615,600	410,600	2,271,800	561,600	2,833,400	319,978	684,263	6,337,365	1.80
6/30/2026	243,400	1,613,600	407,600	2,264,600	561,600	2,826,200	278,827			
6/30/2027	241,000	1,615,000	409,200	2,265,200	561,600	2,826,800	245,214			
6/30/2028	243,400	1,614,600	410,200	2,268,200	561,600	2,829,800	213,053			
6/30/2029	245,400	1,612,400	405,600	2,263,400	561,600	2,825,000	173,824			
6/30/2030	242,000	1,613,400	405,600	2,261,000	561,600	2,822,600	128,751			
6/30/2031	243,400	1,612,400	-	1,855,800	561,600	2,417,400	65,355			
6/30/2032	244,400	1,614,400	-	1,858,800	561,600	2,420,400	-			
6/30/2033	-	1,614,200	-	1,614,200	561,600	2,175,800	-			
6/30/2034	-	1,616,800	-	1,616,800	561,600	2,178,400	-			
6/30/2035	-	1,612,000	-	1,612,000	561,600	2,173,600	-			
6/30/2036	-	-	-	-	1,156,600	1,156,600	-			
6/30/2037	-	-	-	-	1,152,800	1,152,800	-			
6/30/2038	-	-	-	-	1,153,200	1,153,200	-			
6/30/2039	-	-	-	-	1,152,600	1,152,600	-			
6/30/2040	-	-	-	-	1,156,000	1,156,000	-			
6/30/2041	-	-	-	-	1,153,200	1,153,200	-			
6/30/2042	-	-	-	-	1,154,400	1,154,400	-			
6/30/2043	-	-	-	-	1,154,400	1,154,400	-			
6/30/2044	-	-	-	-	1,153,200	1,153,200	-			
6/30/2045	-	-	-	-	1,155,800	1,155,800	-			
6/30/2046	-	-	-	-	1,152,000	1,152,000	-			
6/30/2047	-	-	-	-	1,157,000	1,157,000	-			
6/30/2048	-	-	-	-	1,155,400	1,155,400	-			
6/30/2049	-	-	-	-	1,152,400	1,152,400	-			
6/30/2050	-	-	-	-	1,153,000	1,153,000	-			
6/30/2051	-	-	-	-	1,152,000	1,152,000	-			
6/30/2052	-	-	-	-	1,154,400	1,154,400	-			
Total	2,433,750	20,983,650	3,262,800	26,680,200	27,059,600	53,739,800	2,097,355			

Table 6. Water & Wastewater Rate Forecast for 2022 Debt Issuance Scenario 3

	Projected Utility Bill Cost for Single Family Residence Projected through the 2030-2031 Fiscal Year									
	21-22 Rates	22-23 Rates	23-24 Rates	24-25 Rates	25-26 Rates	26-27 Rates	27-28 Rates	28-29 Rates	29-30 Rates	30-31 Rates
As Projected in 2021-2022 Budget										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	5.08	5.54	6.04	6.58	7.20	7.56	7.94	8.34	8.76
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	5.37	5.76	5.99	6.23	6.48	6.74	7.01	7.29	7.29
Total Monthly Charge:	100.34	104.66	109.55	114.40	118.84	123.30	127.59	132.13	137.10	141.30
Total Rate % Change		4.3%	4.7%	4.4%	3.9%	3.8%	3.5%	3.6%	3.8%	3.1%
Revised for Debt Service Needs in Scenario 3										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	5.08	5.54	6.04	6.52	6.66	6.99	7.34	7.71	8.10
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	5.37	5.64	5.87	6.10	6.36	6.61	6.87	7.14	7.14
Total Monthly Charge:	100.34	104.66	109.43	114.28	118.65	122.64	126.89	131.39	136.32	140.49
Total Rate % Change		4.3%	4.6%	4.4%	3.8%	3.4%	3.5%	3.5%	3.8%	3.1%
Differenc to Original 21-22 Rate Forecast		0.0%	-0.1%	-0.1%	-0.2%	-0.5%	-0.5%	-0.6%	-0.6%	-0.6%



Scenario 4 – This Scenario assumes ETWD issues $16.1 million in Certificates of Participation and utilizes the $2,270,150 in Restricted Net Position to fund the capital projects. The District would refinance the SRF Loans but extend the maturities for this refinanced debt through 2052. The $16.1 million in new debt in 2022 plus the $2,270,150 that is currently restricted for debt service by the SRF Loan Agreements would equal the $18.4 million needed to fund the capital projects. Issues to consider when reviewing this scenario include:

- This Scenario costs the District the more in principal and interest than the first three scenarios and significantly increases the cost of the refinanced SRF debt. Principal and interest payments of $36,319,950 for the refinanced SRF debt would be $9,627,668 higher than the base scenario.
- As in Scenarios 2 and 3, refinancing the SRF Loans removes the seniority of this debt and the refinanced and new debt COPs will be equal in the District's debt structure to the Baker Water Treatment Plant Loan, thus providing bond rating, interest rate, and future financing advantages.
- This scenario lowers the annual debt payments of the district through 2036 at which point the annual debt payments will increase compared to prior scenarios. This provides the District with the ability to mitigate future Water & Wastewater capital rate increases, lowering monthly payment amounts for customers. Any mitigation of rates would be contingent on the Board approving the use of the restricted commodity rate revenue for water supply project debt.
- Cash Outlays for Debt Service and Impact on Rates: This scenario reduces the total annual debt payment made by the District through 2036. The annual debt payments for the new debt in 2022 would equal $561,600 until 2036. The annual debt payments for the refinanced SRF debt would be significantly lower than in prior scenarios. As a result, beginning in the 2023-2024 fiscal year, the Wastewater capital rate could be lower than the rates projected in the 2021-2022 Budget rate forecast and beginning in 2025-2026, the Water capital rate could be lower than in the 2021-2022 Budget rate forecast. ETWD customers in 2026-2027 could pay $2.61 per month (-2.1%) less than the original 2021-2022 Budget rate forecast and this would continue to decrease through fiscal year 2030-2031 when an ETWD customer could pay an estimated $2.73 per month less than the 2021-2022 Budget rate forecast.
- Total Debt Service Cost: $36,319,950 for the refinanced SRF debt, significantly more than in prior scenarios due to extending the maturity of the SRF debt. The Principal and Interest for the new debt in 2022 would equal $27,059,600. The combined total cost of debt over 30 years would equal $63,379,550.
- The District would not receive the LRP Rebates because the reduction in annual debt payments for the refinanced SRF Debt would cause a reduction in the acre foot cost of recycled water which would make it less expensive than potable water (the LRP Rebate contract requires the per acre foot cost of recycled water to be higher than the per acre foot cost of potable water).

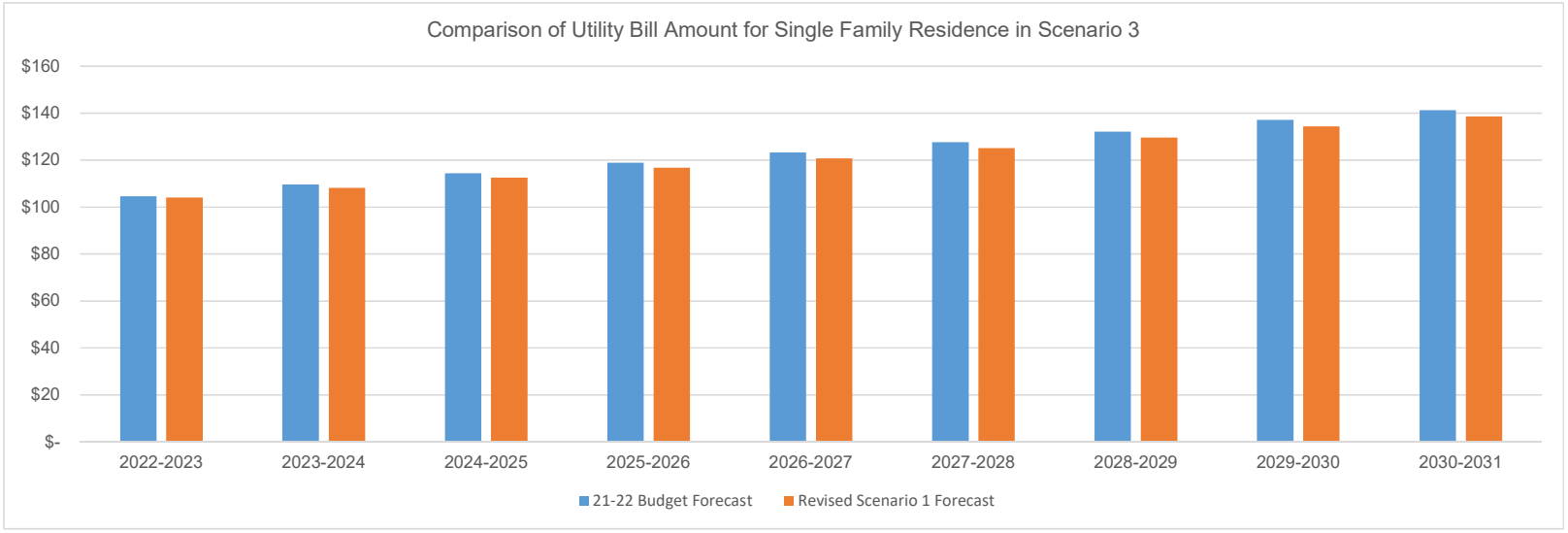
Scenario 4 Summary	
2022 COPs Amount:	$16.1 million
SRF Loans Refinance:	Yes
SRF Refinanced Debt Maturity:	Extended to 2052
Use of Net Position Restricted for Debt:	Reduce 2022 new debt amount
Projected LRP Rebate:	$0
Total cost of debt:	$63,379,550
Debt Service Coverage Ratio:	2.04x
Change in Rates in 2030-2031 compared to 2021-2022 Rate Forecast:	($2.73) per month

Table 7. Scenario 4 - ETWD Issues $16.1 Million in New Debt in 2022, Refunds SRF Loans to Extended Maturities
$2,270,150 in Restricted Net Position is Used to Reduce 2022 New Debt Principal Amount

Year Ended	2010 SRF Loan Total P&I	2013 SRF Loan Total P&I	2018 SRF Loan Total P&I	Current Total SRF Loan Debt Service	2022-2023 COPs Total P&I	Debt Service Total after COPs	Local Resources Program (LRP) Rebate	Debt Service Coverage Calculations Baker Debt Service	Net Revenues	Coverage Ratio
6/30/2023	112,500	941,250	153,000	1,206,750	702,000	1,908,750	-	684,263	5,292,450	2.04
6/30/2024	112,400	939,600	155,600	1,207,600	561,600	1,769,200	-	684,263	5,663,935	2.31
6/30/2025	116,000	942,600	153,600	1,212,200	561,600	1,773,800	-	684,263	6,017,387	2.45
6/30/2026	114,400	940,000	156,600	1,211,000	561,600	1,772,600	-			
6/30/2027	112,800	942,000	154,400	1,209,200	561,600	1,770,800	-			
6/30/2028	116,200	943,400	157,200	1,216,800	561,600	1,778,400	-			
6/30/2029	114,400	939,200	154,800	1,208,400	561,600	1,770,000	-			
6/30/2030	112,600	939,600	157,400	1,209,600	561,600	1,771,200	-			
6/30/2031	115,800	939,400	154,800	1,210,000	561,600	1,771,600	-			
6/30/2032	113,800	943,600	157,200	1,214,600	561,600	1,776,200	-			
6/30/2033	111,800	942,000	154,400	1,208,200	561,600	1,769,800	-			
6/30/2034	114,800	939,800	156,600	1,211,200	561,600	1,772,800	-			
6/30/2035	112,600	942,000	153,600	1,208,200	561,600	1,769,800	-			
6/30/2036	115,400	943,400	155,600	1,214,400	1,156,600	2,371,000	-			
6/30/2037	113,000	944,000	157,400	1,214,400	1,152,800	2,367,200	-			
6/30/2038	115,600	943,800	154,000	1,213,400	1,153,200	2,366,600	-			
6/30/2039	113,000	942,800	155,600	1,211,400	1,152,600	2,364,000	-			
6/30/2040	115,400	941,000	157,000	1,213,400	1,156,000	2,369,400	-			
6/30/2041	112,600	943,400	153,200	1,209,200	1,153,200	2,362,400	-			
6/30/2042	114,800	939,800	154,400	1,209,000	1,154,400	2,363,400	-			
6/30/2043	111,800	940,400	155,400	1,207,600	1,154,400	2,362,000	-			
6/30/2044	113,800	940,000	156,200	1,210,000	1,153,200	2,363,200	-			
6/30/2045	115,600	943,600	156,800	1,216,000	1,155,800	2,371,800	-			
6/30/2046	112,200	941,000	157,200	1,210,400	1,152,000	2,362,400	-			
6/30/2047	113,800	942,400	152,400	1,208,600	1,157,000	2,365,600	-			
6/30/2048	115,200	942,600	152,600	1,210,400	1,155,400	2,365,800	-			
6/30/2049	111,400	941,600	152,600	1,205,600	1,152,400	2,358,000	-			
6/30/2050	112,600	939,400	157,400	1,209,400	1,153,000	2,362,400	-			
6/30/2051	113,600	941,000	156,800	1,211,400	1,152,000	2,363,400	-			
6/30/2052	114,400	941,200	156,000	1,211,600	1,154,400	2,366,000	-			
Total	3,414,300	28,245,850	4,659,800	36,319,950	27,059,600	63,379,550	-			

Table 8. Water & Wastewater Rate Forecast for 2022 Debt Issuance Scenario 4

	Projected Utility Bill Cost for Single Family Residence Projected through the 2030-2031 Fiscal Year									
	21-22 Rates	22-23 Rates	23-24 Rates	24-25 Rates	25-26 Rates	26-27 Rates	27-28 Rates	28-29 Rates	29-30 Rates	30-31 Rates
As Projected in 2021-2022 Budget										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	5.08	5.54	6.04	6.58	7.20	7.56	7.94	8.34	8.76
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	5.37	5.76	5.99	6.23	6.48	6.74	7.01	7.29	7.29
Total Monthly Charge:	100.34	104.66	109.55	114.40	118.84	123.30	127.59	132.13	137.10	141.30
Total Rate % Change		4.3%	4.7%	4.4%	3.9%	3.8%	3.5%	3.6%	3.8%	3.1%
Revised for Debt Service Needs in Scenario 4										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	4.80	4.90	5.00	5.23	5.36	5.74	6.08	6.44	6.83
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	4.98	5.03	5.23	5.44	5.71	6.00	6.24	6.49	6.49
Total Monthly Charge:	100.34	103.99	108.18	112.60	116.70	120.69	125.03	129.50	134.40	138.57
Total Rate % Change		3.6%	4.0%	4.1%	3.6%	3.4%	3.6%	3.6%	3.8%	3.1%
Differenc to Original 21-22 Rate Forecast		-0.6%	-1.3%	-1.6%	-1.8%	-2.1%	-2.0%	-2.0%	-2.0%	-1.9%



Scenario 5 – This Scenario assumes ETWD issues $27.1 million in Certificates of Participation and utilizes the $2,270,150 in Restricted Net Position to fund the capital projects and complete the AMI Remote Meter Reading project and expand the Recycled Water System. The District would refinance the SRF Loans but maintain the current maturities for the refinanced SRF debt. The $27.1 million in new debt in 2022 combined with the restricted $2,270,150 equals the $29.4 million needed to fund the capital projects and the additional projects. Issues to consider when reviewing this scenario include:

- This Scenario provides the District with the highest amount of bond proceeds thereby providing the resources to complete the capital projects plus the other projects that have been discussed.
- As in prior scenarios, refinancing the SRF Loans eliminates the seniority of this debt and the refinanced SRF and new debt COPs will be equal in the District's debt structure to the Baker Water Treatment Plant Loan, thereby providing bond rating, interest rate, and future financing advantages.
- As in Scenarios 2 & 3, the total principal and interest paid on the SRF debt would be slightly lower, a savings of $12,082 compared to the base scenario until the end of debt payments.
- Impact on Cash Outlays for Debt Service and Rates: The annual cash outlays for the new debt in 2022 would be $943,400 until 2036, higher than any of the previous scenarios since the amount of new debt in 2022 is higher. To accommodate this higher debt service amount, beginning in 2023-2024, the Wastewater capital rate would need to be increased compared to the rates projected in the 2021-2022 Budget forecast. Similarly, beginning in 2025-2026, the Water Capital Rate would also need to be increased compared to the 2021-2022 Budget rate forecast. ETWD customers in 2026-2027 would pay $0.39 per month (0.3%) more than the 2021-2022 Budget rate forecast and this would increase to $0.73 per month (0.5%) more than the original 2021-2022 Budget rate forecast in 2030-2031.
- Total Debt Service Cost: $26,680,200 for current SRF Loans, slightly lower than the base scenario due to interest savings for the 2010 and 2018 SRF Loans. The Principal and Interest for the new debt in 2022 would equal $45,458,450, significantly higher than prior scenarios. The total cost of debt over 30 years would equal $72,138,650.
- The District is projected to receive $2,097,355 in Local Resources Program (LRP) Rebates from the Metropolitan Water District of Southern California through 2031 as a result of the SRF Loans that were used to construct the Recycled Water facilities and infrastructure.

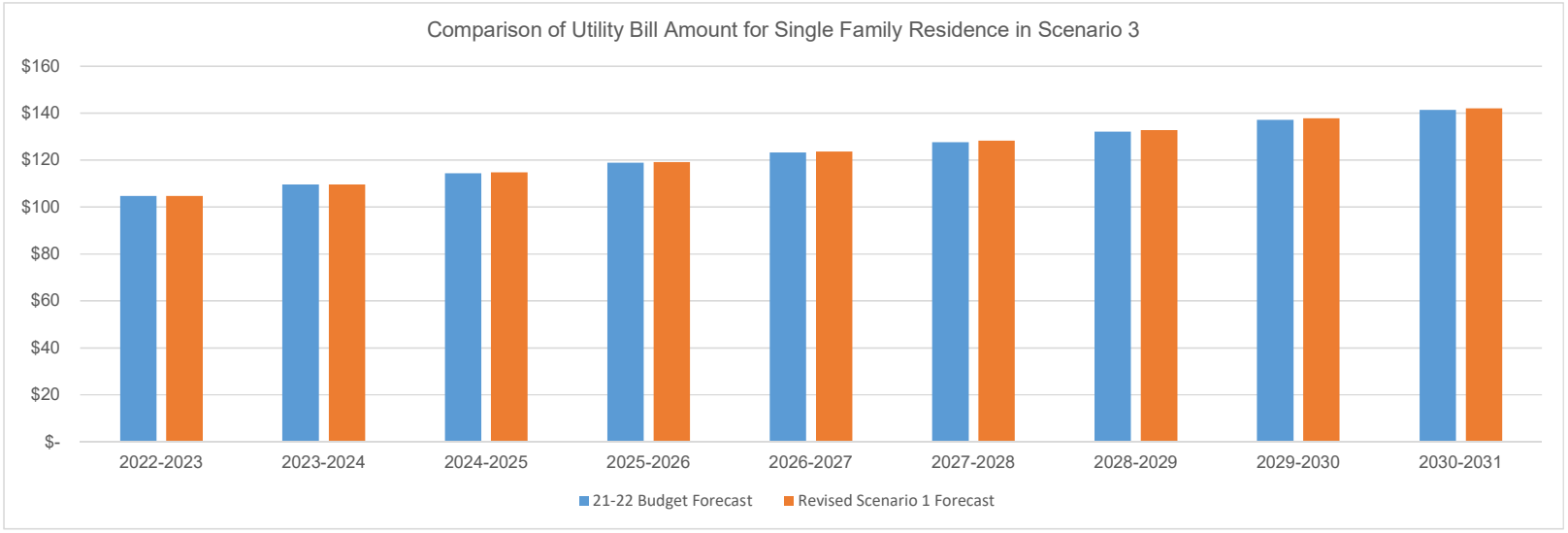
Scenario 5 Summary	
2022 COPs Amount:	$27.1 million
SRF Loans Refinance:	Yes
SRF Refinanced Debt Maturity:	Current Maturity Years
Use of Net Position Restricted for Debt:	Reduce 2022 new debt amount
Total cost of debt:	$72,138,650
Projected LRP Rebate:	$2,097,355
Debt Service Coverage Ratio:	1.37x
Change in Rates in 2030-2031 compared to 2021-2022 Rate Forecast:	$0.73 per month

Table 9. Scenario 5 - ETWD Issues $27.1 Million in New Debt in 2022 and Refunds SRF Loans to the Same Maturities
$2,270,150 in Restricted Net Position is Used to Reduce 2022 New Debt Principal Amount

Year Ended	2010 SRF Loan Total P&I	2013 SRF Loan Total P&I	2018 SRF Loan Total P&I	Current Total SRF Loan Debt Service	2022-2023 COPs Total P&I	Debt Service Total after COPs	Local Resources Program (LRP) Rebate	Debt Service Coverage Calculations Baker Debt Service	Net Revenues	Coverage Ratio
1/0/1900	242,750	1,613,250	406,000	2,262,000	1,179,250	3,441,250	340,819	684,263	5,633,269	1.37
6/30/2023	242,400	1,616,000	408,000	2,266,400	943,400	3,209,800	331,536	684,263	5,995,471	1.54
6/30/2024	245,600	1,615,600	410,600	2,271,800	943,400	3,215,200	319,978	684,263	6,337,365	1.63
6/30/2025	243,400	1,613,600	407,600	2,264,600	943,400	3,208,000	278,827			
6/30/2026	241,000	1,615,000	409,200	2,265,200	943,400	3,208,600	245,214			
6/30/2027	243,400	1,614,600	410,200	2,268,200	943,400	3,211,600	213,053			
6/30/2028	245,400	1,612,400	405,600	2,263,400	943,400	3,206,800	173,824			
6/30/2029	242,000	1,613,400	405,600	2,261,000	943,400	3,204,400	128,751			
6/30/2030	243,400	1,612,400	-	1,855,800	943,400	2,799,200	65,355			
6/30/2031	244,400	1,614,400	-	1,858,800	943,400	2,802,200	-			
6/30/2032	-	1,614,200	-	1,614,200	943,400	2,557,600	-			
6/30/2033	-	1,616,800	-	1,616,800	943,400	2,560,200	-			
6/30/2034	-	1,612,000	-	1,612,000	943,400	2,555,400	-			
6/30/2035	-	-	-	-	1,938,400	1,938,400	-			
6/30/2036	-	-	-	-	1,938,600	1,938,600	-			
6/30/2037	-	-	-	-	1,937,200	1,937,200	-			
6/30/2038	-	-	-	-	1,939,200	1,939,200	-			
6/30/2039	-	-	-	-	1,939,400	1,939,400	-			
6/30/2040	-	-	-	-	1,937,800	1,937,800	-			
6/30/2041	-	-	-	-	1,939,400	1,939,400	-			
6/30/2042	-	-	-	-	1,939,000	1,939,000	-			
6/30/2043	-	-	-	-	1,936,600	1,936,600	-			
6/30/2044	-	-	-	-	1,937,200	1,937,200	-			
6/30/2045	-	-	-	-	1,940,600	1,940,600	-			
6/30/2046	-	-	-	-	1,936,600	1,936,600	-			
6/30/2047	-	-	-	-	1,940,400	1,940,400	-			
6/30/2048	-	-	-	-	1,936,600	1,936,600	-			
6/30/2049	-	-	-	-	1,940,400	1,940,400	-			
6/30/2050	-	-	-	-	1,941,400	1,941,400	-			
6/30/2051	-	-	-	-	1,939,600	1,939,600	-			
Total	2,433,750	20,983,650	3,262,800	26,680,200	45,458,450	72,138,650	2,097,355			

Table 10. Water & Wastewater Rate Forecast for Debt Issuance Scenario 5

	Projected Utility Bill Cost for Single Family Residence Projected through the 2030-2031 Fiscal Year									
	21-22 Rates	22-23 Rates	23-24 Rates	24-25 Rates	25-26 Rates	26-27 Rates	27-28 Rates	28-29 Rates	29-30 Rates	30-31 Rates
As Projected in 2021-2022 Budget										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	5.08	5.54	6.04	6.58	7.20	7.56	7.94	8.34	8.76
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	5.37	5.76	5.99	6.23	6.48	6.74	7.01	7.29	7.29
Total Monthly Charge:	100.34	104.66	109.55	114.40	118.84	123.30	127.59	132.13	137.10	141.30
Total Rate % Change		4.3%	4.7%	4.4%	3.9%	3.8%	3.5%	3.6%	3.8%	3.1%
Revised for Debt Service Needs in Scenario 5										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	5.08	5.54	6.04	6.61	7.24	7.87	8.26	8.67	9.10
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	5.37	5.80	6.32	6.57	6.83	7.10	7.38	7.68	7.68
Total Monthly Charge:	100.34	104.66	109.59	114.73	119.21	123.69	128.26	132.82	137.82	142.03
Total Rate % Change		4.3%	4.7%	4.7%	3.9%	3.8%	3.7%	3.6%	3.8%	3.1%
Differenc to Original 21-22 Rate Forecast		0.0%	0.0%	0.3%	0.3%	0.3%	0.5%	0.5%	0.5%	0.5%



Scenario 6 – This Scenario assumes ETWD issues $27.1 million in Certificates of Participation and utilizes the $2,270,150 in Restricted Net Position to fund the remainder of the capital projects and complete the AMI Remote Meter Reading Program and an expansion of the Recycled Water System. The District would refinance the SRF Loans but extend the maturities of the refinanced debt through 2052. The $27.1 million in new debt in 2022 combined with the restricted $2,270,150 equals the $29.4 million needed to fund the capital projects complete the other projects. Issues to consider when reviewing this scenario include:

- This Scenario ultimately costs the District the most in principal and interest and significantly increases the cost of the refinanced SRF debt. Principal and interest payments of $36,319,950 on the refinanced SRF debt would be $9,627,668 higher than the base scenario.
- As in prior scenarios, refinancing the SRF Loans eliminates the seniority of this debt and the refinanced and new debt COPs will be equal in the District's debt structure to the Baker Water Treatment Plant Loan, thereby providing bond rating, interest rate, and future financing advantages.
- This scenario lowers the annual debt payments through 2036, but after 2036 the annual debt payments will increase significantly compared to prior scenarios. This would allow the District to mitigate future Water & Wastewater capital rate increases, lowering monthly payment amounts for customers, but the District may have to increase Water & Wastewater capital rates in 2036 to offset the higher debt service payments that begin in that year. Any mitigation of rates through 2036 would be contingent on the Board approving the use of restricted revenue for water supply project debt.
- Cash Outlays for Debt Service and Impact on Rates: This scenario provides lower annual debt payments through the 2036, thereby mitigating future rate increases. The initial debt service payments for the 2022 new Debt would be $943,400 but the annual debt payments for the refinanced SRF Loans would be significantly lower than in prior scenarios because the maturities are extended. Beginning in the 2026-2027 fiscal year, the Water and Wastewater Capital Rates could be slightly lower than the rates projected in the 2021-2022 Budget forecast. ETWD customers in 2026-2027 would pay $0.42 per month (-0.3%) less than the 2021-2022 Budget rate forecast and this would continue to decrease through fiscal year 2030-2031 when an ETWD customer could pay an estimated $0.50 per month less than the 2021-2022 Budget rate forecast.
- Total Debt Service Cost: $36,319,950 for refinanced SRF debt, significantly more than in prior scenarios due to extending the maturity of the SRF debt. The Principal and Interest for the 2022 new debt would equal $45,458,450 so the combined 30 year debt cost would be $81,778,400.
- The District would not receive the LRP Rebates because the reduction in annual debt payments for the refinanced SRF Debt would cause a reduction in the acre foot cost of recycled water which would make it less expensive than potable water (the LRP Rebate contract requires the per acre foot cost of recycled water to be higher than the per acre foot cost of potable water).

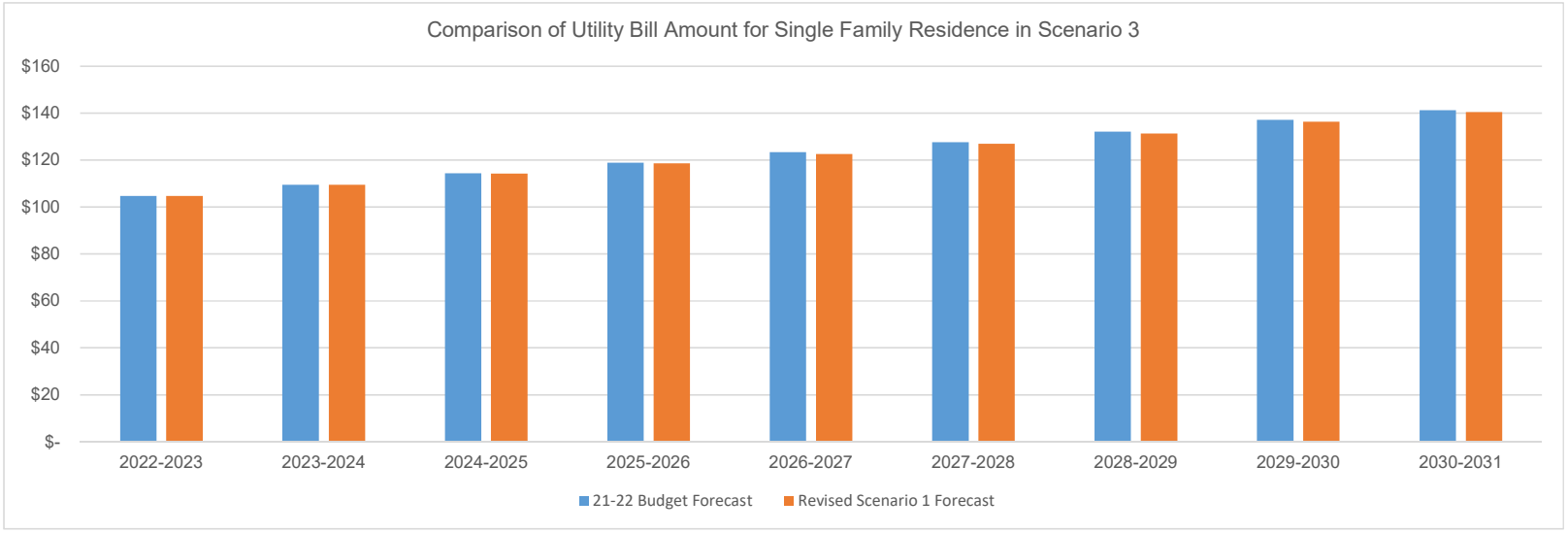
Scenario 6 Summary	
2022 COPs Amount:	$27.1 million
SRF Loans Refinance:	Yes
SRF Refinanced Debt Maturity:	Extended to 2052
Use of Net Position Restricted for Debt:	Reduce 2022 new debt amount
Projected LRP Rebate:	$0
Total cost of debt:	$81,778,400
Debt Service Coverage Ratio:	1.72x
Change in Rates in 2030-2031 compared to 2021-2022 Rate Forecast:	($0.50) per month

Table 11. Scenario 6 - ETWD Issues $27.1 Million in New Debt in 2022 and Refunds SRF Loans to Extended Maturities
$2,270,150 in Restricted Net Position is Used to Reduce 2022 New Debt Principal Amount

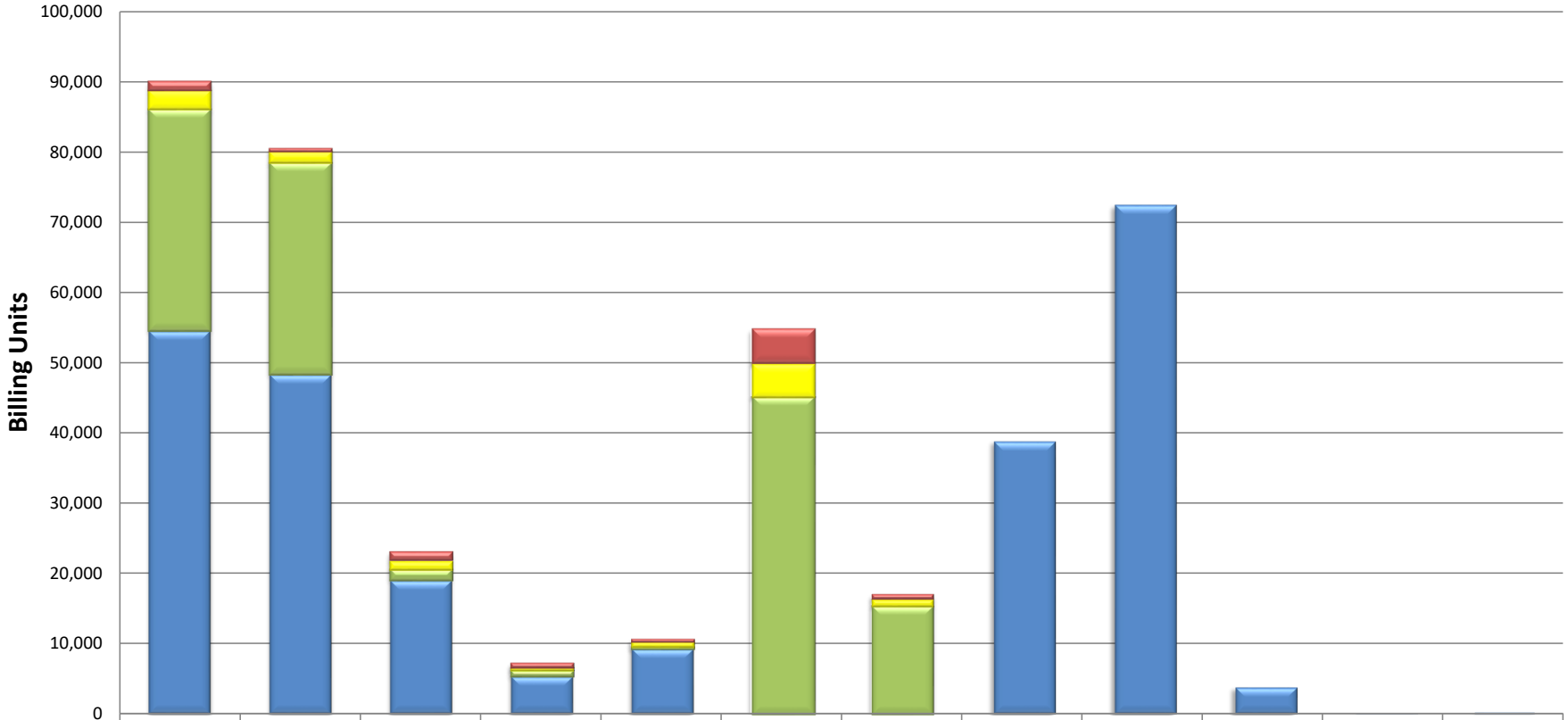
Year Ended	2010 SRF Loan Total P&I	2013 SRF Loan Total P&I	2018 SRF Loan Total P&I	Current Total SRF Loan Debt Service	2022-2023 COPs Total P&I	Debt Service Total after COPs	Local Resources Program (LRP) Rebate	Debt Service Coverage Calculations Baker Debt Service	Net Revenues	Coverage Ratio
1/0/1900	112,500	941,250	153,000	1,206,750	1,179,250	2,386,000	-	684,263	5,292,450	1.72
1/0/1900	112,400	939,600	155,600	1,207,600	943,400	2,151,000	-	684,263	5,663,935	2.00
6/30/2023	116,000	942,600	153,600	1,212,200	943,400	2,155,600	-	684,263	6,017,387	2.12
6/30/2024	114,400	940,000	156,600	1,211,000	943,400	2,154,400	-			
6/30/2025	112,800	942,000	154,400	1,209,200	943,400	2,152,600	-			
6/30/2026	116,200	943,400	157,200	1,216,800	943,400	2,160,200	-			
6/30/2027	114,400	939,200	154,800	1,208,400	943,400	2,151,800	-			
6/30/2028	112,600	939,600	157,400	1,209,600	943,400	2,153,000	-			
6/30/2029	115,800	939,400	154,800	1,210,000	943,400	2,153,400	-			
6/30/2030	113,800	943,600	157,200	1,214,600	943,400	2,158,000	-			
6/30/2031	111,800	942,000	154,400	1,208,200	943,400	2,151,600	-			
6/30/2032	114,800	939,800	156,600	1,211,200	943,400	2,154,600	-			
6/30/2033	112,600	942,000	153,600	1,208,200	943,400	2,151,600	-			
6/30/2034	115,400	943,400	155,600	1,214,400	1,938,400	3,152,800	-			
6/30/2035	113,000	944,000	157,400	1,214,400	1,938,600	3,153,000	-			
6/30/2036	115,600	943,800	154,000	1,213,400	1,937,200	3,150,600	-			
6/30/2037	113,000	942,800	155,600	1,211,400	1,939,200	3,150,600	-			
6/30/2038	115,400	941,000	157,000	1,213,400	1,939,400	3,152,800	-			
6/30/2039	112,600	943,400	153,200	1,209,200	1,937,800	3,147,000	-			
6/30/2040	114,800	939,800	154,400	1,209,000	1,939,400	3,148,400	-			
6/30/2041	111,800	940,400	155,400	1,207,600	1,939,000	3,146,600	-			
6/30/2042	113,800	940,000	156,200	1,210,000	1,936,600	3,146,600	-			
6/30/2043	115,600	943,600	156,800	1,216,000	1,937,200	3,153,200	-			
6/30/2044	112,200	941,000	157,200	1,210,400	1,940,600	3,151,000	-			
6/30/2045	113,800	942,400	152,400	1,208,600	1,936,600	3,145,200	-			
6/30/2046	115,200	942,600	152,600	1,210,400	1,940,400	3,150,800	-			
6/30/2047	111,400	941,600	152,600	1,205,600	1,936,600	3,142,200	-			
6/30/2048	112,600	939,400	157,400	1,209,400	1,940,400	3,149,800	-			
6/30/2049	113,600	941,000	156,800	1,211,400	1,941,400	3,152,800	-			
6/30/2050	114,400	941,200	156,000	1,211,600	1,939,600	3,151,200	-			
Total	3,414,300	28,245,850	4,659,800	36,319,950	45,458,450	81,778,400	-			

Table 12. Water & Wastewater Rate Forecast for Debt Issuance Scenario 6

	Projected Utility Bill Cost for Single Family Residence Projected through the 2030-2031 Fiscal Year									
	21-22 Rates	22-23 Rates	23-24 Rates	24-25 Rates	25-26 Rates	26-27 Rates	27-28 Rates	28-29 Rates	29-30 Rates	30-31 Rates
As Projected in 2021-2022 Budget										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	5.08	5.54	6.04	6.58	7.20	7.56	7.94	8.34	8.76
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	5.37	5.76	5.99	6.23	6.48	6.74	7.01	7.29	7.29
Total Monthly Charge:	100.34	104.66	109.55	114.40	118.84	123.30	127.59	132.13	137.10	141.30
Total Rate % Change		4.3%	4.7%	4.4%	3.9%	3.8%	3.5%	3.6%	3.8%	3.1%
Revised for Debt Service Needs in Scenario 6										
Commodity Charges										
Tier 1 (10 CCF)	$ 27.20	$ 28.40	$ 29.70	$ 31.00	$ 32.10	$ 33.10	$ 34.10	$ 35.10	$ 36.20	$ 37.30
Tier 2 (5 CCF)	15.55	16.15	16.80	17.45	18.00	18.50	19.00	19.50	20.35	20.60
Water Fixed Rate	22.24	23.13	24.29	25.50	26.52	27.58	28.68	29.97	31.17	32.42
Water Capital Rate	4.66	5.08	5.54	6.04	6.58	6.82	7.16	7.52	7.90	8.30
Sewer Fixed Rate	25.76	26.53	27.46	28.42	29.41	30.44	31.51	32.61	33.75	34.93
Sewer Capital Rate	4.93	5.37	5.72	5.95	6.19	6.44	6.70	6.97	7.25	7.25
Total Monthly Charge:	100.34	104.66	109.51	114.36	118.80	122.88	127.15	131.67	136.62	140.80
Total Rate % Change		4.3%	4.6%	4.4%	3.9%	3.4%	3.5%	3.6%	3.8%	3.1%
Differenc to Original 21-22 Rate Forecast		0.0%	0.0%	0.0%	0.0%	-0.3%	-0.3%	-0.3%	-0.4%	-0.4%

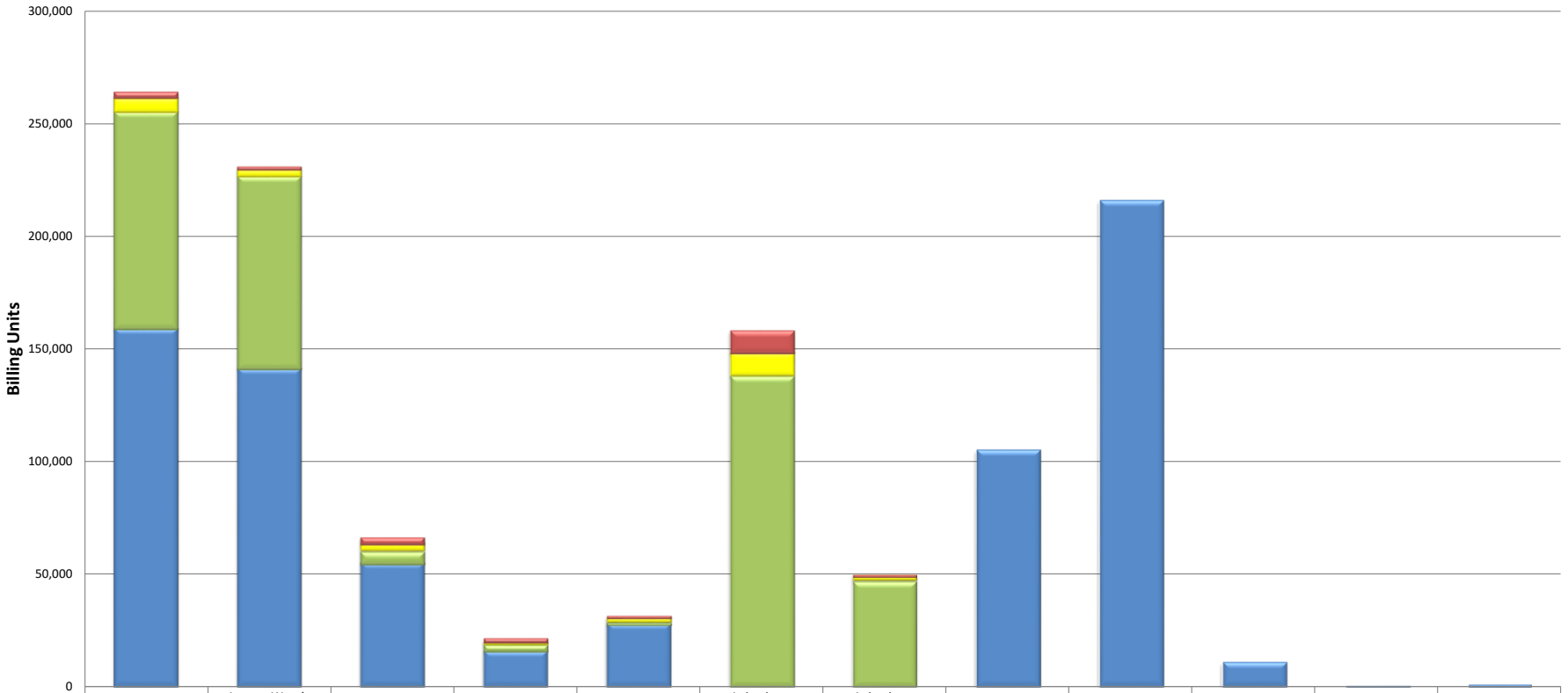


September 2021 Water Sales

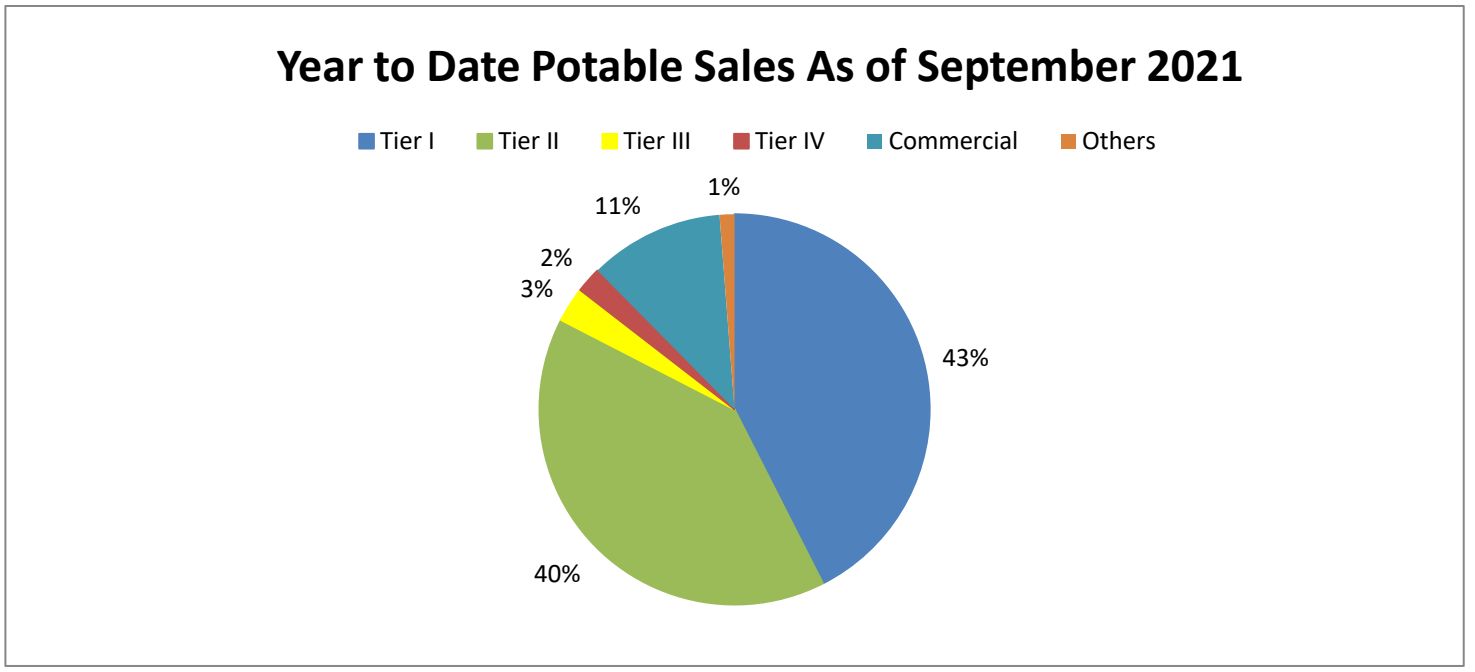


	Residential	Laguna Woods Village	Multi Family	Trailer Parks	Condo	Irrigation - Functional	Irrigation - Recreational	Commercial	Recycled Water	Public Authority	Private Fire	Flooding
Tier IV	1,223	379	1,103	559	293	4,817	562	0	0	0	0	0
Tier III	2,679	1,542	1,166	355	680	4,691	888	0	0	0	0	0
Tier II	31,450	30,085	1,554	832	226	45,211	15,464	0	0	0	0	0
Tier I	54,573	48,363	19,172	5,399	9,347	0	0	38,871	72,444	3,843	87	228

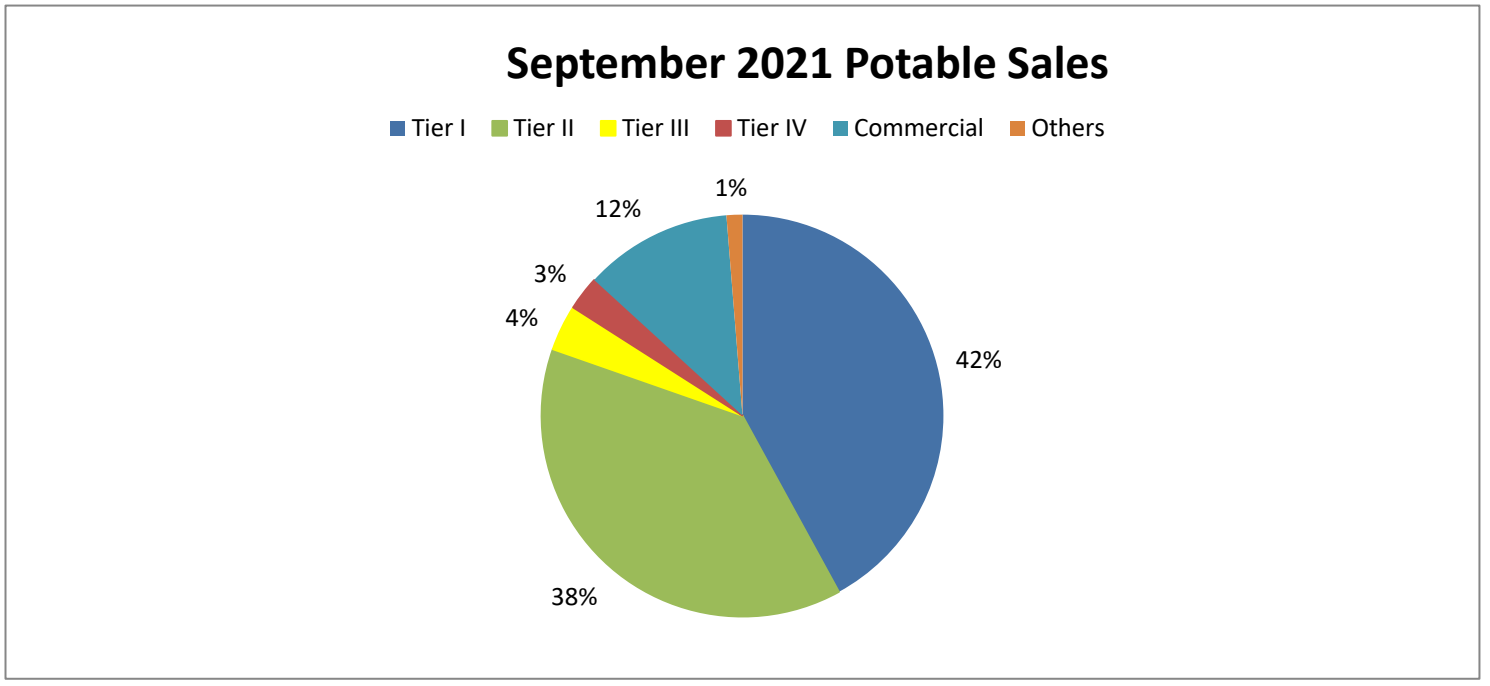
Year-to-Date Water Sales as of September 2021



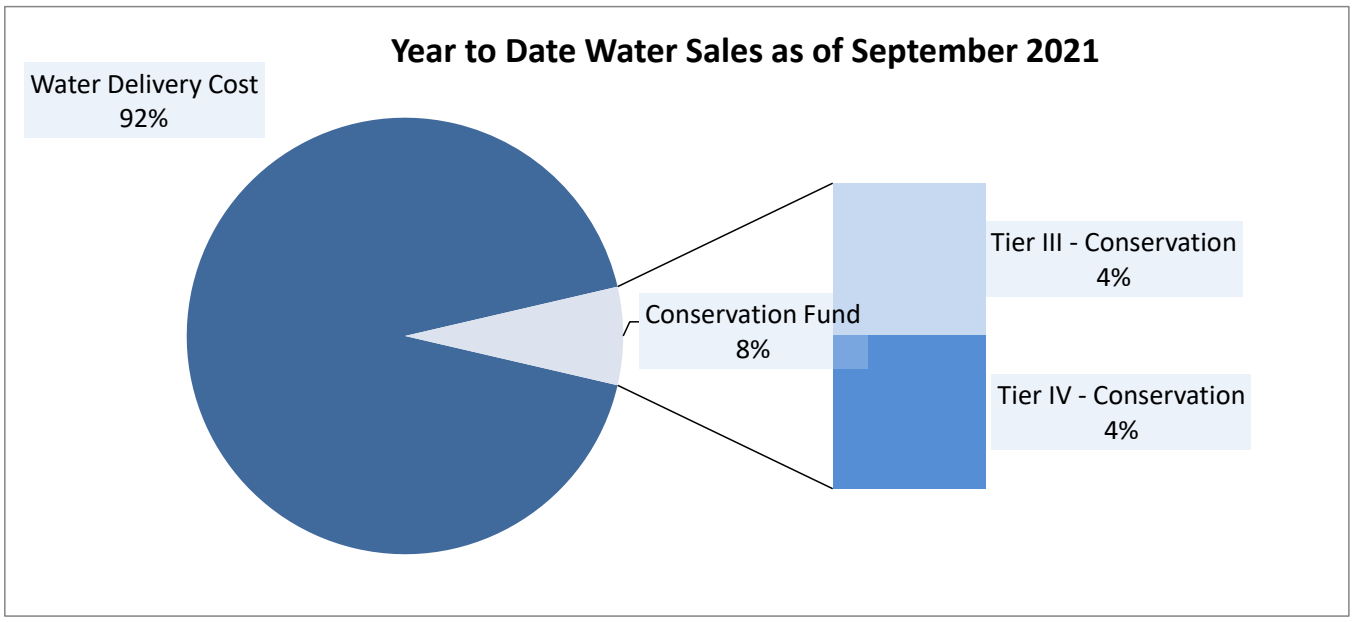
	Residential	Laguna Woods Village	Multi Family	Trailer Parks	Condo	Irrigation - Functional	Irrigation - Recreational	Commercial	Recycled Water	Public Authority	Private Fire	Flooding
Tier IV	2,575	1,097	2,977	1,677	874	9,943	761	0	0	0	0	0
Tier III	6,079	3,032	3,322	892	1,900	10,145	1,915	0	0	0	0	0
Tier II	96,141	85,256	5,419	2,835	647	138,008	47,227	0	0	0	0	0
Tier I	158,768	141,077	54,918	15,900	28,003	0	0	104,755	215,434	10,721	98	711



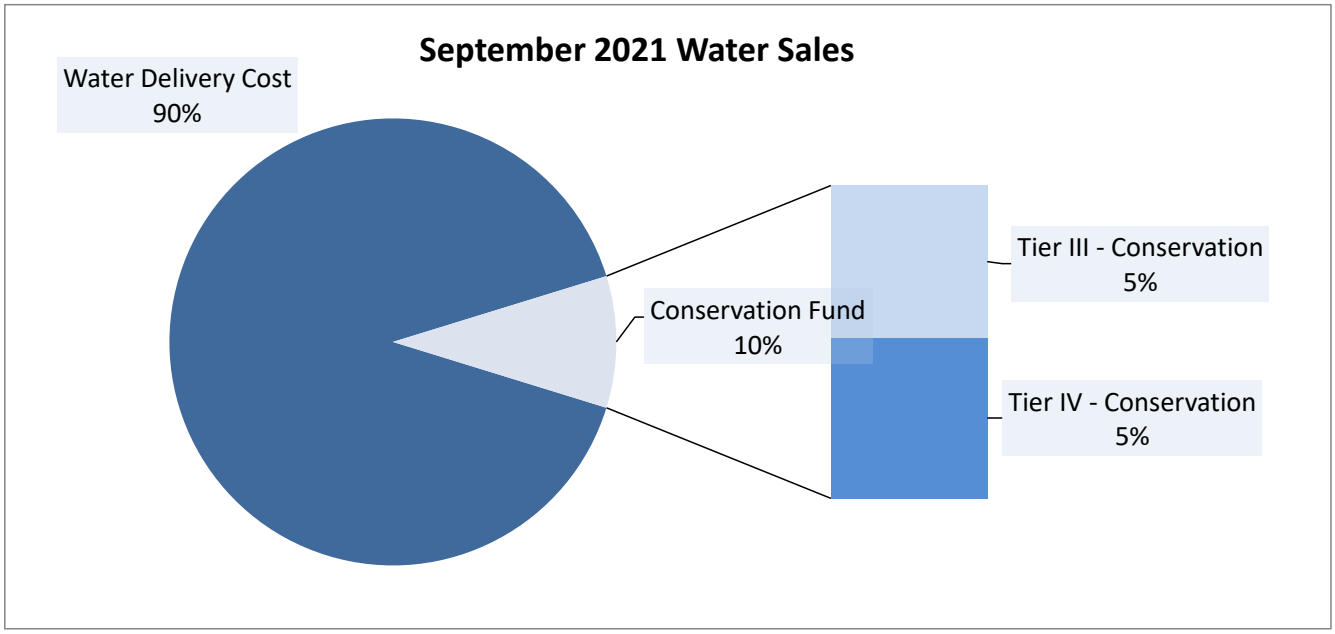
Year To Date Sales in ccf		
Tier I	398,666	42.52%
Tier II	375,533	40.05%
Tier III	27,285	2.91%
Tier IV	19,904	2.12%
Commercial	104,755	11.17%
Others	11,530	1.23%
Total	937,673	100.00%



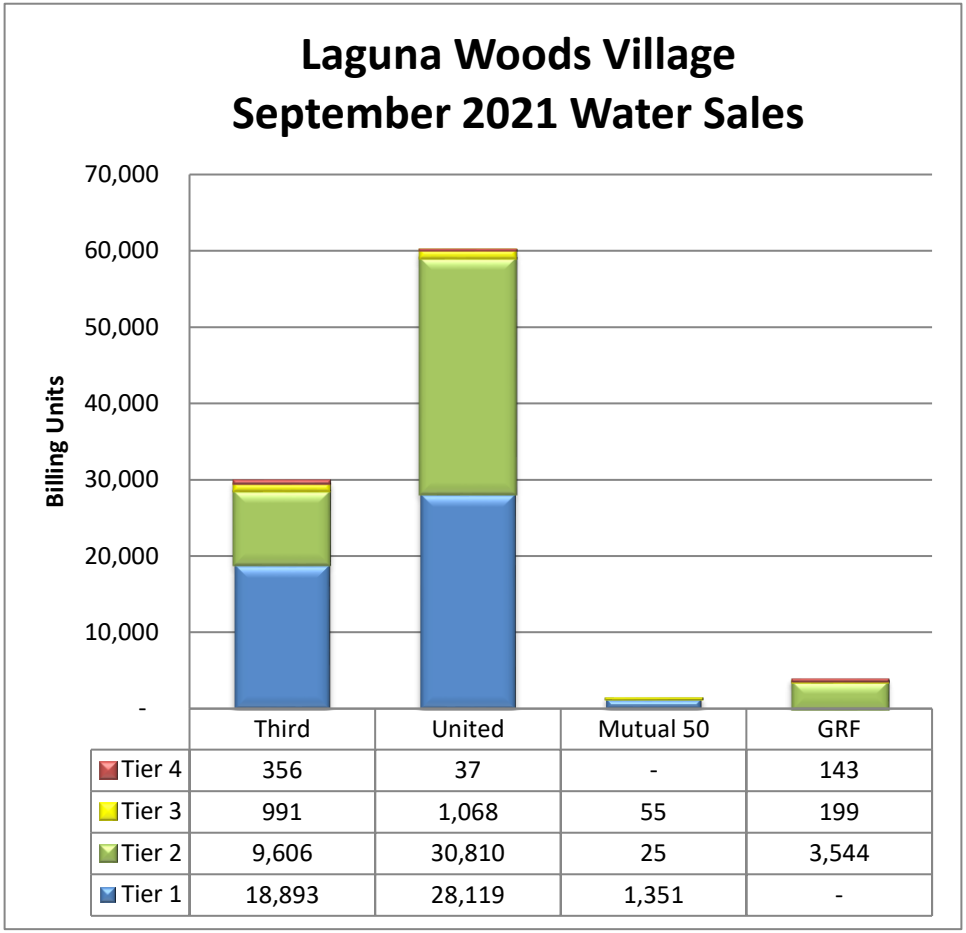
Current Month Sales in ccf		
Tier I	136,854	42.03%
Tier II	124,822	38.33%
Tier III	12,001	3.69%
Tier IV	8,936	2.74%
Commercial	38,871	11.94%
Others	4,158	1.28%
Total	325,642	100.00%



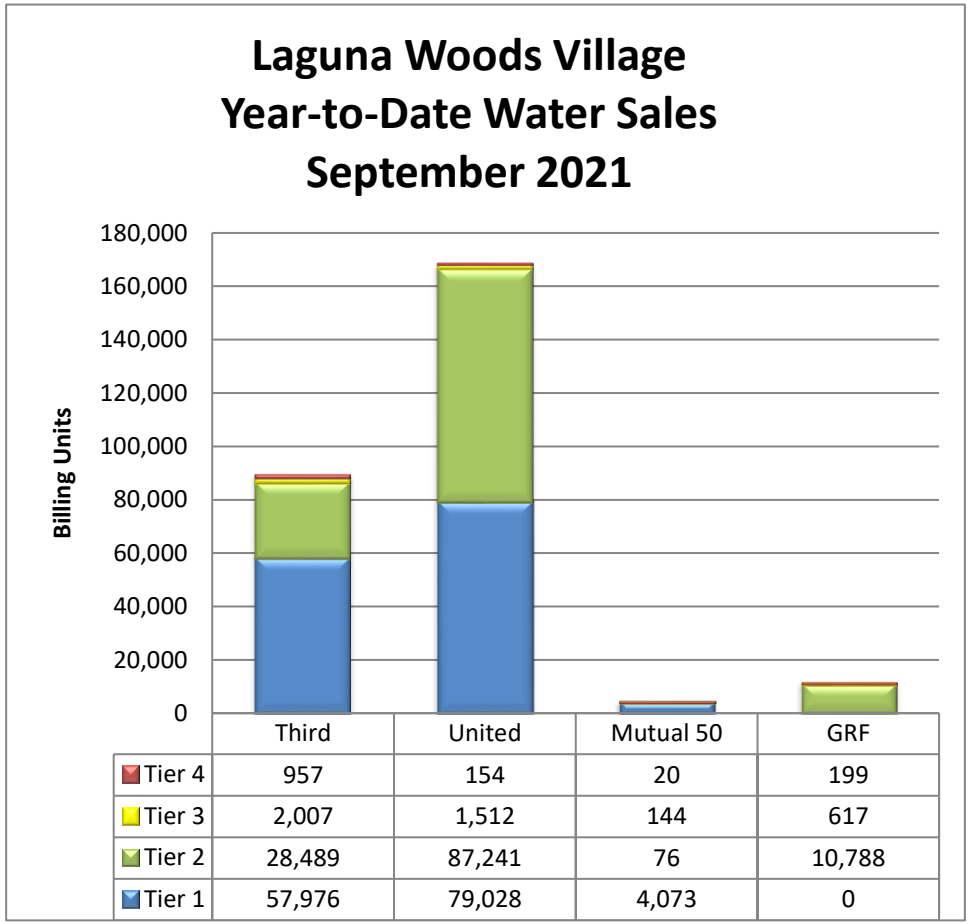
Category	Billings	Percentage
Water Delivery Cost	$2,389,205.56	92.74%
Tier III - Conservation	$92,716.40	3.60%
Tier IV - Conservation	$94,194.44	3.66%
	$2,576,116.40	100.00%



Category	Billings	Percentage
Water Delivery Cost	$830,151.74	90.48%
Tier III - Conservation	$42,483.54	4.63%
Tier IV - Conservation	$44,853.20	4.89%
	$917,488.48	100.00%

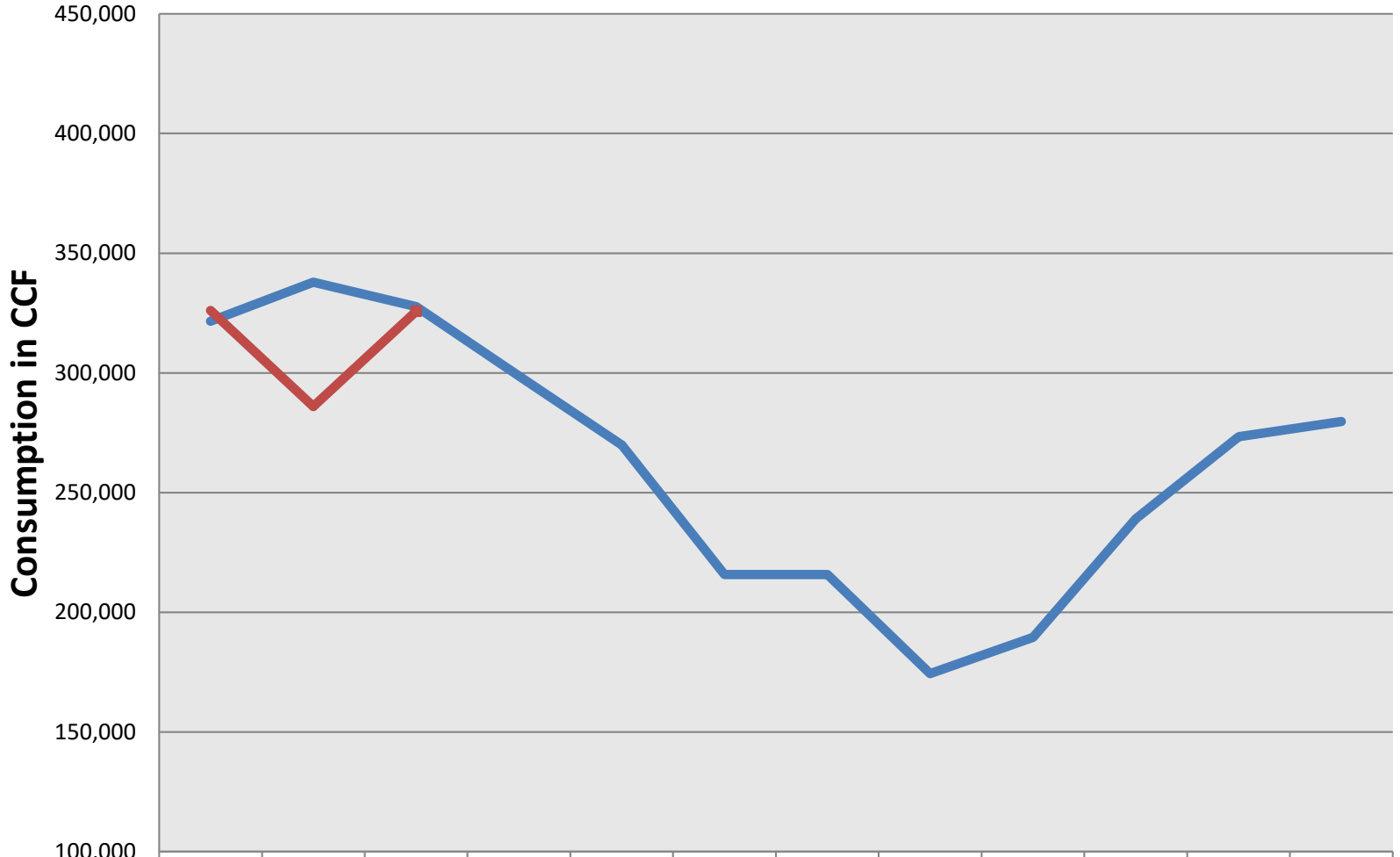


	Third	United	Mutual 50	GRF
Tier 4	356	37	-	143
Tier 3	991	1,068	55	199
Tier 2	9,606	30,810	25	3,544
Tier 1	18,893	28,119	1,351	-



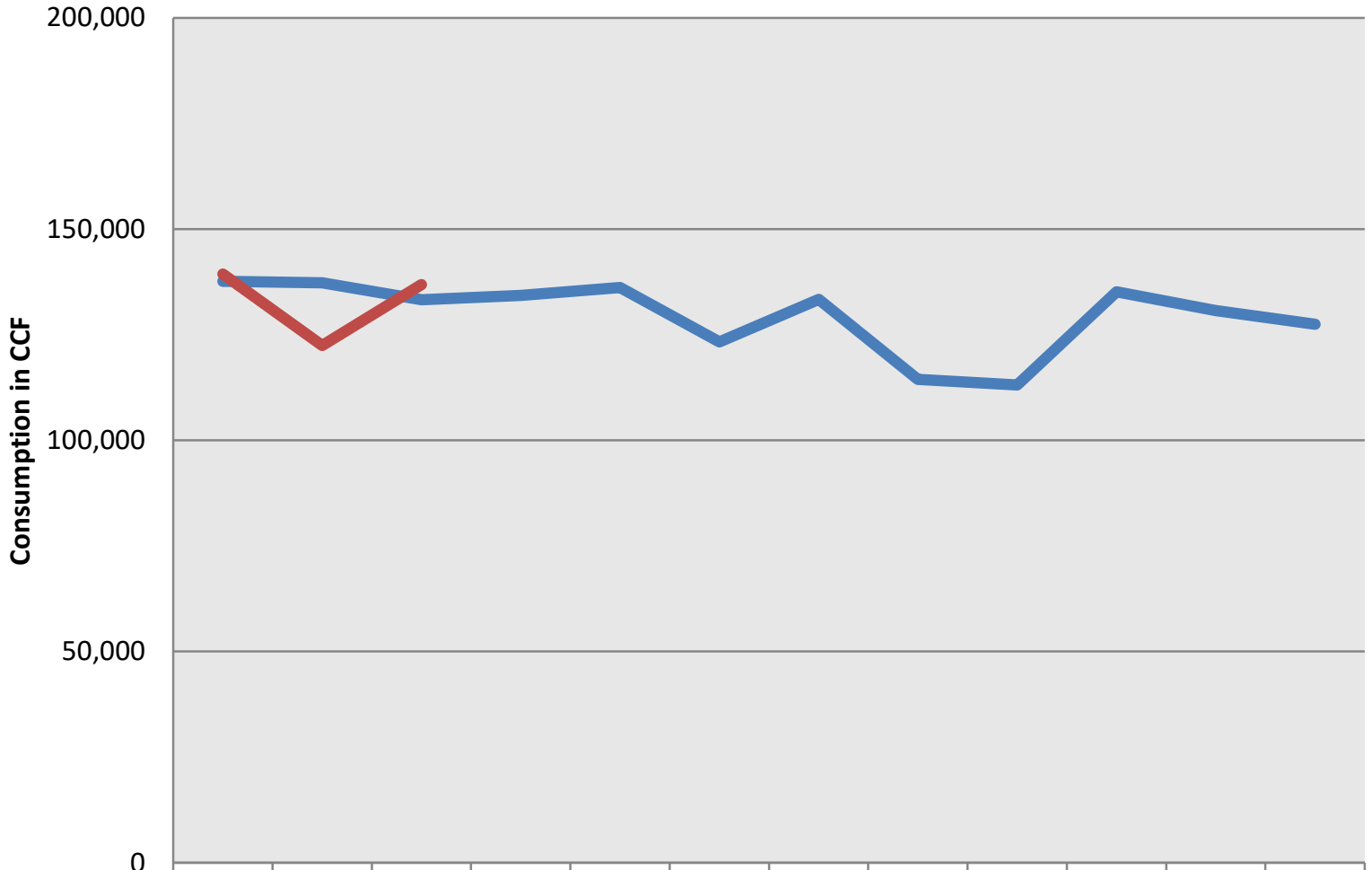
	Third	United	Mutual 50	GRF
Tier 4	957	154	20	199
Tier 3	2,007	1,512	144	617
Tier 2	28,489	87,241	76	10,788
Tier 1	57,976	79,028	4,073	0

ETWD Total Consumption



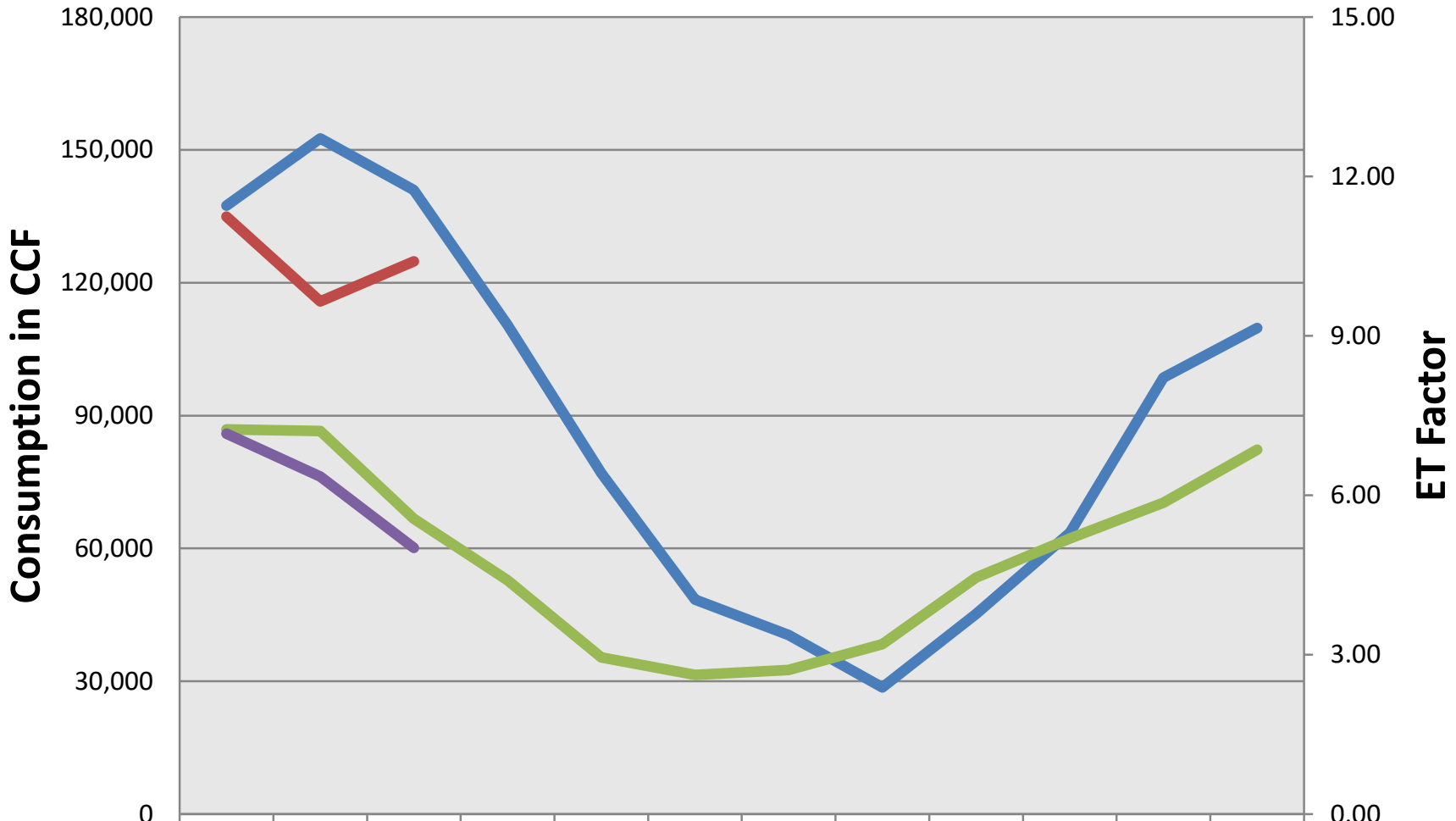
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	321,599	337,881	327,731	298,688	269,822	215,708	215,719	174,359	189,493	239,022	273,284	279,630
2021-2022	326,076	285,955	325,642									
%	101%	85%	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Tier I Consumption



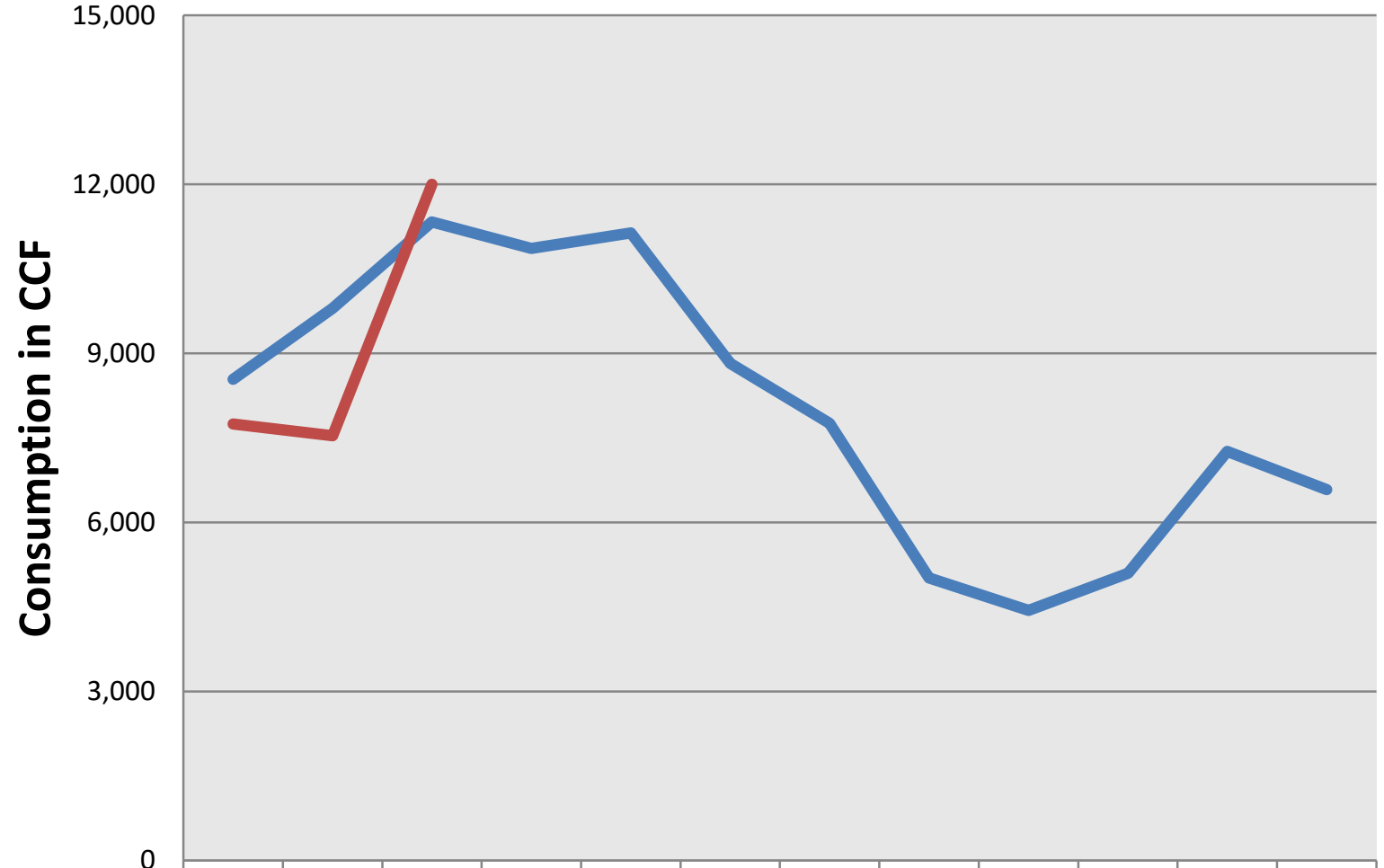
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	137,646	137,282	133,239	134,309	136,195	123,315	133,386	114,443	113,103	135,147	130,701	127,482
2021-2022	139,359	122,453	136,854									

Tier II Consumption



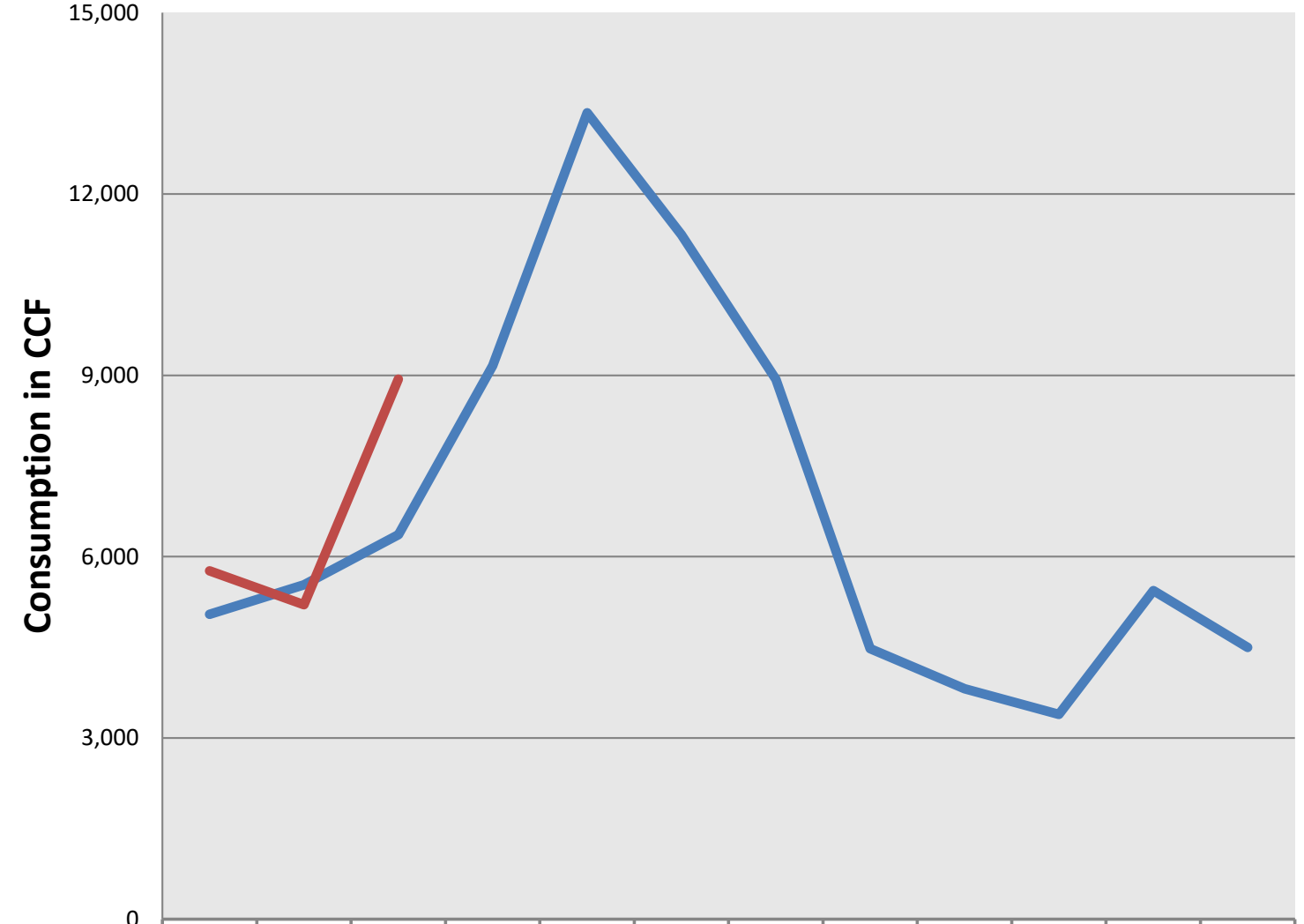
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	137,408	152,593	140,982	110,443	76,968	48,415	40,480	28,615	45,213	63,524	98,547	109,792
2021-2022	134,929	115,782	124,822									
20/21 ET	7.24	7.21	5.56	4.40	2.95	2.62	2.71	3.20	4.45	5.19	5.86	6.86
21/22 ET	7.16	6.35	5.01									

Tier III Consumption



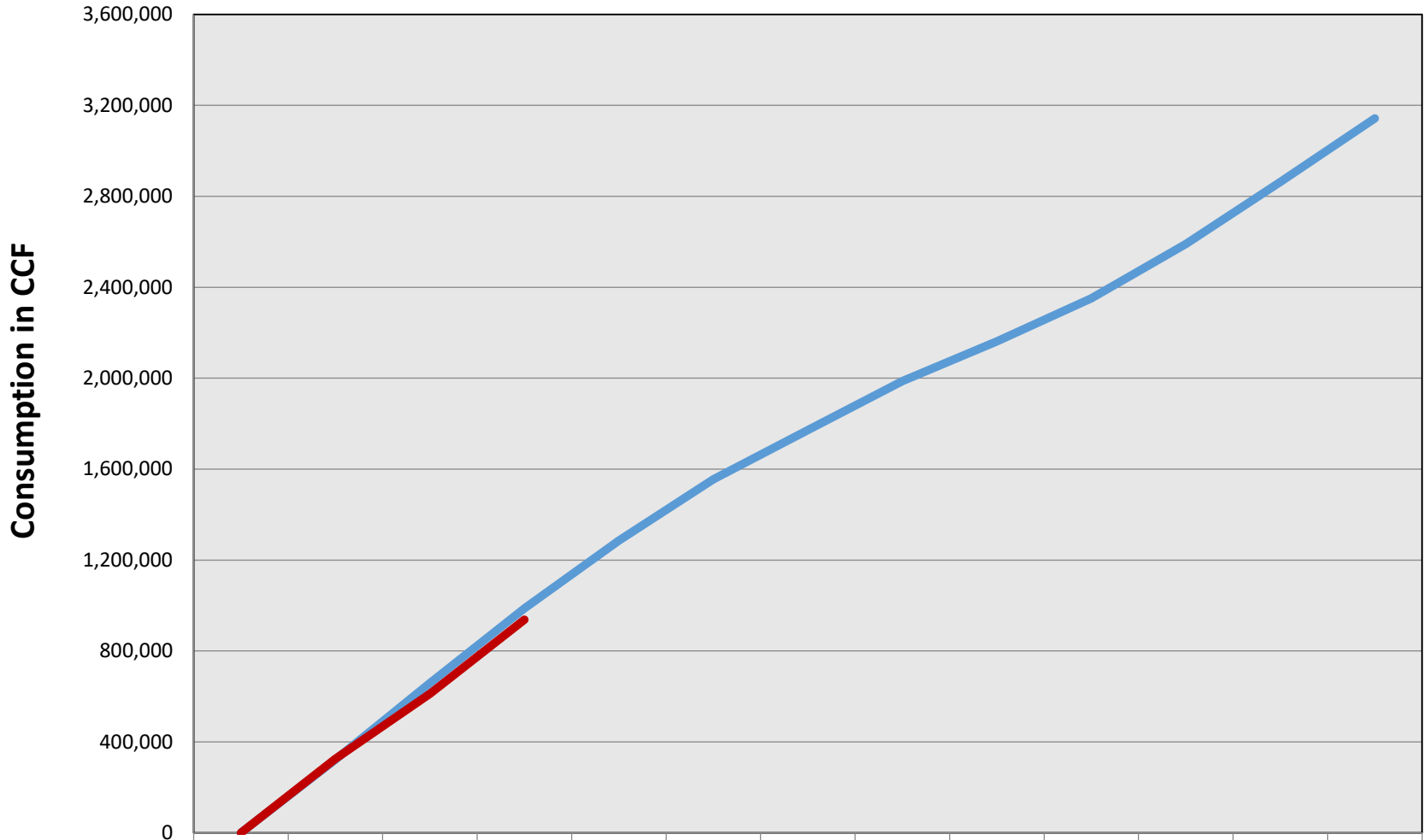
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	8,539	9,799	11,333	10,865	11,140	8,820	7,758	5,016	4,439	5,101	7,261	6,584
2021-2022	7,745	7,539	12,001									

Tier IV Consumption



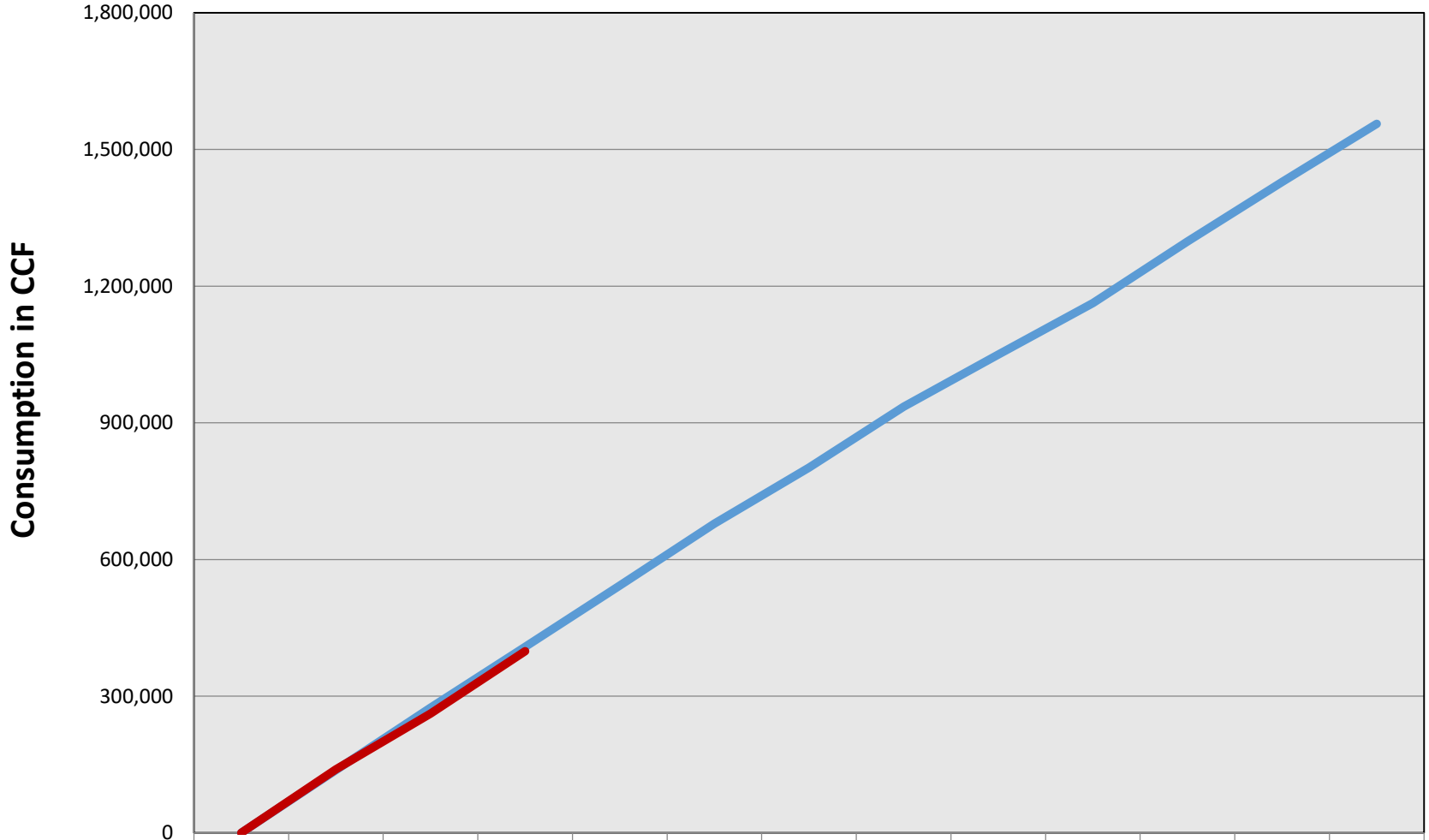
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	5,043	5,531	6,365	9,159	13,344	11,328	8,931	4,479	3,815	3,389	5,438	4,499
2021-2022	5,764	5,204	8,936									

ETWD YTD Consumption



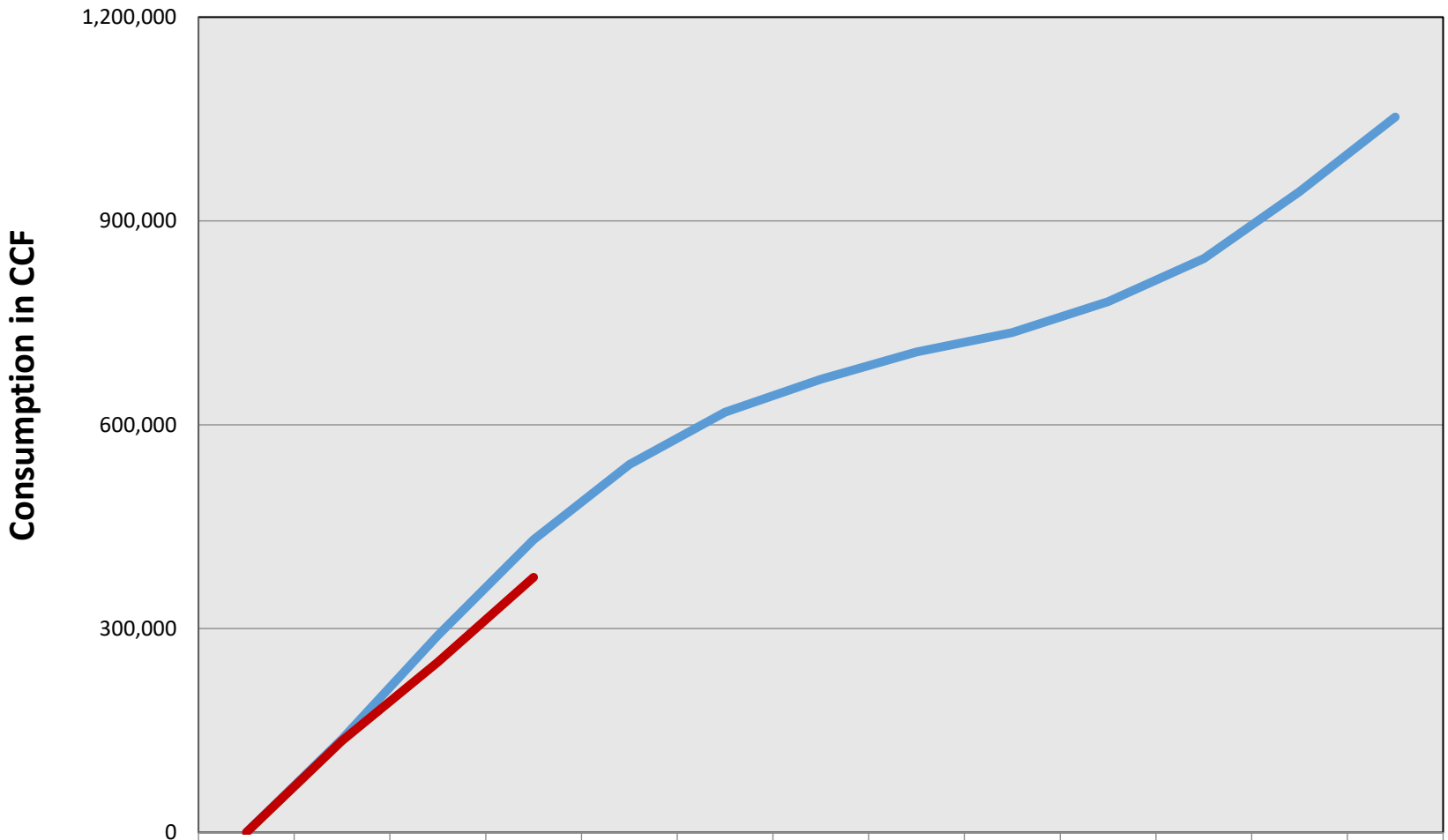
	YTD Start	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	0	321,599	659,480	987,211	1,285,899	1,555,721	1,771,429	1,987,148	2,161,507	2,351,000	2,590,022	2,863,306	3,142,936
2021-2022	0	326,076	612,031	937,673									

Tier I YTD Consumption



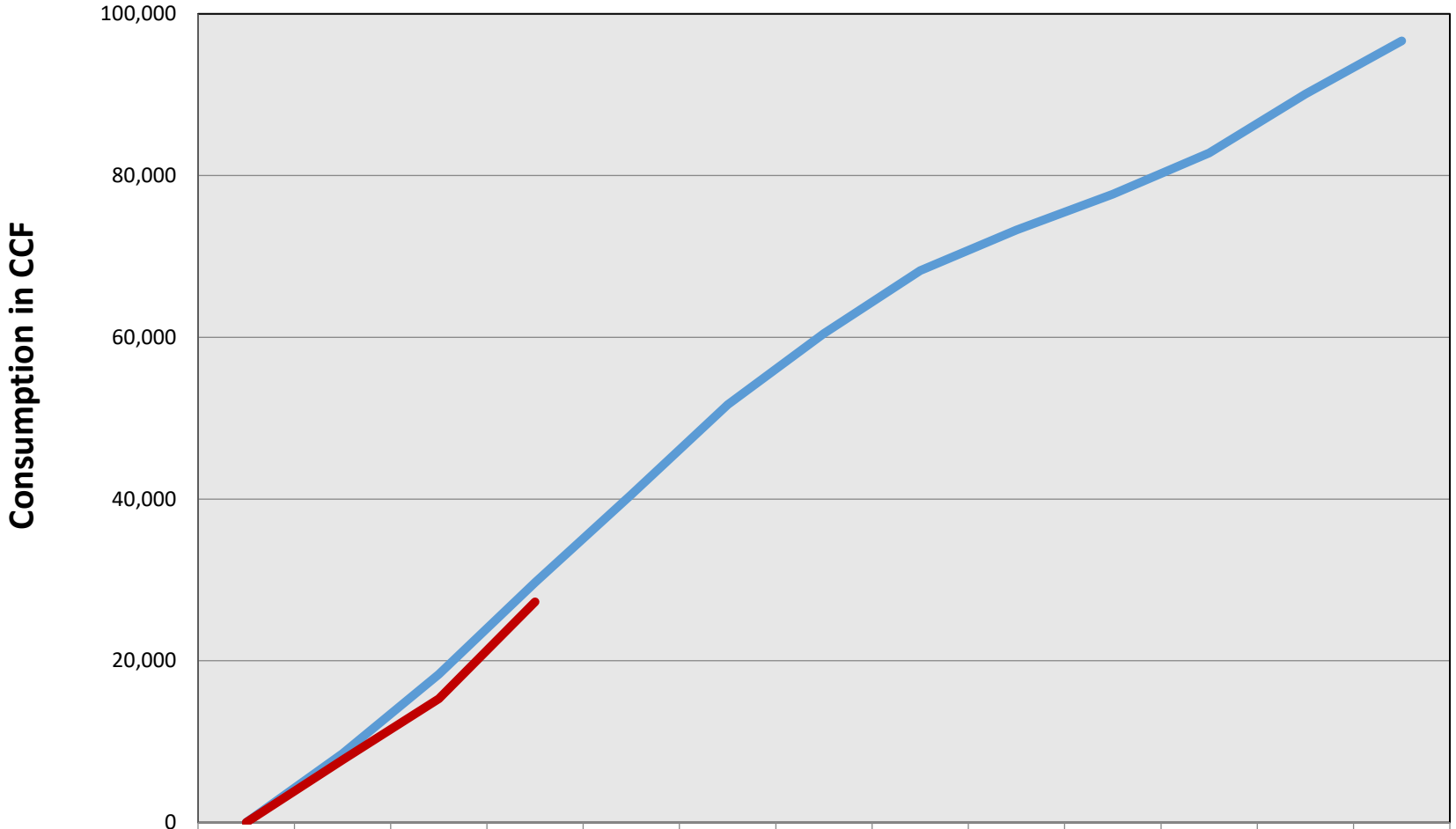
	YTD Start	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	0	137,646	274,928	408,167	542,476	678,671	801,986	935,372	1,049,815	1,162,918	1,298,065	1,428,766	1,556,248
2021-2022	0	139,359	261,812	398,666									

Tier II YTD Consumption



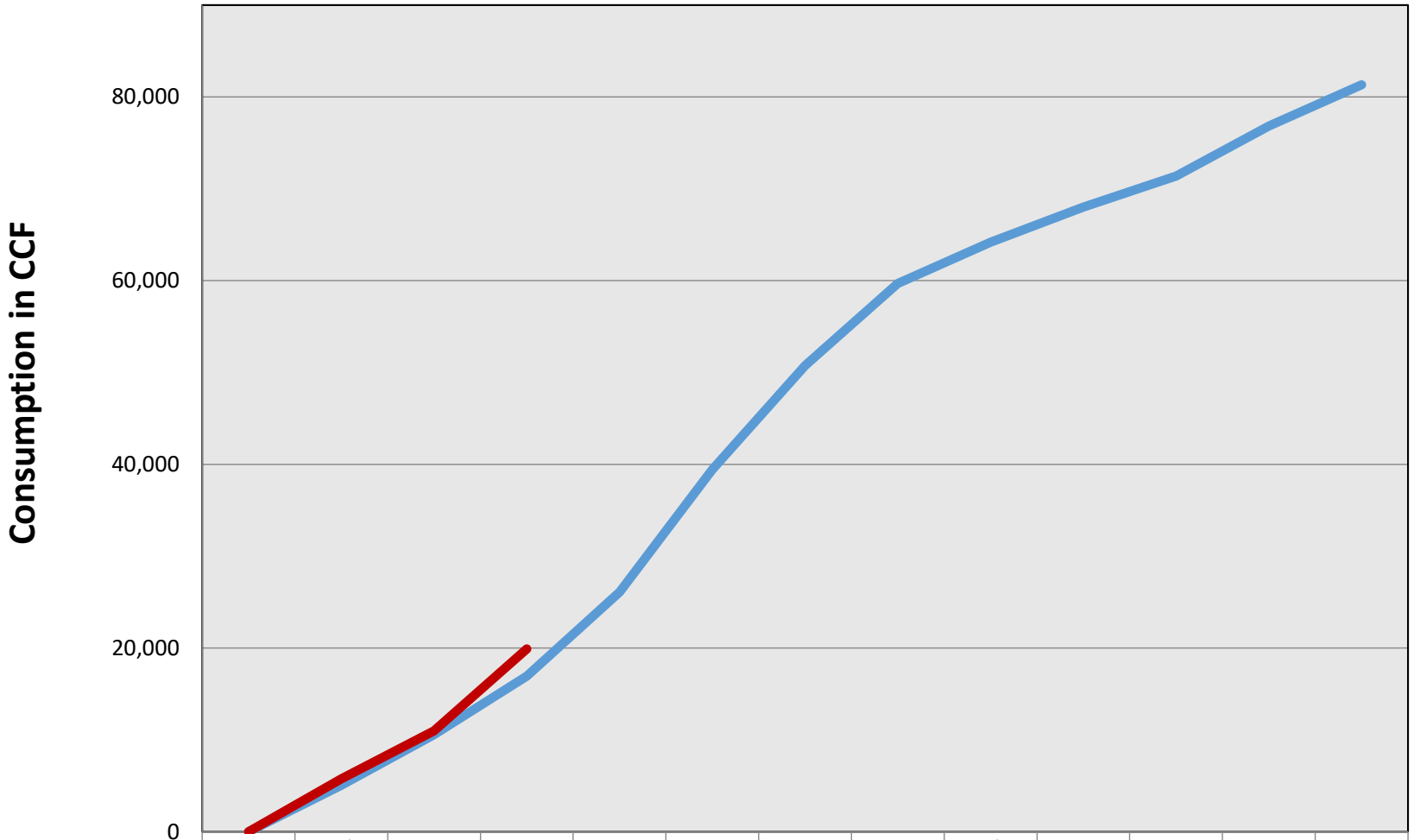
	YTD Start	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	0	137,408	290,001	430,983	541,426	618,394	666,809	707,289	735,904	781,117	844,641	943,188	1,052,980
2021-2022	0	134,929	250,711	375,533									

Tier III YTD Consumption



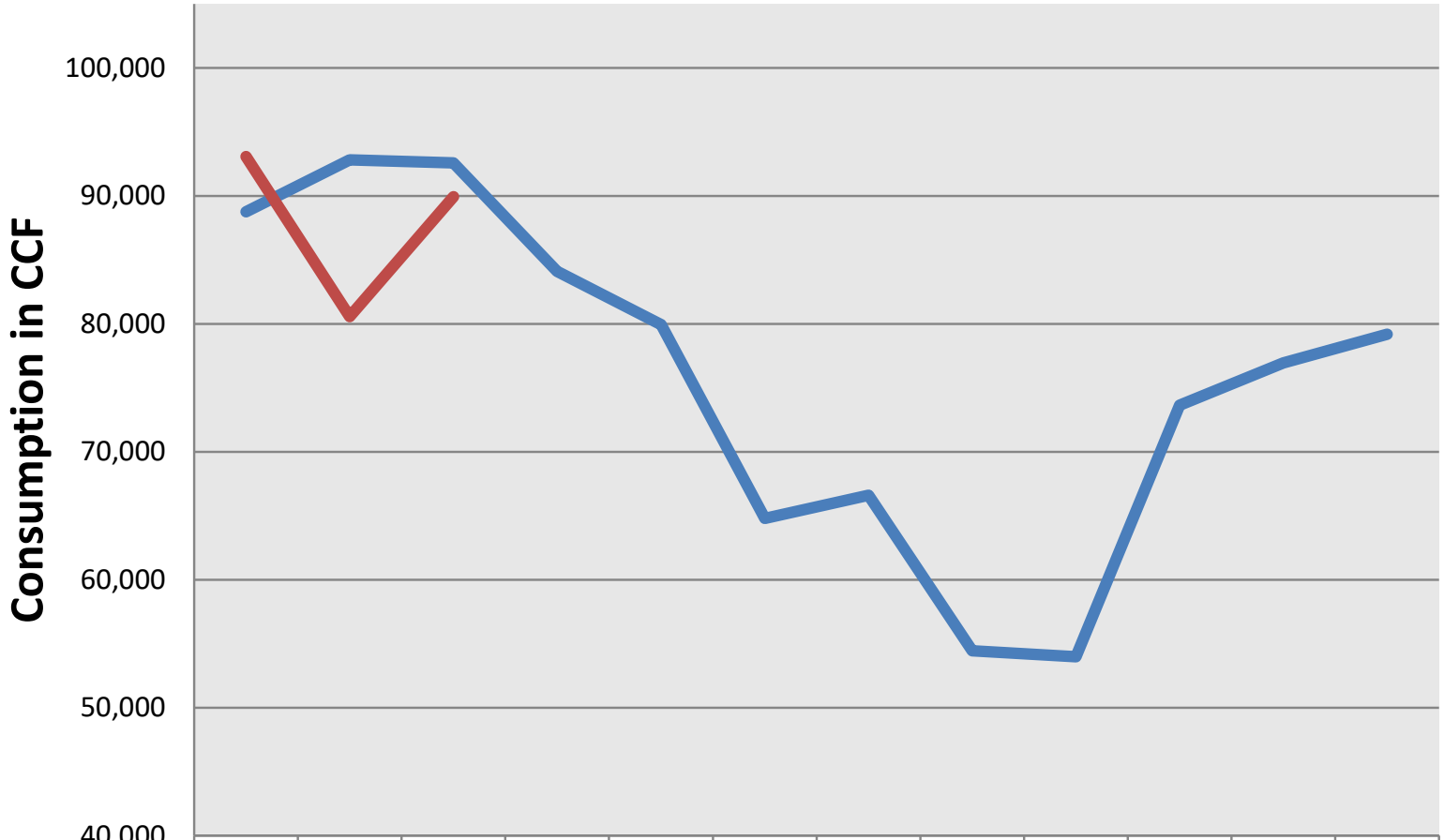
	YTD Start	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	0	8,539	18,338	29,671	40,536	51,676	60,496	68,254	73,270	77,709	82,810	90,071	96,655
2021-2022	0	7,745	15,284	27,285									

Tier IV YTD Consumption



	YTD Start	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	0	5,043	10,574	16,939	26,098	39,442	50,770	59,701	64,180	67,995	71,384	76,822	81,321
2021-2022	0	5,764	10,968	19,904									

Single Family Residents Consumption

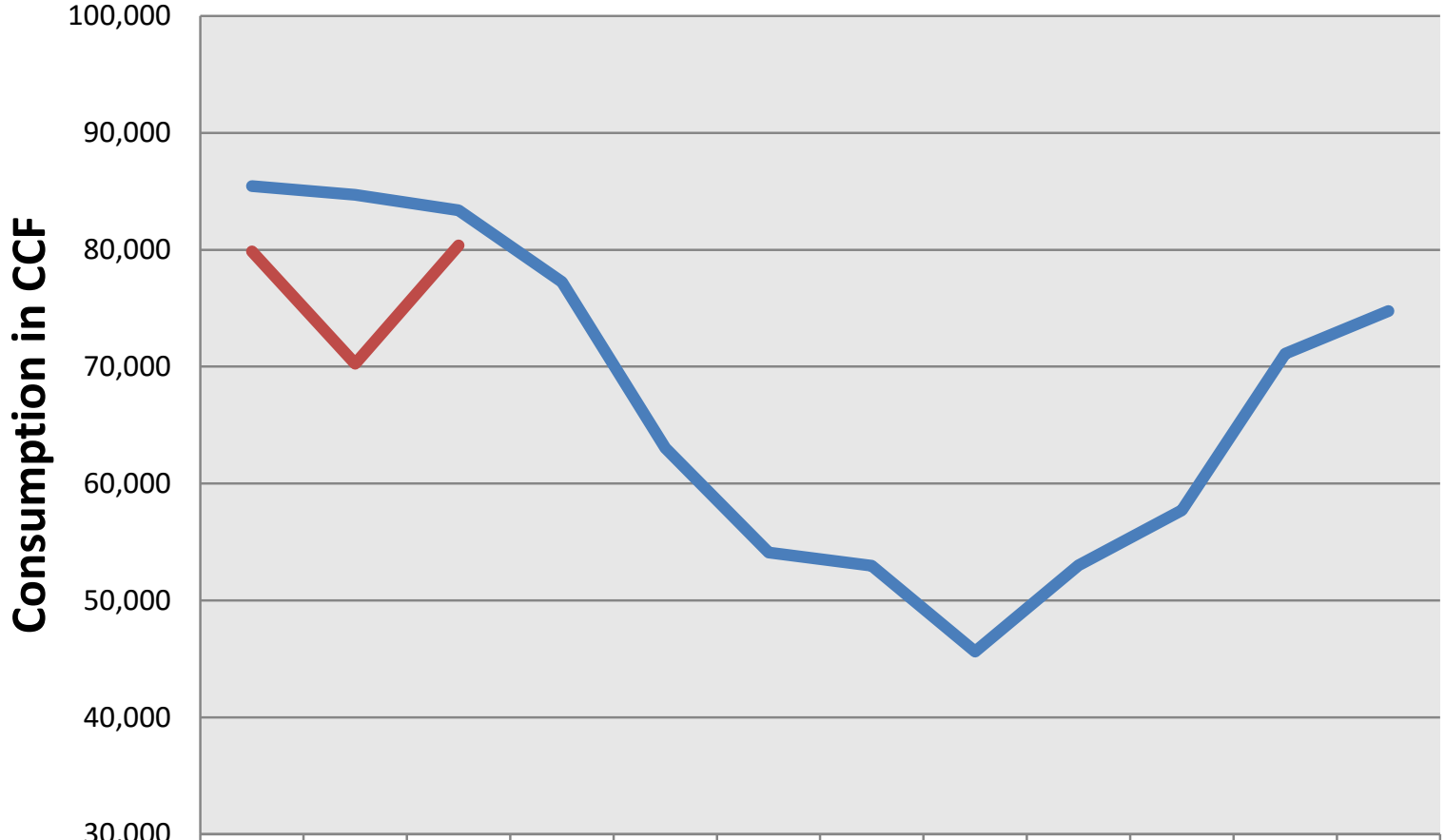


	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	88,770	92,815	92,568	84,099	79,933	64,791	66,587	54,456	53,977	73,644	76,949	79,192
2021-2022	93,074	80,564	89,925									
%	105%	87%	97%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Multi Family Residents Consumption

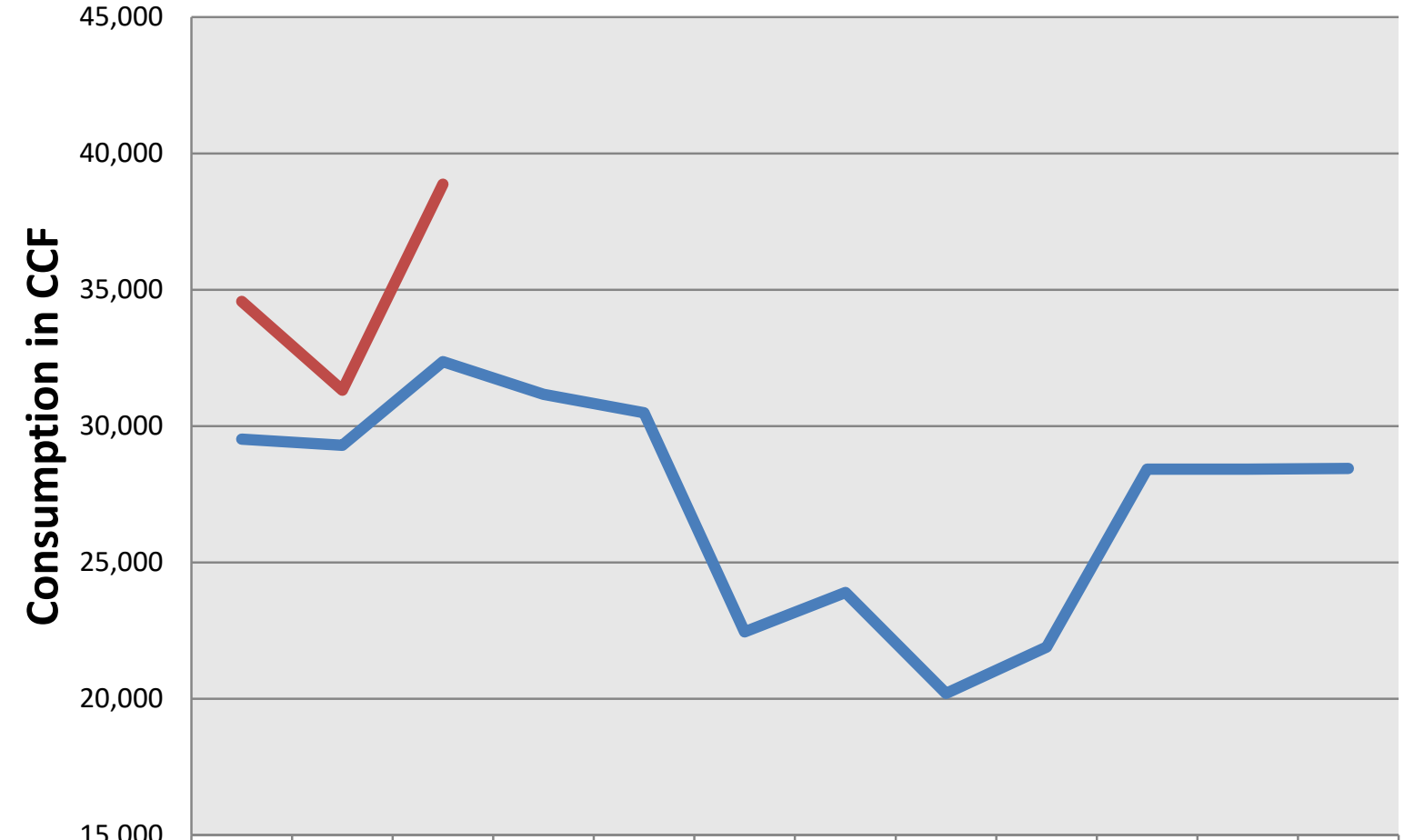
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	40,396	42,602	40,575	39,694	42,162	36,065	41,502	34,683	33,970	40,062	39,141	37,002
2021-2022	41,906	36,772	40,686									
%	104%	86%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Laguna Woods Village Consumption
(Excluding Dedicated Irrigation)



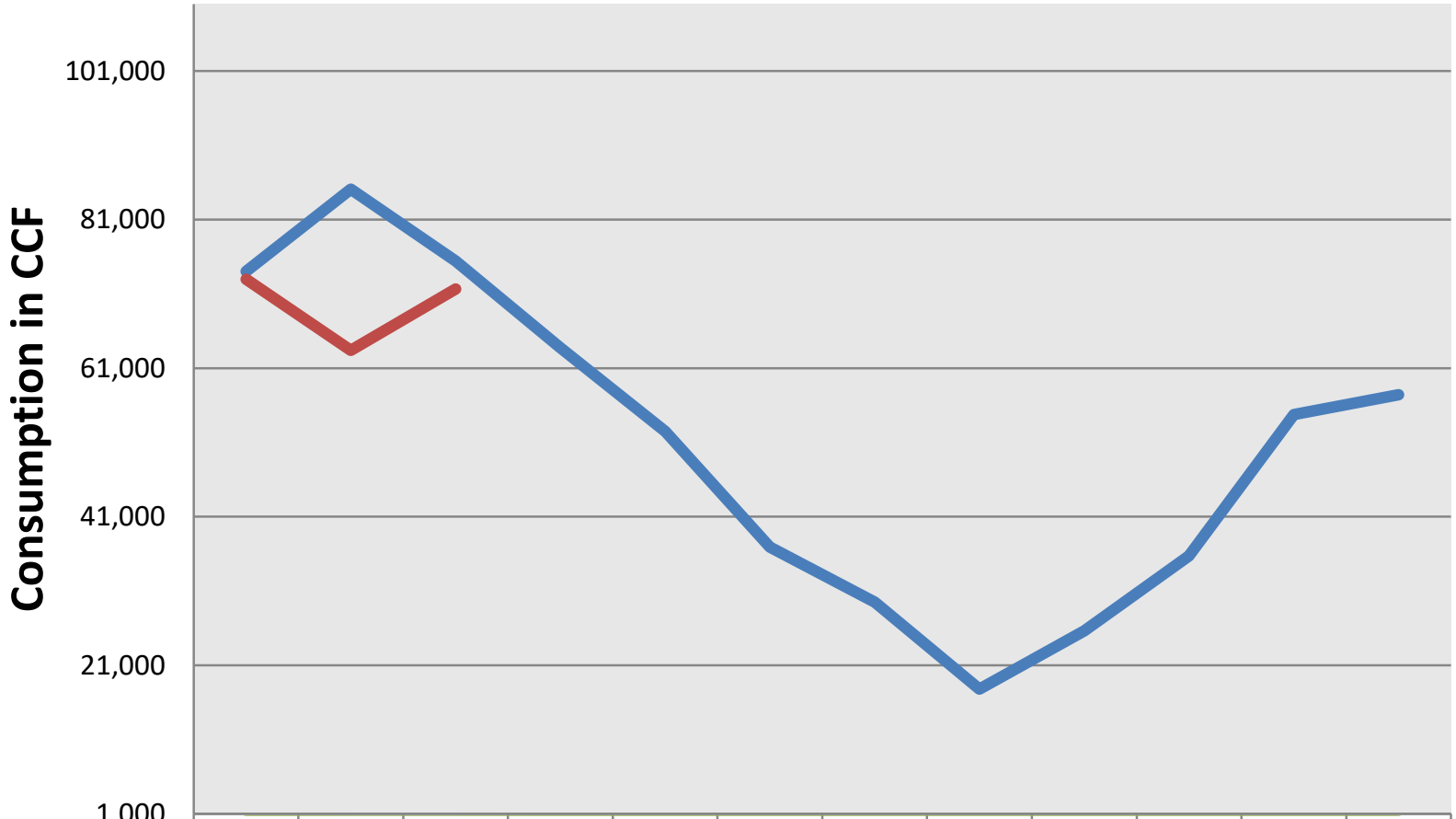
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	85,444	84,697	83,360	77,251	63,052	54,106	52,957	45,620	52,987	57,707	71,121	74,759
2021-2022	79,847	70,246	80,369									
%	93%	83%	96%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Commercial Consumption



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	29,513	29,290	32,362	31,164	30,493	22,444	23,895	20,192	21,899	28,412	28,421	28,438
2021-2022	34,571	31,313	38,871									
%	117%	107%	120%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Dedicated Irrigation Consumption (including LWV)



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2020-2021	74,026	85,091	75,416	63,732	52,500	36,916	29,509	17,794	25,636	35,748	54,736	57,404
2021-2022	72,970	63,396	71,633									
%	99%	75%	95%	0%	0%	0%	0%	0%	0%	0%	0%	0%

STAFF REPORT

To: BOARD OF DIRECTORS **Meeting Date: October 25, 2021**

From: Jason Hayden, Chief Financial Officer

Subject: Enterprise Resource Planning Software System

Since the last update on the Springbrook implementation process on September 21, 2021, District Staff has begun some of the tasks associated with implementation, including developing a revised chart of accounts and meeting with Springbrook software development staff to discuss modifying the Utility Billing module in Springbrook to be able to accommodate the Water Budget Based Billing system currently employed by the District. In the next month, meetings with the Springbrook development staff will continue and the revised chart of accounts will be entered into the General Ledger module of Springbrook.

Also since September 21, 2021, ETWD Staff has assessed several Springbrook modules for functions the District currently has that were not included in the initial Springbrook purchase. These include:

- Online Payments – the UMS utility billing software currently provides customers with the ability to pay their bill online. A processing fee is charged to the customer and as a result there is no charge for this service to the District. However, customers who are paying via credit card do incur a processing fee which can be substantial when looked at as percentage of the amount owed to the District. As an example, a customer who makes a credit card payment on a $50 utility bill would incur a 4.5% processing fee because the fee is set at $2.25 per transaction or 2.5%, whichever is more ($50 / $2.25 = 4.5%). Any utility bill payment that is less than $90 incurs a processing fee greater than 2.5% because the processing fee for these transactions is set at $2.25.

  Springbrook has a similar online payment portal called CivicPay which was discussed during the August meeting at which Springbrook was approved. After assessing the functionality included in CivicPay, Staff intends to move forward with implementing the CivicPay module for several reasons. The functionality of CivicPay is better than the District's current online payment portal and the module is fully integrated with the Utility Billing, Cash Receipting, and General Ledger modules.

  This provides a seamless process for online payments: a customer receives a utility bill from the District and makes a payment online using CivicPay. The payment then credits the customer's utility bill account and is automatically entered into a cash receipt batch in Springbrook. When the cash receipt batch is committed, the payment is then recognized in the General Ledger. So the entire process from the payment by the customer to the journal entry into the District's general ledger is automated by the software. This eliminates the risk of errors, omissions, or fraudulent activity when moving the data from one system to another which the District has to do with the current systems (i.e., the data is currently moved from UMS to Quickbooks using a manual journal entry). This will also greatly enhance operational efficiency because the utility billing,

cash receipting, and general ledger modules are automatically reconciled by the software, thereby eliminating many reconciliation tasks staff is currently doing.

In addition, from the customer's perspective, the CivicPay portal will provide more information to the customer, including the customer's full payment history and water consumption history for each billing cycle. Although the water consumption history in CivicPay will not include data on daily consumption, it will begin to provide customers with information about their consumption habits and will hopefully encourage conservation.

CivicPay is more expensive than the current online payment system provided by UMS. The District can choose to either pass this additional cost on to customers or absorb a portion of the additional cost and maintain the current cost for customers who pay by credit card. Attached to this memo is an analysis showing several options the District has considered for transaction processing fees, below is a summary of these options:

1. Set the credit card processing fee for customers at 2.5%. Compared to the current system, this would actually lower the processing fee for any customer who pays an amount less than $90 but would keep the processing fee the same for a customer who pays more than $90. For example, in the current system, a customer paying a $75 utility bill would incur a charge or $2.25 (3%). If the processing fee is set at 2.5% in CivicPay, this same payment amount of $75 would incur a processing fee of $1.87. If the processing fee for customers is set at 2.5%, the District would incur estimated credit card processing fees of $6,800 per year because the CivicPay credit card processing fee is actually closer to 2.95%.
2. Set the credit card processing fee for customers at 2.75%. Compared to the current system, this would actually lower the processing fee for any customer who pays an amount less than $82 but the processing fee for any payments over $82 would be higher. For example, in the current system, a customer paying a $100 utility bill would incur a charge or $2.50 (2.5%). If the processing fee is set at 2.75% in CivicPay, this same payment amount of $100 would incur a processing fee of $2.75. If the processing fee for customers is set at 2.75%, the District would incur estimated credit card processing fees of $2,900 per year because the CivicPay credit card processing fee is actually closer to 2.95%.
3. Set the credit card processing fee for customers at 2.95%. Compared to the current system, this would actually lower the processing fee for any customer who pays an amount less than $76 but the processing fee for any payments over $76 would be higher. For example, in the current system, a customer paying a $100 utility bill would incur a charge or $2.50 (2.5%). If the processing fee is set at 2.95% in CivicPay, this same payment amount of $100 would incur a processing fee of $2.95. If the processing fee for customers is set at 2.95%, the District would not incur any estimated credit card processing fees, all fees would be absorbed by the customers.

Replacing the current systems with Springbrook will make it necessary to replace UMS as the credit card processing and online payment vendor. UMS only offers these services to their utility billing software customers. CivicPay is more expensive for these services but offers enhanced functionality that UMS cannot replicate. The alternative to CivicPay would be to engage the services of a third party credit card processing company but the District would then also need to engage the services of a vendor to provide the online payment functionality. The third party vendors for credit card processing and online payments would not be able to integrate into the Springbrook utility billing, cash receipting, and general ledger modules. As a result, the District would have to continue the current practice of manual data entry to enter the credit card transactions into the accounting system.

Two other modules District Staff would like to implement are the Employee Self Service module and the Human Resources module, these are summarized below:

- Employee Self Service – This module provides a time and attendance system that allows employees to complete their time cards online. This is currently included in the ADP payroll system and the District needs this functionality and it would be immensely beneficial if this was directly integrated into Springbrook. The Employee Self Service module will work with the Project Management module so employees who are working on a particular project can indicate how many hours they worked on the project and this will be reflected in the project accounting in the Project Management module. This will greatly enhance the District's capability to track expenses associated with capital projects, grants, or particular activities. As shown in the attached cost summary analysis, the cost for the Employee Self Service module is $2,000 per year.
- Human Resources – Currently the District is not using a Human Resources Management Software. Springbrook offers a Human Resources Management module that would provide additional functionality that would greatly enhance the operational efficiency of Human Resources by providing a database system to manage employee information such as education, certifications, training, promotions, and evaluations. The Human Resources module also maintains an employee compensation schedule which can be updated whenever the District Board makes changes to the schedule. The Human Resources module is integrated with the Payroll Module so the Human Resources Manager will be able to update employee information in the Human Resources module and that information will then be reflected in the Payroll module (as an example, the Human Resources module maintains the employee compensation schedule and Payroll checks an individual employee's pay during each payroll cycle to make sure it complies with the compensation schedule approved by the Board). Currently, the District maintains this information in hardcopy in the employee files but this is not easily searchable and cannot be easily used for reporting purposes. As shown in the attached cost summary analysis, the cost for the Employee Self Service module is $4,500 per year.

Attached for your review is a financial analysis that compares the total cost for the current systems (UMS for utility billing, ADP for Payroll, and Quickbooks for accounting) versus Springbrook.

Comparison of Expenses, UMS/ADP/Quickbooks versus Springbrook

	Current Systems	Springbrook	Current Systems	Springbrook	Current Systems	Springbrook
Base Functionality						
Finance	7,020	19,819	7,020	19,819	7,020	19,819
Utility Billing Cost	17,086	13,618	17,086	13,618	17,086	13,618
Payroll Cost	29,028	5,525	29,028	5,525	29,028	5,525
Base Functionality Cost	53,134	38,962	53,134	38,962	53,134	38,962
Added Functionality Received with Springbrook						
Project Management		-		-		-
Fixed Asset Tracking		3,897		3,897		3,897
Total Current Cost	53,134	42,859	53,134	42,859	53,134	42,859
Additional Springbrook Functionality Not Purchased						
Employee Self Service		2,000				
Human Resources Module		4,500				
Total Cost after Additional Functionality	53,134	49,359	53,134	42,859	53,134	42,859
	Credit Card Processing Fee set at 2.5%		Credit Card Processing Fee set at 2.75%		Credit Card Processing Fee set at 2.95%	
CivicPay Cost		6,810		2,916		(137)
Total Annual Cost for all Recommended Springbrook Modules	53,134	56,169	53,134	45,775	53,134	42,722

*For a credit card processing fee of 2.5%, all payments less than $90 would be less than current processing fee and any payment over $90 would be equal
*For a credit card processing fee of 2.75%, all payments less than $82 would be less than current processing fee and any payment over $82 will cost customer more
*For a credit card processing fee of 2.95%, all payments less than $76 would be less than current processing fee and any payment over $76 will cost customer more

EL TORO WATER DISTRICT
INSURANCE UPDATE

October 2021

Liability Program

The Liability coverage renewed on October 1, 2021. Premium this year is for $118,953, which is $76,047 under budget.

Property Insurance

Coverage on the District's property program renewed as of July 1, 2021. Premium this year is $86,689.09 which is higher than last year's premium of $73,253.91. Budget for 2021-2022 is $75,000.00 which is $11,689.09 over budget.

Excess Crime

This coverage was renewed on July 1, 2021 for another year. Our premium is $2,095.00, which is $5.00 under budget. Coverage includes Public Employee "Dishonesty, forgery or alteration, Computer Fraud, Faithful Performance of Duty and Pension Plans". The Treasurer and Board Members are included under the coverage as well.

Underground Storage Tank Pollution Liability

This coverage was renewed July 1, 2021. Our premium is $1,555.00. The budget for Underground Storage Tank is $1,500.00 which is $55 over budget.

Dam Failure Liability

There is nothing new to report this quarter.

Fiduciary Liability Policy

This coverage was renewed July 1, 2021. Our premium is $11,152, which is $4,037 over budget. Fiduciary Liability Coverage for 401K & 457 Plans. Last year we paid $10,337.00.00 for two years.

Liability & Property Claim

On April 5, 2021 a claim was made against ETWD due to blockage that occurred in the portion of the lateral maintained by the District. Since there was major damage to the house it was sent to JPIA and was settled on August 25, 2021.

Workers' Compensation Policy

The Workers' Compensation Policy was renewed as of July 1, 2021 and runs through June 30, 2022.

Workers' Compensation Claims

There were no workers' compensation claims this quarter.

Medical Insurance

The District offers three medical plans as follows:

Kaiser Health - $10 office co-pay with no annual deductibles.

Anthem Blue Cross – HMO; Offers a $10 copay with no annual deductibles.

Anthem Blue Cross – PPO; this plan offers benefits within the physician network and outside of the network. In network there is a co-pay of $15.00 with an annual deductible of $200 per person and $600 per family. Out of the network, benefits are offered at 20% cost to the employee for all covered services with the same annual deductibles.

January 1, 2022 two new medical plans will be effective, a Kaiser Consumer Driven Health Plan and an Anthem Consumer Driven Health Plan along with an HSA.

Average cost per month per employee for the first quarter is $1442.15.

Vision Insurance

VSP provides vision coverage to our employees, Directors and dependents. It provides an annual eye exam and discounted rates for frames, lenses and contacts.

The cost per month per employee for the first quarter is $17.21.

Dental Insurance

The District provides dental coverage with Delta Dental. Our dental insurance pays up to $1,500 for the upcoming year for covered services. All preventative services are offered every six months with the copay waived.

Average cost per month per employee for the first quarter is $77.93.

Long and Short Term Disability Insurance

The District offers Long and Short Term Disability Program through Lincoln National Life Insurance Company. The Long Term Disability program provides a maximum monthly benefit of $10,000. The Short Term Disability program provides a maximum weekly benefit of $ 1,500.

Both Short and Long Term Disability Programs are paid by the District and provides disability payments up to 66 2/3 of an employee's weekly or monthly salary if the claim is approved.

Average cost per month per employee for the first quarter is $51.22.

Long Term Care Insurance

Long Term care is a program that provides a monthly benefit of $2,500 to be applied to home health care or an assisted living facility.

Average cost per month per employee for the first quarter is $11.11.

Life Insurance Coverage

The District offers Life Insurance coverage through Lincoln National Life Insurance Company at twice the employee's annual salary up to a maximum of $300,000.

Lincoln National Life Insurance Company also provides life insurance coverage for the Directors.

Premium rates are based on age and salary of insured employees. The premium is adjusted on the employee's birthday every fifth year.

Average cost per month per employee for the first quarter is $44.24.

Employee Assistance Program (EAP) Coverage

UNUM is our carrier for our Employee Assistance Program. This program offers assistance in many areas such as: childcare, eldercare, legal consultations, and health information, personal relationship issues, financial planning assistance, stress management and career development. This benefit also comes with a $5,000 portable term life insurance benefit.

The cost per month per employee for the first quarter is $1.70.

An insurance report of Budget vs. Actual Costs for fiscal year 2021/2022 is attached for the Board's review as well as a summary of currently held District insurance policies.

Submitted by:
Nancy Laursen
Judy Cimorell

Budget vs. Actual - Q1 2021/2022
10/1/2021

Insurance Coverage	Annual Budget	Actual Paid to Date	Difference
Liability	$195,000	$118,953	($76,047)
Property	$75,000	$86,689	$11,689
Fiduciary Liability	$6,300	$11,152	$4,852
Dam Ins. (includes Excess)	$25,500	$34,565	$9,065
less SMWD- 50% &	($7,950)	($17,283)	($9,333)
MNWD 5% - R-6	($795)	($1,728)	($933)
Underground Storage Tank	$1,500	$1,555	$55
Excess Crime	$2,100	$2,095	($5)
Total Insurance	**$296,655**	**$235,998**	**($60,657)**

Benefits - Directors	Annual Budget	Q1 Budget	Accumulative Q1 Actual	Difference
Long Term Care	$5,609	$1,402	$2,867	$1,465
Medical Employer Paid	$21,807	$5,452	$4,413	($1,039)
Dental	$2,401	$600	$600	($0)
Vision	$1,033	$258	$258	($0)
Life	$138	$35	$34	($1)
Total Benefits Directors	**$30,988**	**$7,747**	**$8,172**	**$425**
Retiree Benefits				
Medical Employer Paid	$302,967	$75,742	$69,374	($6,368)
Total retiree benefits	**$302,967**	**$75,742**	**$69,374**	**($6,368)**
Employee Benefits				
Emp.Assistance Program	$1,281	$320	$292	($28)
Medical Employer Paid	$1,123,254	$280,814	$255,260	($25,554)
Life/AD&D	$32,025	$8,006	$7,831	($175)
Dental	$57,283	$14,321	$13,793	($528)
Vision	$12,724	$3,181	$3,029	($152)
LTD/STD	$39,391	$9,848	$9,063	($785)
LTC Employer Paid	$10,980	$2,745	$1,967	($778)
Workers comp.	$125,050	$31,263	$32,259	$997
Total Employee Benefits	**$1,401,988**	**$350,497**	**$323,494**	**($27,003)**

SUMMARY OF COVERAGE

Type of Coverage	**GENERAL LIABILITY**	**Coverage Term: 10/21-22**
Coverage Includes	1. Commercial General Liability 2. Contractual Liability 3. Products/Completed Operations 4. Personal Injury	**Premium - $118,953**
Coverage Limits	**Insurance Carrier**	**Policy Number**
	Pooled Self-insured	MOLC - 100110

Type of Coverage	**AUTO LIABILITY**	**Coverage Term: 10/21-22**
Coverage Includes	1. Owned Automobiles/Trucks 2. Non-owned Automobiles/Trucks 3. Hired Automobiles/Trucks	**Premium - Included**
Coverage Limits	**Insurance Carrier**	**Policy Number**
	Pooled Self-insured	MOLC - 100110

Type of Coverage	**PUBLIC OFFICIALS LIABILITY**	**Coverage Term: 10/21-22**
Coverage Includes	1. Errors & Omissions	**Premium - Included**
Coverage Limits	**Insurance Carrier**	**Policy Number**
	Pooled Self-insured	MOLC - 100110

Type of Coverage	**PROPERTY**	**Coverage Term: 7/21 - 22**
Coverage Includes	1. Basic Property Values- Building, Fixed Equipment, Personal Property 2. Mobile Equipment Value 3. Licensed Vehicle - Comprehensive & Collision - Private Passenger, Light Truck, Sport Utility, Other Vehicles	**Premium - $86,689**
Automobile Physical Damage **Comprehensive - 83 Vehicles** **Collision - 83 Vehicles**		
Coverage Limits	**Insurance Carrier**	**Policy Number**
	Pooled Self-insured	MOLC - 100110

Type of Coverage	EXCESS CRIME PROGRAM	Coverage Term: 7/21 - 22
Coverage Includes	1. Public Employee Dishonesty 2. Forgery or Alteration 3. Computer Fraud 4. Faithful Performance of Duty 5. Treasurer/Tax Collector/Board Members (included)	**Premium - $2,095**
Coverage Limits	**Insurance Carrier**	**Policy Number**
	Pooled Self-insured	MOLC - 100110

Type of Coverage	UNDERGROUND STORAGE TANK POLLUTION LIABILITY	Coverage Term: 7/21 - 22
Coverage Includes	1. Claims-Made 2. Environmental Incident	**Premium - $1,555**
Covers 1 Tank Located at: **23542 Moulton Parkway** **Laguna Woods, CA 92637**		
Coverage Limits	**Insurance Carrier**	**Policy Number**
	Pooled Self-insured	MOLC - 100110

Type of Coverage	DAM FAILURE LIABILITY	Coverage Term: 10/20-09/21
Coverage (Includes Excess Ins. for El Toro Reservoir)	$10,000,000.00	**Premium - $34,078.**
Covers: **El Toro Reservoir** **Rossmoor Dam**	$5,000,000.00	
Coverage Limits	**Insurance Carrier**	**Policy Number**
		MOLC - 100110

Type of Coverage	FIDUCIARY LIABILITY	Coverage Term: 9/21-22
Coverage Includes	1. Executive Protection Policy	**Premium - $6,300**
Parent Organization: **ETWD Retirement Savings Plan & Trust Agreement**		
Coverage Limits	**Insurance Carrier**	**Policy Number**
	Hudson Insurance Company	SFD31211603

Type of Coverage	WORKERS' COMPENSATION	Coverage Term: 7/21 - 6/22
Coverage Includes	1. Coverage A - Workers' Compensation 2. Coverage B - Employer's Liability	**1st Quarter Premium** **$32,259**
Coverage Limits **Coverage A**	**Insurance Carrier**	**Policy Number**
$0 - $2 Million **$2 Million to Statutory**	Pooled Self-insured	MOLC - 100110
Coverage Limits **Coverage B**	**Insurance Carrier**	**Policy Number**
$0 - $2 Million **$2 Million excess of $2 Million SIR**	Pooled Self-insured	MOLC - 100110

Type of Coverage	LIFE & ACCIDENT	1st Quarter Premium $7,865
Coverage Includes	**Coverage - 2 X Annual Income** **(Max. of $300,000)**	
Insurance Carrier	**Lincoln National Life Insurance Co.**	**Policy # 10218807**
Eligibility Period	**2 Months After Hire**	
Plan Wait or Deductible	**60 Days**	

Type of Coverage	LONG / SHORT TERM DISABILITY	1st Quarter Premium $9,063
Coverage Includes	**66 2/3 Insured Earnings** **Max. of $10,000**	
Insurance Carrier	**Lincoln National Life Insurance Co.**	**Policy # 10218808**
Eligibility Period	**1 Year After Hire**	
Plan Wait or Deductible	**30 Days STD 90 Days or 9 Weeks LTD**	

Type of Coverage	LONG TERM CARE	1st Quarter Premium $1,967
Coverage Includes	**$2,500/Month** **$150,000 Total Benefit**	
Insurance Carrier	**UNUM**	**Policy # 220384**
Eligibility Period	**1 Year After Hire**	
Plan Wait or Deductible	**365 Days**	

Type of Coverage	**MEDICAL**	**1st Quarter Premium $331,140**
Coverage Includes	**HMO or PPO by Employee Choice**	
Insurance Carrier	**Anthem Blue Cross / Kaiser Insurance thru ACWA**	**Policy #229CA**
Eligibility Period	**1 Month After Hire**	
Plan Wait or Deductible	**30 Days**	

* Premium includes Employees, Retirees & Directors

Type of Coverage	**DENTAL**	**1st Quarter Premium $14,793**
Coverage Includes	**$25.00 or $50.00/Family**	
Insurance Carrier	**Delta Dental Plan of California**	**Policy #399-1012**
Eligibility Period	**2 Months After Hire**	
Plan Wait or Deductible	**60 Days**	

Type of Coverage	**VISION**	**1st Quarter Premium $3,287**
Coverage Includes	**Annual Exam/Frame Every 2 Years**	
Insurance Carrier	**Vision Service Plan thru ACWA**	**Policy #399-1012**
Eligibility Period	**2 Months After Hire**	
Plan Wait or Deductible	**60 Days**	

Type of Coverage	**PERSONAL ACCIDENT INSURANCE**	**1st Quarter Premium Employee Paid**
Coverage Includes	**$50,000 or $100,000**	
Insurance Carrier	**CIGNA**	**Policy # OKH-1253-56**
Eligibility Period	**Optional**	
Plan Wait or Deductible	**None**	

Type of Coverage	**Supplemental Financial Insurance Program**	**1st Quarter Premium Employee Paid**
Coverage Includes	**Voluntary - Life, Accident / Injury, Hospital, Critical Care, Short-term Disability, Dental**	
Insurance Carrier	**AFLAC**	**Policy # E3B26**
Eligibility Period	**Optional**	
Plan Wait or Deductible	**None**	

Agenda Item No. 8

STAFF REPORT

To: BOARD OF DIRECTORS **Meeting Date: October 25, 2021**

From: Jason Hayden, Chief Financial Officer

Subject: Suggested Changes to District's Capitalization Policy

The District's capitalization policy has not been updated in several years and there are several changes staff is recommending that if approved by the Board, would make the capitalization and depreciation processes less burdensome. These changes include:

- Increasing the Capitalization threshold to $25,000 from the current $5,000. The current amount has not been increased in many years and the impact of inflation could cause the District to have capitalize common equipment purchases (for example, if the District needs to replace one of the Fire Meters that are larger than 4", it is likely the meter would need to be capitalized).
- Changing the calculation of Depreciation to the Zero Year Convention from the Half Year Convention. The Zero Year Convention will make it easier to calculate depreciation because the year the asset is placed into service is a "zero" year for depreciation expense but the year the asset is taken out of service is a full year of depreciation expense. This makes for a simple calculation when straight line depreciation is applied (an asset with a useful life of five years that is placed into service in the 21-22 fiscal year would have 20% of its value recognized as a depreciation expense from the 22-23 fiscal year to the 27-28 fiscal year).

  In contrast to this, the half year convention can be challenging to calculate if depreciation calculations are maintained in spreadsheets and records of the original cost are not maintained. This problem may be overcome with the implementation of Springbrook, but switching to a simpler depreciation method will make any reconciliation of depreciation schedules easier to accomplish.
- Other changes to the policy are primarily grammatical or clarifying language.

Attachments

- Resolution NO. 21-10-1 – Resolution of the Board of Directors of the El Toro Water District Capitalization Policy for Capital Assets
- El Toro Water District Policy Statement 2010-1 Capitalization Policy for Capital Assets
- (Redlined) El Toro Water District Policy Statement 2010-1 Capitalization Policy for Capital Assets

RESOLUTION NO. 21-10-1

RESOLUTION OF THE BOARD OF DIRECTORS OF THE EL TORO WATER DISTRICT CAPITALIZATION POLICY FOR CAPITAL ASSETS

WHEREAS, the Board of Directors of the El Toro Water District (ETWD) wishes to update the District's Capitalization Policy for Capital Assets; and

WHEREAS, the Board of Directors of the El Toro Water District (ETWD) has reviewed the proposed Capitalization Policy for Capital Assets.

NOW, THEREFORE BE IT RESOLVED, that the Board of Directors of the El Toro Water District (ETWD) does hereby resolve, determine and order that the Capitalization Policy for Capital Assets of the El Toro Water District are set forth on Exhibit "A" attached hereto and incorporated herein by reference.

ADOPTED AND APPROVED, the 28th day of October, 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

PURPOSE OF POLICY

To establish an accounting policy for capitalizing significant capital expenses, including land purchases, land improvements, building construction and improvements, infrastructure construction and improvements, and the purchase of vehicles and equipment.

A capital asset is defined as property, infrastructure, or equipment that meets all of the following requirements:

1. The asset is tangible and complete.
2. The asset is used in the operation of the District.
3. The asset has a useful life of at least five years.
4. The asset is of significant value, as noted below.

The District will regard the purchase of software programs as fixed assets subject to this capitalization policy if those software programs meet the capitalization requirements and will depreciate the software in accordance with the depreciation procedure included in this document. Costs associated with software maintenance and customer support are considered expenditures and will not be capitalized.

Capital assets can be acquired through donation or purchase, or can be constructed or consist of significant improvements to an existing asset. The asset value for donations will be the fair market value at the time of the donation. The asset value, when purchased, will be the initial cost plus the trade-in value of any old asset given up, plus all costs related to placing the asset into operation. The cost of constructed or improved assets will include all costs of engineering, design, construction and installation. For a financed project, interest during the construction period will be capitalized.

The District will capitalize assets when the cost of the asset (including installation) is $25,000 or more. For assets acquired or constructed by the District where the cost is less than $25,000 for individual components but the aggregate total is $25,000 or more, such assets will be capitalized.

REPAIRS AND MAINTENANCE

Repair and maintenance expenses that keep assets in ordinary efficient operating condition and do not add to the value or prolong the life of the asset will be considered ordinary expenses. All repair and maintenance expenses should be charged to the appropriate expense account when incurred.

DEPRECIATION POLICY

The "straight line" method of depreciation should be utilized to depreciate capital assets, except for land, over the estimated useful lives of the related assets principally as follows:

Asset Category	Estimated Useful Life
Building	25 to 40 years
Vehciles	5 to 25 years
Office Furniture & Equipment	5 to 10 years
Computer Software	5 to 10 years
Land Improvements	20 to 50 years
Water Facilities	
Reservoir	100 Years
Transmission & Distribution	20 to 60 years
Filtration Plant	30 to 40 years
Other Plant & Equipment.....	5 to 15 years
Sanitation Facilities	
Collection & Transmission	15 to 50 years
Treatment & Disposal Plant	15 to 30 years
Other Plant & Equipment.....	5 to 15 years

Depreciation will be calculated utilizing the "Zero-Year convention." Under this convention, an asset is treated as though it were placed in service in the first month of the fiscal year following the year in which it was acquired or constructed. . In the year the asset is disposed, a full year's depreciation expense will be recognized.

DISPOSITION OF ASSETS

When capital assets are sold or otherwise disposed of, Capital Assets should be relieved of the cost of the asset and the associated accumulated depreciation. Assets will be removed from the books and records on a periodic basis in conjunction with an updating of the capital assets books and records. The appropriate depreciation will be taken for the year of disposal.

For additional information see Policy Statement 1997-15 (IV), Disposal of Surplus Personal Property.

Prepared by: Staff	**EL TORO WATER DISTRICT POLICY STATEMENT 2010-1 CAPITALIZATION POLICY FOR CAPITAL ASSETS**	Page 1 of 3 Item 14 Section IV
Approved by: Board of Directors		Date:07/01/10

PURPOSE OF POLICY

To establish an ~~financial~~ accounting ~~capitalization~~ policy for capitalizing significant capital expenses, including land purchases, land improvements, building construction and improvements, ~~in and above ground~~ infrastructure construction and improvements, and the purchase of ~~equipment,~~ vehicles and equipment~~computer hardware~~.

A capital asset is defined as ~~a piece of~~ property, infrastructure, or equipment that meets all of the following requirements:

1. The asset is tangible and complete.
2. The asset is used in the operation of the District.
3. The asset has a useful life of at least five years~~longer than the current fiscal year~~.
4. The asset is of significant value, as noted below.

The District will regard the purchase of software programs as fixed assets subject to this capitalization policy if those software programs meet the capitalization requirements~~,~~ and will depreciate the software in accordance with the depreciation procedure included in this document~~amortize over an estimated useful life noted below~~. Costs associated with software maintenance and customer support are considered expenditures and will not be capitalized.

Capital assets ~~may~~can be acquired through donation or~~,~~ purchase~~,~~ or ~~may~~can be ~~self-~~constructed or consist of significant improvements to an existing asset. The asset value for donations will be the fair market value at the time of the donation. The asset value, when purchased, will be the initial cost plus the trade-in value of any old asset given up, plus all costs related to placing the asset into operation. The cost of ~~self-~~constructed or improved assets will include all costs of engineering, design, construction and installation ~~costs~~. For a financed project, interest during the construction period will be capitalized.

The District will capitalize assets when the cost of the asset (including installation) is $25,000 or more. For assets acquired or constructed by the District where the cost is less than $25,000 for individual components but the aggregate total is $25,000 or more, such assets will be capitalized.

REPAIRS AND MAINTENANCE

Repairs and maintenance ~~is an~~ expensesditure that keeps ~~the~~ assets in ordinary efficient operating condition and do not add to the value or prolong the life of the asset will be considered ordinary expenses. ~~The cost of the repairs and maintenance does not add to the value or prolong the life of the asset.~~ All repair and maintenance expensesditures ~~are~~ should be charged to the appropriate expense account when incurred.

DEPRECIATION POLICY

The "straight line" method of depreciation should be utilized to depreciate capital assets, except for land, over the estimated useful lives of the related assets principally as follows:

Asset Category	Estimated Useful Life
Building	25 to 40 years
Vehicles	5 to 25 years
Office Furniture and Equipment	5 to 10 years
Computer Software	5 to 10 years
Land Improvements	20 to 50 years
Water Facilities:	
Reservoir	100 years
Transmission and Distribution	20 to 60 years
Filtration Plant	30 to 40 years
Other Plant and Equipment	5 to 15 years
Sanitation Facilities:	
Collection and Transmission	15 to 50 years
Treatment and Disposal Plant	15 to 30 years
Other Plant and Equipment	5 to 15 years

Depreciation will be calculated utilizing the "ZeroHalf-Year convention." Under this convention, an asset is treated as though it were placed in service in the first month of the fiscal year following the year in which it was acquired or constructed. or disposed of the first day of the seventh month of the fiscal year. One-half of a full year's depreciation is allowed for the asset in its first year placed in service, regardless of when it was actually placed in service during that year. In the year the asset is disposed, a full year's depreciation expense will be recognized.

DISPOSITION OF ASSETS

When capital assets are sold or otherwise disposed of, Capital Assets should be relieved of the cost of the asset and the associated accumulated depreciation. Assets will be removed from the books and records on a periodic basis in conjunction with an updating of the capital assets books and records. The appropriate depreciation will be taken for the year of disposal.

For additional information see Policy Statement 1997-15 (IV), Disposal of Surplus Personal Property.

EL TORO WATER DISTRICT
FINANCIAL REPORT
October 25, 2021

EL TORO WATER DISTRICT
BALANCE SHEET

	9/30/21 (Unaudited)	June 30, 2021 (Unaudited)
ASSETS		
Current Assets		
Cash	$2,675,575	$3,118,166
Investments:		
Investments Cash	6,701,137	7,043,535
Investments FMV Adjustment	604	9,241
Receivables:		
Accounts Receivable	4,919,296	3,591,474
Inventories	704,963	1,192,207
Prepaid Expenses	279,066	150,916
Total Current Assets	$15,280,642	15,105,540
Restricted Assets		
Cash & Investments	10,134,215	9,787,357
Total Restricted Assets	10,134,215	9,787,357
Non-Current Assets		
Utility Plant:		
Land & Easements	7,451,585	7,451,585
Long Term Leases	342,382	342,382
Equipment	121,968,755	121,918,078
Collection & Impound Reservoirs	6,243,706	6,243,706
Structure & Improvements	34,950,613	34,950,613
Total Utility Plant	170,957,042	170,906,365
Less Accumulated Depreciation & Amortization	(85,011,905)	(83,904,879)
Net Utility Plant	85,945,138	87,001,486
Construction Work in Progress	3,473,666	2,956,254
Deffered Outflow OPEB	5,469,108	3,634,674
Total Non-current Assets	94,887,911	93,592,414
TOTAL ASSETS	$120,302,768	$118,485,312

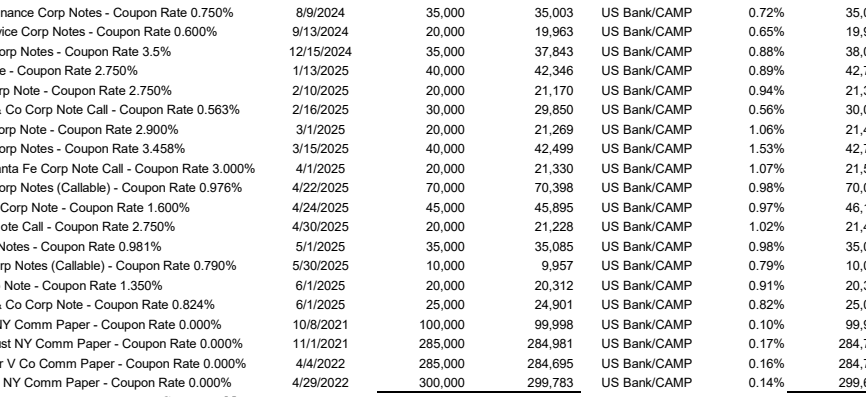
EL TORO WATER DISTRICT
BALANCE SHEET

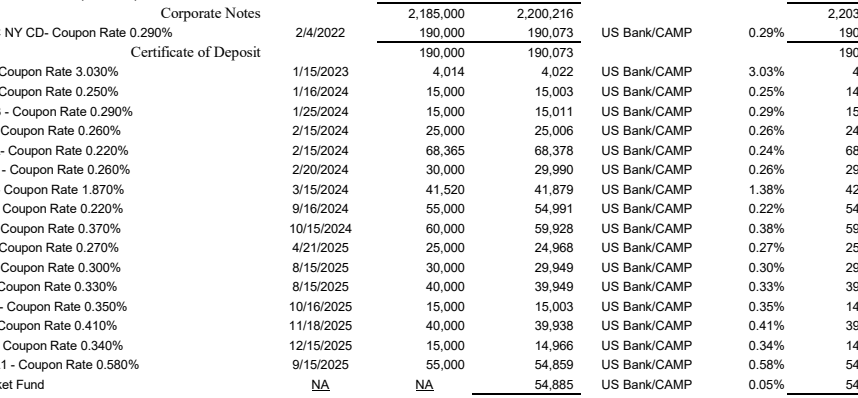
	9/30/21 (Unaudited)	June 30, 2021 (Unaudited)
LIABILITIES and EQUITY		
Liabilities		
Current Liabilities Payable		
Accounts Payable	$1,722,992	$2,225,218
Current Portion of Long-Term Debt	1,897,591	6,180
Other Current Liabilities	3,149,744	1,987,469
Total Current Liabilities Payable From Current Assets	6,770,328	4,218,867
Long Term Debt		
Long Term Debt	51,798,466	50,591,444
Total Long Term Debt	51,798,466	50,591,444
Total Liabilities	58,568,794	54,810,311
Fund Equity		
Retained Earnings - Reserved	17,034,893	17,034,893
Contributed Capital	8,744,767	8,744,767
Retained Earnings - Unreserved	35,073,964	36,959,626
Net Income	880,350	935,715
Total Fund Equity	61,733,974	63,675,001
Total Liabilites & Fund Equity	$120,302,768	$118,485,312

CASH & INVESTMENTS (General Fund)

SUMMARY OF INVESTMENTS BY TYPE

	Maturity Dates	Par	Market Value 9/30/21	Financial Institution	YTM 9/30/21	Original Cost 9/30/21
State Local Agency Investment Fund	NA	NA	$7,283,523	LAIF	0.21%	$7,283,523
US Treasury N/B - Coupon Rate 1.875%	5/31/2022	450,000	455,344	US Bank/CAMP	0.09%	457,400
US Treasury N/B - Coupon Rate 0.125%	7/31/2022	600,000	600,188	US Bank/CAMP	0.11%	600,117
US Treasury N/B - Coupon Rate 0.125%	9/30/2022	420,000	420,131	US Bank/CAMP	0.11%	420,082
US Treasury N/B - Coupon Rate 1.875%	10/31/2022	250,000	254,766	US Bank/CAMP	0.10%	256,328
US Treasury N/B - Coupon Rate 1.875%	10/31/2022	400,000	407,625	US Bank/CAMP	0.12%	410,422
US Treasury N/B - Coupon Rate 0.125%	11/30/2022	200,000	199,969	US Bank/CAMP	0.11%	200,055
US Treasury N/B - Coupon Rate 0.125%	12/31/2022	400,000	399,938	US Bank/CAMP	0.11%	400,125
US Treasury N/B - Coupon Rate 0.125%	1/31/2023	200,000	199,938	US Bank/CAMP	0.13%	199,977
US Treasury N/B - Coupon Rate 0.125%	1/31/2023	400,000	399,875	US Bank/CAMP	0.11%	400,141
US Treasury N/B - Coupon Rate 0.250%	6/15/2023	400,000	400,125	US Bank/CAMP	0.14%	401,047
US Treasury N/B - Coupon Rate 0.125%	7/15/2023	200,000	199,594	US Bank/CAMP	0.19%	199,688
US Treasury N/B - Coupon Rate 0.125%	7/15/2023	400,000	399,188	US Bank/CAMP	0.14%	399,828
US Treasury N/B - Coupon Rate 0.125%	8/15/2023	500,000	498,828	US Bank/CAMP	0.23%	498,809
US Treasury N/B - Coupon Rate 0.250%	11/15/2023	90,000	89,873	US Bank/CAMP	0.26%	89,982
US Treasury N/B - Coupon Rate 0.125%	2/15/2024	400,000	397,750	US Bank/CAMP	0.27%	398,313
US Treasury N/B - Coupon Rate 0.375%	8/15/2024	200,000	199,313	US Bank/CAMP	0.42%	199,766
Intl BK of Recon and Dev Note - Coupon Rate 0.125%	4/20/2023	135,000	134,783	US Bank/CAMP	0.23%	134,721
Inter-American Devel BK Note - Coupon Rate 0.500%	9/23/2024	185,000	184,704	US Bank/CAMP	0.52%	184,863
NJ TPK Auth -B- Txbl Muni Bond - Coupon Rate 0.897%	1/1/2025	20,000	20,058	US Bank/CAMP	0.90%	20,000
FHMS K724 A2 - Coupon Rate 3.062%	11/1/2023	60,000	62,184	US Bank/CAMP	0.58%	64,052
FHMS K133 A1 - Coupon Rate 0.440%	12/1/2025	14,762	14,538	US Bank/CAMP	0.44%	14,762
Federal Farm Credit Bank Note - Coupon Rate 0.125%	2/3/2023	230,000	229,772	US Bank/CAMP	0.15%	229,871
Freddie Mac Notes - Coupon Rate 0.250	11/6/2023	155,000	154,759	US Bank/CAMP	0.23%	155,087
Fannie Mae Notes - Coupon Rate 0.250	11/27/2023	250,000	249,601	US Bank/CAMP	0.24%	250,107
Federal Notes		6,559,762	6,572,842			6,585,541
Toyota Motor Credit Corp Corporate Note - Coupon Rate 0.450%	1/11/2024	70,000	69,819	US Bank/CAMP	0.45%	69,996
John Deere Corp Notes - Coupon Rate 0.450%	1/17/2024	55,000	54,683	US Bank/CAMP	0.48%	54,961
Morgan Stanley Corp Notes - Coupon Rate 0.529%	1/25/2024	55,000	55,006	US Bank/CAMP	0.53%	55,000
PACCAR Financial Corp Corporate Note - Coupon Rate 0.350%	2/2/2024	65,000	64,614	US Bank/CAMP	0.39%	64,925
National Rural Util Coop Corporate Note - Coupon Rate 0.350%	2/8/2024	25,000	24,838	US Bank/CAMP	0.37%	24,983
Goldman Sachs Corp Notes - Coupon Rate 4.000%	3/3/2024	40,000	43,093	US Bank/CAMP	0.69%	44,062
Goldman Sachs Corp Notes - Coupon Rate 0.673%	3/8/2024	20,000	20,022	US Bank/CAMP	0.67%	20,000
JPMorgan Chase & Co Corp Note Call - Coupon Rate 0.697%	3/16/2024	70,000	70,174	US Bank/CAMP	0.70%	70,000
Charles Schwab Corp Note - Coupon Rate 0.750%	3/18/2024	30,000	30,109	US Bank/CAMP	0.77%	29,985
Bank of NY Mellon Corp Note - Coupon Rate 0.500%	4/26/2024	55,000	54,865	US Bank/CAMP	0.54%	54,941
Amazon.com Inc Corp Note - Coupon Rate 0.450%	5/12/2024	80,000	79,840	US Bank/CAMP	0.50%	79,883
Unitedhealth Group Inc Corp Note - Coupon Rate 0.550%	5/15/2024	30,000	29,892	US Bank/CAMP	0.59%	29,969
Caterpiller Finl Service Corp Note - Coupon Rate 0.450%	5/17/2024	45,000	44,826	US Bank/CAMP	0.50%	44,940
Astrazeneca Finance LLc (Callable) Corp - Coupon Rate 0.700%	5/28/2024	50,000	49,997	US Bank/CAMP	0.70%	49,996
John Deere Capital Corp Notes - Coupon Rate 0.450%	6/7/2024	10,000	9,930	US Bank/CAMP	0.49%	9,988
American Honda Finance Corp Notes - Coupon Rate 0.750%	8/9/2024	30,000	30,003	US Bank/CAMP	0.77%	29,980
Caterpillar Finl Service Corp Notes - Coupon Rate 0.600%	9/13/2024	35,000	35,003	US Bank/CAMP	0.72%	35,025
Clorox Company Corp Notes - Coupon Rate 3.5%	12/15/2024	20,000	19,963	US Bank/CAMP	0.65%	19,973
Apple Inc Corp Note - Coupon Rate 2.750%	1/13/2025	35,000	37,843	US Bank/CAMP	0.88%	38,048
Merck & Co Inc Corp Note - Coupon Rate 2.750%	2/10/2025	40,000	42,346	US Bank/CAMP	0.89%	42,786
JPMorgan Chase & Co Corp Note Call - Coupon Rate 0.563%	2/16/2025	20,000	21,170	US Bank/CAMP	0.94%	21,389
Lockheed Martin Corp Note - Coupon Rate 2.900%	3/1/2025	30,000	29,850	US Bank/CAMP	0.56%	30,000
Bank of America Corp Notes - Coupon Rate 3.458%	3/15/2025	20,000	21,269	US Bank/CAMP	1.06%	21,422
Burlington North Santa Fe Corp Note Call - Coupon Rate 3.000%	4/1/2025	40,000	42,499	US Bank/CAMP	1.53%	42,714
Bank of America Corp Notes (Callable) - Coupon Rate 0.976%	4/22/2025	20,000	21,330	US Bank/CAMP	1.07%	21,533
Bank of NY Mellon Corp Note - Coupon Rate 1.600%	4/24/2025	70,000	70,398	US Bank/CAMP	0.98%	70,000
Pepsico Inc Corp Note Call - Coupon Rate 2.750%	4/30/2025	45,000	45,895	US Bank/CAMP	0.97%	46,148
Citigroup Inc Corp Notes - Coupon Rate 0.981%	5/1/2025	20,000	21,228	US Bank/CAMP	1.02%	21,400
Morgan Stanley Corp Notes (Callable) - Coupon Rate 0.790%	5/30/2025	35,000	35,085	US Bank/CAMP	0.98%	35,000
Honeywell Intl Corp Note - Coupon Rate 1.350%	6/1/2025	10,000	9,957	US Bank/CAMP	0.79%	10,000
JPMorgan Chase & Co Corp Note - Coupon Rate 0.824%	6/1/2025	20,000	20,312	US Bank/CAMP	0.91%	20,360
MUFG Bank LTD/NY Comm Paper - Coupon Rate 0.000%	10/8/2021	25,000	24,901	US Bank/CAMP	0.82%	25,000
Sumitomo Mitui Trust NY Comm Paper - Coupon Rate 0.000%	11/1/2021	100,000	99,998	US Bank/CAMP	0.10%	99,972
Collat Comm Paper V Co Comm Paper - Coupon Rate 0.000%	4/4/2022	285,000	284,981	US Bank/CAMP	0.17%	284,758
Credit Agricole CIB NY Comm Paper - Coupon Rate 0.000%	4/29/2022	285,000	284,695	US Bank/CAMP	0.16%	284,712
Corporate Notes		300,000	299,783	US Bank/CAMP	0.14%	299,686
Barclays Bank PLC NY CD- Coupon Rate 0.290%	2/4/2022	2,185,000	2,200,216			2,203,534
Certificate of Deposit		190,000	190,073	US Bank/CAMP	0.29%	190,000
MBalt 2018-1 A3 - Coupon Rate 3.030%	1/15/2023	190,000	190,073			190,000
MBalt 2021-1 A3 - Coupon Rate 0.250%	1/16/2024	4,014	4,022	US Bank/CAMP	3.03%	4,014
BMWLT 2021-1 A3 - Coupon Rate 0.290%	1/25/2024	15,000	15,003	US Bank/CAMP	0.25%	14,998
FordL 2021-A A3 - Coupon Rate 0.260%	2/15/2024	15,000	15,011	US Bank/CAMP	0.29%	15,000
Carmx 2021-1 A2A- Coupon Rate 0.220%	2/15/2024	25,000	25,006	US Bank/CAMP	0.26%	24,997
GMALT 2021-1 A3 - Coupon Rate 0.260%	2/20/2024	68,365	68,378	US Bank/CAMP	0.24%	68,323
FordO 2019-C A3 - Coupon Rate 1.870%	3/15/2024	30,000	29,990	US Bank/CAMP	0.26%	29,997
Woart 2021-C A2 - Coupon Rate 0.220%	9/16/2024	41,520	41,879	US Bank/CAMP	1.38%	42,096
FordL 2021-B A3 - Coupon Rate 0.370%	10/15/2024	55,000	54,991	US Bank/CAMP	0.22%	54,999
Harot 2021-A A3 - Coupon Rate 0.270%	4/21/2025	60,000	59,928	US Bank/CAMP	0.38%	59,989
Fordo 2021-A A3 - Coupon Rate 0.300%	8/15/2025	25,000	24,968	US Bank/CAMP	0.27%	25,000
Harot 2021-2 A3 - Coupon Rate 0.330%	8/15/2025	30,000	29,949	US Bank/CAMP	0.30%	29,997
GMCar 2021-1 A3 - Coupon Rate 0.350%	10/16/2025	40,000	39,949	US Bank/CAMP	0.33%	39,998
Harot 2021-3 A3 - Coupon Rate 0.410%	11/18/2025	15,000	15,003	US Bank/CAMP	0.35%	14,998
Carmx 2021-1 A3 - Coupon Rate 0.340%	12/15/2025	40,000	39,938	US Bank/CAMP	0.41%	39,999
DCENT 2021-A1 A1 - Coupon Rate 0.580%	9/15/2025	15,000	14,966	US Bank/CAMP	0.34%	14,997
CAMP Money Market Fund	NA	55,000	54,859	US Bank/CAMP	0.58%	54,988
Asset Based Securities & Money Market		NA	54,885	US Bank/CAMP	0.05%	54,885
Total Camp Investments		533,900	588,726			589,277
		9,468,662	9,551,856			9,568,352
Operational & Non-Interest Bearing Accounts						
ETWD General Cash Account	NA	NA	2,671,981	Union Bank of Cal.	0.00%	2,671,981
ETWD Capital Facilities Reserve Account	NA	NA	2,895	Union Bank of Cal.	0.00%	2,895
ETWD Payroll Account	NA	NA	0	Union Bank of Cal.	0.00%	0
ETWD Petty Cash Account	NA	NA	700	Union Bank of Cal.	0.00%	700
Operational & Non-Interest Accts.			2,675,575			2,675,575
			$19,510,955	**Total Investments & Cash**		$19,527,450





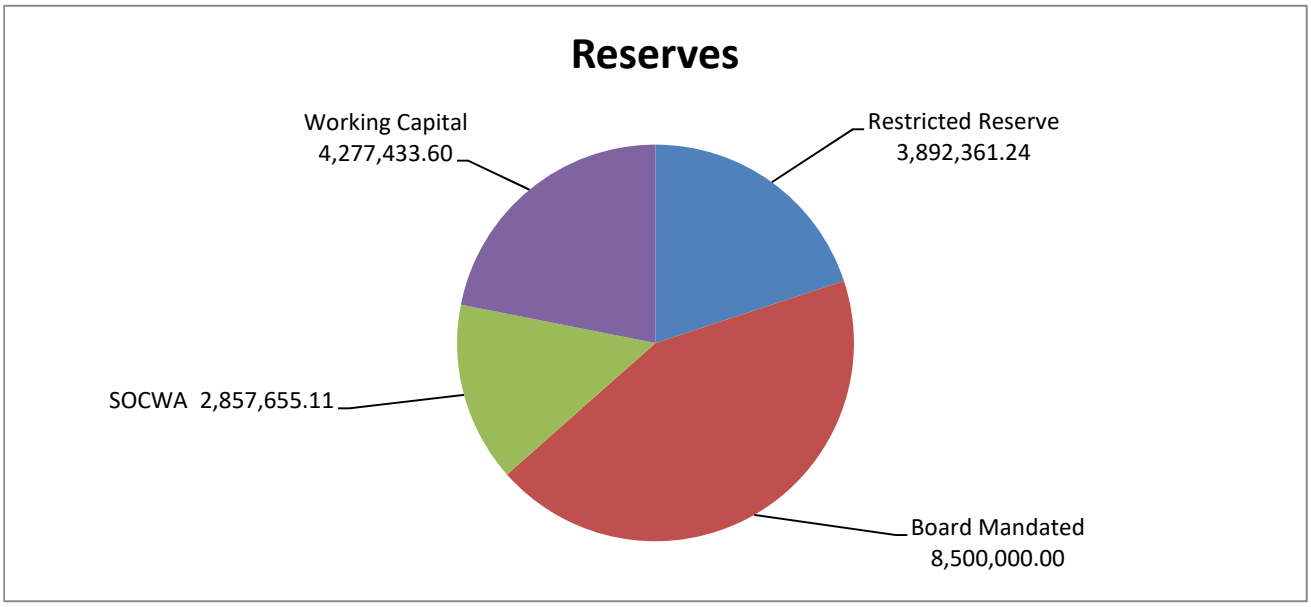
LIQUIDITY

	September 30, 2021			June 30, 2021	
	$	%		$	%
DEMAND	$ 10,013,983	51.28%		$ 12,245,220	61.74%
30 Days	$ 99,972	0.51%		$ 208,880	1.05%
31-180 Days	$ 474,758	2.43%		$ 1,161,829	5.86%
181 - 360	$ 1,641,916	8.41%		$ 1,771,413	8.93%
361-1800 Days	$ 7,296,821	37.37%		$ 4,447,532	22.42%
TOTAL	$ 19,527,450	100.00%		$ 19,834,874	100.00%

* The portfolio is in compliance with the investment policy.

** PFM Investment Advisory Services (10bp on first $25 mm, 8bp over) $ 480.91 for January 2020

EL TORO WATER DISTRICT
RESERVE ANALYSIS
30-Sep-21



Restricted Reserve	$	3,892,361
Board Mandated	$	8,500,000
SOCWA	$	2,857,655
Capital Cash Flow / Compliance	$	4,277,434
Total	**$**	**19,527,450**

Restricted Reserve

State Revolving Fund Loans	$	2,270,150
Capital Facilities Reserve	$	2,895
Tiered Cons Fund	$	917,615
Baker Funding	$	701,702
Total	**$**	**3,892,361**

Board Mandated Minimum Reserve Levels

Capital Construction	$	3,000,000
Rate Stabilization	$	2,200,000
Operations	$	1,300,000
Working Capital	$	2,000,000
Total	**$**	**8,500,000**

Six months operating expense requirement:	$12,800,791
Cash less restricted reserve on hand:	$15,635,089

ETWD has the ability to meet its expediture requirements for the next six months.

EL TORO WATER DISTRICT
CHANGE IN RESERVES

	September 30, 2021	Year to Date	Year Ended June 30, 2021
Operating Revenue	2,409,201	7,572,904	26,393,477
Non-operating Revenue	148,100	513,221	1,724,396
Total Revenue	2,557,301	8,086,125	28,117,873
Operating Expenses	2,095,587	5,960,153	22,725,135
Depreciation & Amortization	355,912	1,067,737	4,306,266
Non-operating Expenses	59,295	177,884	150,757
Total Expenses	2,510,794	7,205,774	27,182,158
NET INCOME	46,506	880,350	935,715
Add Depreciation & Amortization	355,912	1,067,737	4,072,824
Net Cash Provided by Operating Activities	(55,622)	(2,295,101)	(2,926,654)
Net Cash Provided by Investing Activities	(49,044)	(437,976)	(2,593,027)
Net Cash Provided by Financing Activities	-	-	-
Net Increase/(Decrease) Cash for the Period	297,753	(784,989)	(511,142)
Cash at End of Period from Balance Sheet		9,377,316	
Restricted Cash		10,134,215	
Unrealized (Gains)/Losses Fair Market Value		(604)	
Cash at End of Period		19,510,928	
Net (Increase)/Decrease Cash for the Period		(297,753)	
Net (Increase)/Decrease in Rescricted Cash for the Period		(142,997)	
Net Increase/(Decrease) in Unrealized Gains/(Losses) Fair Market Value		-	
Void Checks in Prior Period		(4,796)	
Cash at Beginning of Period		19,065,382	

EL TORO WATER DISTRICT
Cash Sheet
For the month ending September 30, 2021

CHECK NUMBER	PAYMENT DATE	VENDOR NAME	PAYMENT AMOUNT
91073	09/09/2021	MUNICIPAL WATER DISTRICT OF ORANGE CO.	645,050.55
91145	09/23/2021	SO. CALIFORNIA EDISON CO.	135,894.99
91126	09/23/2021	ACWA HEALTH BENEFITS AUTHORITY	130,753.71
91168	09/30/2021	MOULTON NIGUEL WATER DISTRICT	75,955.20
91071	09/09/2021	J.R. FILANC CONSTRUCTION CO., INC.	74,888.97
91169	09/30/2021	MUNICIPAL WATER DISTRICT OF ORANGE CO.	56,885.43
		TOTAL CHECKS OVER $50,000	**$ 1,119,428.85**
		TOTAL CHECKS IN REGISTER	**$ 1,406,932.73**

DEBIT TRANSFERS

	09/10/2021	PAYROLL DIRECT DEPOSIT	150,120.93
	09/10/2021	FEDERAL DEPOSIT LIABILITY	34,626.03
	09/10/2021	SDI & STATE TAX	13,373.89
	09/10/2021	WAGE GARNISHMENTS	585.00
	09/10/2021	PRUDENTIAL (401K)	55,103.47
	09/10/2021	PRUDENTIAL (457)	17,648.43
	09/15/2021	PAYROLL BOARD OF DIRECTOR	5,700.04
	09/15/2021	SS, MEDICARE, SDI & STATE TAX	1,864.28
	09/15/2021	PRUDENTIAL (457)	2,723.26
	09/24/2021	PAYROLL DIRECT DEPOSIT	150,888.63
	09/24/2021	FEDERAL DEPOSIT LIABILITY	34,774.21
	09/24/2021	SDI & STATE TAX	13,327.67
	09/24/2021	WAGE GARNISHMENTS	585.00
	09/24/2021	PRUDENTIAL (401K)	55,700.87
	09/24/2021	PRUDENTIAL (457)	18,353.82
	09/30/2021	ADP AND BANK FEES	5,826.17
		TOTAL INTERBANK WIRES / DEBIT TRANSFERS	**$ 561,201.71**
		TOTAL DISBURSEMENTS	**$ 1,968,134.44**

REIMBURSEMENTS TO ETWD EMPLOYEES

CHECK NUMBER	PAYMENT DATE	PAYEE (DESCRIPTION)	PAYMENT AMOUNT
91130	09/23/2021	CHRIS MAGILL (Travel Expenses)	458.76
91115	09/16/2021	SHANE FREGIN (Milage and Certification)	380.52
91112	09/16/2021	PAUL GIORDANO (Workboots)	300.00
91146	09/23/2021	STEVEN HANCOCK (Background Check)	86.50
91082	09/09/2021	STEVE WINGEN (Landscape Meeting)	55.35
91060	09/09/2021	DAVE HAYDEN (SARBS Dinner)	25.00
		TOTAL CHECKS TO EMPLOYEES	**$ 1,306.13**

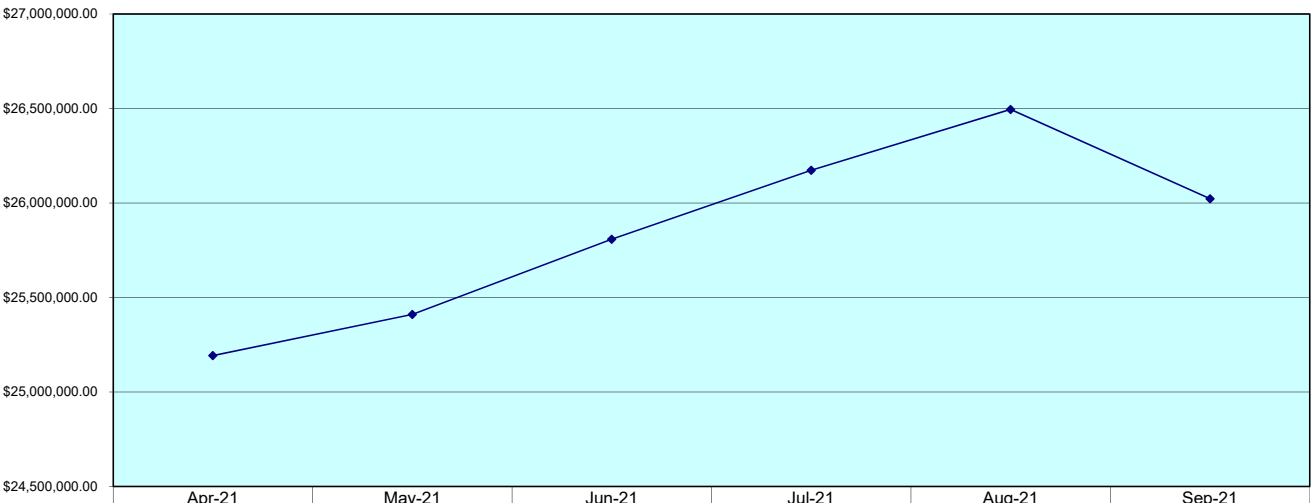
REINBURSEMENTS TO ETWD DIRECTORS

CHECK NUMBER	PAYMENT DATE	PAYEE (DESCRIPTION)	PAYMENT AMOUNT
91137	09/23/2021	KATHERINE HAVENS (LTC Insurance)	1,828.05
91108	09/16/2021	MARK MONIN (Travel Expenses)	1,083.44
91106	09/16/2021	KATHRYN FRESHLEY (Travel Expenses)	435.39
		TOTAL CHECKS TO DIRECTORS	**$ 3,346.88**

EL TORO WATER DISTRICT

401K PLAN SUMMARY

401K PLAN MARKET VALUE

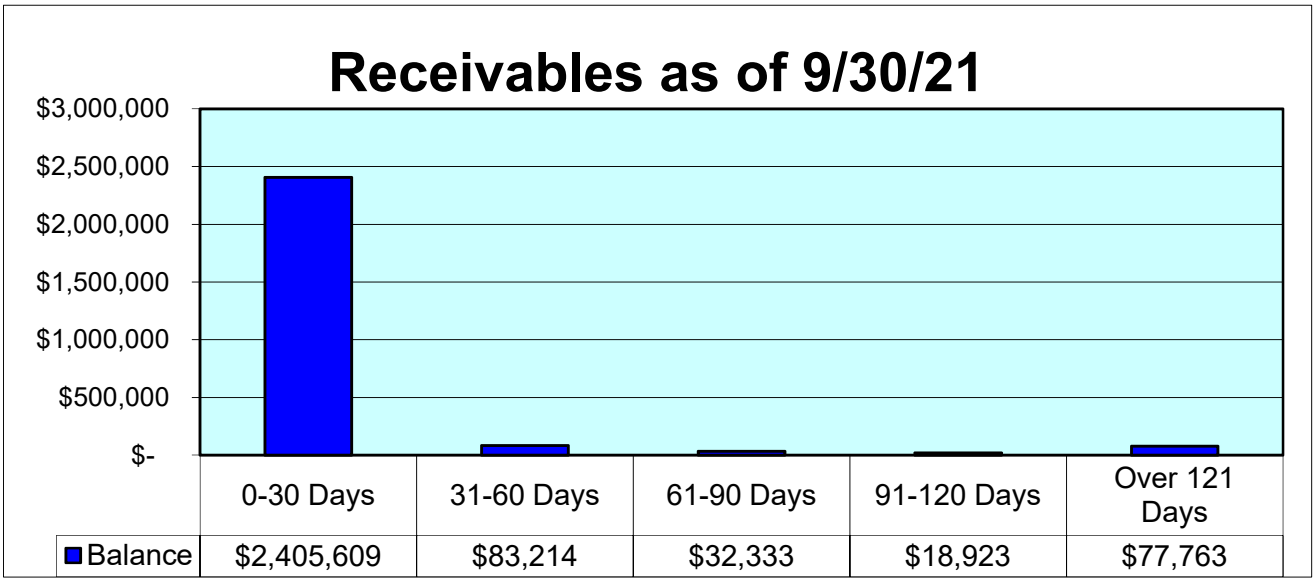


MARKET VALUE SUMMARY

	Growth Under 40 yrs. Old	Capital Appreciation 40 to 44 yrs. Old	Balanced 45 to 49 yrs. Old	Balanced Income 50 to 54 yrs. Old	Income & Growth 55 to 59 yrs. Old	Income 60 to 64 yrs. Old	Capital Pres. Port Over 65 yrs. Old
Balance at June 30, 2021	$ 2,516,132.58	$931,857.47	$871,612.09	$6,330,364.56	$8,272,782.08	$5,493,756.18	$1,392,123.44
Contributions	80,907.04	27,476.53	37,905.52	37,501.00	79,748.47	82,715.59	40,252.19
Withdrawals	0.00	0.00	0.00	0.00	0.00	(4,305.00)	(61,663.54)
Transfers	(745,997.45)	644,927.49	101,069.96	(2,550,556.21)	789,398.55	1,375,194.76	385,962.90
Interest, dividends and appreciation net of fees and charges	(10,702.22)	(11,867.15)	(5,737.48)	(16,856.15)	(34,121.21)	(17,770.21)	(9,210.62)
Balance at September 30, 2021	$ 1,840,339.95	$1,592,394.34	$1,004,850.09	$3,800,453.20	$9,107,807.89	$6,929,591.32	$1,747,464.37
Average return YTD September 30, 2021	-0.43%	-1.27%	-0.66%	-0.27%	-0.41%	-0.32%	-0.66%

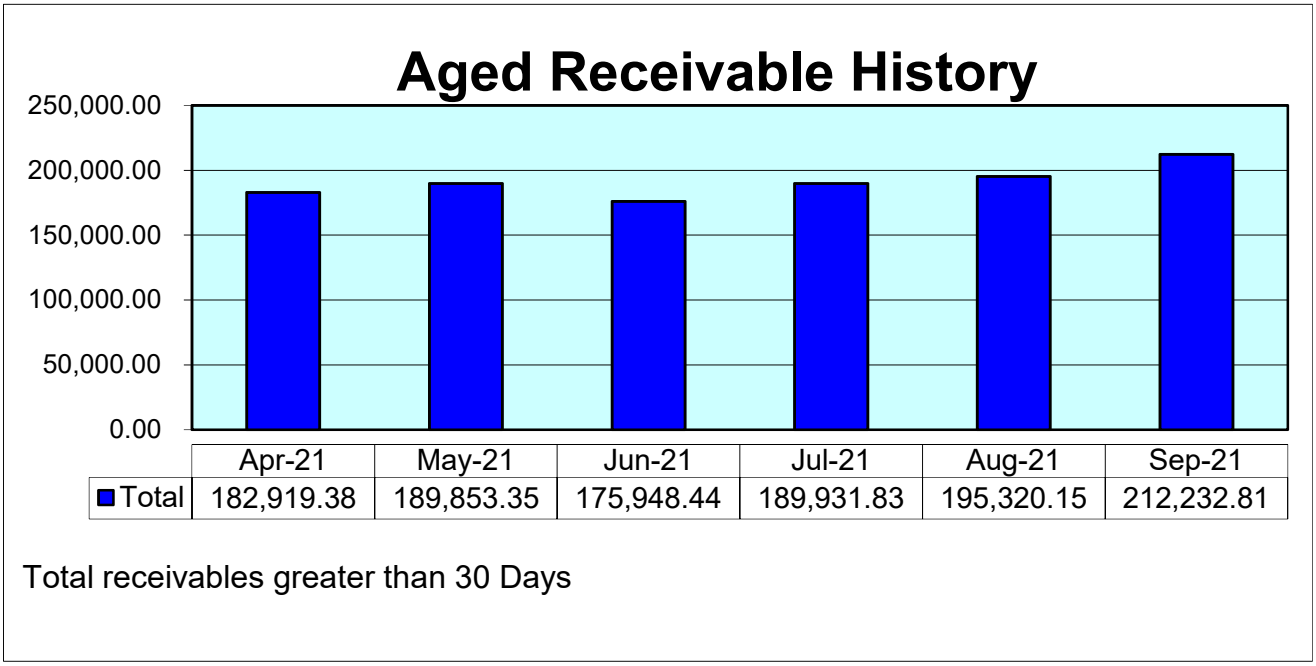
Average return is calculated by dividing the interest, dividends and appreciation, net of fees by beginning fiscal year fund balance.

RECEIVABLES AGEING



	0-30 Days	31-60 Days	61-90 Days	91-120 Days	Over 121 Days
Sep-20	2,217,800	78,337	22,582	10,542	27,467

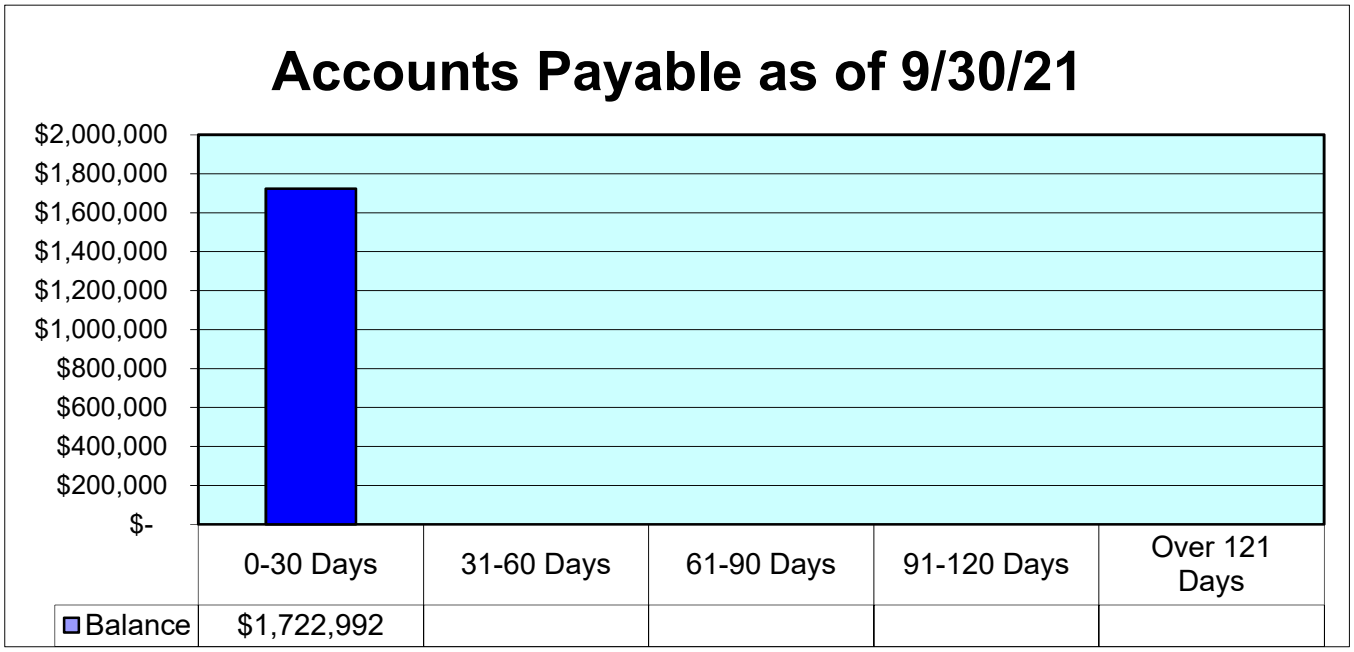
Bad Debts Year to Date: **1,199.49**



Total receivables greater than 30 Days

	31-60 Days	61-90 Days	91-120 Days	Over 121 Days	Total
Apr-21	74,004.52	26,830.40	16,267.66	65,816.80	182,919.38
May-21	84,696.77	24,630.82	15,028.52	65,497.24	189,853.35
Jun-21	72,550.13	26,112.09	14,393.41	62,892.81	175,948.44
Jul-21	76,309.78	28,777.71	15,490.65	69,353.69	189,931.83
Aug-21	76,551.23	30,465.15	15,824.39	72,479.38	195,320.15
Sep-21	83,213.57	32,333.09	18,923.16	77,762.99	212,232.81

PAYABLES AGEING

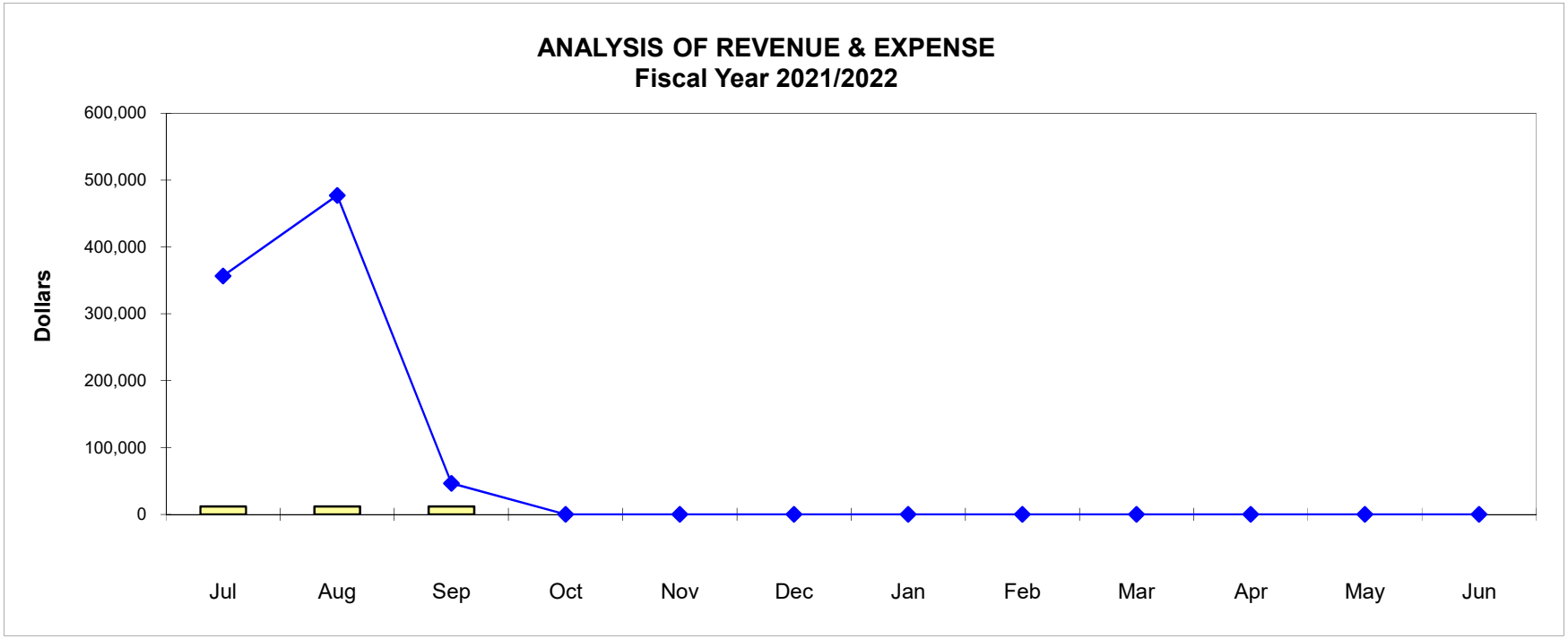


Year to Date Discounts Taken: **$591**

El Toro Water District
Income Statement
September 2021

	Sep 21	Budget	% of Budget	Jul - Sep 20	Jul - Sep 21	YTD Budget	% of Budget	Annual Budget
Income								
4600 · Water Service Charge	351,444.59	352,427.49	99.72%	915,520.84	1,024,619.44	1,057,282.47	96.91%	4,229,130.00
4700 · Sanitary Service	714,335.21	686,461.43	104.06%	1,932,431.94	2,055,749.66	2,059,384.29	99.82%	8,237,537.00
4722 · Recycled Water Tertiary Sales	234,968.69	150,935.17	155.68%	668,898.73	780,904.22	452,805.51	172.46%	1,811,222.00
4724 · Service Charge - Recycled Water	31,141.60	32,325.00	96.34%	66,827.49	89,979.24	96,975.00	92.79%	387,900.00
4750 · Capital Facilities Charge	250,595.37	252,122.00	99.39%	751,641.65	751,673.82	756,366.00	99.38%	3,025,468.00
4800 · Commodity Charge	825,300.48	770,280.00	107.14%	2,891,180.84	2,847,426.35	2,310,840.00	123.22%	9,243,364.00
4950 · Other Operating Income	1,415.00	4,583.00	30.88%	3,695.00	11,550.90	13,749.00	84.01%	55,000.00
4960 · Other Income	60,016.03	48,467.00	123.83%	145,028.03	246,128.90	145,401.00	169.28%	581,625.00
4967 · SMWD	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00
4970 · Charges for Service/Facilities	0.00	11,123.00	0.0%	11,000.00	11,000.00	33,369.00	32.97%	133,500.00
4980 · Investment Income	-4,537.77	8,333.00	-54.46%	25,325.88	-9,003.04	24,999.00	-36.01%	100,000.00
4990 · Property Taxes	92,621.41	90,832.00	101.97%	266,801.49	276,095.06	272,496.00	101.32%	1,090,000.00
Total Income	2,557,300.61	2,407,889.09	106.21%	7,678,351.89	8,086,124.55	7,223,667.27	111.94%	28,894,746.00
Gross Profit	2,557,300.61	2,407,889.09	106.21%	7,678,351.89	8,086,124.55	7,223,667.27	111.94%	28,894,746.00
Expense								
5100 · Personnel Cost	720,225.62	752,722.00	95.68%	1,980,625.11	2,129,962.36	2,258,166.00	94.32%	9,032,900.00
5405 · Water Purchases	739,336.86	677,626.40	109.11%	2,356,951.58	2,243,427.88	2,032,879.13	110.36%	8,131,516.73
5410 · Electrical Power	120,011.69	104,216.69	115.16%	395,865.62	395,226.45	312,649.79	126.41%	1,250,600.00
5415 · Repair Parts & Materials	40,934.03	34,308.29	119.31%	80,587.40	111,862.01	102,925.39	108.68%	411,700.00
5420 · Equipment Maintenance & Repair	4,864.29	8,283.35	58.72%	37,094.76	18,502.70	24,849.85	74.46%	99,400.00
5425 · Pump Maintenance & Repair	12,406.50	6,958.34	178.3%	16,701.06	12,406.50	20,874.94	59.43%	83,500.00
5430 · Motor Maintenance & Repair	0.00	3,375.01	0.0%	0.00	0.00	10,124.91	0.0%	40,500.00
5440 · Electrical/Contl Maint & Repair	3,072.74	7,641.65	40.21%	6,804.95	7,353.43	22,925.15	32.08%	91,700.00
5445 · Meter Maintenance & Repair	4,297.46	833.34	515.69%	1,672.52	4,297.46	2,499.94	171.9%	10,000.00
5455 · Chemicals	24,901.08	19,249.99	129.36%	56,205.68	60,118.95	57,750.09	104.1%	231,000.00
5460 · Structure Maint & Repair	6,222.00	1,862.53	334.06%	9,972.23	10,189.11	5,587.23	182.36%	22,350.00
5465 · Asphalt Maintenance & Repair	0.00	6,416.68	0.0%	0.00	0.00	19,249.88	0.0%	77,000.00
5470 · Consultants	5,550.05	5,125.00	108.29%	7,542.50	13,091.10	15,375.00	85.15%	61,500.00
5475 · Contractors	110,819.07	101,524.97	109.15%	308,265.13	303,389.99	304,575.27	99.61%	1,218,300.00
5480 · Engineers	1,136.00	5,333.33	21.3%	91,992.00	2,990.00	16,000.03	18.69%	64,000.00
5482 · Dump Fees	220.51	1,500.00	14.7%	6,682.40	627.97	4,500.00	13.96%	18,000.00
5485 · Laboratory	2,922.41	2,775.00	105.31%	7,477.70	11,223.83	8,325.00	134.82%	33,300.00
5490 · License & Permits	1,720.15	15,116.68	11.38%	22,287.82	11,441.49	45,349.88	25.23%	181,400.00
5495 · Gas & Oil	10,416.79	8,500.00	122.55%	24,286.35	29,252.59	25,500.00	114.72%	102,000.00
5500 · Equipment Rental	617.85	1,616.67	38.22%	4,936.68	2,657.83	4,849.97	54.8%	19,400.00
5505 · Landscaping	9,136.39	13,683.34	66.77%	14,665.64	18,630.13	41,049.94	45.38%	164,200.00
5510 · Small Tools & Equipment	3,912.95	6,116.69	63.97%	10,510.45	5,960.90	18,349.79	32.49%	73,400.00
5515 · Security	0.00	1,600.01	0.0%	4,798.14	1,608.84	4,799.91	33.52%	19,200.00
5520 · Operating Supplies	4,537.59	4,933.33	91.98%	23,287.19	11,524.93	14,800.03	77.87%	59,200.00
5525 · Safety Equipment	4,161.26	3,458.32	120.33%	8,269.88	5,186.72	10,375.12	49.99%	41,500.00
5530 · Temporary Help	0.00	1,458.33	0.0%	0.00	0.00	4,375.03	0.0%	17,500.00
5535 · Other Employee Cost	6,813.45	11,333.33	60.12%	65,361.10	24,298.62	34,000.03	71.47%	136,000.00
5540 · Depreciation	355,342.00	362,500.00	98.03%	1,074,855.00	1,066,026.00	1,087,500.00	98.03%	4,350,000.00
5545 · Insurance	30,720.62	27,608.33	111.27%	76,388.93	92,239.09	82,825.03	111.37%	331,300.00
5548 · Retiree Medical Insurance	23,382.24	27,083.33	86.33%	62,061.85	70,146.31	81,250.03	86.33%	325,000.00
5555 · Advertising & Publicity	0.00	166.67	0.0%	6,200.00	0.00	499.97	0.0%	2,000.00
5560 · Amortization	570.49	575.00	99.22%	1,711.47	1,711.47	1,725.00	99.22%	6,900.00
5570 · Annual Event	0.00	500.00	0.0%	0.00	0.00	1,500.00	0.0%	6,000.00
5575 · Audit	13,000.00	2,141.67	607.0%	13,920.00	15,900.00	6,424.97	247.47%	25,700.00
5580 · Bad Debts	0.00	1,666.67	0.0%	-51.26	1,199.49	4,999.97	23.99%	20,000.00
5585 · Bank Charges	5,826.17	5,916.67	98.47%	14,300.79	17,573.95	17,749.97	99.01%	71,000.00
5590 · Data Processing Supply & Access	541.37	2,499.99	21.66%	7,754.23	1,397.26	7,500.09	18.63%	30,000.00
5595 · Data Processing Equipment	161.00	2,916.65	5.52%	5,010.88	13,578.08	8,750.15	155.18%	35,000.00
5600 · Data Processing Consultants	1,009.38	5,000.00	20.19%	1,800.00	3,366.58	15,000.00	22.44%	60,000.00
5605 · Directors Fees	10,293.00	10,583.33	97.26%	31,755.00	31,974.00	31,750.03	100.71%	127,000.00
5610 · Dues & Memberships	6,208.51	7,266.67	85.44%	18,377.02	21,387.55	21,799.97	98.11%	87,200.00
5615 · Education & Training	161.00	1,300.00	12.39%	3,058.60	517.00	3,900.00	13.26%	15,600.00
5620 · Election Expense	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00
5625 · Employee Service Awards	0.00	316.67	0.0%	2,150.00	-703.04	949.97	-74.01%	3,800.00
5630 · Software Maintenance & Licenses	52,770.81	15,416.67	342.3%	35,154.46	79,838.86	46,249.97	172.63%	185,000.00
5640 · Interest Expense	59,294.54	59,833.33	99.1%	189,162.00	177,883.62	179,500.03	99.1%	718,000.00
5645 · Janitorial	7,015.49	3,750.00	187.08%	19,874.25	20,455.73	11,250.00	181.83%	45,000.00
5650 · Legal	19,005.41	8,791.66	216.18%	35,203.56	26,877.70	26,375.06	101.91%	105,500.00
5655 · Meets, Conventions & Travel	3,549.72	2,416.67	146.89%	718.78	9,149.47	7,249.97	126.2%	29,000.00
5657 · Meets, Con & Travel - Directors	1,140.00	3,658.31	31.16%	1,173.00	5,438.28	10,975.21	49.55%	43,900.00
5660 · Office Supplies	1,593.37	1,650.00	96.57%	2,582.25	4,294.85	4,950.00	86.77%	19,800.00
5670 · Postage	176.31	1,716.67	10.27%	427.96	3,519.51	5,149.97	68.34%	20,600.00
5675 · Printing & Reproduction	84.04	1,550.00	5.42%	3,741.40	373.80	4,650.00	8.04%	18,600.00
5680 · Property Tax	45.85	425.00	10.79%	41.44	49.09	1,275.00	3.85%	5,100.00
5685 · Public Education & Outreach	68,102.63	19,683.33	345.99%	25,530.85	73,002.11	59,050.03	123.63%	236,200.00
5690 · Publications & Subscriptions	0.00	125.00	0.0%	0.00	0.00	375.00	0.0%	1,500.00
5695 · Communications	9,359.38	9,474.99	98.78%	25,138.23	28,161.01	28,425.09	99.07%	113,700.00
5700 · Utilities	3,204.38	2,150.00	149.04%	3,689.92	5,184.89	6,450.00	80.39%	25,800.00
Total Expense	2,510,794.45	2,396,252.55	104.78%	7,204,574.50	7,205,774.45	7,188,757.78	100.24%	28,755,266.73

	Sep 21	Budget	% of Budget	Jul - Sep 20	Jul - Sep 21	YTD Budget	% of Budget	Annual Budget
Net Income	**46,506.16**	**11,636.54**	**399.66%**	**473,777.39**	**880,350.10**	**34,909.49**	**2,521.81%**	**139,479.27**

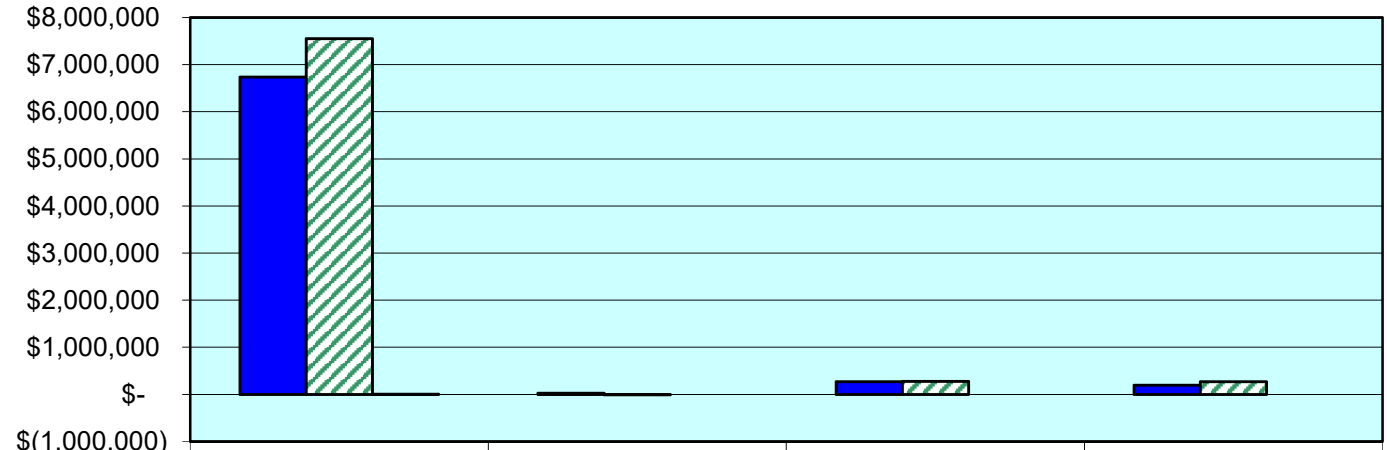


ANALYSIS OF REVENUES & EXPENSES
BUDGET COMPARED TO ACTUAL
FISCAL YEAR 2021/2022

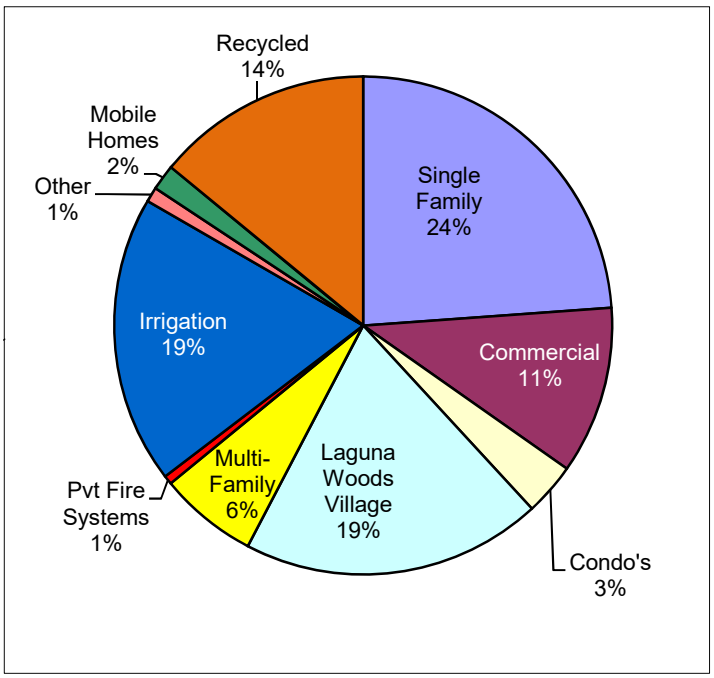
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Budget												
Revenue	2,407,889	2,407,889	2,407,889									
Expense	2,396,253	2,396,253	2,396,253									
Profit/Loss	11,636	11,637	11,637	0	0	0	0	0	0	0	0	0
Actual												
Revenue	2,694,337	2,834,487	2,557,301									
Expense	2,337,720	2,357,260	2,510,794									
Profit/Loss	356,617	477,227	46,506	0	0	0	0	0	0	0	0	0

EL TORO WATER DISTRICT
REVENUES FROM WATER & WASTE WATER SALES AS OF 9/30/21

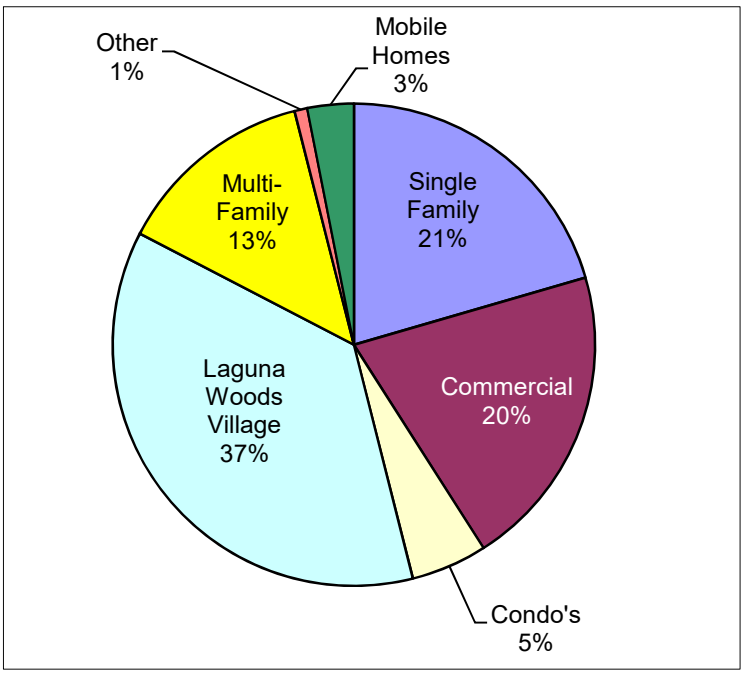
Where the Money Comes From



	Rates	Interest Income	Property Taxes	Other Non-Rate
Budget YTD	$6,733,653	$24,999	$272,496	$192,519
Actual YTD	$7,550,353	$(9,003)	$276,095	$268,680
% of Total	93.37%	-0.11%	3.41%	3.32%



WATER REVENUE YTD 2021/2022



WASTE WATER REVENUE YTD 2021/2022

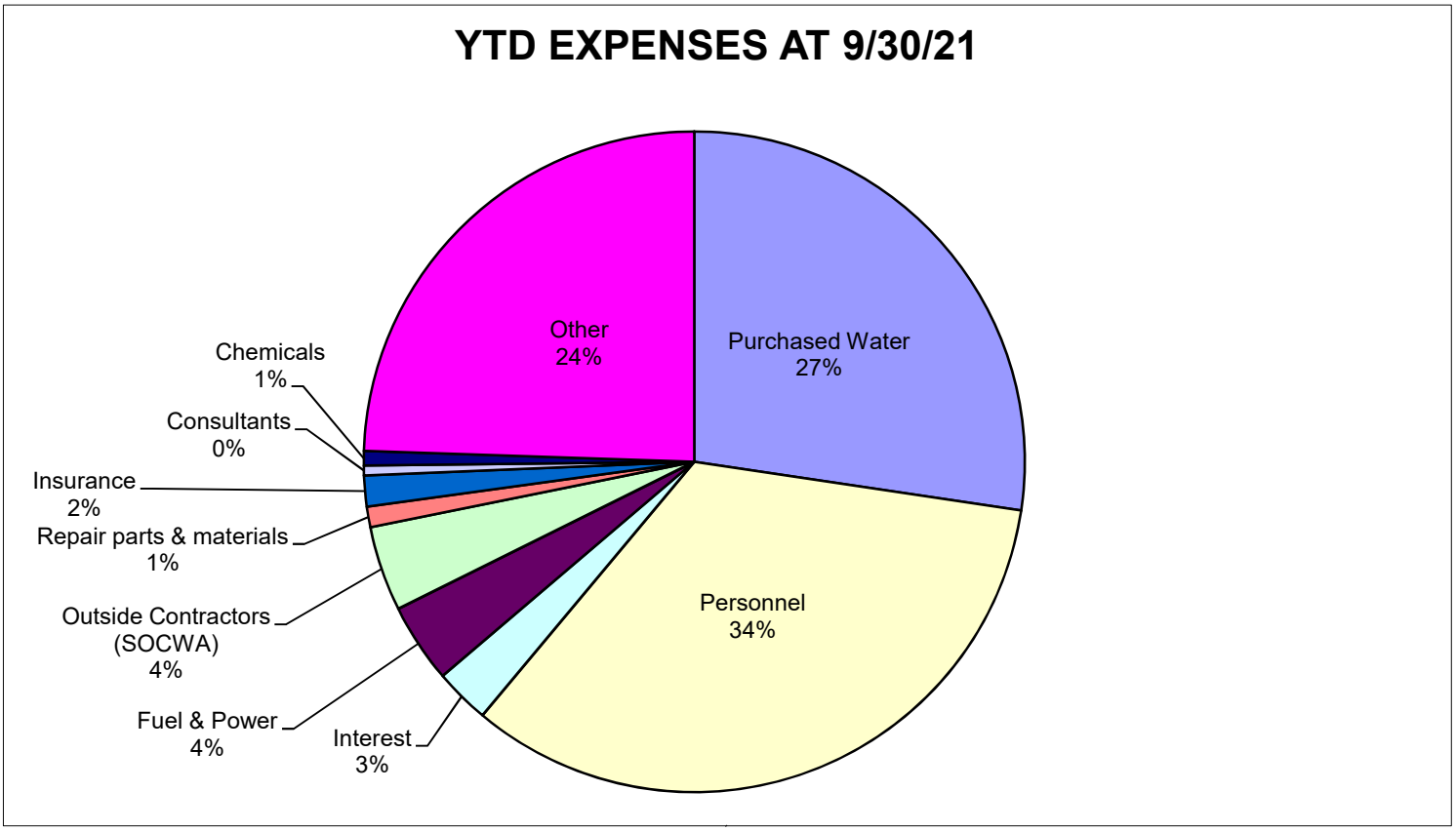
EL TORO WATER DISTRICT
REVENUE COMPARISON
For the Month Ended September 30, 2021

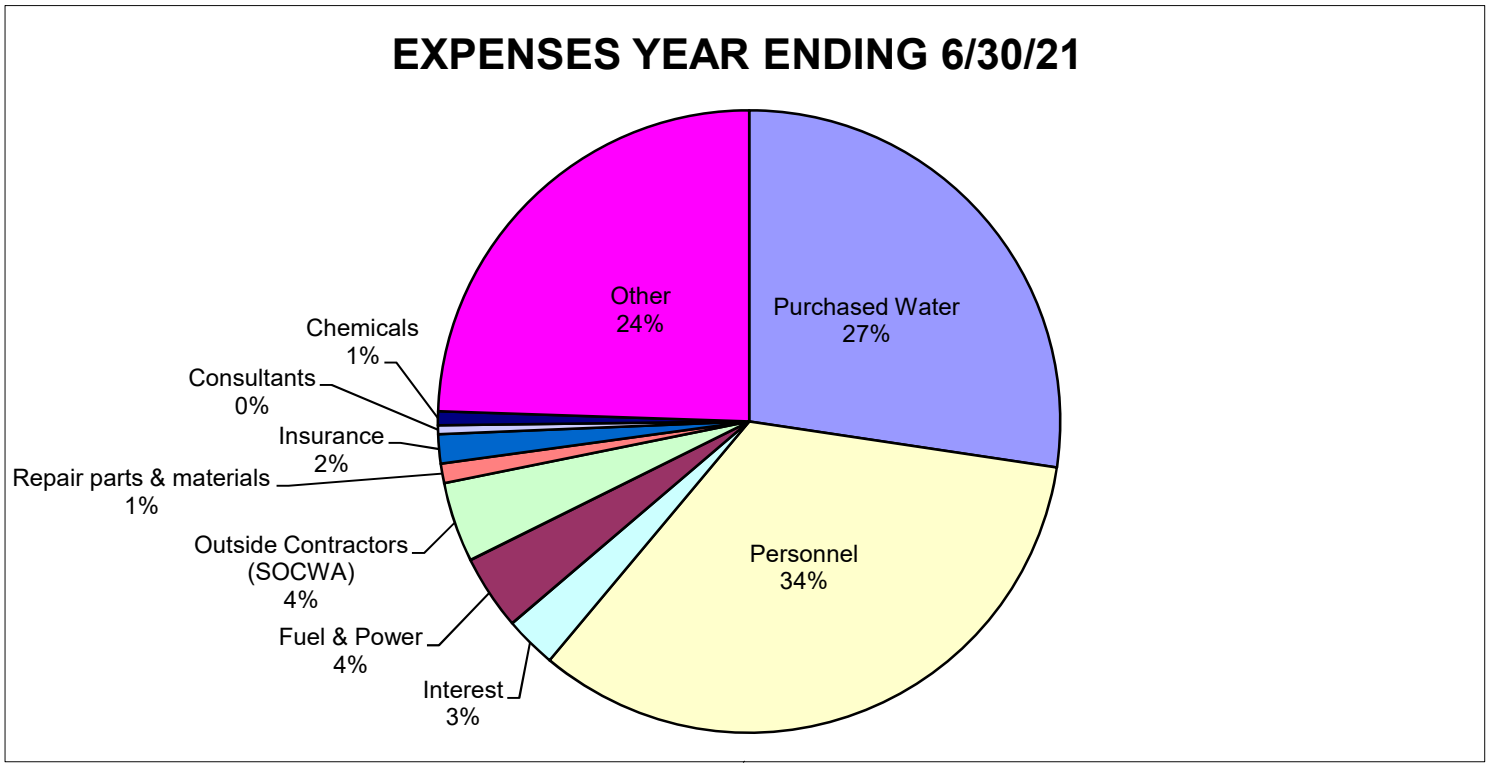
	ACTUAL	CURRENT MONTH BUDGET	VARIANCE DOLLARS	% +/-	YEAR TO DATE ACTUAL	YEAR TO DATE BUDGET	VARIANCE DOLLARS	% +/-	BUDGET	REMAINING BUDGET
From Rates										
Capital Facilities Charge	$ 250,595	$ 252,122	$ (1,527)	-1%	$ 751,674	$ 756,366	$ (4,692)	-1%	$ 3,025,468	$ 2,273,794
Water sales - Commodity	825,300	770,280	55,020	7%	2,847,426	2,310,840	536,586	23%	9,243,364	6,395,938
Water sales - Fixed Meter	351,445	352,427	(983)	0%	1,024,619	1,057,282	(32,663)	-3%	4,229,130	3,204,511
Waste water sales	714,335	686,461	27,874	4%	2,055,750	2,059,384	(3,635)	0%	8,237,537	6,181,787
Recycled water tertiary sales	234,969	150,935	84,034	56%	780,904	452,806	328,099	72%	1,811,222	1,030,318
Service charge - Recycled water	31,142	32,325	(1,183)	-4%	89,979	96,975	(6,996)	-7%	387,900	297,921
TOTAL FROM RATES	2,407,786	2,244,551	163,235	7%	7,550,353	6,733,653	816,699	12%	26,934,621	19,384,268
Non-rate Revenue										
Admin fee	1,365	1,600	(235)	-15%	11,471	4,800	6,671	139%	19,200	7,729
48 Hour notice fee	-	2,451	(2,451)	-100%	-	7,354	(7,354)	-100%	29,416.44	29,416
Restoration fee	-	370	(370)	-100%	-	1,110	(1,110)	-100%	4,440	4,440
Unpaid check fee	50	150	(100)	-67%	80	450	(370)	-82%	1,800	1,720
Cut lock fee	-	12	(12)	-100%	-	36	(36)	-100%	144	144
TOTAL NON-RATE	1,415	4,583	(3,168)	-69%	11,551	13,750	(2,199)	-16%	55,000	43,449
Other Revenue										
Investment Income	(4,538)	8,333	(12,871)	-154%	(9,003)	24,999	(34,002)	-136%	100,000	109,003
Property taxes	92,621	90,832	1,789	2%	276,095	272,496	3,599	1%	1,090,000	813,905
Other	60,016	48,467	11,548	24%	246,129	145,401	100,728	69%	581,625	335,496
TOTAL OTHER REVENUE	148,100	147,632	468	0%	513,221	442,896	70,325	16%	1,771,625	1,258,404
Contract Service										
Santa Margarita W. D.	-	-	-	0%	-	-	-	0%	0	0
Moulton Niguel W. D.	-	11,123	(11,123)	-100%	11,000	33,369	(22,369)	-67%	133,500	122,500
TOTAL CONTRACT SERVICES	-	11,123	(11,123)	-100%	11,000	33,369	(22,369)	-67%	133,500	122,500
TOTAL REVENUE	$ 2,557,301	$ 2,407,889	$ 149,411	6%	$ 8,086,125	$ 7,223,668	$ 862,456	12%	$ 28,894,746	$ 20,808,622

EL TORO WATER DISTRICT
NON-RATE REVENUE ANALYSIS
FOR THE MONTH ENDING September 30, 2021

	Sep-21 Actual	Sep-21 Budget	Jul 21- Sep 21 YTD Actual	Jul 21- Sep 21 YTD Budget
Site Leases	7,889	19,582	47,940	58,746
MWD Recycled Water LRP Rebate	52,128	27,219	196,310	81,656
JPIA Refund	-	-	-	-
SOCWA Refund		-	-	-
Recycled Metal	-	-	1,221	-
Diesel Fuel Tax Refund	-	-	-	-
Sale of District Trucks	-	-	-	-
Purchase Discounts Taken	-	-	591	-
Misc Work for Customers	-	1,666	68	4,998
	$ 60,016	$ 48,467	$ 246,129	$ 145,400
Other Operating Income				
Sales to Santa Margarita	-		-	
Sales to Moulton Niguel	-		-	
	-		-	
Total	60,016		246,129	

WHERE THE MONEY GOES





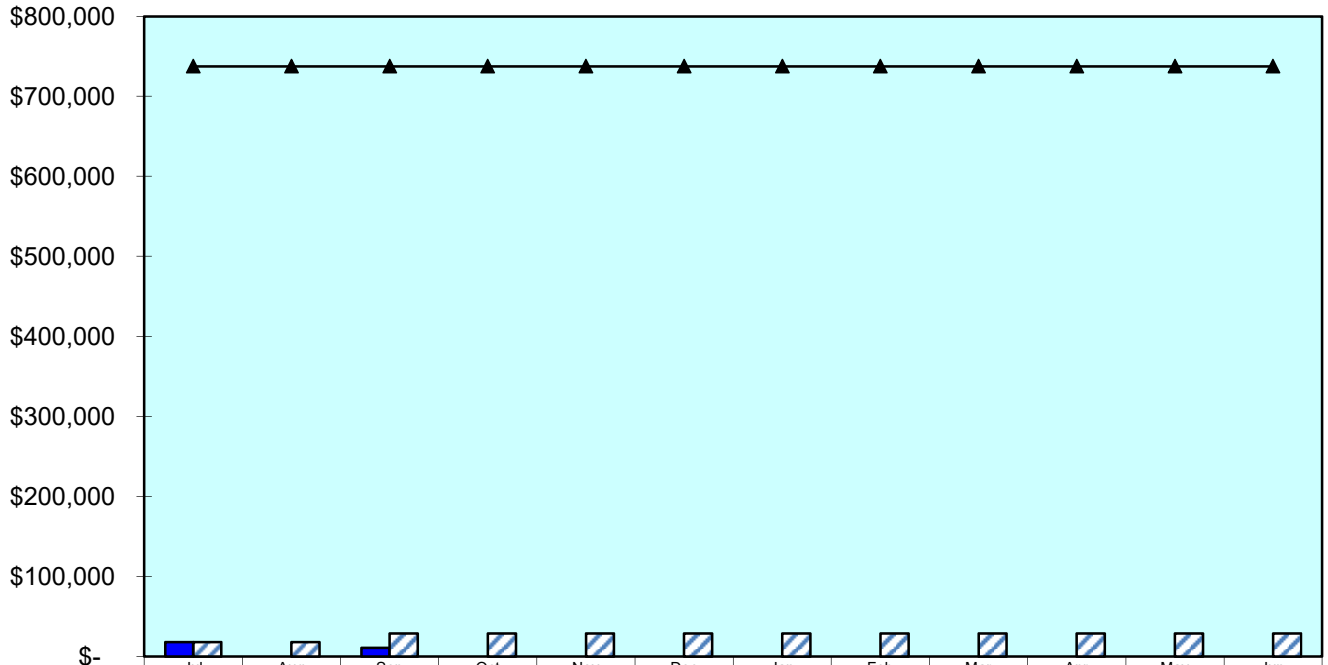
EL TORO WATER DISTRICT
Expense Comparison
For the Month Ended September 30, 2021

	ACTUAL	CURRENT MONTH BUDGET	VARIANCE DOLLARS	% +/-	YEAR TO DATE ACTUAL	YEAR TO DATE BUDGET	VARIANCE DOLLARS	% +/-	Annual BUDGET	REMAINING BUDGET
Operating Expenses										
Personnel cost	$720,226	$752,722	$32,496	4%	$2,129,962	$2,258,166	$128,204	6%	$9,032,900	6,902,938
Purchased water	739,337	677,626	(61,710)	-9%	2,243,428	2,032,879	(210,549)	-10%	8,131,517	5,888,089
Electrical power	120,012	104,217	(15,795)	-15%	395,226	312,650	(82,577)	-26%	1,250,600	855,374
Repair parts & materials	40,934	34,308	(6,626)	-19%	111,862	102,925	(8,937)	-9%	411,700	299,838
Equipment repairs & maintenance	4,864	8,283	3,419	41%	18,503	24,850	6,347	26%	99,400	80,897
Pump repairs & maintenance	12,407	6,958	(5,448)	-78%	12,407	20,875	8,468	41%	83,500	71,094
Motor repairs & maintenance	0	3,375	3,375	100%	0	10,125	10,125	100%	40,500	40,500
Electrical repairs & maintenance	3,073	7,642	4,569	60%	7,353	22,925	15,572	68%	91,700	84,347
Meter repairs & maintenance	4,297	833	(3,464)	-416%	4,297	2,500	(1,798)	-72%	10,000	5,703
Chemicals	24,901	19,250	(5,651)	-29%	60,119	57,750	(2,369)	-4%	231,000	170,881
Structure repairs & maintenance	6,222	1,863	(4,359)	-234%	10,189	5,587	(4,602)	-82%	22,350	12,161
Asphalt repairs & maintenance	0	6,417	6,417	100%	0	19,250	19,250	100%	77,000	77,000
Consultants - outside	5,550	5,125	(425)	-8%	13,091	15,375	2,284	15%	61,500	48,409
Contractors - outside	110,819	101,525	(9,294)	-9%	303,390	304,575	1,185	0%	1,218,300	914,910
Engineers - outside	1,136	5,333	4,197	79%	2,990	16,000	13,010	81%	64,000	61,010
Dump fees	221	1,500	1,279	85%	628	4,500	3,872	86%	18,000	17,372
Laboratories	2,922	2,775	(147)	-5%	11,224	8,325	(2,899)	-35%	33,300	22,076
License & permits	1,720	15,117	13,397	89%	11,441	45,350	33,908	75%	181,400	169,959
Automotive fuel & oil	10,417	8,500	(1,917)	-23%	29,253	25,500	(3,753)	-15%	102,000	72,747
Equipment rental	618	1,617	999	62%	2,658	4,850	2,192	45%	19,400	16,742
Landscaping	9,136	13,683	4,547	33%	18,630	41,050	22,420	55%	164,200	145,570
Small tools & equipment	3,913	6,117	2,204	36%	5,961	18,350	12,389	68%	73,400	67,439
Security	0	1,600	1,600	100%	1,609	4,800	3,191	66%	19,200	17,591
Operating supplies	4,538	4,933	396	8%	11,525	14,800	3,275	22%	59,200	47,675
Safety equipment	4,161	3,458	(703)	-20%	5,187	10,375	5,188	50%	41,500	36,313
Temporary help	0	1,458	1,458	100%	0	4,375	4,375	100%	17,500	17,500
Other employee cost	6,813	11,333	4,520	40%	24,299	34,000	9,701	29%	136,000	111,701
Employee service awards	0	317	317	100%	(703)	950	1,653	174%	3,800	4,503
Education & training	161	1,300	1,139	88%	517	3,900	3,383	87%	15,600	15,083
Total Operating Expenses	1,838,398	1,809,186	(29,212)	-2%	5,435,046	5,427,557	(7,489)	0%	21,710,467	16,275,421

EL TORO WATER DISTRICT
Expense Comparison
For the Month Ended September 30, 2021

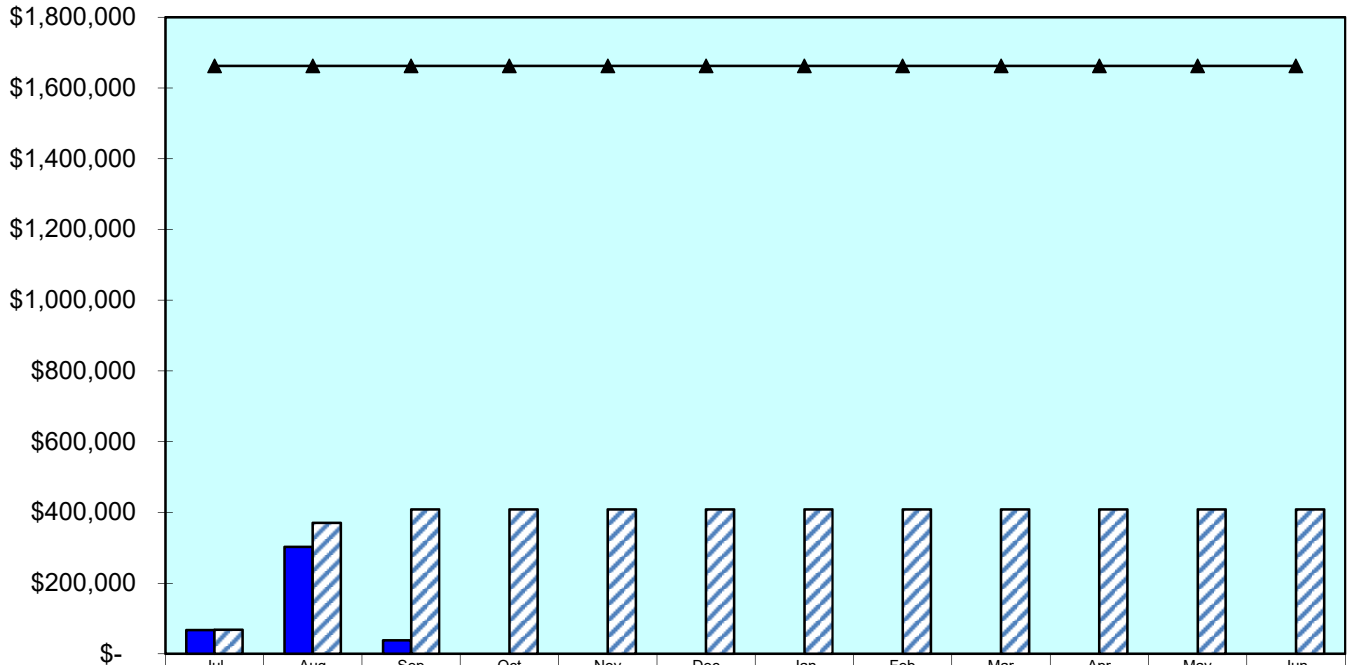
	ACTUAL	CURRENT MONTH BUDGET	VARIANCE DOLLARS	% +/-	YEAR TO DATE ACTUAL	YEAR TO DATE BUDGET	VARIANCE DOLLARS	% +/-	Annual BUDGET	REMAINING BUDGET
Indirect Cost										
Depreciation	355,342	362,500	7,158	2%	1,066,026	1,087,500	21,474	2%	4,350,000	3,283,974
Amortization	570	575	5	1%	1,711	1,725	14	1%	6,900	5,189
Insurance	30,721	27,608	(3,112)	-11%	92,239	82,825	(9,414)	-11%	331,300	239,061
Retiree Medical Insurance	23,382	27,083	3,701	14%	70,147	81,250	11,103	14%	325,000	254,853
Data processing supplies & assc.	541	2,500	1,959	78%	1,397	7,500	6,103	81%	30,000	28,603
Data processing equipment	161	2,917	2,756	94%	13,578	8,750	(4,828)	-55%	35,000	21,422
Data processing consultants	1,009	5,000	3,991	80%	3,367	15,000	11,633	78%	60,000	56,633
Software maintenance & licenses	52,771	15,417	(37,354)	-242%	79,839	46,250	(33,589)	-73%	185,000	105,161
Janitorial	7,015	3,750	(3,265)	-87%	20,456	11,250	(9,206)	-82%	45,000	24,544
Printing & reproduction	84	1,550	1,466	95%	374	4,650	4,276	92%	18,600	18,226
Publications & subscriptions	0	125	125	100%	0	375	375	100%	1,500	1,500
Communications - voice	1,035	1,333	299	22%	3,404	4,000	596	15%	16,000	12,596
Communications - data	5,390	5,058	(332)	-7%	16,146	15,175	(971)	-6%	60,700	44,554
Communications - mobile	2,935	3,083	148	5%	8,611	9,250	639	7%	37,000	28,389
Utilities	3,204	2,150	(1,054)	-49%	5,185	6,450	1,265	20%	25,800	20,615
Total Indirect Cost	484,161	460,650	(23,511)	-5%	1,382,480	1,381,950	(529)	0%	5,527,800	4,145,320
Overhead Cost										
Annual events	0	500	500	100%	0	1,500	1,500	100%	6,000	6,000
Audit	13,000	2,142	(10,858)	-507%	15,900	6,425	(9,475)	-147%	25,700	9,800
Bad debts	-	1,667	1,667	100%	1,199	5,000	3,800	76%	20,000	18,801
Bank charges	5,826	5,917	91	2%	17,574	17,750	176	1%	71,000	53,426
Directors fees	10,293	10,583	290	3%	31,974	31,750	(224)	-1%	127,000	95,026
Dues & memberships	6,209	7,267	1,058	15%	21,388	21,800	412	2%	87,200	65,812
Election Expense	0	0	0	0%	0	0	0	0%	0	0
Interest	59,295	59,833	539	1%	177,884	179,500	1,616	1%	718,000	540,116
Legal	19,005	8,792	(10,214)	-116%	26,878	26,375	(503)	-2%	105,500	78,622
Meetings, conventions & travel	3,550	2,417	(1,133)	-47%	9,149	7,250	(1,900)	-26%	29,000	19,851
Meets, con & travel - Directors	1,140	3,658	2,518	69%	5,438	10,975	5,537	50%	43,900	38,462
Office supplies	1,593	1,650	57	3%	4,295	4,950	655	13%	19,800	15,505
Postage	176	1,717	1,540	90%	3,520	5,150	1,630	32%	20,600	17,080
Property taxes	46	425	379	89%	49	1,275	1,226	96%	5,100	5,051
Advertising & Publicity	0	167	167	100%	-	500	500	100%	2,000	2,000
Public education & outreach	68,103	19,683	(48,419)	-246%	73,002	59,050	(13,952)	-24%	236,200	163,198
Total Overhead Cost	188,236	126,417	(61,819)	-49%	388,250	379,250	(8,999)	-2%	1,517,000	1,128,750
TOTAL EXPENSES	$2,510,795	$2,396,253	($114,542)	-5%	$7,205,775	$7,188,758	($17,017)	0%	$28,755,267	$21,549,492

CAPITAL COST ANALYSIS - EQUIPMENT 9/21



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Actual	$17,882	$-	$10,762	$-	$-	$-	$-	$-	$-	$-	$-	$-
YTD	$17,882	$17,882	$28,644	$28,644	$28,644	$28,644	$28,644	$28,644	$28,644	$28,644	$28,644	$28,644
Budget	$737,578	$737,578	$737,578	$737,578	$737,578	$737,578	$737,578	$737,578	$737,578	$737,578	$737,578	$737,578

CAPITAL COST ANALYSIS - PROJECTS 9/21



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Actual	$67,836	$302,614	$38,281	$-	$-	$-	$-	$-	$-	$-	$-	$-
YTD	$67,836	$370,450	$408,731	$408,731	$408,731	$408,731	$408,731	$408,731	$408,731	$408,731	$408,731	$408,731
Budget	$1,662,422	$1,662,422	$1,662,422	$1,662,422	$1,662,422	$1,662,422	$1,662,422	$1,662,422	$1,662,422	$1,662,422	$1,662,422	$1,662,422

MINUTES OF THE REGULAR MEETING
& OF THE
ENGINEERING COMMITTEE MEETING

September 20, 2021

At approximately 7:50 a.m. Director Vergara called the Engineering Committee meeting to order.

Committee Members MIKE GASKINS (via Zoom), KATHRYN FRESHLEY, JOSE VERGARA, MARK MONIN (via zoom), and KAY HAVENS participated.

Also participating were DENNIS P. CAFFERTY, General Manager, JUDY CIMORELL, Human Resources Manager, JASON HAYDEN, CFO, SHERRI SEITZ, Public Relations/Emergency Preparedness Administrator, GILBERT J. GRANITO, General Counsel, SCOTT HOPKINS, Operations Superintendent, HANNAH FORD, Engineering Manager, CAROL MOORE, Laguna Woods Council Member (via zoom), and POLLY WELSCH, Recording Secretary.

Consent Calendar

Director Vergara asked for a Motion.

Motion: Vice President Freshley made a Motion, seconded by President Gaskins and unanimously carried across the Board to approve the August 23, 2021 Engineering Committee meeting minutes.

Roll Call Vote:

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

Engineering Action Items

WRP Forklift Replacement

Mr. Cafferty stated that staff is proposing to procure the new forklift through Sourcewell, which is a self-sustaining government organization with over 40 years of service that offers contract purchasing solutions to member agencies.

President Gaskins asked if the new forklift will be just as useful as the old one was. Mr. Hopkins replied that the new forklift will have more power and be able to handle everything the old one did.

Vice President Freshley asked if the new forklift will use natural gas. Mr. Hopkins replied that staff reviewed several options and went ahead with the diesel due to cost and availability of diesel fuel on-site.

Director Vergara asked for a Motion.

Motion: Vice President Freshley made a Motion, seconded by Director Havens, and unanimously carried across the Board to authorize the District's General Manager to enter into a purchase order with Select Equipment in the amount of $83,580.59 for the purchase of a replacement forklift for the Water Recycling Plant.

Roll Call Vote:

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

Engineering General Information Items

IRWD Water Banking Project

Mr. Cafferty stated that this water banking program at Strand Ranch has been ongoing for some time, and more recently IRWD has made an effort to solicit partners.

He further stated that they are going through MWDOC and had a detailed discussion at a recent MWDOC Managers meeting.

Mr. Cafferty stated that this project is designed to capture water that is available in wet years that can be used to augment supply during drought conditions. He further stated that the water is considered extraordinary supply, meaning that it can only be used during a declared allocation period by MET.

Mr. Cafferty stated that according to IRWD, they have invested $178 million in these facilities of 781 acres of land that can accommodate as much as 45,000 acre feet per year.

Mr. Cafferty stated that they have 13 wells that can withdraw water, and as of June they have 28,000 acre feet in storage. He further stated that they are referring to a Reliability Pilot Program.

Mr. Cafferty stated that IRWD has offered a 7-year term, up to 5,000 acre feet going through MWDOC, at a cost. He further stated that as a participant we would pay $25 per acre foot for each year, meaning over a 7-year period we would be paying $175 per acre foot, just for the right to call on the water with no opt out.

Mr. Cafferty stated that, if there is a call on the water, we would then pay the full cost to withdraw the water. He further stated that IRWD has a two-for-one exchange opportunity that they lose if they consume storage space in the aquifer, which they used to calculate the value.

Mr. Cafferty stated that when all the costs are added up, it's approximately $1900 per acre foot.

Director Havens asked if they are looking at a timeframe. Mr. Cafferty replied that there is not a hard deadline.

Vice President Freshley stated that she does not feel comfortable supporting this project. Director Vergara and President Gaskins stated that they do not feel this project is in the District's best interest.

ETWD Capital Project Status Report

Oso Lift Station Improvement Project

Ms. Ford stated that we have placed the new generator and are working on commissioning by the end of this month. She further stated that, until the existing generator is removed, staff recommends not parking on the street.

Ms. Ford stated that, although the Cost Summary shows a negative contingency in the "Contract Amount" column, staff does not anticipate expending the full value of all contracts. The "Anticipated Expenditure" column represents that most likely scenario and maintains a positive contingency to keep the project under budget.

Filter Plant Building/WEROC EOC

Ms. Ford stated that staff received a proposal from Brady for design engineering and geotechnical services to prepare contract documents for demolition and construction. She further stated that staff met with MWDOC to discuss the proposal and plans to review comments and costs with Brady this month.

Vice President Freshley asked if Brady plans to bid on construction of the project. Mr. Cafferty replied that although Brady has a Contractor's license, staff is not currently inclined to pursue alternative delivery for this project nor use the design team as the contractor.

R-6 Floating Cover Replacement & Improvement Project

Ms. Ford stated that staff is contemplating whether or not to replace the liner in addition to the cover, and what materials will be used. She further stated that divers

took several samples of the liner from the floor to perform testing to assess liner condition and the viability of leaving the liner in place.

Director Vergara asked if staff has discussed this project with SMWD and MNWD. Mr. Cafferty replied yes, staff had a meeting with them and Hilts Consulting.

Ms. Ford stated that staff is working on contingency plans to accommodate any supply interruptions when the reservoir is out of service.

R-2 Reservoir Interior Recoating Project

Ms. Ford stated that divers noted several areas of coating failure and corrosion and recommend recoating the interior of R-2 to prevent metal loss and corrosion from causing an uncontrollable leak. She further stated that staff reviewed design documents, filed a Notice of Exemption from CEQA, developed bidding documents, and plans to bid this project next month.

Grit Chamber Rehabilitation

Ms. Ford stated that the Grit Chamber influent and effluent channels have experienced significant degradation and coating failure and aggregate has been exposed on portions of the Grit Chamber walls. She further stated that Wood Rogers develop design documents and is working with staff to determine work restrictions and whether bypass pumping will be necessary.

Ms. Ford stated that staff reviewed the design documents, filed a Notice of Exemption from CEQA, developed bidding documents, and plans to bid the project next month.

Vice President Freshley asked why CEQA is involved. Ms. Ford replied that we have to file a Notice of Exemption from CEQA with the County Clerk to allow for a 30-day comment period. This project is rehabilitation of an existing structure, which falls

under the categorical exemptions of CEQA.

Mr. Cafferty stated that by filing the Notice of Exemption with the County Clerk, it prevents someone from coming back at a later date and publicly challenging the District's project.

Main Office HVAC Replacement & Improvement Project

Ms. Ford stated that staff is working with Scott Wallace Structural Engineers (SWSE) to evaluate structural requirements for replacing the existing 5 air conditioning units on the roof. She further stated that modifications are necessary to support code changes to roof mounted HVAC equipment, and SWSE will determine the extent and cost effectiveness of structural modifications to the roof.

Phase III Recycled Water Project

Ms. Ford stated that staff provided demand data for the proposed areas to Tetra Tech which will use the data to estimate demands. She further stated that staff anticipates receipt of a technical memorandum (TM) early November.

Joint Transmission Main (JTM) Pump Station Project

Ms. Ford stated that staff anticipates a TM this month from Tetra Tech on a detailed evaluation of costs and benefits at the October Board meeting.

Aeration Basin Diffuser Project

Ms. Ford stated that Filanc is working with the vendor for delivery of materials that were delayed due to COVID-19 material supply chain challenges, delivery, and start of work.

Ocean Outfall Pump Station (OOPS) Generator Replacement Project

Ms. Ford stated that staff is reviewing project submittals. She further stated that due to COVID-19 supply chain challenges, delivery of the generator has been delayed

until April 2022, and the project is anticipated for completion by May 2022.

WRP Main Electrical Power Breakers Replacement Project

Ms. Ford stated that Schneider Electric is coming to the WRP to measure existing panels and will manufacture the second breaker.

Vice President Freshley stated that she understood both circuit breakers rated the same. Mr. Cafferty stated that the main breaker is 3,000 amp and the two sub breakers are 1,600 amp.

Phase II Recycled Water Distribution System Expansion Project

Ms. Ford stated that upon receipt of the on-site retrofit rebates, the project will be complete.

Energy Efficiency Analysis

Vice President Freshley asked what kind of changes were recommended to be made at the Plant. Mr. Hopkins replied maximizing run times of the most efficient pumps and changing certain operations at the Plant.

Ms. Ford stated that included in the Capital Projects report is a Capital Replacement and Refurbishment Schedule to help track the progress of the Capital Projects.

Comments Regarding Non-Agenda Engineering Committee Items

There were no comments.

Adjournment

There being no further business, the Engineering Committee meeting was adjourned at approximately 8:35 a.m.

Regular Session

Attorney Report

Mr. Granito stated that there is no need for a Closed Session today, and as such, regular session continued.

Adjournment

At approximately 8:40 a.m. the meeting was adjourned.

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

Agenda Item No. 11

STAFF REPORT

To:	**Board of Directors**	**Meeting Date: October 28, 2021**
From:	**Hannah Ford, Engineering Manager**	
Subject:	**Filter Plant Site Use Investigation and Design Project**	

Originally constructed in the mid-1960s and expanded in the mid-1970s, the El Toro Water District Water Filtration Plant (Filter Plant) has been out of service since 1984, when covering the R-6 Reservoir enabled the District to rely solely on treated water imported from Metropolitan Water District. The Filter Plant consists of four sand bed filters and associated mechanical and electrical equipment housed in a 13,000 square foot metal building as well as a 300,000-gallon, steel tank clearwell, as shown in Figure 1. The Filter Plant has experienced significant deterioration and decay over the past few decades.

Figure 1 – Existing Filter Plant Site

The Municipal Water District of Orange County (MWDOC) currently occupies part of Filter Plant site for their existing Water Emergency Response Organization of Orange County (WEROC) Emergency Operations Center (EOC). Located west of the existing Filter Plant, the 2,400-square foot WEROC EOC structure does not meet current seismic code requirements as a Risk Category Type IV building and lacks sufficient space to meet WEROC's current operational needs.

The District proposes to demolish the existing Filter Building and clearwell and construct a new storage warehouse for the District. MWDOC also proposes to construct a new WEROC EOC at the site of the demolished Filter Plant building.

ETWD and MWDOC jointly developed a Request for Proposals (RFP) for site investigation and design services. After publicly publishing the RFP through PlanetBids, the District received only one proposal from Richard Brady & Associates (Brady). Brady was awarded a contract to complete the original preliminary design report and alternatives analysis in 2019 following a competitive proposal solicitation process through which the District received and evaluated proposals from three consulting firms. Brady has extensive experience with the site and the project, which may have discouraged other consultants from proposing on the project. To validate Brady's proposal costs, ETWD and MWDOC hired ABS Consulting to provide an independent detailed cost estimate of the work required in the RFP. The ABS cost estimate was approximately 1.2% higher than the costs identified in the Brady proposal.

The District and MWDOC reviewed the proposal and negotiated the final fee in the amount of $475,633 for design and bid support services. ETWD and MWDOC staff have agreed that the proposed scope and fee is reasonable and appropriate for the design services necessary to complete the project. Attachment B contains the original proposal, and Attachment C contains the proposal addendum with the final revised schedule and scope of work. Attachment D contains the revised fee.

ETWD and MWDOC staff have further collaborated to develop a cost share agreement to allocate the proportional share of consultant service costs between ETWD and MWDOC. The cost responsibility was negotiated between ETWD and MWDOC for each task of the proposed design contract. The language of the agreement has been reviewed and approved by legal counsel for each agency. Attachment A contains the cost share agreement. At their October 20 Board meeting, following recommendation by the P&O Committee, MWDOC approved the cost share agreement.
MWDOC has agreed to share the cost of this project, as summarized in Table 1.

Table 1 – Filter Building Site Use Design and Construction Costs

Cost Share	Design
District	$275,783
MWDOC	$199,851
Total	**$475,633[1]**

[1] Total does not include engineering services during construction (Task 8 in proposal from Brady at estimated total of $175,514 split between the District and MWDOC at $105,308 and $70,204, respectively).

RECOMMENDATION

Recommended Action:

Staff recommends that the Board of Directors authorize the General Manager to 1) enter into a contract with Richard Brady & Associates in the amount of $475,633 for engineering design services for the ETWD Filter Plant Site Use Investigation and Design Project and 2) enter into a cost share agreement with MWDOC to allocate the proportional share of consultant service costs between ETWD and MWDOC.

COST SHARING AGREEMENT
BETWEEN
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY AND
EL TORO WATER DISTRICT

This Cost-Sharing Agreement ("Agreement") is dated for reference purposes this _____ day of _____, 2021, by the Municipal Water District of Orange County ("MWDOC") and El Toro Water District ("ETWD"). MWDOC and ETWD are referred to individually as "Party" and collectively as "Parties."

RECITALS

A. ETWD owns property (the "Site") which includes a Water Filtration Plant ("Filter Plant") that was taken out of service in approximately 1984. The Filter Plant consists of four sand bed filters and associated mechanical and electrical equipment and is housed in an approximate 13,000 square foot metal building. The Filter Plant, including the building, has experienced significant deterioration and decay since being taken out of service. The Filter Plant site also includes a 300,000 gallon, 54-foot diameter steel tank Clear Well that is in a similar state of disrepair; and

B. MWDOC currently occupies a portion of an existing ETWD office building on the Site for its existing Water Emergency Response Organization of Orange County ("WEROC") Emergency Operations Center ("EOC"). The existing WEROC EOC structure is located directly to the west of the existing ETWD Filter Plant buildings. The existing structure does not meet current seismic code requirements and lacks sufficient space for WEROC's needs; and

C. On July 23, 2021, MWDOC and ETWD issued a Request for Proposals ("RFP") seeking a consultant to provide architectural and engineering services for a site investigation and design at the El Toro Water District Filter Plant Site ("Project"); and

D. The main objective of the Project is to evaluate and investigate the geotechnical requirements for the demolition and construction scope of work at the existing Filter Plant and Clear Well, including design and refined cost estimates for demolition of the existing facilities, construction of a new ETWD warehouse/storage building, construction of a new MWDOC Emergency Operations Center ("EOC"), and construction of an Infiltration/Retention basin in place of the existing Filter Plant and Clear Well; and

E. The purpose of this Agreement is to establish the responsibilities of the Parties and conditions on which each Party will contribute funds for the Project and enter into an agreement with the selected consultant.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants and conditions herein contained, the Parties hereby agree as follows:

1. **RECITALS.** The Parties agree that the above-stated Recitals are true and correct. The Recitals are incorporated herein and made an operative part of this Agreement.

2. **COST SHARING.** The Parties agree to share the costs of the site investigation and design for the Project as follows:

Task No.	Description	Cost Responsibility	
		ETWD	MWDOC
1	Review of Project Objectives/ Project Management	60%	40%
2	Review Site-Use Report and Record Drawings and Collection of Additional Data	100%	0%
3	Comprehensive Geotechnical Soils & Demolition Report Costing	85%	15%
4	Clear Well Demolition and Infiltration/Retention Basin Study	100%	0%
5	Demolition Design Documents and Cost Estimates	100%	0%
6	Building Structures & Retention Basin Design Documents and Cost Estimates	40%	60%
7	Bid Support Services	50%	50%
8	Construction Administration Support Services	60%	40%

3. **AGREEMENT WITH SELECTED CONSULTANT.**

a. The following indemnification provision shall be included in the agreement between MWDOC and ETWD and the selected consultant:

i. Indemnity. To the fullest extent permitted by law, Consultant shall defend, indemnify and hold the Municipal Water District of Orange County, the El Toro Water District, their officials, officers, employees, volunteers, and agents (the "Indemnified Parties") free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any acts, errors or omissions, or willful misconduct of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant's services, the Project or this Agreement, including without limitation the payment of all damages, expert witness fees and attorneys' fees and other related costs and expenses. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by Consultant or the Indemnified Parties.

If Consultant's obligation to defend, indemnify, and/or hold harmless arises out of Consultant's performance of "design professional" services (as that term is defined under Civil Code section 2782.8), then, and only to the extent required by Civil Code section 2782.8, which is fully

incorporated herein, Consultant's indemnification obligation shall be limited to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant, and, upon Consultant obtaining a final adjudication by a court of competent jurisdiction, Consultant's liability for such claim, including the cost to defend, shall not exceed the Consultant's proportionate percentage of fault.

b. The agreement between MWDOC and ETWD and the selected consultant shall conform with the following:

1. All required insurance policies shall name the Municipal Water District of Orange County, the El Toro Water District, their respective Boards and each member of the Boards, their officers, directors, employees, and agents as Additional Insureds under the policies.

2. All required policies shall contain a provision stating that Consultant's policies are primary insurance and that the insurance of the District or any named insureds shall not be called upon to contribute to any loss.

4. **DELIVERABLES.** The deliverables to be provided by the selected consultant shall be jointly reviewed and accepted by MWDOC and ETWD.

5. **CONTINUING THE PROJECT.** Following completion of the site investigation and design, in the event that ETWD chooses to not construct the warehouse/storage building, MWDOC may still proceed with construction of the EOC at the Site, on condition that the Parties enter into a separate agreement that contains all of the terms and conditions mutually acceptable to the Parties with regard to MWDOC's desire to proceed with the construction and occupancy of the EOC building site.

6. **TERM.** This Agreement shall become effective as of the date first written above and shall continue in full force and effect until either it is terminated in a writing signed by the Parties or the Project is completed.

7. **NOTICES.** Notices hereunder shall be in writing and shall be sufficient if delivered to the notice address of each Party hereto for legal notices or as otherwise provided by a Party hereto in writing to the other Party.

8. **GOVERNING LAW.** This Agreement is made in the State of California under the Constitution and laws of the State of California and is to be so construed.

9. **AMENDMENTS.** This Agreement may be amended at any time, or from time to time, by one or more supplemental agreements executed by the Parties to this Agreement, without limitation, including the addition of new Parties to pursue the purposes of this Agreement.

10. **SEVERABILITY.** Any provision of this Agreement that is declared invalid by a court of competent jurisdiction shall be considered separable and inapplicable and will not affect any other provision or provisions of this Agreement.

11. **BINDING EFFECT.** This Agreement will inure to the benefit of and be binding on the successors and assigns of the Parties.

12. **EXECUTION.** This Agreement may be executed in counterparts, each of which shall constitute an original.

IN WITNESS HEREOF, the Parties hereto have executed this Agreement.

MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

By: _____

Date: _____

Title: _____

EL TORO WATER DISTRICT

Date: _____ By:_____

Title: _____

BRADY

EL TORO WATER DISTRICT

FILTER PLANT SITE USE INVESTIGATION AND DESIGN

THURSDAY SEPTEMBER 2, 2021

El Toro Water District

24251 Los Alisos Blvd.

Lake Forest, CA 92630

Submitted By:

BRADY

Richard Brady & Associates, Inc.

2655 Camino del Rio North, Suite 100

San Diego, CA 92108

BRADY

Why Choose Brady?

100% Alignment with El Toro Water District's Evaluation Criteria

No Learning Curve

BRADY prepared the Filter Site Usage Plan in 2019, delivering the final report in January, 2020, **on schedule and below budget.** As a result of our prior efforts on the project, BRADY has unmatched knowledge of the filter plant site. No time and associated costs will be expended by BRADY to "get up to speed". We will truly hit the ground running. BRADY has been a "niche" engineering services provider for municipal Operations Building projects going back several decades. This is not a response to an RFP because it is something we would like to try for the first time.

Understanding of the Project and Project Approach

Our proposed **Project Manager, George Murdoch**, has more than **40 years** of hands-on public agency experience working for the City of Newport Beach. He is a roll-up-the sleeves "Ops guy", has been involved with numerous similar renovation/consolidation projects and he served as the Project Manager for the first phase of this project for El Toro Water District. He knows all the players involved in this project, and will be supported by a team of energetic and experienced engineers, estimators, and design professionals. **You know what you will get from George and you can trust his expertise and wisdom.**

Scope of Work, Schedule, and Quality Control

BRADY is highly skilled at managing challenging scopes, budgets, and schedules. Our design group is a close-working group with all of the necessary skill sets working side by side in our home office. Scope creep and schedules are blown when communication is poor. Communication and coordination are BRADY strengths. **We will get this investigation and design assignment completed, start to finish, in 12 months or less**. **QA/QC** efforts will be led by **BRADY CEO Richard Brady, P.E., BCEE.**

Cost, Contract, and Insurance Compliance

BRADY's smaller size and lean management structure provide for a **lower overhead structure**, leading to **cost competitive rates**. We can meet all of the District's administrative requirements including insurance, liability, and equal opportunity practices. **We take no exceptions to the District's professional services contract.**

Signature of officer of BRADY who is authorized to execute legally binding agreements:

Richard Brady

September 2, 2021

BRADY

Executive Summary

Ladies and Gentlemen:

In response to your request for proposals, we are pleased to submit this proposal to the El Toro Water District (ETWD or District). BRADY has carefully considered the potential Scope of Work provided by ETWD, and has assembled an unmatched team to all provide all required services for the Filter Plant Site Use Plan Investigation and Design project. We understand the District's desire to reclaim the site of the abandoned water treatment plant for beneficial use for the erection of a new multi-purpose building in the old water treatment plant footprint. Fortunately this is not a difficult challenge, a project that BRADY has successfully executed on numerous similar occasions in award winning fashion. Led by **George Murdoch**, our professional team members are fully capable of meeting the project requirements and are committed to applying our skills and talents toward the accomplishment of ETWD's goals in an efficient and professional manner. We believe personal service, superior quality, and client satisfaction are the true measures of success in our industry.

FIRM INTRODUCTION

BRADY is an engineering and construction management firm providing a wide array of services through three primary business lines:

- Water, Wastewater & Water Resources
- Facilities & Infrastructure
- Environmental Services

BRADY's client base includes commercial, municipal, local, state, and federal government clientele. BRADY is a true multi-discipline engineering, construction management, and construction firm (BRADY has a Class A Contractors license, which is a key differentiator that is rare in our industry) with substantial in-house technical resources. We are designers, constructors, operators, inspectors, and maintenance technicians for water systems, treatment plants, and related infrastructure facilities. Because of our unique multidisciplinary experience, we are committed to facilities that are safe, sustainable, simple, smart and secure. We believe this expertise will benefit ETWD by developing a solution to this particular problem that is practical, sustainable, and cost-effective.

PROJECT TEAM

BRADY is a full service engineering firm that will be able to meet ETWD's needs from project planning through closeout. Our firm is experienced in all engineering disciplines, with specific expertise with demolition projects and in the design of Operations Buildings projects. **In addition to numerous similar projects we have completed for municipal clients in Southern California, BRADY served as the owner, designer, and builder of our own two-story 20,000 square foot Class A corporate headquarters building in 2006-2007.**

The proposed team for this project offers an optimal combination of extensive field experience, technical expertise and demonstrated commitment to safety. **George Murdoch** is our proposed Project Manager for this contract. Over the 38 years at the City of Newport Beach, George was involved in relevant projects such as: the demolition of existing facilities and construction of a storage facility at the Big Canyon Reservoir site; **needs assessment for the consolidation of corporate yards**; **construction of the Utilities Department emergency operations center (named George Murdoch DOC at retirement)**; construction of the treatment facility at 16th Street as well as the re-design of many other utility facilities to include storage of large equipment and materials; and reconstruction of the radio tower and county communications facility. In addition to the many years of facility changes, **George has participated in WEROC activities,** and has a good working relationship with MWDOC and has a good understanding of utility operations and needs. He has conducted many public outreach meetings regarding new facilities.

Our expertise and history with water treatment plants and operations facilities upgrades sets us apart from our competition, adding value to our clients. We take pride in and truly enjoy the work that we do.

INITIAL THOUGHTS

George Murdoch and Richard Brady jointly prepared the "Draft Report, Filter Plant Site Use Plan, Phase 1" dated January 2020. Mr. Murdoch and the BRADY team spent considerable time at the filter plant site during the development of the Draft Report, prepared the Draft report on schedule and under budget to the satisfaction of the District, and therefore is clearly the most qualified firm to move the project forward into the design and implementation phases. It is also clear that our potential competition for this assignment came to the same conclusion. BRADY's experience on this project is unbeatable.

It is clear that the demolition of the abandoned structures in a timely and cost effective way is the primary and initial mission for this project. The facilities were tested for lead in Phase 1, so we already know we will have to manage a lead abatement problem. Additionally, asbestos cement pipe (ACP) was discovered inside the filter complex, and additional ACP pipe is likely buried around the project site, with locations and sizes to be determined. Asbestos was also found in bathrooms and HVAC ductwork. Removing asbestos as documented in Vert Environmental' s Asbestos Inspection Report will be an immediate priority, to clear the way for the work that will follow.

Removing metal coated with lead paint is not a challenging process. How to properly and safely abate the presence of lead paint is well understood and is not a concern. Likewise, the 300,000 steel tank Clear Well is painted with lead. We have estimated the potential salvage value of the Clear Well to be 90 tons. However, due to the presence of lead, this will likely result in a cost to the District for disposal, rather than a financial gain for the value of 90 tons of salvageable steel. How to execute this work — either hiring a Contractor through a blind competitive process where costs and markups are unknown but in favor the Contractor, or allowing BRADY to execute this work on the District's behalf as the Contractor by obtaining competitive bids for comparison. These two options are worth discussion. It may be possible to convert the likely "cost to the District" scenario to a "cost benefit to the District" by simply changing the execution model.

Regardless of how we manage the demolition phase, in the end we will expose to view the old Hardinge filters concrete substructures. We have studied the design in our Draft Report and as we recommended in January 2020, we believe it is best and most cost advantageous to the District to leave the old concrete substructures in place and allow this perimeter outline to define the future multi-purpose footprint. The area can be filled with controlled low-strength material (CLSM), a self-compacted, cementitious material used primarily as backfill in place of compacted fill. This 2-sack cement slurry material would convert the entire subterranean structure to one monolithic concrete block, that would not only save the cost of unnecessarily demolishing these concrete walls and slabs, but provide the foundation and footprint for the new buildings.

A new building would only need a new footing on the outside edge of the existing perimeter Hardinge filter structure, constructing vertically immediately on top of the existing walls would not be adequate with current seismic codes. As recommended in the Draft Report, the proposed buildings will be erected using prefabricated metal panels.

Lastly, as we discuss throughout this proposal, the most likely obstacle to success is "stakeholder" acceptance and environmental issues that are not resolved in advance. Public meetings and face-to-face discussions with the adjacent property owners and interested parties (e.g. WEROC, AQMD, MWD) are imperative, and must happen early and often to flush out all relevant concerns. Renderings of the constructed project are helpful tools to clearly show the future outcome. Keeping promises is critical. We have found the general public to be very forgiving and understanding as long as we avoid surprises. We know and understand from direct experience working in residential communities that citizens can become very active and vocal regarding the project, and in particular, dust, noise, traffic during construction, and most importantly, the presence and removal of hazardous materials (asbestos pipe and lead paint) through a neighborhood full of children. An angry public is usually the result of poor communication. Beyond safety issues, the surrounding public will most likely be interested in "what will this look like from my condo?" followed by "why are there 30 cars on the site at midnight"? We will work closely with District staff to ensure the greatest chance of public acceptance possible.

BRADY

A) Project Experience, in addition to BRADY's work on the 2020 Draft Study...

1 Utilities Operations Yard Upgrade

In 2011 BRADY was recognized with the APWA Project of the Year Award for providing a Facilities Master Plan, studies, and updates occurring from 2003 to 2007 for the City of Huntington Beach. BRADY provided designs for several new structures, and a design for a seismic remodel and upgrade to an existing 8,389 square foot Administrations building.

CLIENT	CITY OF HUNTINGTON BEACH
CLIENT'S REFERENCE	DEBBIE DEBOW, P.E. (see note below) Tel: (714) 330-3683
TIMEFRAME	2007-2011
CONTRACT VALUE	DESIGN: $2.2M TOTAL: $11.6M

Full disclosure: Ms. DeBow retired from the City of Huntington Beach in 2019 and now works part-time for BRADY.

2 Temecula Field Operations Center

The City of Temecula in 2005-2007 Contracted BRADY to conduct a Facility Needs Assessment and provide a design for a new City Maintenance Facility and Corporate Yard. The project included a 3.35 acre build site, 23,600-SF building area made up of four separate structures, a 45,800 –SF parking area, a 49,000-SF maintenance yard area, and a 27,000-SF landscape area.

CLIENT	CITY OF TEMECULA
CLIENT'S REFERENCE	GREG BUTLER Tel: (951) 694-6411
TIMEFRAME	2005-2007
CONTRACT VALUE	DESIGN: $1.5 CONSTRUCTION: $10

3 Alvarado Water Treatment Plant

From 1999-2013, BRADY personnel provided ongoing project management, construction management, master planning, and civil engineering support service for the design and construction of an expansion to the City of San Diego's Alvarado Water Treatment Plant. BRADY's scope of services included master planning, architecture, structural engineering, civil engineering, project management, cost control, project scheduling, and construction management and administration. BRADY's work allowed the plant to be re-rated from 150 mgd to 200 mgd by virtue of these fairly simple improvements, at minimal capital investment, helping BRADY to earn the 2013 American Society of Civil Engineers Outstanding Engineering Project Award.

CLIENT	CITY OF SAN DIEGO
CLIENT'S REFERENCE	MIKE WALLACE Tel: (619) 409-6884
TIMEFRAME	1999-2013
CONTRACT VALUE	DESIGN: $25M CONSTRUCTION: $250M

4 BRADY's Previous Headquarters

BRADY financed, designed, and constructed our own 20,000 square foot company headquarters in 2006-2007. The building consisted of tilt up concrete walls and included an elevator to meet disabled employee needs both at the time of construction and for future employee needs.

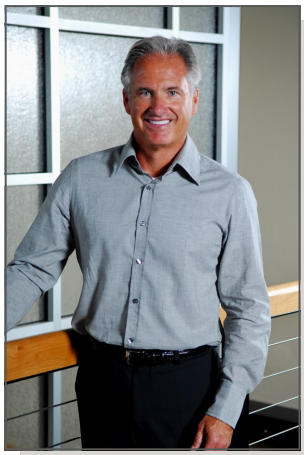
CLIENT	Richard Brady & Associates (BRADY)
CLIENT'S REFERENCE	Richard Brady, CEO Tel: (619) 701-1956
TIMEFRAME	2006-2007
CONTRACT VALUE	DESIGN: $0 (Internal cost) CONSTRUCTION, SHELL: $5.6m INTERIOR IMPROVEMENTS, INCLUDING FURNISHING: $2.2M

B) Key Personnel

PROJECT MANAGER - GEORGE MURDOCH

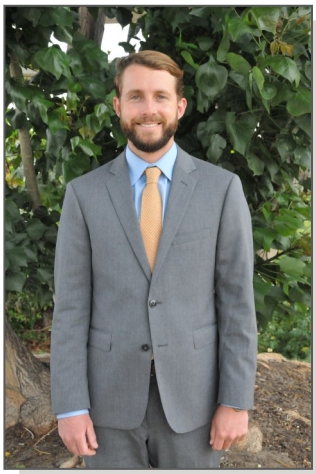
Mr. Murdoch has 38 years of experience in utility operations and management. Before joining BRADY, Mr. Murdoch served as the Municipal Operations Director for the City of Newport Beach. In this capacity, he managed a full – service water and wastewater utility as well as storm drain, streetlight and oil & gas operation with an annual operating budget of $33M, and a staff of 60 employees serving a population of over 70,000. After retiring from the City of Newport Beach, he received the lifetime achievement award for 38 years of dedication and public service.

QA/QC MANAGER - RICHARD BRADY, P.E., BCEE



Richard Brady is a Professional Engineer and Board-Certified Environmental Engineer with over 39 years of professional experience in water engineering. His experience includes treatment plants, municipal operations buildings, reservoirs, and pump stations. His projects have been recognized with national awards, including the American Society of Civil Engineers 2013 Outstanding Civil Engineering Project for the Alvarado Water Treatment Plant Expansion and Upgrade. Mr. Brady will provide owner-level commitment to the success of this project, and will ensure that BRADY's technical resources remain in place throughout the project. His previous work in constructability review has saved clients substantial costs and resulted in improved and safer designs.

PROJECT ENGINEER - GARRETT MURWASKY, P.E.



Mr. Murawsky has over 5 years of experience in the civil/structural engineering, design-build, and construction management professions. This experience has involved the management, quality control, design, and analysis of operation yards, buildings, utility structures, transmission structures, substations, gas lines, water lines, sewer lines, bridges, and water and wastewater treatment facilities. He has also provided overall management for the design and construction of various projects with structural, civil, architectural, mechanical, plumbing, and electrical discipline scope.

B) Key Personnel, cont.

SITE CIVIL ENGINEER - CHELSI PASCUA, EIT

Ms. Pascua is a civil engineer specializing in water and wastewater projects. She has assisted with numerous inspections and the design and drafting of several municipal projects. In her BRADY career, she has worked as a project engineer, designer, and inspector for 8 projects involving tanks and reservoirs. Ms. Pascua has a high attention to detail and is proficient in the use of AutoCAD Civil 3D aid in creating profiles, renderings, site grading plans, and detailed drawing designs.

DESIGN PRODUCTION - JOEL REYES

Mr. Reyes has 37 years of experience in drafting, management, and systems administration in the fields of Architecture and Civil/ Structural Engineering. He has complete understanding of the BIM Industry standard and can integrate various models. Mr. Reyes maintains all CADD workstations and related software here at BRADY. His vast knowledge of multiple platforms and application software allow him to navigate and replicate various client-specific environments.

COST ESTIMATION/DEMOLITION LEAD ENGINEER - JIM BOWEN, P.E.

Mr. Bowen is a Professional Engineer with more than 31 years of experience specializing in engineering, design, management and quality control of environmental and construction contracts. Mr. Bowen served as the Quality Control Program Manager on the Nation's first Environmental Multi-Award Contract (EMAC I) and performed as Project Manager and Deputy Program Manager on projects completed under the Navy's Environmental Job Order Contract (EJOC II). He has a thorough understanding of Design-Build and Design-Bid-Build project delivery methods and has direct experience with construction means and methods, manufacturing processes, electrical/mechanical system design and installation, start-up, and operation and maintenance activities.

ELECTRICAL ENGINEER - RYAN NISHIMURA, P.E.

Mr. Nishimura is a Professional Engineer with more than 14 years of experience in electrical and control engineering. His experience includes designing, inspecting, and implementing electrical and control systems for reservoirs, treatment plants, pump stations, flow control facilities, centrifuges, and buildings. Mr. Nishimura possesses extensive field experience during installation and startup/commissioning of electrical and industrial control systems in the built environment.

B) Key Personnel (Subconsultants)

ARCHITECTURE - JEFF KATZ ARCHITECTURE

Jeff Katz Architecture is a group of experienced and well-qualified architecture professionals. They are idea people, facilitators, and love a good challenge. They understand that client priorities are paramount and it is their goal to exceed your expectations. The end product is important, but they want you to enjoy the process too! Whether they are involved in an all-hands design charette with the entire project team or following up on the tiniest detail via text message, they are confident that you will find their team friendly, engaging, and knowledgeable.

They are a Southern California based firm with experience ranging from Public Safety facilities to Military to Entertainment and Parks + Recreation. They have experience with local jurisdictions and entities.

GEOTECHNICAL INVESTIGATION - GROUP DELTA

Incorporated in California in April 1986, Group Delta has provided geotechnical and environmental engineering, instrumentation, materials testing and inspection, and construction support services for more than 30 years. Group Delta is staffed by 100 civil and geotechnical engineers, environmental engineers and scientists, geologists, laboratory and field technicians, deputy grading and construction inspectors, CADD designers, and support staff. Group Delta maintains offices in the cities of Irvine, Torrance, Anaheim, San Diego, and Ontario as well as accredited laboratories in San Diego and Anaheim. They have served clients in both the public and private sectors throughout its history and have developed expertise in various types of projects.

POTHOLING SERVICES - AIRX

AirX Utility Surveyors, Inc. is Southern California's premier full-service Subsurface Utility Engineering service provider for over 17 years. Their skilled engineers, contractors, managers, locators, and potholers possess more than 50 years of trad experience locating and identifying underground utilities. Their services ensure work and cost efficiency and, most importantly, safety. They have completed over 2300 projects, including an ongoing 10-year, billion-dollar project to test and/or replace outdated gas lines throughout Southern California.

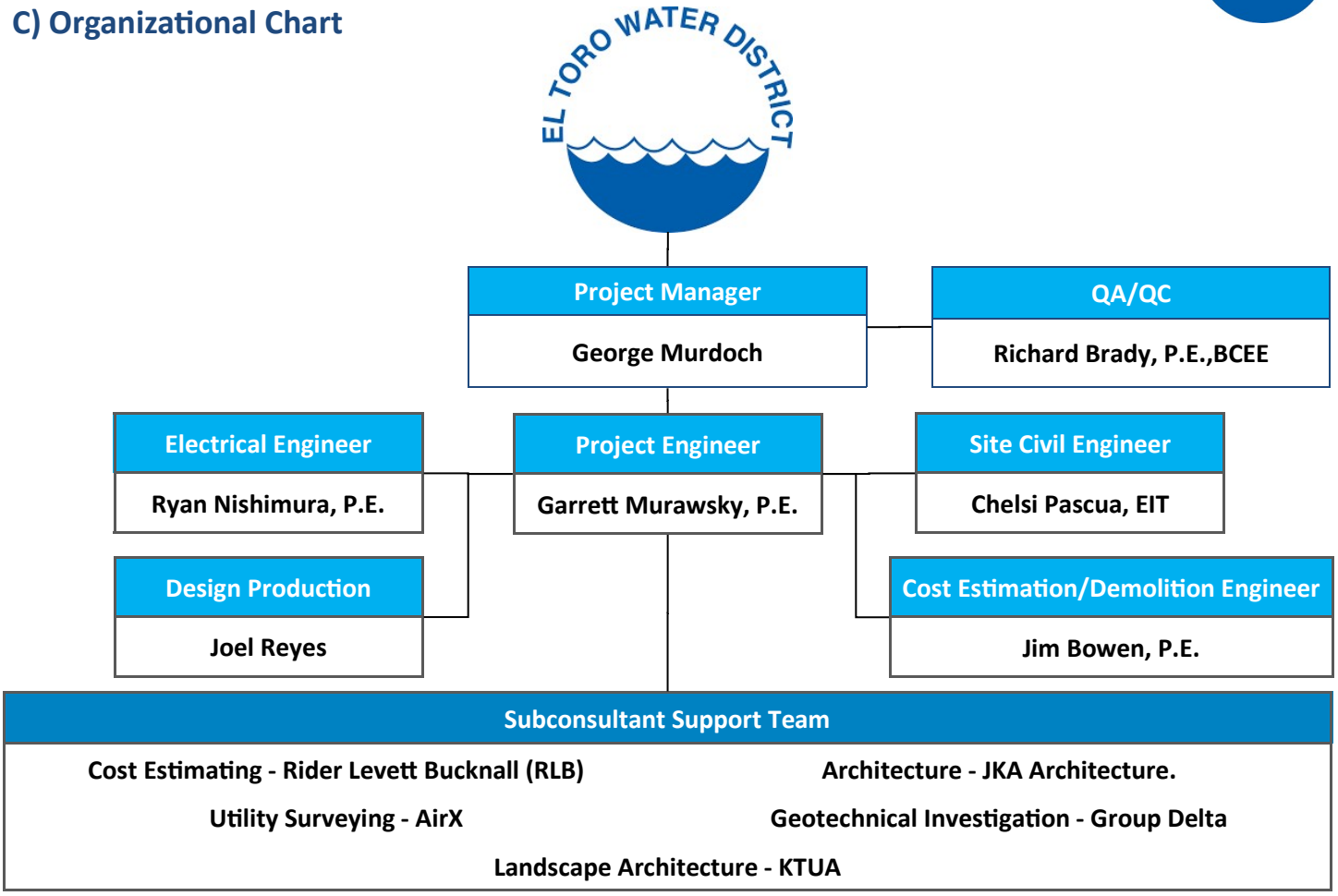
COST ESTIMATING - RLB

Rider Levett Bucknall (RLB) is a leading professional construction consultancy firm providing clients with independent management and unbiased, expert advice for all aspects of the feasibility, cost, and time of major construction projects. RLB provides full cost management services from conceptual and detailed estimating, cost planning, cost control, and construction risk management. The firm's construction cost managers have experience producing detailed cost estimates for public works projects. ENR is the industry leader in estimating. They are annual contracted directly with **Engineering News Record (ENR)** to prepare monthly and annual cost indexes for the construction engineering. We want to get an accurate bid cost for this project and there is no better source for this than RLB.

KTU&A Landscape Architect

KTU&A was established in 1970 as a landscape architecture and is knowledgeable in active transportation, community planning, federal planning and natural resource management. They employ landscape architects, GIS analysts, irrigation designers and graphic artists and have designed award-winning, creative and sustainable projects throughout the southwest.

C) Organizational Chart



D) Current and Future Workload

BRADY's current workload can be considered moderate. All staff identified in the Organizational Chart above will be dedicated to this assignment until completion, without change. George Murdoch, BRADY's proposed Project Manager, has only two current Project Manager assignments, both with Laguna Beach County Water District, so selection of BRADY for this project will be a delight to those at BRADY who track billable time, as currently George is at 25%. All other staff members have more than adequate unallocated billable time for the next 12 months to support every activity needed to complete this project.

BRADY

E) Project Approach and Detailed Scope of Work

BRADY has reviewed the Scope of Work and is fully prepared to execute the work as written with no deviations. We do recommend an addition to the Scope to include BRADY's QA/QC program that can be found in Appendix A. We have also enhanced the Scope of Work for our geotechnical activities that can also be found in Appendix A. We prefer to design a project just one time, and do not view QA/QC as an error catching program, it is error prevention. We allocate 5% of each budget for QA/QC activities, with the goal of making sure at the outset of the project we are headed in the right direction.

Our approach to efficiently executing the work will require the close attention to the following key success factors.

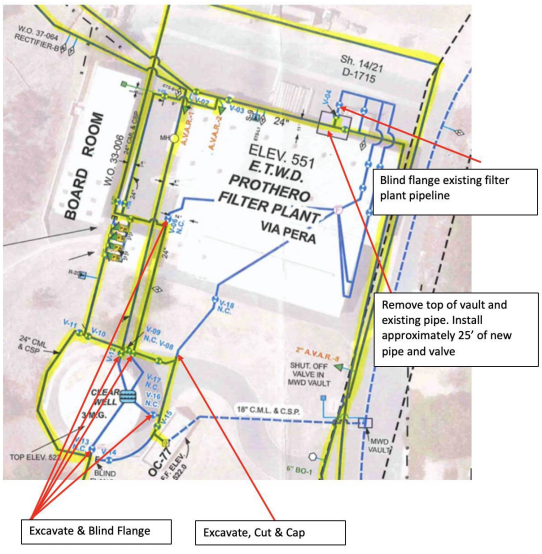
1. The first order of business is to finalize our "Draft Report, Filter Plant Site Use Plan, Phase 1" dated January 2020. Space needs of both the District and MWDOC must be confirmed or adjusted as necessary.
2. Perform the geotechnical work immediately to develop design criteria for the proposed new facilities.
3. Prepare architectural renderings of the final proposed project.
4. Asbestos was discovered in Phase 1 and we recommend a separate procurement package be developed to allow asbestos to be removed before any other contractor arrives on site.
5. We will focus heavily on the initial 30% design submittal for the new buildings to provide sufficient detail to assure an accurate cost estimate. The cost of this project is a key decision point for moving forward, or making adjustments in the project scope.
6. Potholing existing utilities.
7. Meeting with AQMD to assure we clearly understand their specific needs, and get this out of the way separately so there is no interference with other work.
8. Meet with the surrounding community to let them know what is being planned, and to flush out any manageable concerns.
9. We recommend the design be split into multiple packages to assure competitive quotes for various items of work for focus by specialty contractors. Packages would include:

    A. Demolition of the existing building and steel water tank. This will allow for the salvage value of steel to be maximized.

    B. Work associated with pipe relocations and abandonment (image at right)

    C. New structures.

9. Maintaining continuous and effective communications.
10. Meeting our budget and schedule. Nothing good happens when budgets are blown and schedules are not met.



ESTIMATE OF THE LEVEL OF EFFORT (PERSONNEL HOURS) TO BE EXPENDED

As required by the RFP, the table below summarizes our level of effort (personnel hours) to accomplish the Scope of Work included in Appendix A.

	1	2	3	4	5	6	7	8	
Labor Category	**Task 1 - Review of Project Objectives / Project Management**	**Task 2 - Review Site-Use Report and Record Drawings and Collection of Additional Data**	**Task 3 - Comprehensive Geotechnical Soils and Demolition Report and Costing**	**Task 4 - Clear Well Demolition and Infiltration / Retention Basin Study**	**Task 5 - Demolition Design Documents and Cost Estimates**	**Task 6 - Building Structures and Retention Basin Design Documents and Cost Estimates**	**Task 7 - Bid Support Services**	**Task 8 - Construction Administration Support Services**	**TOTAL**
Senior Program Manager / Senior Principal	56.0	-	-	-	-	-	-	-	**56.0**
Program Manager / Principal Engineer II	80.0	-	-	-	8.0	-	8.0	80.0	**176.0**
Senior Engineer / Project Manager	-	-	-	-	-	-	-	40.0	**40.0**
Project Engineer	-	-	8.0	-	120.0	120.0	40.0	316.0	**604.0**
Associate Engineer	-	-	-	16.0	16.0	-	-	40.0	**72.0**
Senior Designer	-	8.0	-	-	120.0	200.0	-	40.0	**368.0**
Construction Manager	-	-	40.0	-	80.0	40.0	16.0	200.0	**376.0**
Subtotal Labor Hours	**136.0**	**8.0**	**48.0**	**16.0**	**344.0**	**360.0**	**64.0**	**716.0**	**1,692.0**

LABOR HOURS	LABOR HOURS BY WBS						
	1.01	1.02	2.01	2.02	3.01	3.02	4.01
Labor Category	Project Meetings	QA/QC	Report and Review Drawing Review	Additional Utility Data Collection	Geotechnical Report	Demolition Study and Costing	Clear Well Demolition and Infiltration / Retention Basin Study
Senior Program Manager / Senior Principal	16.0	40.0	-	-	-	-	-
Program Manager / Principal Engineer II	80.0	-	-	-	-	-	-
Senior Engineer / Project Manager	-	-	-	-	-	-	-
Project Engineer	-	-	-	-	8.0	-	-
Associate Engineer	-	-	-	-	-	-	16.0
Senior Designer	-	-	-	8.0	-	-	-
Construction Manager	-	-	-	-	-	40.0	-
	96.0	**40.0**	**-**	**8.0**	**8.0**	**40.0**	**16.0**

LABOR HOURS	5.01	5.02	6.01	6.02	7.01	8.01	
Labor Category	Demolition Drawings and Specifications	Demolition Cost Estimates	Building Structures and Retention Basin Design Drawings and Specifications	Building Structures and Retention Basin Cost Estimates	Bid Support Services	Construction Administration Support Services	TOTAL
Senior Program Manager / Senior Principal	-	-	-	-	-	-	**56.0**
Program Manager / Principal Engineer II	8.0	-	-	-	8.0	80.0	**176.0**
Senior Engineer / Project Manager	-	-	-	-	-	40.0	**40.0**
Project Engineer	120.0	-	120.0	-	40.0	316.0	**604.0**
Associate Engineer	16.0	-	-	-	-	40.0	**72.0**
Senior Designer	120.0	-	200.0	-	-	40.0	**368.0**
Construction Manager	40.0	40.0	-	40.0	16.0	200.0	**376.0**
	304.0	**40.0**	**320.0**	**40.0**	**64.0**	**716.0**	**1,692.0**

G) Not-to-Exceed Fee

BRADY has provided a detailed not-to-exceed fee which includes hourly rates, direct expenses, subconsultants' fees, and is broken out by task and labor category. The project fee can be found in the separate sealed envelope along with this proposal.

H) Detailed Schedule

Meeting the schedule objectives of this project is a very important factor that will determine the ultimate success of efforts.

Methods BRADY will use to meet the schedule objectives:

1. Conduct the kick-off meeting the day following the notice to proceed. This meeting will be in a workshop format District and MWDOC management, engineering and operations and maintenance staff. Roles and responsibilities will be defined; space planning needs identified in the Draft Report will be re-evaluated and confirmed; project objectives will be identified as target goals that must be met; and all critical path items will be identified.
2. As it stands now, we see the critical path items as follows:
3. Finalize the Phase 1 Draft Report from January 2020.
    a. Confirming all space planning recommendations made in the Draft Report.
    b. Completing the geotechnical investigations.
    c. Pothole existing utilities.
    d. Confirming the type of type of new building construction.
4. Prepare Design Packages
    a. Preparing a separate procurement package to allow the immediate removal of asbestos discovered in Phase 1.
    b. To properly separate trade work and receive competitive pricing (work that is separate from demolition), prepare a separate design package for work associated pipe relocations and abandonment.
    c. Prepare a separate design package for all demolition activities, including the existing steel tank. This package will be developed to 100% and placed out to bid, as this is the only way to determine the true cost. Any estimate we prepared will be flawed as we don't have insight into the salvage market. Once the price is know, the District can decide to move forward to re-think the demolition effort.
    d. Prepare a separate design package for all new facilities.
5. Other activities.
    a. Completing work related to visual impacts - preparing renderings for review by project Stakeholders. In order to demonstrate that the architectural and landscape design approaches will be pleasing to the community, graphics that demonstrate the height, massing, and character of the architecture and landscape screening will be prepared.
    b. Pursuant to the California Environmental Quality Act (CEQA), the environmental review process is required for projects that require discretionary approval by a government agency. Completing the CEQA process by the District in a timely manner is essential for project success.
    c. Landscaping, though a likely small component of the project, is an important aspect with respect to visual impact mitigation.

Tasks	November 2021				December 2021				January 2022				February 2022				March 2022				April 2022				May 2022				June 2022				July 2022				August 2022				September 2022				October 2022				April 2022 - May 2023			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Site Use Investigation and Design (12 months)																																															
Construction Activities																																															
Remove Asbestos																																															
Pipe Relocations																																															
Demolition of the Builidngs and Clearwell																																															
New Building Construction																																															
Project Management																																															
Monthly Progress Meetings (50% in person, 50% conference)																																															
Tasks 1/2 - Review and Kickoff/Data Collection																																															
Kickoff Meeting																																															
Existing Conditions & Utilities Research																																															
Potholing																																															
Finalize the Phase 1 Report																																															
Prepare Architecural Renderings																																															
Task 2 - Geotechnical Investigation																																															
Team 4 - Clearwell Demolition/Basin Study																																															
Task 5 - Demolition Design Documents and Costs																																															
Procurement Package for Asbestos Removal																																															
90% Design																																															
100%																																															
Asbestoc Removal -- Advertise, Bid, Award, Finish																																															
Procurement Package for Pipe Relocations																																															
30% Design																																															
100%																																															
Advertise, Bid, Award, Finish																																															
Building and Clearwell Demoliton Design Package																																															
90% Design																																															
Final																																															
Advertise, Bid, Award																																															
Review Bid Results, Decide to Move Forward or Re-Scope																																															
Complete all Demolition Work																																															
Task 6- Building Structrues Design and Costs																																															
30% Design																																															
Cost Estimate																																															
District and MWDOC Review																																															
60% Design																																															
District and MWDOC Review																																															
90% Design																																															
District and MWDOC Review																																															
100% Design																																															
District and MWDOC Review																																															
Final Cost Estimate																																															
Advertise, Bid, Award, Finish																																															
Task 7 - Bid Support Services																																															
Task 8 -Construction Support Services																																															

Monthly Progress Meetings
Critical Path Items
Preparation Work
Design Duration (12 months)
Construction Activities
Float

I) Professional Services Contract Agreement

BRADY has read and has suggested language changes found directly below:

BRADY comments to Consulting Agreement – El Toro Water District

Please add as follows:

"DISTRICT agrees that in connection with the Services, ENGINEER has no control over or responsibility for the cost of labor, material, equipment, or the outcome of the competitive bidding process. If ENGINEER provides any opinion of probable cost, it shall be based on its experience and qualifications and represent its judgment as a consultant familiar with the construction industry but shall not be a guarantee or representation that construction costs will not vary from its opinions of probable cost."

Section 5. Please add at the end of the section the following: "Irrespective of any language to the contrary in this Agreement, ENGINEER has no duty to provide or to pay for an up-front defense against unproven claims or allegations, but shall reimburse those reasonable attorney's fees incurred by the DISTRICT to the extent caused by the negligence, recklessness, or willful misconduct of ENGINEER or any of ENGINEER's officers, agents, employees or contractors. ENGINEER's aggregate liability for the obligations in this Section 5 (inclusive) shall not exceed the amount of insurance proceeds available under the policies of insurance required to be maintained by ENGINEER under this Agreement. Provided further, ENGINEER shall not be liable under this Agreement for any indirect, incidental, consequential (including loss of profits), or special damages, of any nature whatsoever."

J) Insurance Form Agreement

BRADY has read and understands that it will provide the District with the requested insurance as outlined in the sample contract. Upon award of the project contract, BRADY will provide professional liability coverage at a minimum of $2,000,000 and general liability and property damage at a minimum of $2,000,000.

K) Addenda Acknowledgement

No addenda was issued for this RFP.

Appendix A: Scope of Work Suggested Additions

Appendix A) Scope of Work Suggested Additions

The Scope of Work included in the RFP was very well prepared and is acceptable to BRADY. All major scope items are more than adequately covered and were used to prepare our fee estimate included in Envelope "A". We have added a few additional scope items or clarifications as noted below.

Task 1

ADD:

B) Quality Assurance/Quality Control (QA/QC)

1. Prepare a Project/Quality Plan. BRADY will prepare Project/Quality Plan for use by all design team members, and a project specific Quality Assurance/Quality Control (QA/QC) Plan will be a part of this document to ensure that the company produces and delivers professional engineering services and work products to the highest standard that can be expected in the engineering industry. When this QA/QC Plan is implemented, a formal documented system of procedures and instructions will be used. With this QA/QC Plan, efficiency and accuracy will be increased, allowing BRADY to prepare deliverables on time and within budget. This is an error prevention program, not an error catching program. Approximately 5% of BRADY's design budget is allocated to QA/QC activities. QA/QC procedures will involve the independent review of technical memoranda, calculations, design drawings and specifications throughout their production. These procedures will also include internal auditing of the project fiscal and schedule status. This task will include specific reviews at PDR level, 50 percent and 90 percent level of completion, and will include interdisciplinary review meetings, final design completion, and/or other reviews as may be necessary. Quality Control also assures day-to-day review of work products and deliverables.

Task 1 Deliverables

1) Meeting Agendas & Minutes (electronic)

2) Monthly Status Reports (electronic)

3) Monthly Updated Project Schedules (electronic)

4) Monthly Invoices

5) Project Quality/Plan

Task 3 – Comprehensive Geotechnical Soils & Demolition Report and Costing

ADD:

Subsurface Exploration

We propose two days of subsurface exploration to complete five hollow stem auger test borings using a truck mounted drill rig at the site. Specifically, we propose to advance four borings around the perimeter of the abandoned Filter Plant buildings and one boring at the Clear Well structure for the infiltration site assessment discussed below. The borings will extend a minimum of 5 feet into competent formational materials or to a maximum depth of 20 feet, whichever depth is shallower.

The field work will consist of the following activities:

- Coordinate with Brady and El Toro Water District to obtain permission to access the site.
- Mark out the locations of the explorations.
- Notify Underground Service Alert (USA) and subcontract with a private utility locating service to review the location of explorations relative to underground utilities prior to commencing the field work.

- Subcontract with a drilling subcontractor and advance the hollow stem auger test borings to the target depths, or shallower if drilling refusal is encountered. When drilling, obtain bulk samples in the upper 5 feet and samples at depths of about 2, 5, 7.5 and 10-feet, and then at 5 to 10-foot depth intervals thereafter using Modified California and Standard Penetration Test split-barrel samplers. A Group Delta engineer or geologist will supervise the field work, log the test borings, and collect the soil samples.
- Abandon the explorations with soil cuttings and/or bentonite and thin spread any remaining spoils within earth surfaced areas of site.

Geotechnical Laboratory Testing

Group Delta will conduct laboratory testing on selected soil samples to evaluate physical and engineering properties. Our accredited laboratory in San Diego will perform the testing per ASTM International and Caltrans standards. The emphasis of the testing will be to assess: 1) index properties of the soils for classification, 2) elastic and consolidation settlement, 3) soil shear strength, 4) the potential for soil expansion or collapse, and 5) soil corrosivity. We will determine the actual laboratory testing program following completion of the subsurface exploration.

Interpretation and Geotechnical Reporting

We will interpret the findings from the subsurface exploration and laboratory testing and conduct geotechnical evaluations and analyses to prepare a geotechnical investigation report that provides the information listed below.

1) General

a. Generalized soil and groundwater conditions

b. Geologic and tectonic setting

c. Assessment of geologic and seismic hazards such as surface fault rupture, strong ground motion and liquefaction and secondary effects

d. Assessment of geotechnical conditions such as expansive and compressible soils, and corrosivity screening

2) Seismic Design

a. Site Class in accordance with the latest version of the California Building Code

b. Mapped seismic design parameters in accordance with the latest version of the California Building Code

3) Shallow Foundations

a. Recommendations for allowable vertical and lateral bearing pressures

b. Estimates of total and differential settlement

c. Recommendations for footing position and embedment

d. Considerations for Risk Category II and IV structures, as appropriate

Task 6 – Building Structures & Retention Basin Design Drawings and Specifications

ADD: Clarifications from

CONCEPTUAL DESIGN PHASE

1. Meet with Project Team to discuss budget, program, schedule and design issues. This meeting will include meeting with the Water District and stakeholders to gather input for project requirements.

2. Meet with County Building and Planning Department to review all requirements including design review, accessibility issues and approval process.

3. Work with Brady to prepare space needs / program document per discussions with the project team.

4. Develop Preliminary Building Floor Plans and Building Elevations for the project. These designs will build on the information already completed to date, but with modifications recommended "Best Practices".

After obtaining approval of a preferred design option we will proceed into Schematic Design.

SCHEMATIC DESIGN PHASE

1. Refine Concept Plans to reflect overall scope requirements. These plans will be schematic in nature and are intended only to provide information with regard to overall extent of the project. Included will be site plan, concept electrical/lighting plans, concept mechanical plans, preliminary structural plans and architectural plans to describe design intent for each of the project elements and systems.

2. Prepare preliminary interior and exterior renderings of proposed design and provide an initial walk-thru of the 3D model for design review.

3. Prepare preliminary material and equipment selections for review.

4. Coordinate with provided civil engineering and landscape architecture consultants.

5. Present to Project Team for schematic design review and approval to proceed with current scope extents. At this stage any adjustments to the scope/program should be identified.

6. Make required presentations to various agency review organizations to review proposed design. Proposal assumes one County presentation.

7. Make required modifications to Schematic Design to obtain Schematic Design and Site Plan approval.

8. After obtaining approval of Schematic Design we will proceed into Design Development.

DESIGN DEVELOPMENT PHASE

1. Refine design of Site Plan, Architectural Plans, and Engineering Plans

2. Meet with the County Building Department and any applicable utility companies or other points of coordination to establish expectations for the project and understand timelines for incorporation into the project schedule.

3. Prepare updated design renderings and conduct Virtual Reality walk thru.

4. Provide submittal and presentation to Project Team for design review and approval to proceed with current program and design direction.

5. After obtaining approval of Design Development we will proceed into Construction Documents.

Attend progress meetings with stakeholders (assume 1 meeting for this phase).

CONSTRUCTION DOCUMENTS PHASE

1. Prepare drawings and associated documents required for approving agencies and incorporate all required revisions/ corrections as necessary to obtain required approvals.

2. Prepare drawings and specifications suitable for bidding to clearly delineate the Contractor's scope of work.

3. Submittals will be made at 60% CDs, 90% CDs, 100% CDs and will include plans and specifications. A final FOR CONSTRUCTION document set will be distributed for construction once permitting is complete. It is assumed that the Client will provide any required General and Supplementary Conditions and Bidding Information. Structural design will be for foundation systems only.

4. Submit plans to County Building Department for plan check, and perform all required revisions to construction documents based on Department's plan check comments (Note: plan check and permit fees are not included).

Meet with Project Team (one meeting) to review final design and construction documents.

BIDDING PHASE

1. Provide drawings and specifications (in electronic format) for bid package. For this proposal it is assumed that the Client or their selected contractor will advertise, assemble and distribute bid packages as required.

2. Interpret and clarify contract documents for contractors, and assist in issuing addenda as required.

3. Attend a Pre-Bid walkthrough at the site with all interested contractors.

Participate in bid review of contractor's detailed cost breakdown and assist in evaluation of the bids.

CONSTRUCTION ADMINISTRATION PHASE

Construction contract administration services are based on a Nine month construction period, from Authorization to Proceed through Punch list Inspection. The following services will be provided:

Attend Pre-Construction conference.

Review and approve or take other appropriate action upon Contractor's submittals and shop drawings as required by contract documents.

Interpret contract documents (including all contracted sub-consultant disciplines) for proper execution and progress of construction, including responding to contractor's requests for information and clarification, and issuing ASI's (Architect's Supplemental Instructions).

Make one scheduled site visit every other week during the course of construction (total of 18) to observe the project, and prepare site visit report (meeting minutes). Site visit shall include meeting with contractor and Client representative to review progress of construction, review pending RFI and Change Order information, and observe the construction to verify work is proceeding in accordance with construction documents.

Make one additional site visit to perform Punchlist Inspection, and one additional visit to perform Final Inspection. Punchlist Inspection will include a detailed listing of all items remaining to be completed by the Contractor. Final Inspection will certify that all work has been completed in accordance with construction documents.

Assist in review of contractor's initial and progress schedules and Schedule of Values.

Assist in reviewing and processing contractor's progress payment requests, and certifying the amounts due to the contractor.

ASSUMPTIONS & ADDITIONAL SERVICES

The following items are not included in the Basic Services, and will be provided as additional services only after written authorization is received. Unless a subsequent fixed fee proposal is provided, the work will be done on an hourly basis.

Additional Services not included in our basic scope of work include:

1. Civil Engineering and Landscape Architecture.
2. Fire Protection design and engineering (to be done as a deferred submittal).
3. Topographic survey, boundary survey, Title search, easement identification, etc.
4. Geotechnical survey and report.
5. Structural engineering for the building shell. If PEMB is not utilized for building design additional fees will be required.
6. Revisions to Contract Documents resulting from Owner requested changes to documents previously approved by the Owner, or due to code or zoning changes made subsequent to Owner approval.

7. Preparing separate construction document packages for discretionary permits or alternate bid items.

8. Attendance of any public hearings and/or additional meetings other than detailed in the proposal.

9. Services required because of significant changes in the project (not due to the design team's acts or omissions) including, but not limited to, size, quality, complexity, schedule, or the method for bidding and contracting for construction.

10. Processing change requests for Owner requested changes, and for unforeseen site conditions, after bid, including revisions to Contract Documents, processing approval of revisions through the Building Department, and Change Order negotiation.11.

11. Providing services in conjunction with implementing substitutions proposed by the Contractor, and making subsequent revisions to Contract Documents resulting from such.

12. Providing services made necessary by the default of the Contractor, by major deficiencies in the work of the Contractor, or by failure of performance of either the Owner or the Contractor under the Contract for Construction.

13. Providing services in conjunction with arbitration proceedings or legal proceedings, except where the Architect is a party to such proceedings.

14. Providing "Special Inspection" services required by law or the Contract Documents.

15. Traffic Engineering Services.

16. Commissioning or Enhanced Commissioning Services.

17. Preparation of documentation to process the project through the US Green Building Council as a LEED project.

18. Design of photo-voltaic electrical generation systems (code required solar ready infrastructure is included in basic scope).

Plan check and permit fees are not included and are to be paid by the Client.

Appendix B: Project Descriptions

1 Utilities Operations Yard Upgrade

CLIENT	CITY OF HUNTINGTON BEACH
CLIENT'S REFERENCE	DEBBIE DEBOW, P.E. Tel: (714) 330-3683
TIMEFRAME	2007-2011
VALUE OF CONSTRUCTION CONTRACTS	DESIGN: $2.2M TOTAL: $11.6M

A Facilities Master Plan and study was prepared by the BRADY team for the utilities operations yard in 2003, with additional studies and updates occurring in 2006 and 2007. The studies provided the concept designs and recommendations to enhance operating efficiencies and effectiveness through budgeting, design, and construction of new and remodeled facilities to meet present and future staffing and operational needs. The Facilities Master Plan was accepted in late 2007 which included structural, civil, architectural, mechanical, plumbing, electrical, and landscaping scope. BRADY was contracted to prepare the contract documents for the required operations yard improvements project, including:

- A remodel and seismic upgrade of the existing Operations/Administration Building (8,389 square feet);
- Design of a new Operations Building to provide for training, GIS, water quality, and expanded laboratory facilities (6,714 square feet);
- Design of new Distribution & Meter Building to provide for workshops for the water distribution and metering, and wastewater operations (11,096 square feet)
- Design of a new storage facility addition to the existing Production Building (990 square feet);
- Design of a new covered storage and fleet parking structure;
- Design of new material bays and fluoride tank structure;
- Associated site work including landscaping, site fencing, and relocation of existing miscellaneous support facilities

BRADY was recognized for the completion of this project with the 2011 APWA Project of the Year Award.

2 Temecula Field Operations Center

CLIENT	CITY OF TEMECULA
CLIENT'S REFERENCE	GREG BUTLER Tel: (951) 694-6411
TIMEFRAME	2005-2007
VALUE OF CONSTRUCTION CONTRACTS	DESIGN: $1.5M CONSTRUCTION: $10M

BRADY was contracted by the City to conduct a Facility Needs Assessment and provide a design for a new City Maintenance Facility and Corporate Yard. This project was constructed on a 3.35 acre site adjacent to City Hall. The project was being phased to provide for early use of additional parking facilities needed for current City operations, and to allow for full facility implementation and execution of the work within a City established CIP budget and cash flow. The Facility was programmed to accommodate for expanding City operations and services demand anticipated to peak in 2015.

The complex of structures consisted of a 23,600-SF total building area (made up of four separate structures), a 45,800 –SF parking area, a 49,000-SF maintenance yard area, and a 27,000-SF landscape area. Over 700 linear feet of masonry retaining/screen walls were provided. Sustainable design features were used throughout the complex, some of which were recycled materials, natural ventilation and daylighting, low water-used fixtures and irrigation, and low building energy use. Stringent structural design measures were required to mitigate the potential hazards of an earthquake fault below the site.

One structure was a multi-occupancy two-story steel framed building with a total of 17,750 square feet. The structural system consisted of a steel frame system utilizing special moment resisting frames for resisting earthquake forces. Additional building components consisted of concrete slab-on-grade for the first floor, metal decking with lightweight concrete fill supported on steel beams at the second floor and roof levels, steel wide flange and tube columns supporting the second floor and roof framing, conventional spread footings supporting steel columns and steel studs with stucco finish for the exterior walls. Three steel framed exterior covers consisted of a storage facility, a covered parking facility, and a wash facility. The covers were primarily roof canopies with limited wall siding. The structural system was cantilevered steel tube columns supporting steel roof framing. Tapered steel roof girders efficiently provided minimum required roof slopes and supported conventional steel wide flange purlins. Metal roof decking provided the structural substrate for architecturally enhancing standing seam metal roofing. The cantilevered tube columns were supported by cast-in-place concrete drilled piers.

All design work for this project was performed in accordance with the strictest project specific quality control procedures, and in cooperation with client quality assurance requirements. Subconsultants were involved in early partnering sessions, and conformed to QC requirements throughout design development. The well received design was accomplished within budgetary and schedule parameters. Stringent cost control procedures resulted in zero additive construction change orders.

3 Alvarado Water Treatment Plant

CLIENT	CITY OF SAN DIEGO
CLIENT'S REFERENCE	MIKE WALLACE Tel: (619) 409-6884
TIMEFRAME	1999-2013
VALUE OF CONSTRUCTION CONTRACTS	DESIGN: $25M CONSTRUCTION: $250M

From 1999-2013, BRADY personnel provided ongoing project management, construction management, master planning, and civil engineering support service for the design and construction of an expansion to the City of San Diego's Alvarado Water Treatment Plant.

The Alvarado Water Treatment Plant project for the City of San Diego required multiple, simultaneous contracts to expand and upgrade the existing facility, including the complete renovation of the Operations Building. Richard Brady, P.E., BCEE, performed the building code upgrade, including seismic improvements, of the existing Operation Building to provide a new control room, offices, laboratory, locker facilities, and public restrooms. The work included utility and HVAC upgrades throughout the facility and involved significant environmental, lead and asbestos abatement work.

BRADY's scope of services included master planning, architecture, structural engineering, civil engineering, project management, cost control, project scheduling, and construction management and administration. BRADY performed constructability reviews and plan checks, provided construction inspection and testing services, acted as the Owners representative, and performed contract administration. BRADY engineers designed numerous improvements to eliminate waste by-products; reduce chemical feed requirements for most chemicals while eliminating others entirely (lime and ammonium hydroxide); improvements to treatment processes to obtain the maximum output from facilities originally constructed in the 1940's; and the introduction of new processes such as ozone disinfection that reduced the use of chlorine by nearly 80%. Our team increased the production capacity of the original filters from 70 mgd to 120 mgd, at a cost that was less than 4% of the cost to construct entirely new filters. We replaced the filter underdrains that allowed the removal of the gravel layer of media and thereby increasing the filter driving head by 18 inches; the washwater troughs were raised to reduce the amount of filter media loss that occurred during backwashing; the surface wash system was replaced with a fixed grid system that also reduced the amount of media lost during backwashing while the filter bed was expanded; and we added filter-to-waste that allowed the first slug of high turbidity water to be recycled back to the plant influent, and not into the distribution system. All of these improvements together, costing less than $1 million dollars compared to the $50 million dollars for an equivalent new filtration module, allowed the improved filters to be re-rated at 6 gallons per minutes per square foot of filter surface area, equal to the maximum amount allowed by the Surface Water Treatment Rule. This then allowed the plant to be re-rated from 150 mgd to 200 mgd by virtue of these fairly simple improvements, at minimal capital investment.

This project won the 2013 American Society of Civil Engineers Outstanding Civil Engineering Project Award.

Appendix C: Resumes

BRADY

George Murdoch

Technical Advisor

YEARS EXPERIENCE
38

PRIMARY WORK LOCATION
Orange County

EDUCATION
Water Utility and Environmental Resources

LICENSES / CERTIFICATIONS

California State Water Resources Control Board Water Grade V Water Distribution Certification (#3157) and Grade II Water Treatment Certification (#11727)
American Water Works Association Grade III Water Distribution Certification

PROFESSIONAL AFFILIATIONS

Association of California Water Agencies (ACWA)

American Water Works Association (AWWA)

Professional Summary

George Murdoch has over 38 years of experience in utility operations and management. His primary areas of expertise include water distribution and treatment, wastewater operations as well as storm drain, streetlight, and oil & gas operations. He maintains the highest level of state water distribution certification and certified in water treatment. During his career he participated in the construction of two treatment facilities, a reservoir cover, numerous lift stations and pumping stations as well as built the Supervisory Control and Data Acquisition system (SCADA). Before joining Brady in 2018, Mr. Murdoch served as the Municipal Operations Director for the City of Newport Beach. In this capacity, he managed a full-service water and wastewater utility as well as storm drain, streetlight and oil & gas operation with an annual operating budget of $33M and a staff of 60 employees serving a population of over 70,000. After retiring from the City of Newport Beach, Mr. Murdoch received the lifetime achievement award for 38 years of dedication and public service. Mr. Murdoch currently serves as a board of directors for a local water agency.

Work Experience

Brady (2018) - Assist cities and districts with annexation of service boundaries. Coordinate efforts with Local Area Formation Commission. Assist with oil well strategic planning. Assist with Supervisory and Data Acquisition strategic planning and updates.

City of Newport Beach Utilities General Manager/Municipal Operations Director (2007-2018) - Responsible for directing and managing all city utility operations including water, wastewater, streetlights, storm drains and oil & gas. Responsible for a $33 million-dollar budget and 60 employees. City infrastructure and services include; 200 miles of water main and 190 miles of sewer collection system, 27,000 service connections, 22 wastewater lift stations, 3 reservoirs, 2 treatment facilities, 5 water pump stations, 16 oil wells, 3,000 street lights, and 4 water wells. Responsible for conducting rate studies and establishing rate adjustments for water and sewer services. Prepared and presented staff reports, resolutions, and municipal code to City Council for approval. Responsible for media and emergency operations as well as water conservation and efficiency compliant with state regulations. Served as the state designated Chief Operator responsible for water quality and distribution to 70,000 residents. Other projects include conversion of streetlights to LED lighting, Variable frequency drive replacements saving over a half million dollars a year in energy savings.

City of Newport Beach Utilities Manager (2005-2007) – Managed water divisions including maintenance and repair, water quality, meter reading and customer service. Responsible for water supply and resources assuring the city has an adequate safe water supply. Managed the streetlight electrical division maintaining and repairing over 3,000 streetlights. Prepared and presented staff reports and contracts for City Council approval as well as Urban Water Management Plans and state water supply permits.

City of Newport Beach Water Production Supervisor (2000-2005) – Supervised the division managing all water production facilities including pump stations, reservoirs, treatment facilities and pressure regulating facilities. Converted the treatment facilities from chlorination to chloramination using automation and new injection systems. Conversion of pumping operations to variable frequency drives for energy efficiency. Oversaw construction of the 600AF reservoir cover project. Responsible for City's water quality and distribution.

City of Newport Beach Utilities Worker / Water Plant Operator (1980-2000) – Provided hands on water and wastewater operations and maintenance activities including water and sewer main construction and replacement, water service installation and customer service. Operations of the City's water treatment plants, pump stations, and reservoir facilities. Oversaw the City's water laboratory taking samples and processing for bacteriological and physical testing to comply with state and federal regulations. Created the first automation system (SCADA) to remote control, monitor and alarm water and waste water stations. Participation in the construction and implementation of the City's water well operations and new treatment facilities.

BRADY

Richard Brady, PE, BCEE

Principal-in-Charge & Project Manager

YEARS EXPERIENCE
39

YEARS WITH FIRM
20 (Firm's Owner)

PRIMARY WORK LOCATION
San Diego

EDUCATION
BS, Civil Engineering,
San Diego State University,
1980

Leading Professional Service Firms, Harvard Business School

LICENSES / CERTIFICATIONS
Civil Engineer, California No. 36175

Diplomate, American Academy of Environmental Engineers, No. 97-20026

PROFESSIONAL AFFILIATIONS
American Public Works Association

American Water Works Association

San Diego County Water Works Group

Professional Summary

Richard Brady is the founder, President and Chief Executive Officer of Richard Brady & Associates (BRADY). He has 39 years of experience in water resources planning and in the design, management, and construction administration of drinking water supply projects. His fields of specialization include: predesign, design, value engineering, construction management, and start-up services for many large drinking water treatment plants, pump stations, and reservoir projects. Mr. Brady is a graduate of Harvard Business School's "Leading Professional Service Firms" and the "Owner-President Management" program. He is also an internationally-recognized water engineer, and a contributing author to the AWWA's "Water Treatment Plant Design". He has served as the Program Manager for the City of San Diego Water Infrastructure Master Plan, and his design experience includes nationally-acclaimed water treatment facilities.

Mr. Brady will work with his project team to ensure that all aspects of the rehabilitation design are taken into consideration and the design is completed on-time and with the highest possible standard.

Project Experience

Principal-in-Charge, Water Operations Yard Master Plan Update; Huntington Beach, CA (City of Huntington Beach) - Mr. Brady served as Principal-in-Charge on this project which consisted of field verification, investigation, and documentation of existing conditions at the Water Operations Yard in the City of Huntington Beach. The investigation included an examination of the buildings currently being occupied by the Water Division's Administrative and Management, Water Quality, Water Production, Water Distribution, Water Meters, Warehousing, and Geographic Information Systems (GIS) Sections. A Building Needs Assessment Survey was also conducted to obtain information from Water Division staff members regarding current facility and future growth needs.

Project Manager, Water Facilities Master Plan, San Diego, CA (City of San Diego) - The City was seeking professional civil engineering services to prepare a Water Facilities Master Plan (WFMP) in a phased manner over a 5 year contract. Specifically, to develop the Water Facilities Master Plan with a long-term sustainable perspective incorporating all of the Water Department's facilities and assets into one comprehensive document. Mr. Brady was selected to update the Master Plan, a result of his multi-decade career of serving the City of San Diego, including his role as the Project Manager of the Alvarado Water Treatment Plant project from 1989-2005.

The WFMP was to include aspects of the potable, raw, and recycled water systems and incorporate and enhance existing City documents such as the Potable Hydraulic Water Master Plans, Recycled Water Master Plan Evaluation Process, and other pertinent City information and data. Mr. Brady's responsibilities as Project Manager included the oversight of reviewing and updating the City's geodatabases; establishing system performance criteria for water system evaluation; evaluating existing water distribution facilities and their ability to meet current and future demands and in their ability to minimize life-cycle cost; incorporating of current CIP projects and evaluating existing and future system operations; updating/completing potable, recycled, and raw water master plans; developing probable cost opinions for the required capital facilities; and developing an implementation and prioritization plan for recommended CIP projects to ensure available infrastructure through ultimate built-out of the City's water service areas.

Principal-in-Charge, 17 MG Conventionally Reinforced and Buried Los Coches Reservoir, Padre Dam Municipal Water District – Mr. Brady was responsible for predesign, design, and construction management. The 17 MG Los Coches Reservoir is a 216-foot x 456-foot x 25-foot deep conventionally reinforced concrete reservoir constructed by the Padre Dam Municipal Water District between 1983 and 1985. The reservoir is completely buried and covered with 18-inches of soil. Two hundred and twenty 20-inch diameter columns support the reservoir roof. The reservoir is separated into two cells by a center-dividing wall. The inlet and outlet piping is 36-inches in diameter. The reservoir construction involved the placement of over 8,000 cubic yards of concrete and more than 20,000 linear feet of waterstop and joint sealant. There were no change orders on this project.

Principal-in-Charge, Integrated Facilities Plan, San Diego, CA (Padre Dam Municipal Water District) - Mr. Brady served as Principal-in-Charge and assisted in managing the development of the Padre Dam Municipal Water District's Integrated Facilities Plan (IFP). The IFP analyzed potable water, recycled water, and wastewater handling needs and developed strategies to meet peak demands. The IFP document updated the previous PDMWD water and wastewater master plans and recycled water master plans.

Project Manager, Drinking Water Quality Improvement Program, San Diego, CA (City of San Diego Water Utilities Department) - While employed at Malcolm Pirnie, Mr. Brady served as Project Manager for the City of San Diego's Driking Water Quality Improvement Program. His responsibilities included preparing reports addressing City-wide issues of water supply and transmission, water quality, environmental considerations, specific predesign reports for the Alvarado (200 mgd) and Miramar (215 mgd) WTPs, and master planning for the Lower Otay (60 mgd) and North City (60 mgd) WTP. The estimated construction cost for projects identified in the DWQIP was $773 million dollars.

Project Manager, Alvarado Water Treatment Plant Expansion and Rehabilitation, Phases I & II, San Diego, CA (City of San Diego) - Mr. Brady served as Project Manager on this multi-phase Water Treatment Plant Expansion and Rehabilitation from 1989-2005. The project involved the design of new sedimentation basins, ozone contactors, and filter backwash facilities, as well as upgrades and rehabilitation to the existing sedimentation basins, filters, and operations building. Responsible for the preparation of a preliminary design study for the existing filter backwash water storage and conveyance facilities, and evaluation of flocculation and sludge removal equipment for new and existing basins. Provided technical support and project background information to the VE team, and an evaluation of the impact due to implementing VE ideas. Participated in all technical review meetings, assisted in preparation of project design schedules, and reviewed construction cost estimates. Prepared periodic design progress reports, design calculations, and technical documents concerning treatment capacity for review by the California Department of Health Services. Prepared permit review packages for the City's Development Services Department.

Project Manager, Earl Thomas Reservoir Demolition and Replacement Project, San Diego, CA (City of San Diego) - Mr. Brady served as Project Manager for the Earl Thomas Reservoir Demolition and Replacement Project, which at one time, was the largest prestressed concrete reservoir. The project included the design of a 35 MG prestressed concrete, circular clearwell 410 feet in diameter and 40 feet tall. Mr. Brady was responsible for civil site work, including the appurtenant piping, pumping, and flow control equipment required for operation of the new clearwell. Additionally, he provided design services including preparation of civil site plans; structural, mechanical, and electrical drawings, and supplemental specifications for the prestressed concrete tank.

Project Manager, Otay Water Treatment Plant Upgrade, San Diego, CA (City of San Diego) - Mr. Brady was selected by the City of San Diego to manage the Otay Water Treatment Plant Upgrade. The project included the design of a new U.V. disinfection system and ancillary facilities, including yard piping, grading, chlorine contractor, and related work to be added to the existing water treatment plant. The plant is designed for an immediate upgrade to 40 mgd and for the future expansion to 60 mgd. Project included the study of plant hydraulics and emergency power requirements.

BRADY

Garrett D. Murawsky, PE

Civil Engineer

YEARS EXPERIENCE
4 years

LICENSES / CERTIFICATIONS
- Professional Civil Engineer, California, No. C90365
- OSHA 30-Hour Construction
- Competent Person
  - Confined Space
  - Fall Protection
  - Excavation
  - Scaffolding
- First Aid/CPR/AED

EDUCATION
M.S., Civil and Environmental Engineering, California Polytechnic State University, San Luis Obispo, CA

B.S., Environmental Engineering, California Polytechnic State University, San Luis Obispo, CA

SOFTWARE SKILLS
- AutoCAD Civil 3D
- MicroStation
- ArcGIS
- FLOW-3D
- FLO-2D
- HEC-HMS
- HEC-RAS
- MATLAB

Professional Summary

Mr. Murawsky is a civil engineer specializing in water distribution and storage systems with a background in water/wastewater treatment for both centralized and decentralized systems. Over his past four years at BRADY he has assisted with numerous reservoir and utility vault inspections and the design and drafting of several extensive projects. His design experience includes potable water reservoirs, pump stations, pressure reducing stations, disinfection facilities, flow control and metering installations, distribution pipelines, and stormwater conveyance systems. His attention to detail and proficient use of AutoCAD Civil 3D aid in creating site plans, grading plans, pipe alignments and profiles, and detailed design drawings.

Project Experience

Project Engineer/Designer/Superintendent/Site Safety and Health Officer (SSHO)/Inspector – HB 5 MG Reservoir Rehabilitation, Vista Irrigation District, CA

Designed new inlet/outlet yard piping and metering vault for the HB reservoir to improve reservoir mixing and water quality. Designed civil site work surrounding reservoir to include grading plan, paving plan, and general site layout. Sized site drainage features for design rain event. Compiled contract documents, including basis of design report, plans, and specifications.
On-site, full-time, as the Prime Contractor Superintendent/SSHO/Inspector during construction to manage daily production, site safety, and quality control.

Project Engineer/Designer – Pressure Reducing Stations, Upland, CA

Analyzed the distribution system hydraulics for the City of Upland, CA to determine how to effectively implement pressure reducing stations to increase operation flexibility during future system rehabilitation and emergency situations. Implemented pressure data loggers to track and analyze system pressures at proposed pressure reducing station locations and areas of concern, indicated from the hydraulic model. This data was used to establish set points for the pressure reducing valves.
Researched existing utilities and created site plans for each proposed location. Pipeline profiles were created to indicate connections to existing pipelines and establish vertical spacing requirements for existing utility crossings.

Project Engineer/Designer – 8 MG Steel Reservoirs No. 1 and No.2 Inspection, Westminster, CA

Inspected two existing above ground steel reservoirs for interior and exterior coating failure. Coating failure, primarily on the interior of the reservoir, resulted in corrosion of roofing members. Coating defects were mapped and quantified to determine the most efficient and economical solution to increase the reservoirs service life. A report was submitted to the client, which emphasized the results of the inspection and recommendations for repair.

Project Engineer/Designer – HB 5 MG Reservoir Inspection, Vista Irrigation District, CA

Inspected existing above ground prestressed concrete reservoir with concrete dome roof for structural deficiencies. The inspection focused on identifying cracks and spalling of the reservoir footing, wall, and roof. These structural deficiencies were mapped and repair suggestions were submitted to the client along with report on inspection findings.

Project Engineer/Designer – Pechstein 20 MG Reservoir Roof Inspection, Vista Irrigation District, CA

Inspected existing partially buried prestressed concrete reservoir with wooden roof for structural deficiencies. Inspection focused on identifying and quantifying areas of corrosion in roofing hardware and locations of dry rot, delamination, and checking within the glulam beams. The reservoir roof was inspected from the outside of the reservoir as well as by boat on the inside of the reservoir. Structural deficiencies were mapped and a report was submitted to the client, which highlighted findings and proposed that a new aluminum dome roof be installed to increase the reservoirs useful life.

Project Engineer/Designer – Northrop Grumman Chiller Tank Inspection, CA

Inspected two concrete chiller tanks with a total storage volume of 250,000 gallons and two accompanying wet wells. The goal of the investigation was to locate and propose a fix for the campus cooling system, which was leaking at a rate of approximately 50,000 gallons per year. A report of the findings was prepared and repair suggestions were presented to the client.

Project Engineer/Designer – Water Treatment and Distribution System for the Crow Indian Reservation, MT
The project consisted of taking inventory of the existing infrastructure throughout the entire reservation. Including two existing conventional water treatment plants, several wells, chlorination systems, and storage tanks. Then locating a preferred site for a new centralized water treatment plant and distribution system to replace the existing infrastructure and provide a safe source of drinking water for the entire Crow Reservation. Developed hydraulic profiles of the previously proposed treatment and distribution system to show alternative solutions. Created several graphics and maps to summarize spatial data in relation to the Crow Reservations topography. Analyzed previously proposed system layout and how it could be modified to create a more affordable and efficient system.

Project Engineer/Designer – Reservoir Failure Analysis, City of Upland, CA
Implemented FLO-2D Software to simulate an instantaneous failure of a 7.5 MG reservoir and how it would impact the immediate community. The simulation was run at eight different failure locations to map maximum floodplain depth, flow velocity, and impact force. The simulation was also conducted with the implementation of a K-rail type barrier to analyze its effects on the same criteria. Results were presented to the City of Upland.

Project Engineer/Inspector – San Antonio Park Reservoir No. 16 Tank Inspection, City of Upland, CA
Inspected a 10 MG circular concrete reservoir with a hopper bottom to determine its condition, structural integrity, and needed repairs. Conducted a boat inspection using an inflatable raft inside of the reservoir to view the exposed reservoir walls, roof, columns, and shear walls for cracks, spalling, exposed rebar, and efflorescence. Also inspected the exterior of the roof and exposed joint between the roof and top of wall for cracks and deflection. Created figures to aid in the rehabilitation of reservoir damages.

Incident Commander – Nob Hill Pipeline Project, San Diego County Water Authority, CA
Site Incident Commander for Nob Hill pipeline installation project, where approximately 900 feet of existing pipeline was replaced to improve water distribution to the City of San Diego. Worked in 12-hour shifts to observe and report site operations to maintain worker safety during construction. Monitored worker activity within the pipeline and air quality measurements to ensure safety and regulation compliance.

Project Engineer/Inspector – Reservoir No. 7 Tank Inspection, City of Laguna Beach, CA
Inspected a 1.5 MG circular welded steel reservoir to determine its condition, structural integrity, and needed repairs. Conducted a boat inspection using an inflatable raft inside of the reservoir to view the exposed beams, roof, columns, walls, hardware, and steel coating for pitting, buckling, and other signs of distress.

Project Engineer/Designer – New 7.5 MG Reservoir, City of Upland, CA
The project consisted of a new 7.5 MG pre-stressed concrete reservoir, chlorine injection system, and site amendments. Designed and sized an onsite infiltration basin per the San Bernardino County Stormwater Program Water Quality Management Plans (WQMP) to capture and infiltrate stormwater runoff on site. Worked with clients to design a sodium hypochlorite injection system to chlorinate well water before entering reservoir and maintain residual concentration within the reservoir and distribution system. Designed and sized a secondary containment structure for chlorine storage. Developed pipeline profiles for all new pipe layouts and connections to existing reservoir and services. Designed site grading/paving plan using custom roadway corridors and grading software in AutoCAD Civil 3D. Assisted with project cost estimate and project specifications.

Project Engineer/Designer – New Booster Pump Station, Dam Outlet Valve Improvements, and Water Quality Improvements, Fairbanks Ranch, CA
The project consisted of developing a Site Improvement Report for the replacement of existing piping, meters, valves, and booster pumps, improvements to the damaged dam outlet valve, and improving water quality in Clubhouse Lake. Conducted a site investigation to inventory and determine the condition of existing infrastructure. Calculated the headloss through the existing pipe network to determine proper sizing for new booster pumps.

Project Engineer/Designer - New Booster Pump Station, Orange County Sheriff Department, CA
The project consisted of a new booster pump station for the Orange County Sheriff Department. Created a hydraulic profile based on the current pipeline and future metering configuration to determine how to appropriately size new pumps to obtain desired flowrate. Visited site to take inventory and pictures of existing facilities to better understand system and client's needs. Participated in start-up once pump skid was installed. Assisted in the trouble shooting of electrical wiring connections between controls and control panels.

Project Engineer/Designer - 5 MG Reservoir Improvements and New Booster Pump Station, City of Fountain Valley, CA
The project consisted of a new booster pump station, SCADA system, and upgrades to the existing 5 MG reservoir and existing site. Developed pipeline profiles for all new pipe layouts and connections to existing reservoir and services. Designed site grading/paving plan using custom roadway corridors in AutoCAD Civil 3D.
Provided construction support by responding to Submittals and Requests for Information (RFI) from Contractor.

BRADY

Chelsi Pascua, EIT

Associate Engineer

JOINED FIRM
2019

PROFESSIONAL EXPERIENCE BEGAN
2017

LICENSES / CERTIFICATIONS
Engineer in Training
March 2019

EDUCATION
B.S., Environmental Engineering, San Diego State University, CA, 2019

Professional Summary

Chelsi is a recent environmental engineering graduate from San Diego State University.

Technical Skills

AutoCAD, ArcGIS, ECM OnBase, MATLAB, Aqualog 3-D fluorometer, In-Situ 1-D fluorometer, TOC analyzer, UVVIS spectrometer, Reverse osmosis pump

Project Experience

Senior Design Project – Capstone – San Diego State University

As Project Manager / Hydraulics Specialist, Chelsi managed, prioritized, and communicated tasks of the complex senior design project to a team of 7 people while mediating project disputes between team members. She oversaw the completion of tasks and the professional development of technical writing of submittals to the client. She also designed the water infrastructure aspect of the project to maintain post project flows while including a safety factor for surge flows and general wear and tear.

California State Water Resources Control Board, Division of Drinking Water

As Student Water Resource Control Engineer, Chelsi utilized engineering judgement to beneficially monitor water quality and infrastructure of distinct water systems in San Diego County and Imperial County by reviewing and evaluating technical and engineering reports, conducting compliance inspections, and taking appropriate follow-up actions. She composed effectual technical reports of routine scientific correspondence, memos, and formal and informal enforcement documents. Chelsi productively collaborated with Division of Drinking Water staff to gain experience and knowledge of relevant laws, rules, regulations, processes, and procedures related to water quality management. Proficiently entered and extracted relevant compliance information from various databases and spreadsheets and ensured that it was accurate, complete, and up to date.

San Diego State University Research Foundation

As Research Assistant, Chelsi successfully completed project “Effects of Scum Removal on Anaerobic Baffled Reactor Performance”; research on scum removal and batch flow of synthetic wastewater within an Anaerobic Baffled Reactor. Research presented at SDSU’s Summer Research in Engineering Poster Presentation to encourage high school students into STEM majors. Effectually trained new team members on equipment in the laboratory during their introductory period. Wrote standard operating procedures for both projects, as well as lab risk analyses. Delegated tasks and workloads to ensure laboratory functionality and safety.

Water Innovation and Reuse Lab at San Diego State University

Chelsi was a student volunteer and ran project “Simulating Wastewater Treatment with a Bench Top Anaerobic Baffled Reactor”; research on tracking the degradation of organic compounds in synthetic wastewater in a bench top Anaerobic Baffled Reactor. Research presented at San Diego State University’s 2017 Student Research Symposium. Successfully completed and followed hazardous waste material training and lab manual.

BRADY

Joel R. Reyes

Senior Designer

YEARS EXPERIENCE
37

EDUCATION
Houston Technical Institute, 1977

University of Houston, 1978-1979

University of California Los Angeles, 1989

Professional Summary

Mr. Reyes has 37 years of design experience in drafting, management, and systems administration in the fields of Architecture and Civil/Structural Engineering. His design program experience includes AutoCAD (23 yrs) and MicroStation (25 yrs). He is highly proficient in both applications with an emphasis on system configurations and troubleshooting. He has a complete understanding of the BIM Industry standard and can integrate various models. In addition to direct project design, setup, layout, and deliverables coordination, he maintains all CADD workstations and related software upgrades. Serving in the official title of, CADD Manager, his vast knowledge of multiple platforms and application software allow him to navigate and replicate the various client-specific environments. His flexibility and constant ongoing training ensures that he remains current with the latest release versions of industry standard CADD applications.

Project Experience

CADD Manager-Bentley Microstation V8i SS2, Portsmouth Gaseous Diffusion Plant - Decontamination & Decommissioning – On-Site Disposal Cell, Fluor- Babcock & Wilcox Portsmouth, LLC under contract to the United States Department of EnergyTitle - Served in role of CADD Manager for the OSDC in Piketon, Ohio, in partnership with Fluor. Established programmatic CADD design standards and created CADD manual. Ordered computer hardware and design software to accommodate 5 workstations. Supervised the CADD department in the creation of preliminary design drawings and exhibits. Created site layouts and grading plans and all other Civil drawings necessary for implementation of selected remedy waste disposal option. Oversaw and managed the direct interaction with FBP contract awarded A & E firm to maintain compliance with FBP's policies and standards as it related to electronic media submittals. Trained and mentored junior CADD designers and junior engineers in the application design software. Responsible for all CADD-related project issues.

Senior Designer-Bentley Microstation V8i SS3, Water Group Job 926, Orion Construction/City of San Diego - Prepared plan & profile construction documents for waterline replacements in the City's Point Loma area. All drawings were created per the City of San Diego's CIP guidelines and Citywide CADD & Drafting Standards-2012 edition. Coordinated all job set CADD & design requirements for BRADY and Orion Construction.

Senior Designer-Bentley Microstation XM, I-680 Smart Lane Electronic Toll System, Electronic Transaction Corporation/Alameda County Corridor Management Agency - Prepared plan & detail construction documents for electronic toll system upgrade to current HOV lane located in the Alameda County corridor limits boundary. All drawings were created per CalTrans standard plans preparation manual and the electronic files strictly adhere to the Caltrans CADD manual.

Senior Designer-Bentley Microstation XM, Water Group Job 790, Orion Construction/Harris & Associates/City of San Diego - Prepared plan & profile construction documents for waterline replacements in the City's La Jolla area. All drawings were created per the City of San Diego's CIP guidelines. Coordinated all job set CADD & design requirements for BRADY between prime partners Orion Construction and Harris & Associates.

BRADY

Joel R. Reyes

Senior Designer

Senior Designer/Drafter-Bentley Microstation XM , Old Rose Canyon Trunk Sewer Relocation, City of San Diego - Prepared construction drawings based on an existing pre-design report for approximately 2430 linear feet of new 24" PVC pipe. New alignment consisted of relocating sewer from Rose Canyon to Santa Fe Street. All horizontal and vertical alignments were to City of San Diego criteria and standards.

CAD Manager/Senior Designer, Whitegates Reservoir Project, WG-1 5.3 Mil Gal, WG-2 3.7 Mil Gal, Sema Construction/City of Riverside, California - Oversaw the construction document production for two new water reservoirs in this Design-Build Project. Drawings consisted of Civil, Mechanical, Electrical, Structural and I&C. Maintained drawing log and issued revision changes as required by contract. Coordinated all disciplines at local project level.

Senior Designer, Sewer Lift Station 24 & Force Main Replacement, City of Huntington Beach - Prepared general civil and mechanical construction documents for facilities upgrade to replace existing pump station and new sewer force main alignment.

Senior Designer, Sewer Lift Station 26 & Force Main Replacement, City of Huntington Beach - Prepared general civil and mechanical construction documents for facilities upgrade to replace existing pump station and new sewer force main alignment.

Senior Designer-Bentley Microstation XM, Lake Skinner Water Treatment Plant ORP, Module 7 & Chemicals Redesign, Metropolitan Water District of Southern California - Assigned to treatment plant to help investigate and coordinate all RFI's and FM's generated by the construction upgrades. Input all changed information into the CADD drawings in preparation for final as-built design drawings.

Senior Designer, Monterrey Plantation / Lockwood Landing, JWH Engineering - Prepared construction drawings for land development project in NC; layout waterlines, sanitary sewer lines and storm sewer lines for high density project.

Senior Designer-Bentley Microstation XM, Weymouth Filtration Plant Oxidation Retrofit Project, Metropolitan Water District of Southern California - Prepared design drawings for retrofitting of MWD's Weymouth filtration plant with ozonation facilities in order to meet the treatment technique components of the D/DBP Rule.

Senior Designer-Bentley Microstation XM, MWD Regional Sub System Distribution Map, Metropolitan Water District of Southern California - Created new sub system distribution map based on actual field-verified information.

Metropolitan Water District of Southern California, Eagle Rock Lateral Blow-Off and Turnout Structure; Valve Installation and Replacement, Senior Designer-Bentley Microstation XM - Prepared excavation drawings and construction support services for this project. This project consists of the replacement and relocation of approximately 35' of 24" diameter steel pipe, and 75' of 12" diameter steel pipe, and a new valve.

Senior Designer-Bentley Microstation XM, San Diego Pipeline No. 5 and Lake Skinner Outlet Conduit Repairs, Metropolitan Water District of Southern California - Prepared construction drawings for two pipeline repairs. The project included a new 16'-long section of 154" diameter steel liner, installed in multiple sections to allow for installation of the liner through a 45-degree elbow in the pipeline, and a 16'-long section of 167" diameter steel pipe, which replaces an existing prestressed concrete cylinder pipe.

BRADY

Jim Bowen, PE

Mechanical Inspections

JOINED FIRM
2007

EDUCATION
B.S., Mechanical Engineering
The Pennsylvania State University, 1988

LICENSES / CERTIFICATIONS
Professional Engineer, CA, #33082 (Mechanical)

Professional Summary

Mr. Bowen has 25 years of experience and specializes in engineering, design, management and quality control of environmental and construction contracts. He is a professional engineer with emphasis in mechanical engineering. He has worked extensively in proposal and scope of work generation, cost estimating, construction management, project management, budget and cost analysis, project scheduling, supplier and subcontract management, drawing and specification development, regulatory compliance, and project closeout. Mr. Bowen has a thorough understanding of Design-Build and Design-Bid-Build project delivery methods and has direct experience with construction means and methods; manufacturing processes; fiberglass reinforced plastic and metal fabrication; electrical/mechanical system design and installation; start-up, training, operation and/maintenance activities.

Numerous private and public contract mechanisms under which Mr. Bowen has successfully completed projects include job order contracts, indefinite delivery/indefinite quantity contracts, multi-award contracts, basic ordering agreements, federal supply schedules, firm fixed-price, on-call, and cost plus contracts.

Mr. Bowen served as the Quality Control Program Manager on the Nation's first Environmental Multi-Award Contract (EMAC I) and performed as Project Manager and Deputy Program Manager on projects completed under the Navy's Environmental Job Order Contract (EJOC II).

Mr. Bowen will provide mechanical inspection services on this contract.

Project Experience

Program Manager, Mechanical Inspector: N62473-12-D-3004 Marine Corp Base Camp Pendleton, Job Order Contract (JOC) for Design-Build of Heavy and Civil Engineering Construction - As Program Manager for the Rapid JOC, Mr. Bowen oversaw and managed all incidental engineering and construction activity for this multi-year IDIQ contract. All task orders to date have been completed on time and on budget, with no contractor-initiated change orders, and no liquidated damages. All task orders to date have been negotiated on a firm fixed price basis, and are issued as a design-build performance-based task order. This contract involves the management of multiple sites and multiple task orders, which at most times are running concurrently. The work associated with this contract to date has included water, wastewater, storm water, natural gas distribution and facilities type projects.

Program Manager, Mechanical Inspector: N62473-11-D-0813 Naval Base Point Loma, Job Order Contract (JOC) for Design-Build of Heavy and Civil Engineering Construction - As Program Manager for the NBPL FEAD JOC, Mr. Bowen oversees and manages all incidental engineering and construction activity for this multi-year IDIQ contract. All task orders to date have been completed on time and on budget, with no contractor-initiated change orders, and no liquidated damages. All task orders to date have been negotiated on a firm fixed price basis, and are issued as a design-build performance-based task order. This contract involves the management of multiple sites and multiple task orders, which at most times are running concurrently. The work associated with this contract to date has included natural gas distribution, petroleum-based fuels, oils, or lubricants (POL) and facilities type projects.

Program Manager, Mechanical Inspector: N62473-09-D-1019 Marine Corp Base Camp Pendleton, Job Order Contract (JOC) for Design-Build of Heavy and Civil Engineering Construction - As Program Manager for the Rapid JOC, Mr. Bowen oversaw and managed all incidental engineering and construction activity for this multi-year IDIQ contract. All task orders were completed on time and on budget, with no contractor-initiated change orders, and no liquidated damages. All task orders were negotiated on a firm fixed price basis, and were issued as a design-build performance-based task order. This contract involved the management of multiple sites and multiple task orders, which at most times were running concurrently. The work associated with this contract included water, wastewater, storm water, wash water recycling, petroleum-based fuels, oils, or lubricants (POL) and facilities type projects.

Program Manager, Mechanical Inspector: N62473-07-D-6311 Marine Corp Base Camp Pendleton, Job Order Contract (JOC) for Design-Build of Heavy and Civil Engineering Construction - As Program Manager for the Rapid JOC, Mr. Bowen oversaw and managed all incidental engineering and construction activity for this multi-year IDIQ contract. All task orders were completed on time and on budget, with no contractor-initiated change orders, and no liquidated damages. All task orders were negotiated on a firm fixed price basis, and were issued as a design-build performance-based task order. This contract involved the management of multiple sites and multiple task orders, which at most times were running concurrently. The work associated with this contract included water, wastewater, and facilities type projects.

Project Manager, Mechanical Inspector: N62473-13-C-4402 NAF El Centro, Design-Build Repair Arresting Gear E 28 - Demolish existing and design-build a new foundation associated with runway arresting gear retrieval equipment which supports air traffic at the Naval Air Facility El Centro. The work included removal of the existing foundation and installation of a new concrete foundation support system along with rough re-assembly of the arresting gear equipment. Special care was required to obtain the required tolerance levels of the equipment for proper operation with the associated aircraft.

Project Manager, Mechanical Inspector: N62473-12-C-1416 SERE Camp, Design-Build Sewage Treatment System - Design-Build project consists of repairs and upgrades to the existing wastewater systems and treatment plant. A new wastewater treatment plant will replace the existing plant which has exceeded its design life. The new collection piping and corresponding building tie-ins will replace a portion of the existing structurally deficient pipe. The new treatment plant will include the following: influent lift station, primary treatment units and secondary treatment unit, effluent pump station, wastewater sampling station and 40,000 gallon above-ground overflow tank.

BRADY

Ryan Nishimura, P.E.

Electrical Engineer/SCADA/I&C

JOINED FIRM
2006

PROFESSIONAL EXPERIENCE BEGAN
2000

EDUCATION
B.S. Electrical Engineering
University of California, San Diego, 2005

LICENSES / CERTIFICATIONS
Professional Electrical Engineer, California, No. 20050

PROFESSIONAL AFFLIATIONS

Professional Summary

Mr. Nishimura is a Professional Engineer with 13 years of professional experience in engineering. Mr. Nishimura is also proficient in AutoCad, AutoCad P&ID, AutoCAD Plant 3D, ETAP (Load Flow, Short Circuit, Protective Device Coordination & Arc Flash Analysis), Microstation, Plantspace P&ID, Sketchup, Allen Bradley RSLogix 500/5000, Schneider Electric Concept, Control Microsystems Telepace, Allen Bradley FactoryTalk, GE Fanuc Proficy, and Wonderware InTouch as well as programming experience in Matlab, Visual Basic, C, Java, KML (for use with Google Earth), and relay ladder logic programming. In addition to engineering design work, Mr. Nishimura also has extensive field experience during installation and startup/commissioning of electrical and industrial control systems in the built environment.

Project Experience

Title: Electrical & Control Systems Inspector/Start-Up Engineer
Otay Water Treatment Plant Sodium Hypochlorite Generation
Client: City of San Diego

The Otay Water Treatment Plant is a 34.2 mgd conventional water treatment plant for the City of San Diego. This project consisted of providing inspection services and assisting the City in oversite on a Design-Build project that involved the replacement of the existing chlorine gas system with sodium hypochlorite generators to alleviate the safety concerns associated with storing and using chlorine gas for disinfection. Provided assistance in start-up, electrical testing, functional tests, preparing punch item punch lists, and discussing the progress of the work with the contractor. Electrical construction was inspected for conformance to the contract drawings, industry standards, and applicable codes.

Title: Electrical & Control Systems Inspector/Start-Up Engineer
Metropolitan Biosolids Center Centrifuges Replacement
Client: City of San Diego

The Metropolitan Biosolids Center (MBC) is the City of San Diego's state-of-the-art regional biosolids treatment facility. MBC provides two treatment operations including: thickening and digestion of raw solids and the dewatering of wet biosolids. This project consisted of providing inspection services and assisting the City in oversite on a Design-Build project that involved the replacement of six (6) dewater centrifuges. Provided assistance in start-up, electrical testing, functional tests, preparing punch item punch lists, and discussing the progress of the work with the contractor. Electrical construction was inspected for conformance to the contract drawings, industry standards, and applicable codes.

Title: Electrical & Control Systems Inspector/Start-Up Engineer
South Bay Water Reclamation Plant Demineralization Project
Client: City of San Diego

The South Bay Water Reclamation Plant (SBWRP) provides local wastewater treatment services and reclaimed water for the South Bay area of San Diego with a 15 mgd capacity. The treatment process consists of bar screens, grit chambers, clarifiers, aeration, tertiary filtration, uv disinfection, and demineralization. This project consisted of providing inspection services and assisting the City in the oversite on a Design-Build project that involves the full installation of two (2) Electrodialysis Reversal (EDR) trailer units relocated from the North City Water Reclamation Plant to establish a new demineralization facility at SBWRP, including a new clean -in-place system, new chemical feed systems, and integration into the existing control system at the plant. Provided assistance in start-up, electrical testing, functional tests, preparing punch item punch lists, and discussing the progress of the work with the contractor.

Title: Electrical & Control Systems Engineer
City of Buena Park SCADA Maintenance
Client: City of Buena Park

Mr. Nishimura provided Electrical and Control Systems Services to maintain the Supervisory Control and Data Acquisition (SCADA) system that was designed and installed by BRADY in a previous project. The City's water system consists of 1 reservoir with a booster pump station, 8 well sites, and 4 connections to the Metropolitan Water District's (MWD) Orange County Feeder (OCF) system. Services are provided to perform routine maintenance to keep the system up to date and provide assistance in upgrading and further enhancing the SCADA system.

Title: Electrical & Control Systems Engineer
Naval Station Mayport Water Treatment Plant PLC Replacement, Mayport, FL
Client: Naval Facilities Engineering Command - NAVFAC

Mr. Nishimura provided Electrical and Control Systems Services to replace the existing Programmable Logic Controller (PLC) for the Water Treatment Plant at Naval Station Mayport, Florida. This project included the design, installation, and programming for a new PLC, new local touchscreen Operator Interface Terminal (OIT), and a new Human Machine Interface (HMI) system consisting of two servers located in a control room. The Water Treatment Plant system consists of 2 reservoirs, 3 well sites, 6 high service pumps with Variable Frequency Drives (VFD), and a chlorine injection system.

Title: Electrical & Controls Engineer
South Louisiana Methanol (SLM) Plant, Water Treatment Plant, Port Charles, LA
Client: South Louisiana Methanol

Provided electrical and control system engineering support for the Front End Engineering and Design (FEED) Phase 2 work associated with the 2MGD water treatment to support the operations of a new $1.2B methanol production facility. The water treatment plant supplies process water to multiple sources within the methanol production areas with influent ground water. Water was treated to varying levels based on the proposed use for fire water, cooling water, or ultra-pure demineralized process water. Raw water treatment was performed by water softening with lime and multi-media filtration. Water used for process was then further treated using a multi-step demineralization process that included ultrafiltration (UF), reverse osmosis (RO), electrodeionization (EDI), and ion exchange. Sludge produced in the softening process was dewatered using filter presses.

Title: Electrical & Control Systems Engineer
City of Buena Park SCADA Replacement
Client: City of Buena Park

Design-Build project consisted of upgrading SCADA System for the City of Buena Park. The City's water system consists of 1 reservoir with a booster pump station, 8 well sites, and 4 connections to the Metropolitan Water District's (MWD) Orange County Feeder (OCF) system. The existing Emerson/Iconics SCADA system was outdated and no longer functioning. The system was upgraded to Schneider Electric's SCADAPack/ClearSCADA system, which is expandable for future growth. The radio network was also upgrade to provide a mesh network to increase the reliability of communications to the remote sites. Produced design drawings and specifications, performed all PLC programming, oversaw PLC installation and conducted loop checks during startup and commissioning and tested all system I/O points end-to-end.

BRADY
Water • Power • Transportation

October 12, 2021

Hannah T. Ford, P.E
Engineering Manager
El Toro Water District

Subject: Addendum to Proposal

Dear Ms. Ford,

On September 2, 2021, BRADY submitted a proposal in response to an RFP regarding Filter Plant Site Use Investigation and Design. After further discussion and review, BRADY desires to amend the original proposal as follows:

- Requested changes to the Professional Services Contract Agreement. BRADY retracts the request of two changes and accepts the district's standard agreement as-is with no modification.

- Revised Scope. Please find a revised Scope of Work attached. (FilterPlantSOWRevised.pdf)

- Revised Schedule. Please find a revised Schedule attached. (FilterPlantScheduleRevised.pdf)

We sincerely appreciate the efforts by the district in discussing the proposal and look forward to working together on this project.

Sincerely,

Richard Brady

Richard Brady, P.E., BCEE
CEO, BRADY

VII. SCOPE OF WORK

The scope of work, as defined below, further describes the District's and MWDOC's objectives for the project. The Consultant is encouraged to define a proposed scope to accomplish these objectives yet reflect any innovation, elaboration or clarification the Consultant feels appropriate to define their particular approach. The ultimate contract will be based on the proposed scope of work as accepted by the District and MWDOC.

Task 1 Review of Project Objectives / Project Management

The Scope of Work includes developing a geotechnical soils report, demolition report, infiltration/ retention study, cost estimates for the demolition of the existing Filter Plant Building and Clear Well as well as developing drawings and specifications for the construction of a new Warehouse/Storage building and Emergency Operations Center (EOC) in the place of the existing Filter Plant Buildings. The demolition report will consider the viability, suitability, and extent of the demolition work for the existing above grade and sub-grade structures and piping based on the geotechnical recommendations from the soils report. In addition, the infiltration and retention study will assess the current code requirements for constructing a temporary and/or permanent infiltration/ retention basin at the existing Clear Well structure that will be demolished.

A. Project Meetings

1. Kickoff Meeting

The Consultant shall arrange and conduct a project kick-off meeting with the District and MWDOC at the start of the project. The purpose will be to introduce project participants, establish lines of communications, review the accepted scope of work and the project approach, and discuss all other related information pertaining to the Project including the new Warehouse/Storage building and EOC building.

2. Monthly Progress Meetings

The Consultant will conduct periodic coordination and consultation design meetings with District and MWDOC during the course of the project on a monthly basis. Consultant is responsible for organizing these meetings including preparing agenda, reviewing design progress, compiling meeting minutes and distributing the minutes to all attendees or as required. Consultant shall budget the following for the full duration of the design schedule:

a. 50% in-person meetings.
b. 50% video-conference calls meetings.

3. Monthly Design Schedule Updates

The Consultant shall prepare and review monthly design schedule updates with District and MWDOC during monthly progress meetings.

4. Board Meetings

The Consultant shall attend and present design updates at one (1) District Board Meeting and two (2) MWDOC Board Meetings during the course of the design (three separate Board meetings). Consultant will coordinate with District and MWDOC and prepare all material for presentations.

B. Quality Control and Quality Assurance:

Consultant shall identify senior staff person responsible for all quality assurance and quality control reviews, including individual expertise and time commitment. Consultant shall not replace key project staff members without authorization from ETWD and MWDOC.

Prepare a Project/Quality Plan. Consultant shall prepare Project/Quality Plan for use by all design team members, and a project specific Quality Assurance/Quality Control (QA/QC) Plan will be a part of this document to ensure that the company produces and delivers professional engineering services and work products to the highest standard that can be expected in the engineering industry. When this QA/QC Plan is implemented, a formal documented system of procedures and instructions will be used. With this QA/QC Plan, efficiency and accuracy will be increased, allowing the Consultant to prepare deliverables on time and within budget. QA/QC procedures will involve the independent review of technical memoranda, calculations, design drawings and specifications throughout their production. These procedures will also include internal auditing of the project fiscal and schedule status. This task will include specific reviews at PDR level, 50 percent and 90 percent level of completion, and will include interdisciplinary review meetings, final design completion, and/or other reviews as may be necessary. Quality Control also assures day-to-day review of work products and deliverables.

Task 1 Deliverables

1) Meeting Agendas & Minutes (electronic)

2) Monthly Status Reports (electronic)

3) Monthly Updated Project Schedules (electronic)

4) Monthly Invoices

5) Project Quality/Plan

Task 2 Review Site-Use Report and Record Drawings and Collection of Additional Data

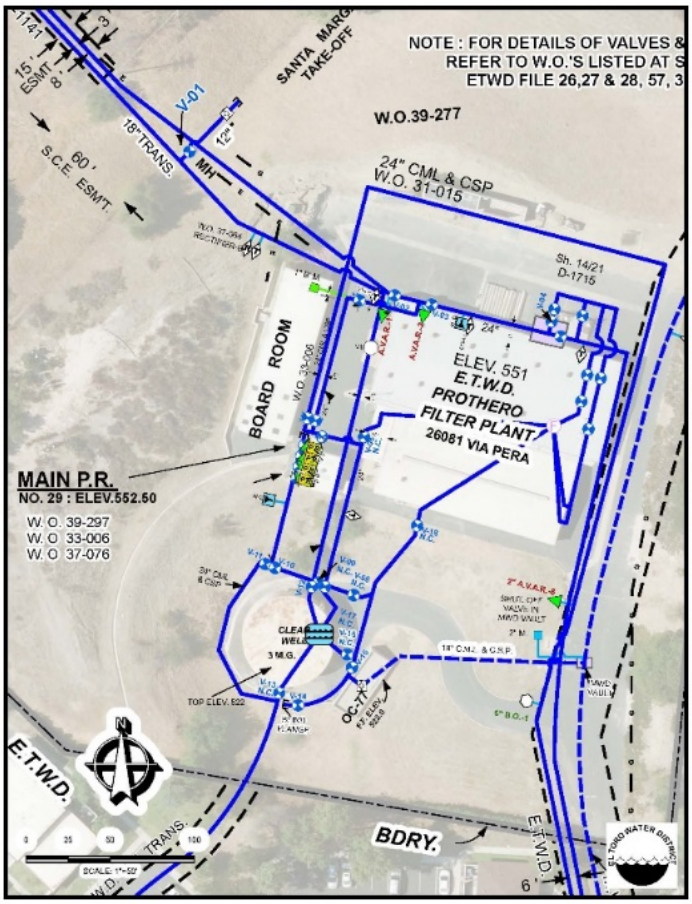
A. Report and Record Drawing Review

Review previously issued Site-Use report by Brady, dated January 2020, including all record project plans and documents associated with the existing Filter Plant

Building to gain a clear understanding of the existing facilities as well as those facilities that will remain active at the site.

B. Additional Utility Data Collection

Assess all data and information regarding underground piping and utilities. Coordinate with all agencies and prepare updates to all underground utilities including but not limited to all active and inactive electrical lines (conduit banks and encasements) as well as telecommunication and fiber-optic lines. Prepare a Site Utility Drawing including all existing underground piping, electrical, telecommunication, fiber-optic, etc. Existing underground piping is noted in the Brady report for information purposes only. Consultant shall verify all active and inactive piping during the evaluation and design process.



EXISTING PIPELINES ON SITE

Task 3 Comprehensive Geotechnical Soils & Demolition Report and Costing

A. Comprehensive Geotechnical Report

Consultant shall prepare a comprehensive geotechnical soils report for the site based upon the current 2019 California Building Code requirements, addressing as

a minimum the following:

a. Generalized soil and groundwater conditions
b. Geologic and tectonic setting
c. Assessment of geologic and seismic hazards such as surface fault rupture, strong ground motion and liquefaction and secondary effects
d. Assessment of geotechnical conditions such as expansive and compressible soils, and corrosivity screening
e. Site Class in accordance with the latest version of the California Building Code
f. Mapped seismic design parameters in accordance with the latest version of the California Building Code
g. Recommendations for allowable vertical and lateral bearing pressures
h. Estimates of total and differential settlement
i. Recommendations for footing position and embedment
j. Considerations for Risk Category II and IV structures, as appropriate
k. New footing bearing capacities for a Risk Category II (ETWD Warehouse/Storage building) and Risk Category IV (MWDOC EOC) structures at the site including coefficient of friction, adhesion/cohesion to resist sliding during an earthquake or wind event, etc.
l. New foundation system for an Infiltration/Retention Basin at the site of the Clear Well including coefficient of friction, adhesion/cohesion to resist sliding during an earthquake
m. Soil type
n. Recommendations regarding suitability of leaving existing underground structures and existing underground piping at proposed new buildings. (Geotechnical report shall delineate the suitability of the site for constructing Risk Category II and IV structures)
o. Recommendations regarding full demolition and partial demolition of existing underground structures and existing underground piping at proposed new buildings. (Geotechnical report shall clearly delineate demolition requirements at the site between Risk Category II and IV structures)
p. Recommendations regarding vertical and horizontal over-excavation requirements at the proposed new buildings. (Geotechnical report shall clearly delineate over-excavation requirements at the site between Risk Category II and IV structures)
q. Fill requirements including native backfill and slurry fill
r. Liquefaction potential.
s. Groundwater level at site
t. Maximum earthquake settlement at site due to liquefaction and associated horizontal dimension
u. Maximum differential settlement at site near each structure
v. Soil unit weight/density for design and site class
w. Earthquake design parameters

x. Soils Tests for soils samples collected at site shall include the following as a minimum:
    i. Moisture Content and Dry Density (ASTM D2937)
    ii. Atterberg Limits (ASTM D4318)
    iii. Particle-size analysis (ASTM D422)
    iv. Direct Shear (ASTM D3080)
    v. Consolidation (ASTM D2435)
    vi. Expansion Index (ASTM D4829)
    vii. Collapse Potential Test (ASTM D5333)
    viii. Corrosion potential (including pH, minimum resistivity
y. Any additional geotechnical information required by code, and as necessary to construct the new building structures, parking lot, and underground utilities

1. Subsurface Exploration

The Consultant shall conduct two days of subsurface exploration to complete five hollow stem auger test borings using a truck mounted drill rig at the site. The Consultant shall advance four borings around the perimeter of the abandoned Filter Plant buildings and one boring at the Clear Well structure for the infiltration site assessment discussed below. The borings will extend a minimum of 5 feet into competent formational materials or to a maximum depth of 20 feet, whichever depth is shallower. The field work will consist of the following activities:

- Coordinate with El Toro Water District to obtain permission to access the site.
- Mark out the locations of the explorations.
- Notify Underground Service Alert (USA) and subcontract with a private utility locating service to re- view the location of explorations relative to underground utilities prior to commencing the field work.
- Subcontract with a drilling subcontractor and advance the hollow stem auger test borings to the target depths, or shallower if drilling refusal is encountered. When drilling, obtain bulk samples in the upper 5 feet and samples at depths of about 2, 5, 7.5 and 10-feet, and then at 5 to 10-foot depth intervals thereafter using Modified California and Standard Penetration Test split-barrel samplers. A geotechnical engineer or geologist will supervise the field work, log the test borings, and collect the soil samples.
- Abandon the explorations with soil cuttings and/or bentonite and thin spread any remaining spoils within earth surfaced areas of site.

The Consultant shall summarize results of this subsurface exploration in the geotechnical report.

2. Geotechnical Laboratory Testing

The Consultant shall conduct laboratory testing on selected soil samples to evaluate physical and engineering properties. An accredited laboratory shall perform the testing per ASTM International and Cal- trans standards. The emphasis of the testing will be to assess: 1) index properties of the soils for classification, 2) elastic

and consolidation settlement, 3) soil shear strength, 4) the potential for soil expansion or col- lapse, and 5) soil corrosivity. The Consultant shall determine the actual laboratory testing program following completion of the subsurface exploration. The Consultant shall summarize results of this geotechnical laboratory testing in the geotechnical report.

B. Demolition Study and Costing

Consultant shall review all recommendations regarding the Geotechnical Soils Report and prepare a Final Demolition Report that addresses the suitability of the site to construct two new structures at the existing Filter Plant site including recommendations for either partial demolition or full demolition of the existing underground structures and piping. The demolition study shall delineate the demolition and soil preparation scope of work between Risk Category II and IV structures as the site.

Consultant shall prepare a comprehensive demolition cost estimate and include within the Demolition Report. Demolition cost estimate shall be for the Filter Plant (excluding Clear Well) and shall be based on the geotechnical engineer's findings and recommendations for full demolition and/or partial demolition. Cost estimate shall include all associated abatement costs for asbestos and lead abatement including updated salvage values as indicated in the January 2020 Site-Use Plan by Brady. The demolition cost for the Filter Plant shall delineate the demolition and soil preparation costs between Risk Category II and IV structures as the site.

Consultant shall present the Final Geotechnical and Demolition Reports to the District and MWDOC during one in-person meeting.

Task 4 Clear Well Demolition and Infiltration/Retention Basin Study

The January 2020 Brady report indicates the demolition of the existing Clear Well and potential construction of a new Infiltration/Retention basin. Consultant shall review all storm water regulations and current code requirements and evaluate whether a new Infiltration/Retention basin is required in the same location as Clear Well, once demolished. If an Infiltration/Retention basin is required by current code and regulations, Consultant shall prepare a conceptual plan for the Infiltration/Retention basin for the District's review.

Consultant shall perform site visits as necessary to inventory existing Clear Well and gain a thorough understanding of the existing site and the associated requirements to accomplish the proposed demolition and construction of a new basin.

Consultant shall update demolition cost estimate for Clear Well and prepare a construction cost estimate to construct a new Infiltration/Retention basin (if required by code or regulations) and provide a brief letter report regarding findings

and costing.

Consultant shall present the Final Infiltration/Retention Basin Report and costing to the District during one in-person meeting.

Task 5 Demolition Design Documents and Cost Estimates

A. Demolition Drawings and Specifications

Consultant shall prepare demolition drawings and specifications (five-digit CSI format) at 30%/60%/90%/100% for the demolition work for the Filter Plant Building and Clear Well in a phased manner. The Consultant shall incorporate the following phasing into the demolition design:

1. Relocation of the AQMD equipment
2. Disconnection of existing utilities such as water, sewer, electrical, and communications
3. Disconnection and abandonment of distribution mains connected to the filter plant
4. Demolition of Filter Plant steel buildings
5. Demolition of Clear Well
6. Partial or full demolition of concrete substructures and abandoned piping

Consultant shall include all design disciplines for the demolition scope, including but not limited to, Architectural, Civil, Geotechnical, Structural, Mechanical, Electrical, Plumbing, and Environmental Services.

Demolition Drawings and Specifications shall include a phased demolition plan, utilizing the main residential driveway to enter/exit the site, and shall include the proper demolition scope of work for all inactive underground piping, substructures (as required in Task 3B), and Clear Well tank as indicated in the Brady report. All demolition design documents shall address and incorporate remediation and abatement scope of work from January 2020 Brady report for all asbestos containing materials and lead paint findings.

Demolition drawings shall clearly indicate all existing abandoned piping to be demolished as well as active piping to remain in place. Consultant shall coordinate, design and reflect on demolition drawings all pipe capping, pipe extension work, etc. as noted in the Brady report and confirmed by Consultant during the design. The design shall incorporate both the demolition of the north vault and recommended pipeline modifications and extensions at the vault. Consultant shall coordinate and prepare detailed demolition drawings that reflect and preserve all underground electrical power, water lines, telecommunication lines, etc. to the Main PR, OC-77, and the existing WEROC EOC building.

Consultant shall coordinate with all agencies for demolition work including ETWD, neighboring Home Owners Association (through ETWD), MWDOC, AQMD, Metropolitan Water District of Southern California (MWD), and Cellular

Site Lease Holders. Provide all coordination and permitting services with all local Authority-Having-Jurisdiction (AHJ) to secure plan check approval for all drawings.

Demolition documents for the Filter Plant Building, as well as the Clear Well, shall be prepared in a manner that accommodates the on-going use of the site including:

- ETWD Main PR
- WEROC SEOC
- AQMD
- MWD AMP Maintenance
- Cellular Site Maintenance

AQMD will be responsible for the relocation design and implementation for the AQMD portable trailer and associated space needs. Consultant shall coordinate and notify AQMD during demolition phase and provide appropriate space on site for AQMD needs. AQMD tower relocation, if required, is by AQMD. All electrical power design to AQMD relocated portable trailer is by Consultant.

B. Demolition Cost Estimate

Consultant shall prepare detailed construction cost estimates for the demolition drawings and specifications at 30%/60%/90%/100% CD phases, including all associated abatement costs as well as salvage value. The cost estimate shall include total project costs inclusive of all soft costs including permitting fees, construction management, inspection, etc. for the demolition work as well as underground pipe extensions/capping.

The demolition costs for the Filter Plant shall include demolition and soil preparation costs. Cost estimate shall delineate the demolition and soil preparation costs between Risk Category II and IV structures at the site for 30%/60%/90%100% CD cost estimates and identify any demolition and soil preparation cost premiums for Risk Category IV structure.

Task 6 Building Structures & Retention Basin Design Documents and Cost Estimates

A. Building Structures & Retention Basin Design Drawings and Specifications

Consultant shall prepare design drawings and specifications (five-digit CSI format) at 30%/60%/90%/100% for the District's new Warehouse/Storage building, MWDOC's WEROC EOC building, Infiltration/Retention basin (if required in Task 4) as well as replacement of the Home Owners Association entry driveway to the site.

A review period by ETWD and MWDOC Boards will occur following the submittal of the 30% design drawings (and costing). The Consultant's design services will be "paused" during this time period in order to obtain full approval from both Boards for the recommended construction cost estimate.

Design documents for the new buildings and Infiltration/Retention basin shall be prepared in a manner that accommodates the on-going use of the site including:

- ETWD Main PR
- WEROC SEOC
- AQMD
- MWD AMP Maintenance
- Cellular Site Maintenance

1. Warehouse/Storage Building (ETWD)

Design Drawings and Specifications for the District's Warehouse/Storage building shall be prepared by the Consultant. The building shall be a freestanding one-story pre-fabricated metal building (Risk Category II), separated from the MWDOC EOC building in order to meet current code seismic separation requirements. The building separation shall also be sufficient for maintenance to clean between structures.

Consultant shall review and prepare any updated floor plans during design, if required by the District, identifying any potential use changes of the Warehouse/Storage building to accommodate ETWD storage needs.

Consultant shall include all design disciplines for the project, including but not limited to, Architectural, Civil, Geotechnical, Structural, Mechanical, Electrical, and Plumbing. Consultant shall coordinate with the District during design and prepare renderings of the proposed pre-fabricated metal Warehouse/Storage building that will identify architectural and aesthetic features that will be visible to the neighboring residents. Renderings shall be completed at 30% and 60% CD levels.

Provide all coordination and permitting services with all local Authority-Having-Jurisdiction (AHJ) to secure plan check approval for all drawings.

2. WEROC EOC Building (MWDOC)

Design Drawings and Specifications for MWDOC'S WEROC EOC building shall be prepared by the Consultant. The WEROC EOC building shall be a freestanding one-story pre-fabricated metal building (Risk Category IV), separated from the ETWD Warehouse/Storage building in order to meet current code seismic separation requirements. The building separation shall also be sufficient for maintenance to clean between structures. Design for the MWDOC EOC building shall comply fully with revised floor plans and "WEROC Emergency Operations Center Scope of Work for Professional Services Design and Engineering" (Available in the PlanetBids Portal).

Consultant shall review and prepare any updated floor plans during design,

if required by MWDOC, identifying any potential use changes to WEROC Emergency Operations Center.

Consultant shall include all design disciplines for the project, including but not limited to, Architectural, Civil, Geotechnical, Structural, Mechanical, Electrical, and Plumbing. Consultant shall coordinate with MWDOC and District during design and prepare renderings of the proposed pre-fabricated metal WEROC EOC building that will identify architectural and aesthetic features that will be visible to the neighboring residents. Renderings shall be completed at 30% and 60% CD levels.

During an actual EOC activation or the utilization of the EOC for emergency exercises or planning and training activities there may be a significant number of vehicles parked at the site. Consultant shall develop and finalize the parking layout as identified in the Brady report for as many as 30 vehicles associated with the WEROC EOC.

Provide all coordination and permitting services with all local Authority-Having-Jurisdiction (AHJ) to secure plan check approval for all drawings.

The design shall include the following features for the WEROC EOC:

- Emergency Power
    - Wheeled portable generator connected to the building through a manual transfer switch.
    - Space to park the portable generator
    - Manual transfer switch
    - Fuel Locker for additional fuel storage
- Provisions for Future Electrical
    - Additional raceways to run alternative electrical in the floor to accommodate future needs
- Roof Mounted Antennas
    - Roof needs to accommodate 3 small antennas
- Building Interior
    - Interior partition walls
    - Interior doors
    - Carpet
    - Drop ceiling
    - Lighting
    - Electrical receptacles
    - Bathrooms with a shower and space for a locker/storage room
    - Kitchen area with plumbing for a sink – cabinetry not included
    - Reception area

3. Infiltration-Retention Basin (District)

If required in Task 4A, Consultant shall prepare Design Drawings and Specifications for a new Infiltration/ Retention basin as noted in the January 2020 Brady report.

Consultant shall develop the conceptual drawings from Task 4A and prepare final design drawings and specifications for the basin.

Consultant shall include all design disciplines for the project, including but not limited to, Architectural, Civil, Geotechnical, Structural, Mechanical, Electrical, and Plumbing. Consultant shall coordinate with the District during design.

Provide all coordination and permitting services with all local Authority-Having-Jurisdiction (AHJ) to secure plan check approval for all drawings.

B. Building Structures & Retention Basin Cost Estimates

Consultant shall prepare detailed construction cost estimates for the new building structures and basin drawings and specifications at 30%/60%/90%/100%. The cost estimate shall include total project costs inclusive of all soft costs including permitting fees, construction management, inspection, etc. for the new buildings and basin (if required in Task 4A). Cost estimate shall include separate cost breakdowns for the ETWD Warehouse/Storage Building, the MWDOC EOC building, and the Infiltration-Retention Basin.

A review period by ETWD and MWDOC Board will occur following the submittal of the 30% costing. The Consultant's design services will be "paused" during this time period in order to obtain full approval from both Boards for the recommended construction cost estimate.

C. Additional Scope for Architectural Design

The architectural design subconsultant shall provide the following services as additional scope items to the previous list:

1. 30% Design

- Meet with ETWD and MWDOC to discuss budget, program, schedule and design issues.
- Meet with County Building and Planning Department to review all requirements including design review, accessibility issues and approval process.
- After determining space needs / program document per discussions with the project team, develop Preliminary Building Floor Plans and Building Elevations for the project. These designs will build on the information already completed to date, but with modifications recommended "Best Practices".
- Refine Concept Plans to reflect overall scope requirements. These plans will be schematic in nature and are intended to provide information with regard to overall extent of the project. Included will be site plan, concept electrical/lighting plans, concept mechanical plans, preliminary structural plans and architectural plans to describe design intent for each of the project

elements and systems.

- Prepare preliminary interior and exterior renderings of proposed design and provide an initial walk-thru of the 3D model for design review.
- Prepare preliminary material and equipment selections for review.
- Coordinate internally between prime and subconsultants.
- Present to ETWD and MWDOC for 30% design review and approval to proceed with current scope extents. At this stage any adjustments to the scope/program should be identified.
- Make required presentations to various agency review organizations to review proposed design. Proposal assumes one County presentation.
- Make required modifications to 30% Design to obtain 30% Design and Site Plan approval.

2. **60% Design**
   - Refine design of Site Plan, Architectural Plans, and Engineering Plans
   - Meet with the County Building Department and any applicable utility companies or other points of coordination to establish expectations for the project and understand timelines for incorporation into the project schedule.
   - Prepare updated design renderings and conduct Virtual Reality walk thru.
   - Provide submittal and presentation to ETWD and MWDOC for design review and approval to proceed with current program and design direction.
   - Attend progress meetings with stakeholders (assume 1 meeting for this phase).
3. **90% and 100% Design**
   - Prepare drawings and associated documents required for approving agencies and incorporate all required revisions/ corrections as necessary to obtain required approvals.
   - Prepare drawings and specifications suitable for bidding to clearly delineate the Contractor's scope of work.
   - Submittals will be made as indicated above and will include plans and specifications. A final FOR CONSTRUCTION document set will be distributed for construction once permitting is complete. It is assumed that ETWD will provide any required General and Supplementary Conditions and Bidding Information. Structural design will be for foundation systems only.
   - Submit plans to County Building Department for plan check, and perform all required revisions to construction documents based on Department's plan check comments (Note: plan check and permit fees are not included).
   - Meet with ETWD and MWDOC (one meeting) to review final design and construction documents.

Task 7 Bid Support Services

It is anticipated that the project will progress to contractor bidding, for both the demolition and construction work.

Consultant shall provide engineering support during the bid period. This work will include the

following:

- Attendance at one pre-bid meeting with the District, MWDOC, and prospective contractors;
- Coordinate and respond to all clarifications and interpretation requests during the bidding period;
- Generate any addenda necessary to support the bidding process, including revisions to drawings and specifications.

A. Additional Scope for Architectural Design Subconsultant

The architectural design subconsultant shall provide the following services as additional scope items to the previous list:

- Interpret and clarify contract documents for contractors, and assist in issuing addenda as required.
- Attend a Pre-Bid walkthrough at the site with all interested contractors.
- Participate in bid review of contractor's detailed cost breakdown and assist in evaluation of the bids.

Task 8 Construction Administration Support Services

It is anticipated that the project will progress to construction. This Task 8 may be authorized as a separate authorization upon the District's decision to proceed with the demolition and construction.

Consultant shall provide engineering support during the construction. This work will include the following:

- Attendance at one pre-construction kick-off meeting with the District, MWDOC, and the awarded contractor;
- Respond to all Requests for Information (RFI) during the course of construction;
- Review and respond to all contractor technical submittals:
- Attend weekly construction meetings (50% in person and 50% teleconference call for a duration of 12 months);
- Conduct site visits once per month for a duration of 12 months;
- Generate any drawing and specification revisions necessary to support the construction phase;
- Review contractor change order requests for scope acceptance and pricing;
- Coordinate with all design team members during the course of the construction phase;
- Conduct final Punchlist walkthrough and issuance of Punchlist to District.

A. Additional Scope for Architectural Designer

The architectural design subconsultant shall provide the following services as additional scope items to the previous list:

- Attend Pre-Construction conference.

- Review and approve or take other appropriate action upon Contractor's submittals and shop drawings as required by contract documents.
- Interpret contract documents (including all contracted sub-consultant disciplines) for proper execution and progress of construction, including responding to contractor's requests for information and clarification, and issuing ASI's (Architect's Supple- mental Instructions).
- Make one scheduled site visit every other week during the course of construction (total of 18) to observe the project, and prepare site visit report (meeting minutes). Site visit shall include meeting with contractor and Client representative to re- view progress of construction, review pending RFI and Change Order information, and observe the construction to verify work is proceeding in accordance with construction documents.
- Make one additional site visit to perform Punchlist Inspection, and one additional visit to perform Final Inspection. Punchlist Inspection will include a detailed listing of all items remaining to be completed by the Contractor. Final Inspection will certify that all work has been completed in accordance with construction documents.
- Assist in review of contractor's initial and progress schedules and Schedule of Values.
- Assist in reviewing and processing contractor's progress payment requests, and certifying the amounts due to the contractor.

ASSUMPTIONS

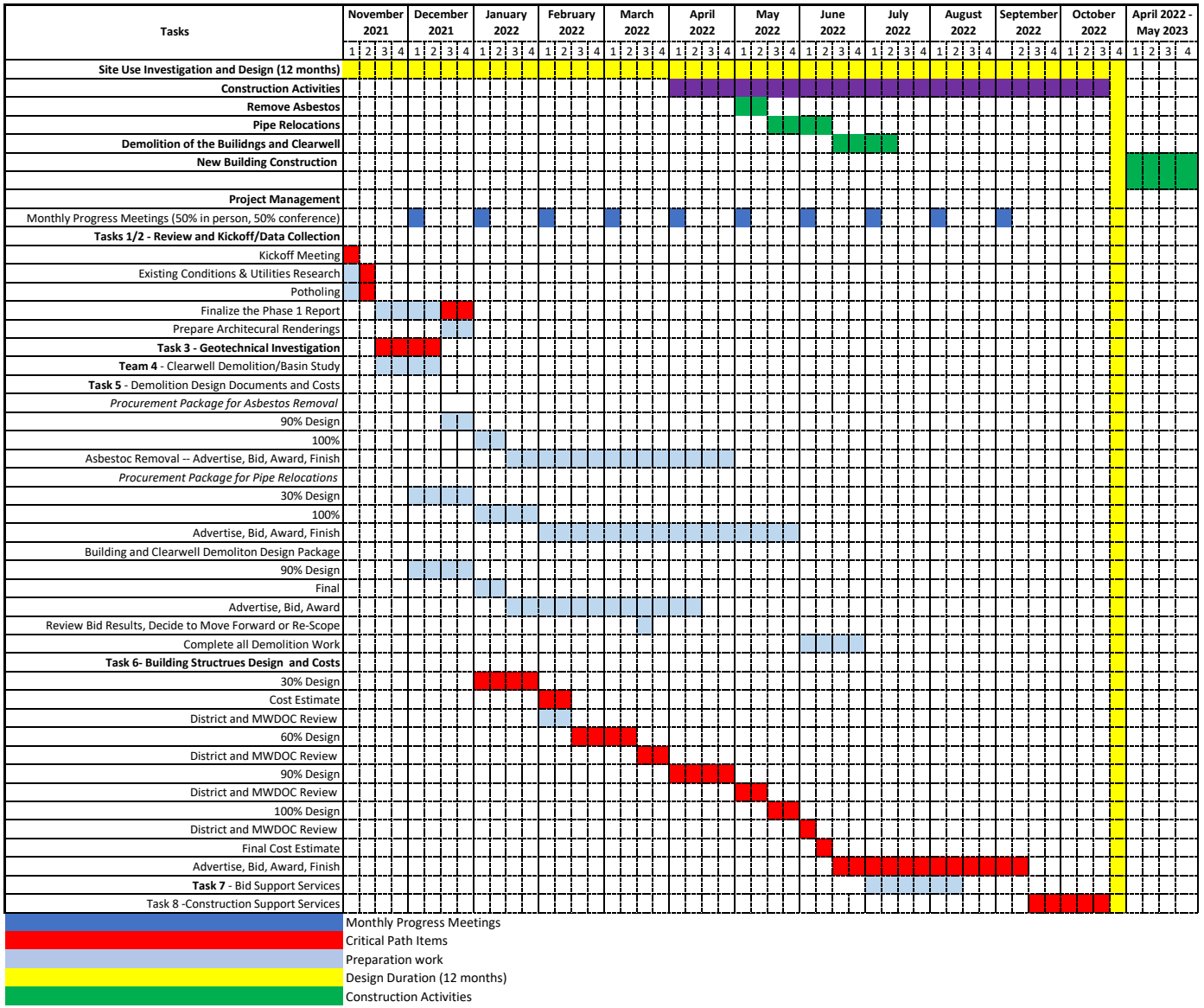
The following items are not included in the scope of work and will be provided as additional services only after written authorization is received. Unless a subsequent fixed fee proposal is provided, the work will be done on an hourly basis. Additional services not included in this scope of work include:

1. Topographic survey, boundary survey, Title search, easement identification, etc.
2. Structural engineering for the building shell. If PEMB is not utilized for building design additional fees will be required.
3. Revisions to Contract Documents resulting from Owner requested changes to documents previously approved by the Owner, or due to code or zoning changes made subsequent to Owner approval.
4. Preparing separate construction document packages for discretionary permits or alternate bid items.
5. Attendance of any public hearings and/or additional meetings other than detailed in the proposal.
6. Services required because of significant changes in the project (not due to the design team's acts or omissions) including, but not limited to, size, quality, complexity, schedule, or the method for bidding and contracting for construction.
7. Processing change requests for Owner requested changes, and for unforeseen site conditions, after bid, including revisions to Contract Documents, processing approval of revisions through the Building Department, and Change Order negotiation.
8. Providing services in conjunction with implementing substitutions proposed by the Contractor, and making subsequent revisions to Contract Documents resulting from such.

9. Providing services made necessary by the default of the Contractor, by major deficiencies in the work of the Contractor, or by failure of performance of either the Owner or the Contractor under the Contract for Construction.
10. Providing services in conjunction with arbitration proceedings or legal proceedings, except where the Architect is a party to such proceedings.
11. Providing "Special Inspection" services required by law or the Contract Documents.
12. Traffic Engineering Services.
13. Commissioning or Enhanced Commissioning Services.
14. Preparation of documentation to process the project through the US Green Building Council as a LEED project.
15. Design of photo-voltaic electrical generation systems (code required solar ready infrastructure is included in basic scope). Plan check and permit fees are not included and are to be paid by the Client.

Schedule Logic

BRADY's preliminary thoughts about executing an efficient implementation of our scope of work efforts is presented below. 1. For each of our proposed design packages we will focus heavily on the initial 30% design submittals for each to provide sufficient detail to assure an accurate cost estimates. The cost of this project is a key decision point for moving forward, or making adjustments in the project scope. We will stop work at the 30% level to allow the District and MWDOC to make decisions that will determine our go forward plan. For now, we intend to prepare four(4) separate design/procurement packages. The goal is to first remove simple tasks for specific trades such as abestos removal and pipe relocations that may impede progress later in the project. A separate demoliton package will be prepared to obtain our best pricing possible for this specialty work, and to obtain our best cost benefit if salvage can be factored in bids. The final package will be the final product -- new facilities for District



Fee Summary

RICHARD BRADY & ASSOCIATES

Cost Proposal for El Toro Water District

RFP Number: NA | **Program Manager:** George Murdoch

Project Title: Filter Plant Site Use Plan Investigation and Design | **Start Date:**

Proposal Date: 9/2/2021(REV-09-27-2021) | **End Date:**

Labor Category	Code	Labor Rate	Labor Hours	Cost
Senior Program Manager / Senior Principal	P7	$ 315.00	56.0	$17,640
Program Manager / Principal Engineer II	P6	$ 273.00	176.0	$48,048
Managing Engineer / Principal Engineer I	P5	$ 233.00	-	$ -
Senior Engineer / Project Manager	P4	$ 190.00	40.0	$7,600
Project Engineer	P3	$ 175.00	604.0	$105,700
Staff Engineer	P2	$ 160.00	-	$ -
Associate Engineer	P1	$ 134.00	72.0	$9,648
Senior Designer	D3	$ 180.00	368.0	$66,240
Designer	D2	$ 134.00	-	$ -
Drafter	D1	$ 113.00	-	$ -
Senior Administrative Staff / Contracts	A3	$ 170.00	-	$ -
Admin Assistant, Project Coordinator	A2	$ 98.00	-	$ -
Reproduction Clerk, File Clerk, Data Entry	A1	$ 77.00	-	$ -
Construction Manager	CM3	$ 196.00	376.0	$73,696
Senior Construction Inspector	CM2	$ 175.00	-	$ -
Construction Inspector	CM1	$ 160.00	-	$ -
Permit Expeditor	PER1	$ 80.00	-	$ -
Total Labor Cost			**1,692.0**	**$328,572**

Estimated Travel Costs	
Travel	$ -
Total Travel Cost	**$ -**

Estimated ODCs (Subcontractors, Materials, Supplies, Reproduction, etc.)			
Utility Surveying	AirX		$10,000
Geotechnical Report	Group Delta		$38,880
Architecture	JKA Architecture		$220,735
Cost Estimating	RLB		$10,001
Landscape Architecture	KTUA		$7,500
[Enter Material, Supply or Subcontracted Service]	[SUBK/Supplier Name]		$ -
[Enter Material, Supply or Subcontracted Service]	[SUBK/Supplier Name]		$ -
[Enter Material, Supply or Subcontracted Service]	[SUBK/Supplier Name]		$ -
[Enter Material, Supply or Subcontracted Service]	[SUBK/Supplier Name]		$ -
[Enter Material, Supply or Subcontracted Service]	[SUBK/Supplier Name]		$ -
[Enter Material, Supply or Subcontracted Service]	[SUBK/Supplier Name]		$ -
[Enter Material, Supply or Subcontracted Service]	[SUBK/Supplier Name]		$ -
Service Center Charge		$0.00/Hour	$ -
Reproduction			$ -
	Subtotal ODCs		**$287,116**
	G&A on ODCs (excl Travel)	**7.00%**	**$20,098**
	Total ODC Costs		**$307,214**
	Profit on ODCs (excl Travel)	**5.00%**	**$15,361**
Total ODC Cost			**$322,575**

Total Estimated Project Cost	**$651,147**

EXHIBIT B
WORK ELEMENT SUMMARY

Fee Summary

LABOR HOURS			LABOR HOURS BY WORK ELEMENT								
			1	2	3	4	5	6	7	8	
Labor Category	**Code**	**Bill Rate**	**Task 1 - Review of Project Objectives / Project Management**	**Task 2 - Review Site-Use Report and Record Drawings and Collection of Additional Data**	**Task 3 - Comprehensive Geotechnical Soils and Demolition Report and Costing**	**Task 4 - Clear Well Demolition and Infiltration / Retention Basin Study**	**Task 5 - Demolition Design Documents and Cost Estimates**	**Task 6 - Building Structures and Retention Basin Design Documents and Cost Estimates**	**Task 7 - Bid Support Services**	**Task 8 - Construction Administration Support Services**	**TOTAL**
Senior Program Manager / Senior Principal	P7	$ 315.00	56.0	-	-	-	-	-	-	-	**56.0**
Program Manager / Principal Engineer II	P6	$ 273.00	80.0	-	-	-	8.0	-	8.0	80.0	**176.0**
Senior Engineer / Project Manager	P4	$ 190.00	-	-	-	-	-	-	-	40.0	**40.0**
Project Engineer	P3	$ 175.00	-	-	8.0	-	120.0	120.0	40.0	316.0	**604.0**
Associate Engineer	P1	$ 134.00	-	-	-	16.0	16.0	-	-	40.0	**72.0**
Senior Designer	D3	$ 180.00	-	8.0	-	-	120.0	200.0	-	40.0	**368.0**
Construction Manager	CM3	$ 196.00	-	-	40.0	-	80.0	40.0	16.0	200.0	**376.0**
			136.0	**8.0**	**48.0**	**16.0**	**344.0**	**360.0**	**64.0**	**716.0**	**1,692.0**
		Total Labor Costs	**$ 39,480**	**$ 1,440**	**$ 9,240**	**$ 2,144**	**$ 62,608**	**$ 64,840**	**$ 12,320**	**$ 136,500**	**$ 328,572**

ODCs & Travel	Vendor/Subk		ODCS/TRAVEL BY WORK ELEMENT								TOTAL
Travel			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Total Travel Cost			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Utility Surveying	AirX		$ -	$ 10,000	$ -	$ -	$ -	$ -	$ -	$ -	**$ 10,000**
Geotechnical Report	Group De		$ -	$ -	$ 38,880	$ -	$ -	$ -	$ -	$ -	**$ 38,880**
Architecture	JKA Arch		$ -	$ -	$ -	$ -	$ -	$ 186,450	$ 2,060	$ 32,225	**$ 220,735**
Cost Estimating	RLB		$ -	$ -	$ 5,000	$ -	$ 5,001	$ -	$ -	$ -	**$ 10,001**
Landscape Architecture	KTUA		$ -	$ -	$ -	$ -	$ -	$ 5,000	$ -	$ 2,500	**$ 7,500**
Service Center Charge		**$0.00**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Reproduction			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
		Subtotal ODCs	**$ -**	**$ 10,000**	**$ 43,880**	**$ -**	**$ 5,001**	**$ 191,450**	**$ 2,060**	**$ 34,725**	**$ 287,116**
	G&A on ODCs (excl Travel)	**7.00%**	**$ -**	**$ 700**	**$ 3,072**	**$ -**	**$ 350**	**$ 13,402**	**$ 144**	**$ 2,431**	**$ 20,098**
		Total ODC Costs	**$ -**	**$ 10,700**	**$ 46,952**	**$ -**	**$ 5,351**	**$ 204,852**	**$ 2,204**	**$ 37,156**	**$ 307,214**
	Profit on ODCs (excl Travel)	**5.00%**	**$ -**	**$ 535**	**$ 2,348**	**$ -**	**$ 268**	**$ 10,243**	**$ 110**	**$ 1,858**	**$ 15,361**
Total ODCs			**$ -**	**$ 11,235**	**$ 49,299**	**$ -**	**$ 5,619**	**$ 215,094**	**$ 2,314**	**$ 39,014**	**$ 322,575**
		Total ODCS & Travel	**$ -**	**$ 11,235**	**$ 49,299**	**$ -**	**$ 5,619**	**$ 215,094**	**$ 2,314**	**$ 39,014**	**$ 322,575**
		Total Cost	**$ 39,480**	**$ 12,675**	**$ 58,539**	**$ 2,144**	**$ 68,227**	**$ 279,934**	**$ 14,634**	**$ 175,514**	**$ 651,147**

Agenda Item No. 12

STAFF REPORT

To: **Board of Directors** **Meeting Date: October 25, 2021**

From: **Hannah Ford, Engineering Manager**

Subject: **Joint Transmission Main (JTM) Pump Station Project**

The District currently receives its water supply through two main sources: the Allen McColloch Pipeline (AMP) and the Baker Water Treatment Plant. The raw water treated at the Baker WTP is supplied by the Baker Pipeline. The Baker Pipeline and the AMP, as shown in brown and green in Figure 1 are very close to each other. The District takes its supply from both the AMP and the Baker Plant through connections on the northeast side of the system.

Fed from Diemer Water Treatment Plant and East Orange County Feeder No. 2, the JTM traverses the District's service area from west to south, as shown in blue in Figure 1. Because the hydraulic grade line (HGL) in the JTM is not always high enough to meet the pressure requirements of the District's Gravity Zone, the District cannot consistently use its 2 cubic feet per second (cfs) capacity from this pipeline.

Constructing a pump station that would lift the HGL in the JTM to the District's Gravity Zone would allow the District to access the JTM as an alternative source of supply on a daily basis. Pursuing this project offers the following benefits:

- Enhanced reliability through an alternative pipeline that brings water into the District's system on the west side of the I-5 Freeway
- Helps mitigate the impacts of a common failure of the AMP and Baker Pipelines
- Improved water quality by introducing a fresher supply on the west side of the service area
- Potential to access alternative water supplies generated by neighboring agencies and introduced into the JTM

These benefits would prove especially useful when the District lacks its typical water supply reliability (i.e., the R-6 reservoir is out of service). The next planned outage of the R-6 reservoir is September 2022 to replace the floating cover. Expediting construction of the

JTM pump station would benefit the R-6 reservoir floating cover replacement project and other future rehabilitation projects of the District's critical water supply infrastructure.

Figure 1 – Map of Water Supply Pipelines in Orange County

The District hired Tetra Tech to develop the conceptual design of the JTM pump station. Figure 2 shows the proposed layout, which includes value engineering to reduce cost while maintaining critical operability. The pump station will be above ground with walls to retain the surrounding, highly-graded area and a roof to enclose the structure. thereby protecting the equipment. Once constructed, the District would operate the JTM pump station continuously at 2 cfs, reducing usage from the AMP. The conceptual cost estimate is $2.5M in capital and up to $72K annually in operation and maintenance (O&M) costs, a summarized in Table 1.

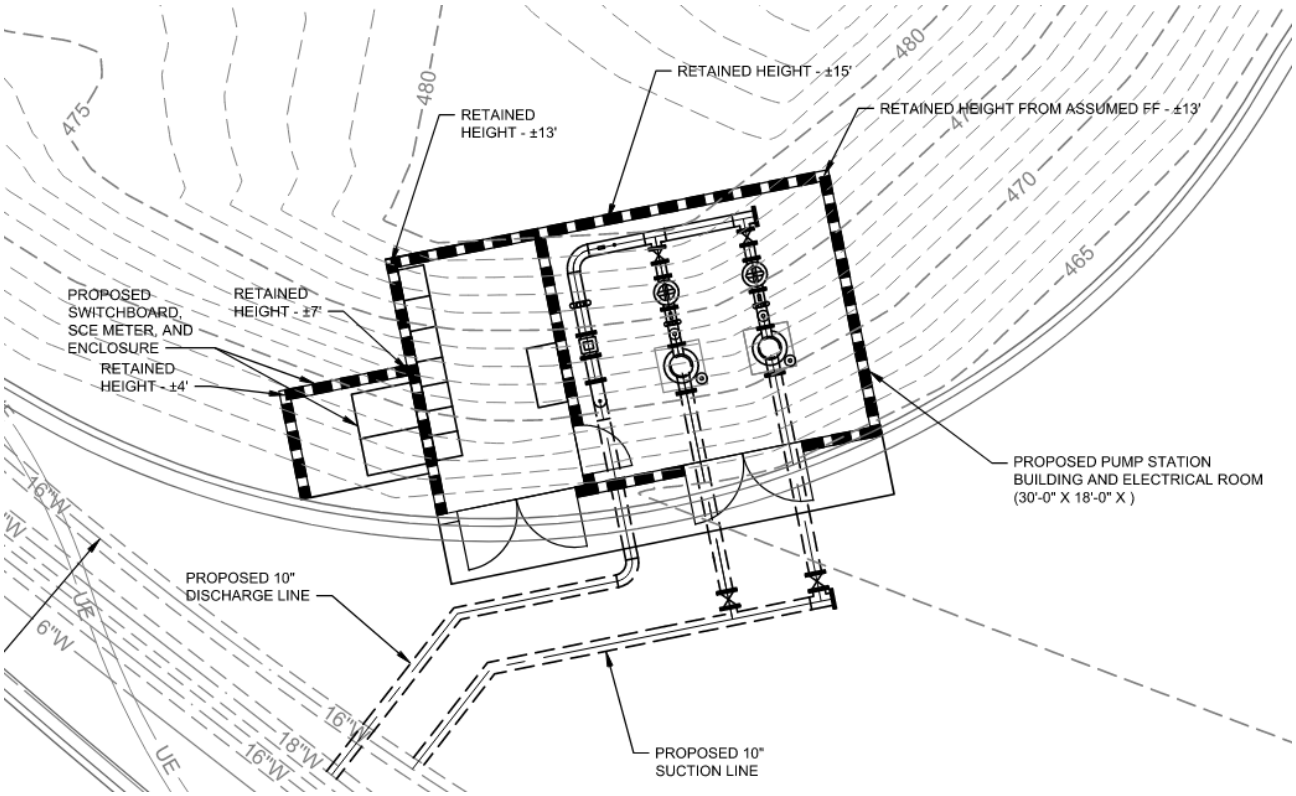


Figure 2 – JTM Pump Station Conceptual Layout

Table 1 – JTM Pump Station Conceptual Cost Estimate

Cost	Value
Capital[1]	**$2,500,000**
Operation and Maintenance	**$72,000**
Electrical[2]	$37,000
East Orange County Feeder #2 O&M[3]	$25,000
Maintenance[4]	$10,000

[1] Based on October 2021 estimate from Tetra Tech.
[2] Based on continuous operation of one 50 HP pump at 2 cfs, assuming time of use billing structure similar to other District pump stations.
[3] Based on 1.11% allocation of MWDOC's annual East Orange County Feeder #2 O&M costs.
[4] Based on 0.5% of the capital cost.

NEXT STEPS

As noted above, the JTM Pump Station supply would mitigate some of the supply reliability vulnerability during the upcoming shutdown of R-6 Reservoir during the R-6 Cover Replacement Project. In an effort to realize that benefit, staff is evaluating alternative contract delivery opportunities that might accelerate the project. The next step of the project would be to complete that evaluation and develop bid documents in an expedited fashion, that would allow staff to bring a contract for Board approval in January 2022.

STAFF REPORT

To: Board of Directors **Meeting Date: October 21, 2021**

From: Hannah Ford, Engineering Manager

Subject: Capital Project Status Report

I. Oso Lift Station Improvement Project

The contractor (Filanc Construction) is working toward project completion with entrance gate installation, final cleanup, and demobilization. The total project is on schedule to complete in October 2021 (end of this month) with final administration remaining.

Staff is working with the City of Laguna Woods to finalize the Lot Line Adjustment for the additional property incorporated into the site.

Table 1 summarizes the project financials to date. Although the total contract amounts exceeds the approved project budget, as shown by the negative contingency, the anticipated expenditure has a lower negative contingency because not all contract limits will be fully expended. Higher costs for geotechnical, addition of safety chains on hatches, and lower actual deduct change order caused an anticipated negative contingency of $6,713.

Table 1 – Oso Lift Station Construction Cost Estimate Summary

	Contract Amount	Billed to Date	Anticipated Expenditure
Total Construction Contract Bid Amount	$1,954,236	$1,906,498	$1,954,236
Approved Change Orders	$133,294	$133,294	$133,294
Anticipated Deduct Change Order	($15,000)	0	($15,000)
Specialty Inspections (Env., Geotech)	$32,685	$21,548	$25,000
Eng. Services During Construction	$96,000	$83,905	$93,000
Property Ownership Legal Costs	$78,622	$78,622	$78,622
Utility Costs (SCE/AT&T)	$18,147	$18,147	$18,147
Permit Costs	$6,650	$6,650	$6,650
Contingency	($16,398)	$0	($5,713)
Total	$2,288,236	$2,248,664	$2,288,236

II. R-2 Reservoir Interior Recoating Project

Staff worked with Wood Rogers to develop final bid documents, invited four qualified contractors who confirmed interest in the project to bid, and conducted mandatory pre-bid meetings last week. Bids are due in November, so staff plans to present results for Board approval at the next Engineering and Finance committee meeting.

At $733,370, the engineer's estimate is higher than the capital replacement and refurbishment project (CRRP) budget of $605,000. Recent market conditions and additional project components beyond the scope of the original coating, such as replacing the existing louvers and removing the existing rain gutter, account for elevated project cost.

III. Grit Chamber Rehabilitation

After confirming that bypass pumping was not necessary to make the modifications required as part of this project, Staff worked with Wood Rogers to develop final bid documents, published the invitation to bid via PlanetBids, and conducted mandatory pre-bid meetings last week. Bids are due in November, so staff plans to present results for Board approval at the next Engineering and Finance committee meeting.

As a reflection of recent market conditions and a better estimation of this project's scope of work, the engineer's estimate is $203,172, higher than the CRRP budget of $85,000. Additional project components beyond the scope of the original coating, such as replacing the existing gates, structural components, and complicated construction sequencing account for elevated project cost.

IV. R-6 Floating Cover Replacement & Improvement Project

After reviewing results from the recent liner testing with HGC, the District is discussing the cover material recommendations and the potential need for replacement of the liner with partner agencies, Moulton Niguel Water District and Santa Margarita Water.

The District is also reviewing the 30% design documents submitted this month by HGC. Because some valves have a 6-month lead time, prepurchasing may become necessary to meet project schedule. District staff conducted a site walk with HGC and the valve manufacturers to confirm project scope and recommendations this month.

V. Water Reclamation Plant (WRP) Effluent Pump Station (EPS) Rehabilitation Project

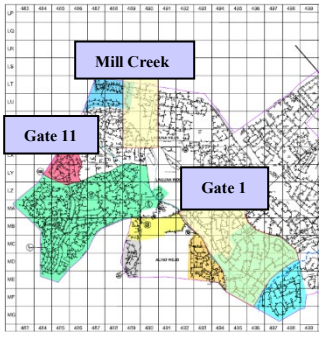
Originally constructed in the early 1960s, the WRP EPS conveys excess secondary effluent to the Effluent Holding Pond via this pump station, a critical role in the event of an ocean outfall pipeline failure, Ocean Outfall Pump Station failure, or heavy rain event when WRP flow exceeds ocean outfall capacity. EPS equipment is decades old and at the end of its useful life. This project would replace the existing pumps, motors, shafts, inlet isolation valves, check valves, discharge isolation valves, various connection spools, concrete pump pedestal house-keeping pads, and anchor bolts with new.

District staff are self-performing this design, developing bid documents, and aiming to advertise in mid-November for potential Board approval of a construction contract in January.

VI. Main Office HVAC Replacement and Improvement Project

Scott Wallace Structural Engineers Inc (SWSE) is developing the structural requirements for replacing the existing five air conditioning units. SWSE performed a site visit of the administration building this month to take measurements of the existing structural members. Staff are working with SWSE to determine the required extent and cost effectiveness of structural modifications to the roof.

VII. Phase III Recycled Water Project



Tetra Tech is estimating the typical recycled water demands for the proposed use areas and measuring the proposed recycled water irrigation areas using available aerial photography for the proposed Phase III customers' green areas. Staff anticipates receipt of a draft technical memorandum (TM) from Tetra Tech in early November.

VIII. Aeration Basin Diffuser Project

Staff are working with the construction contractor, Filanc Construction, on delivery dates for the diffuser materials. The Project has been delayed due to COVID-19 related material supply chain challenges; delivery and start of work is scheduled for March 2022 with completion at the end of April 2022.

IX. WRP Main Electrical Power Breakers Replacement Project

Schneider Electric USA Inc. visited the WRP to measure the existing panels this week. Following this site visit, they will return in January for breaker installation. Anticipated project closeout is February 2022.

X. Ocean Outfall Pump Station (OOPS) Generator Replacement Project

The generator is still in production, and staff await project material delivery. Filanc Construction mobilized the previous generator from the Oso Lift Station Project into place to prepare for use during the period of time when the OOPS generator will be out of service. Due to COVID-19 related material supply chain challenges, delivery of the generator from the manufacturer has been delayed until April 2022. Filanc Construction is still scheduled to commission the generator and complete the project by May 2022.

XI. Phase II Recycled Water Distribution System Expansion Project

Construction is complete. Staff has submitted the final on-site retrofit rebates documentation. Upon receipt of the final rebate payments the Phase II Recycled Water Distribution System Expansion Project will be closed out.

XII. Energy Efficiency Analysis

District staff continues to work with SoCalREN and AESC to develop practical energy efficiency solutions. SoCalREN and AESC will provide further detailed recommendations for the District to review and present to the Board in November.

F.Y. 2021/22 CAPITAL REPLACEMENT AND REFURBISHMENT PROGRAM BUDGET ITEMS > $50,000
BOARD APPROVAL SCHEDULE

Category	Project Description	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	CRRP Budget	Board Approved Cost
2021/22 Capital Projects															
	R-2 Reservoir Interior Recoating	E	E	E	B	A	C	C	C	C				$605,000	-
	Wash Press System at Headworks			E	E	E	A	O	C	C	C			$200,000	-
2021/22 Capital Equipment															
	Aeration Basin No. 1 Diffusers	C	C	C	C	C	C	C	C	C	C			$245,000	$203,630
	Effluent Pump Station Rehabilitation			E	E	B	B	A	C	C	C	C		$150,000	-
	WRP Main Electrical Power Breaker Upgrades	A	C	C	C	C	C	C	C					$140,000	$134,491
Previous Fiscal Year Carryover															
	Oso Lift Station Improvement Project	C	C	C	C									$2,950,432	$2,288,236
	Grit Chamber Rehab/Recoating	E	E	E	B	A	C	C	C					$85,000	-
	OOPS Emergency Generator Replacement	C	C	C	C	C	C	C	C	C	C	C		$220,000	$384,523
	Main Office/Field Office HVAC Replacement & Improvement Project	ET	ET	ET	ET	ET	B	A	C	C	C	C		$322,500	-
	Master Plan Update			E	E	E	RFP	ET	A	E	E	E	E	$350,000	-
	Caltrans Widening Utility Relocations							C	C	C	C	C	C	$0	$769,777
Pending (Not Yet Budgeted)															
	R-6 Reservoir Floating Cover	E	E	E	E	E	E	E	E	E	E	E	B	$0	-
	Filter Plant Site Use Plan Investigation and Design	RFP	RFP	ET	A	E	E	E	E	BP	E	E	E	$0	-
	Phase III Recycled Water Expansion		E	E	E	E	BP	ET						$0	-
	JTM Pump Station		E	E	BP	E	B	A	C	C	C	C	C	$0	-
													Total	$5,867,932	$3,780,657

Key:

- Water
- Wastewater
- Split between Water and Wastewater
- Board Involvement

Abbreviations:

A = Approve by Board
B = Bid
BP = Board Presentation
C = Construction
E = Engineering/Study
ET = Evaluate
L = Legal
N = Negotiate
O = Order
P = Permit
RFP = Request for Proposal
R = Receive

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.