

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



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



## **AGENDA**

### **EL TORO WATER DISTRICT**

#### **REGULAR MEETING OF THE BOARD OF DIRECTORS**

#### **FINANCE AND INSURANCE COMMITTEE MEETING AND ENGINEERING COMMITTEE MEETING**

**JULY 25, 2022**

**7:30 a.m.**

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Members of the public who wish to comment on any item within the jurisdiction of the District or on any item on the agenda, may 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/83010547834> (Meeting ID: 830 1054 7834).

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 Freshley

**PLEDGE OF ALLEGIANCE** – Director Monin

#### **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.)

## **FINANCE AND INSURANCE COMMITTEE MEETING**

### **CALL MEETING TO ORDER – Director Monin**

#### **1. Consent Calendar** (Reference Material Included)

(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 June 20, 2022 Finance and Insurance Committee meeting (Minutes included)
- b. Consider approving the minutes of the Adjourned June 20, 2022 Finance and Insurance Committee meeting (Minutes Included)

**Recommended Action:** The Board will be requested to approve the above Consent Calendar.

#### **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.

#### **2. California Asset Management Program (CAMP)** (Reference Material Included)

A CAMP Representative will update the Board on the District’s investment holdings and philosophy based on the economic outlook. CAMP assists the District with short-term and long-term investment alternatives.

## FINANCIAL INFORMATION ITEMS

3. **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.

4. **Update on the Implementation of the Springbrook Software System**  
(Reference Material Included)

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

5. **2022/23 Fiscal Year Budget Preparation and Tentative Schedule Status Report** (Reference Material Included)

Staff will review and comment on the 2022/23 fiscal year Budget Preparation and Tentative Schedule.

## FINANCIAL ACTION ITEMS

6. **Quarterly Insurance Report** (Reference Material Included)

Staff will review and comment on the Quarterly Insurance Report for the period April 1, 2022 through June 30, 2022.

**Recommended Action:** Staff recommends that the Board Receive and File the Quarterly Insurance Report for the period of April 1, 2022 through June 30, 2022.

7. **Financial Package - Authorization to Approve Bills for Consideration dated July 25, 2022 and Receive and File Financial Statements as of June 30, 2022** (Reference Material Included)

The Board will consider approving the Bills for Consideration dated July 25, 2022 and Receive and File Financial Statements as of June 30, 2022.

**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 July 25, 2022, and 2) receive and file the Financial Statements for the period ending June 30, 2022.

8. **Annual Review of the District's Cash Reserve Policy Statement 1994-12 (IV)**  
(Reference Material Included)

The District performs an annual review of the Cash Reserve Policy Statement 1994-12 (IV). Staff review and comment on proposed amendments to the Cash Reserve Policy.

**Recommended Action:** Staff recommends adopting Resolution No. 22-7-1 which amends the District's Cash Reserve Policy Statement 1994-12 (IV).

RESOLUTION NO. 22-7-1

RESOLUTION OF THE BOARD OF DIRECTORS  
OF EL TORO WATER DISTRICT  
WHICH AMENDS THE DISTRICT'S  
CASH RESERVE POLICY STATEMENT 1994-12 (IV)

**COMMENTS REGARDING NON-AGENDA FIC ITEMS**

**CLOSE FINANCE AND INSURANCE COMMITTEE MEETING**

**ENGINEERING COMMITTEE**

**CALL MEETING TO ORDER – Director Vergara**

9. **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 June 20, 2022 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**

### **10. R-6 Reservoir Floating Cover and Liner Replacement Project** (Reference Material Included)

Staff will review and comment on the bids submitted for the construction of the R-6 Reservoir Floating Cover and Liner Replacement Project.

**Recommended Action:** Staff recommends that the Board of Directors authorize the General Manager to 1) enter into a contract with Layfield USA Corp. in the amount of \$23,608,825 for the construction of the R-6 Reservoir Floating Cover and Liner Replacement Project 2) enter into a contract with Hilts Consulting Group, Inc. in the amount of \$499,088 for Engineering Services During Construction and Construction Management Services, and 3) enter into a contract with Go2CQA in the amount for \$372,100 for Inspection Services during construction. Staff further recommends that the Board authorize the General Manager to fund the project costs from the District's Bond Covenant Reserves in accordance with the District's adopted Cash Reserve Policy.

### **11. Filter Building and Clearwell Demolition Project** (Reference Material Included)

Staff will review and comment on the bids submitted for the construction of the Filter Building and Clearwell Demolition Project.

**Recommended Action:** Staff recommends that the Board of Directors authorize the General Manager to 1) enter into a contract with Resource Environmental, Inc. in the amount of \$685,000 for the construction of the Filter Building and Clearwell Demolition Project and 2) enter into a contract with Richard Brady & Associates, Inc. in the amount of \$124,429 for Engineering Services During Construction. Staff further recommends that the Board authorize the General Manager to fund the project costs from the District's Bond Covenant Reserves in accordance with the District's adopted Cash Reserve Policy.

### **12. JTM Pump Station Motor Control Center Pre-Purchase Contract** (Reference Material Included)

Staff will review and comment on the pre-purchase of the Motor Control Center (MCC) for the JTM Pump Station Project.

**Recommended Action:** Staff recommends that the Board of Directors authorize the General Manager to issue a purchase order contract to One Source in the amount of \$95,762 for the purchase of an MCC to meet the design requirements of the JTM Pump Station Project. Staff further recommends that the Board authorize the General Manager to fund the project costs from the District's Bond Covenant Reserves in accordance with the District's adopted Cash Reserve Policy.

**13. Headworks Rehabilitation Study (Reference Material Included)**

Staff will provide an update on the need to conduct a Headworks Rehabilitation Study. Staff will further review and comment on the proposal from Carollo Engineers, Inc. to conduct this study as an amendment to the Water and Sewer Master Plan Update.

**Recommended Action:** Staff recommends that the Board of Directors authorize the General Manager to amend the Water and Sewer Master Plan Update contract with Carollo Engineers, Inc. in the amount of \$132,848 for a Headworks Rehabilitation Study. Staff further recommends that the Board authorize the General Manager to fund the project costs from the District's Capital Improvement Reserves in accordance with the District's adopted Cash Reserve Policy.

**GENERAL INFORMATION ITEMS**

**14. 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.

**15. 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. At this time the Board will go into Closed Session pursuant to Government Code Section 54956.8 to consult with it's negotiator (General Manager) with respect to the terms and conditions pertaining to the potential acquisition of capacity interest in wastewater transmission pipes and facilities (appurtenant to real property) from the Irvine Ranch Water District, which property is located within the Service Area of the South Orange County Wastewater Authority.

2. Pursuant to Government Code Section 54956.9 (d) (2) to consult with legal counsel and staff – Anticipated Litigation (one matter).

## **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.*

MINUTES OF THE REGULAR MEETING  
OF THE  
FINANCE & INSURANCE COMMITTEE

June 20, 2022

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

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

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

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

Oral Communications/Public Comments

There were no comments.

Items Received Too Late to be Agendized

President Freshley 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. Vice President Havens called the Finance meeting to order, in lieu of Director Monin's remote attendance.

## Consent Calendar

Vice President Havens asked for a Motion.

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

### Roll Call Vote:

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

## Financial Information Items

### Tiered Water Usage and Revenue Tracking

Mr. Cafferty stated that water usage by District residents is somewhat less in May, 2022 compared to the prior year.

Director Vergara asked if staff monitors water waste and broken sprinklers. Mr. Cafferty replied that the District receives water waste complaints through the District email and staff contacts and educates the customer.

### Update on the Implementation of the Springbrook Software System

Mr. Hayden stated that the District is moving forward with training on the system and different modules.

President Freshley asked if we will be dropping ADP. Mr. Hayden replied yes, once the new time and attendance system has been activated.

Vice President Havens asked if Springbrook can automate some of the data feeds into the graphs we see in the Board packages. Mr. Hayden replied that there will be some changes to the Reserves analysis charts.

President Freshley asked if it will be difficult in Springbrook to create new reports. Mr. Hayden replied that Springbrook has a customizable report writing function and staff has been attending some trainings and will continue to train more.

Mr. Hayden stated that the Utility Billing Data has been converted into Springbrook's test database. He further stated that the Payroll module will go live in July and replace ADP payroll.

President Freshley asked if the Finance module includes functionality for both Receivables and Payables. Mr. Hayden replied yes.

President Freshley asked about Springbrook's capability for tracking Construction Contracts. Mr. Hayden replied that we purchased the Project Management module and the module will provide the District with the capacity to track revenue and expenses associated with capital projects as well as facility and equipment maintenance activities.

#### Consideration of Collection of the Capital Charge Through the Orange County Treasurer Tax Collector and County Property Tax Roll

Mr. Cafferty stated that the concept would be to move the Capital Charge that is currently on the District's monthly bill to customer's Property Tax bills. He further stated that this would be a new line item on the customer's property tax bill but would reduce the amount charged to customers on the District's monthly bill.

Mr. Cafferty stated that staff has discussed the implementation process with other agencies, and some have investigated this program and others did not proceed due to the amount the Tax Collector receives for this service.

Mr. Hayden stated that the Orange County Auditor/Controller charges 30 basis points which would be approximately \$20,000/year. He further stated that the

application is included in the package.

President Freshley stated that she feels the Laguna Woods Village would be difficult to assess with the multi-metered allocations. She further stated that she doesn't see any benefit to the District since we don't have a collection issue.

Director Vergara asked how much money the District declares as losses each year. Mr. Hayden replied that the District's bad debt is generally between \$5,000 to \$10,000/year.

Director Gaskins stated that he agrees with President Freshley in that there is no huge advantage in pursuing this.

Director Vergara asked if we would have exposure in the newspaper showing we could have a higher rate than neighboring agencies. Mr. Cafferty replied yes there is always the risk of exposure when reporters request information on comparisons to other Districts.

#### 2022/23 Fiscal Year Budget Preparation and Tentative Schedule Status Report

There were no comments.

At approximately 8:05 a.m. Director Monin left the meeting.

#### Financial Action Items

#### Financial Package – Authorization to Approve Bills for Consideration dated June 20, 2022 and Receive and File Financial Statements as of May 31, 2022

President Freshley stated that the Balance Sheet includes Restricted Assets of \$35 million that are also listed in the middle of the page, so why are the Restricted Assets listed twice with one negative and one positive so they net to zero. Mr. Hayden replied that the District is illustrating that Restricted Assets are a component of total cash.

President Freshley asked why we are paying so much to Moulton Niguel Water District. Mr. Cafferty replied that it was probably two months' worth of water due to the Baker interconnection being offline, so the District was purchasing water directly through Moulton Niguel.

Mr. Hayden stated that staff held off on investing the proceeds from the 2022 Bond issuance because the Federal Reserve indicated it would raise the Federal Funds rate and interest rates would likely increase. The District receive an initial quote of 1.69% interest for a structured CD product but because Staff had waited, the revised quote after the Federal Reserve's action was now more than 2%. President Freshley suggested investing half of the funds now and holding off on the other half to invest after the Federal Reserve Board's next meeting when interest rates may increase again.

Vice President Havens asked for a Motion.

Motion: Director Gaskins made a Motion, seconded by Director Vergara 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 June 20, 2022, and receive and file the financial statements for the period ending May 31, 2022.

Roll Call Vote:

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

Prop 218 Amendment

Mr. Cafferty stated that staff noted an error on the Prop 218 Notice after it had been distributed to property owners in the service area last week. He further stated that Raftelis prepared a detailed analysis within our current 2021/22 budget to determine



what the impacts would be absent the need to generate further Revenue.

Mr. Cafferty stated that in the process of preparing the Prop 218 Notice, we had a 2021/22 intermediate rate and on three of our current charges the rate being shown was the 2021/22 revised rate. He further stated that staff had discussions with the General Counsel and Special Counsel to assess options to resolve the discrepancy and have concluded that the best transparent path would be to acknowledge the error and notify the Prop 218 Notice recipients of what the correct current charge is. Since the proposed charge was correct, the attorneys indicated there is no need to start the Proposition 218 process over.

Vice President Havens noted an error in the Notice. Staff concurred and will correct the error.

Vice President Havens asked for a Motion.

Motion: Director Vergara made a Motion, seconded by President Freshley and unanimously carried across the Board to approve the amendment to the Prop 218 Notice and authorize distribution of same in a manner similar and consistent to the distribution of the original 218 Notice.

Roll Call Vote:

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

2022/23 Water, Recycled Water, and Wastewater Rate Study

Mr. Cafferty stated that staff and Raftelis reviewed the Rate Study in its final form.

Vice President Havens stated that Hotels are listed as High Strength and also as Medium Strength, so there may be an error on these tables. Mr. Cafferty stated that the Hotels should be listed as Medium Strength. Mr. Pardiwala agreed that they should be listed as Medium Strength and this will be corrected in the final Rate Study Report.

Vice President Havens asked for a Motion.

Motion: President Freshley made a Motion, seconded by Director Gaskins and unanimously carried across the Board to receive and file the 2022/23 Water, Recycled Water, and Wastewater Rate Study with the corrections made as discussed relative to the identification of the classification of Hotels.

Roll Call Vote:

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

At approximately 8:25 a.m. Mr. Pardiwala left the meeting.

Resolution No. 22-6-1 Amending the District's Purchasing Policy Statement 1996-13 (IV)

Mr. Hayden stated that part of the motivation for updating the Policy is to authorize electronic signatures when applicable. He further stated that many of the positions included in the Policy needed to be updated to reflect the District's current organizational chart.

President Freshley stated that she has a number of suggestions and questions about the amended Purchasing Policy.

After further discussion with the Board, Mr. Cafferty stated that staff will table this item and resume discussion at an adjourned meeting on Thursday morning at 7:30 a.m. or shortly thereafter.

No Motion was made on this item at today's meeting.

#### Olin Chlor Alkali Products

Mr. Cafferty stated that the Olin Chlor-Alkali is used as a disinfectant at the Tertiary Treatment Plant.

Vice President Havens asked for a Motion.

Motion: Director Vergara made a Motion, seconded by Director Gaskins and unanimously carried across the Board to approve the purchase order contract for Olin Chlor-Alkali Products in the amount not to exceed \$100,000 for the purchase of 12 ½% concentration Sodium Hypochlorite for the Tertiary Treatment Plant.

#### Roll Call Vote:

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

#### Recess

At approximately 8:45 a.m. the Board took a short recess.

#### Return to Regular Meeting

At approximately 8:50 a.m. to Board returned to Regular session.

#### Nieves Landscape

Mr. Cafferty stated that the reference material in the package is a Contract Summary showing the different sites and the frequency with which they are landscaped for ETWD.

Director Vergara asked what Nieves Landscape charged last year for this contract. Mr. Cafferty replied approximately \$141,000 which increased this year by 3.5%.

Vice President Havens asked for a Motion.

Motion: President Freshley made a Motion, seconded by Director Gaskins and unanimously carried across the Board to approve the purchase order contract with Nieves Landscape in the amount not to exceed \$146,566.35.

Roll Call Vote:

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

Comments Regarding Non-Agenda FIC Items

There were no comments.

Motion to Adjourn Meeting

Director Vergara asked for a Motion.

Motion: Director Gaskins made a Motion, seconded by Director Vergara and unanimously carried across the Board to adjourn the meeting and continue discussion on item #9, Resolution No. 22-6-1 Amending the District's Purchasing Policy Statement 1996-13 (IV).

Roll Call Vote:

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

Close Finance and Insurance Committee Meeting

There being no further business the Finance Committee meeting was closed at approximately 8:55 a.m.

Respectfully submitted,

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POLLY WELSCH  
Recording Secretary

APPROVED:

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KATHRYN FRESHLEY, President  
of the El Toro Water District and the  
Board of Directors thereof

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

MINUTES OF THE REGULAR MEETING  
& OF THE  
ADJOURNED  
FINANCE & INSURANCE COMMITTEE MEETING

June 23, 2022  
(reconvened from June 20, 2022)

At approximately 7:30 a.m. President Freshley called the Reconvened Finance & Insurance Committee meeting to order.

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

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

Resolution No. 22-6-1 Amending the District's Purchasing Policy Statement 1996-13 (IV)

Mr. Cafferty stated that the purpose of today's meeting was to reconvene Monday's Regular Finance & Insurance Committee meeting to continue discussion of item #9, Resolution No. 22-6-1 Amending the District's Purchasing Policy Statement 1996-13 (IV).

Mr. Cafferty handed out the amended Purchasing Policy to the Board members and staff. He reviewed the changes to the Policy as discussed at the first part of the Committee meeting on June 20.

President Freshley asked for a Motion.

Motion: Director Gaskins made a Motion, seconded by Director Vergara and unanimously carried across the Board to adopt Resolution No. 22-6-1 which amends the District's Purchasing Policy Statement 1996-13 (IV).

Roll Call Vote:

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

Adjournment

There being no further business, the Finance & Insurance Committee meeting was adjourned at approximately 7:36 a.m.

Respectfully submitted,

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POLLY WELSCH  
Recording Secretary

APPROVED:

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KATHRYN FRESHLEY, President  
of the El Toro Water District and the  
Board of Directors thereof

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



## STAFF REPORT

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**To: Board of Directors**

**Meeting Date: July 25, 2022**

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

**Subject: Investment Strategy Direction to Investment Advisor**

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The July Finance & Insurance Committee meeting will include a presentation on the District's investments from Richard Babbe of PFM Asset Management. District Staff also felt it would be a good opportunity to discuss the underlying strategy for the District's investment portfolio. The last time this topic was discussed, the Board directed PFM to manage the District's investment portfolio using a total return strategy with the ICE BofAML 1-3 Year Treasury Index as the benchmark.

This strategy was adopted in early 2021 because interest rates at that time were the lowest they had been in decades. The Board and Staff, in consultation with PFM, decided to adopt a shorter duration strategy so the District would be able to respond when market conditions changed.

With inflation increasing dramatically and the Federal Reserve aggressively increasing interest rates in response, District Staff would advise the Board that the time to reconsider the investment strategy for the District's assets has arrived. Interest rates have increased significantly since January of 2022 and the District now has the opportunity to reinvest maturing investments in higher yielding, longer term securities. Moreover, due to the investment strategy adopted in January of 2021, the District has a significant amount of investments maturing in the next six months, providing the opportunity to reinvest the maturing principal.

Staff recommends the Board consider moving to a cash flow approach to the District's investment portfolio from this point forward. As funds become available from distribution or maturing investments, PFM Asset Management would identify investments that would provide the best return for the District over time based on then current market conditions, which could include securities with maturities of up to 5 years. At the same time, PFM Asset Management will ensure at least 50% of the portfolio remains invested in securities with a duration under 3 years to provide ongoing flexibility if the District's liquidity needs change.

The intent of the cash flow approach would be to invest in higher yielding securities with a longer duration. The Federal Reserve's current actions are likely to cause a slowing of economic activity and may cause a recession. If an economic slowdown occurs, the Federal Reserve is likely to either stop increasing interest rates or may even begin reducing them again. Reinvesting the District's maturing investments into longer duration, higher yielding securities will lock in higher yields for a longer period and allow the District to achieve higher cash flows from investments for a longer period of time.





# El Toro Water District

## Investment Performance Review For the Quarter Ended June 30, 2022

### Client Management Team

Jeremy King, Key Account Manager  
Sarah Meacham, Managing Director  
Richard Babbe, CCM, Senior Managing Consultant

### PFM Asset Management LLC

213 Market Street  
Harrisburg, PA 17101-2141  
1-800-729-7665

213 Market Street  
Harrisburg, PA 17101-2141  
717-232-2723

**NOT FDIC INSURED : NO BANK GUARANTEE : MAY LOSE VALUE**

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## Market Update

## Current Market Themes



- ▶ The U.S. economy is characterized by:
  - ▶ High inflation
  - ▶ A strong labor market
  - ▶ Depressed consumer confidence
  - ▶ Growing potential for economic recession

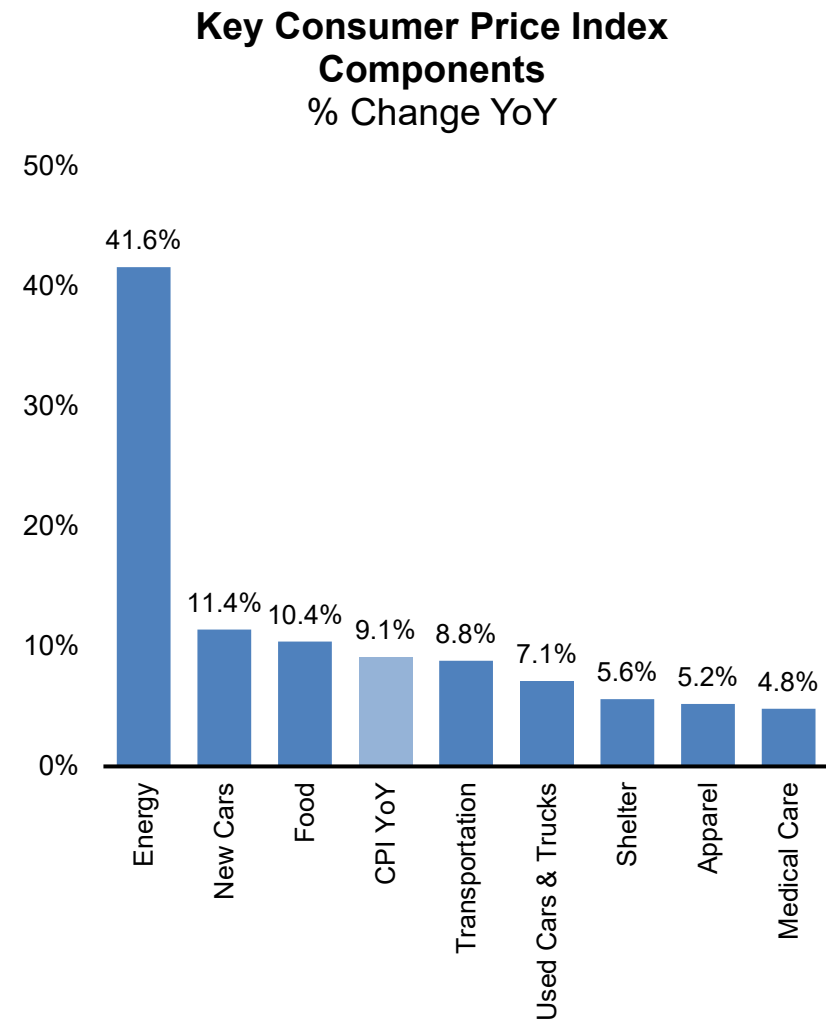
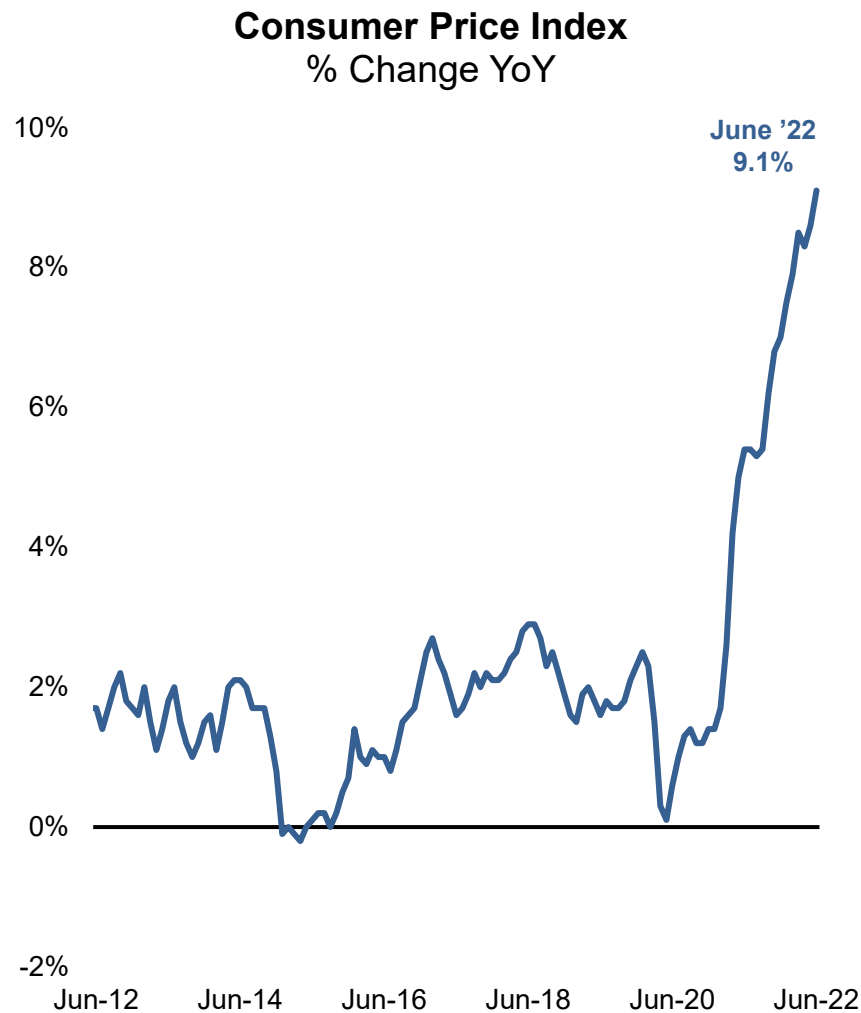


- ▶ The Federal Reserve is tightening monetary policy
  - ▶ More aggressive rate hikes to battle persistent inflation
  - ▶ Short-term fed funds rate projected to reach 3.25% to 3.75% by year-end
  - ▶ Start of balance sheet reduction; pace to double beginning in September



- ▶ Asset prices have fallen sharply in 2022 as a result of:
  - ▶ The impact of higher rates on bond prices and equity valuations
  - ▶ Wider credit spreads
  - ▶ High commodity prices, rising labor costs, and the continuing conflict in Ukraine
  - ▶ High levels of volatility and uncertainty

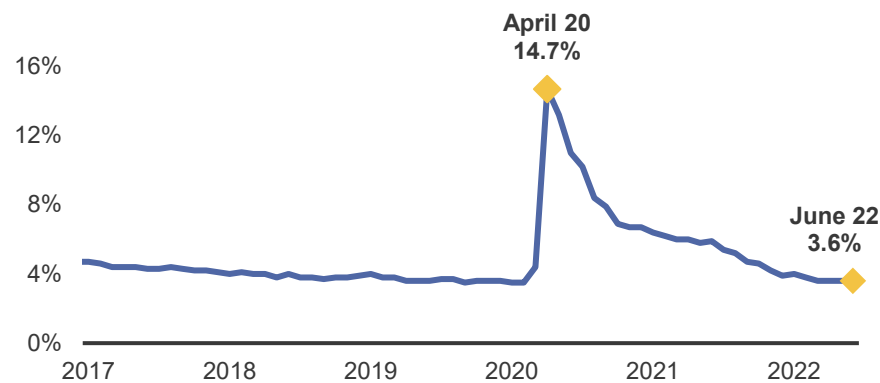
## U.S. Inflation Hit a New Four-Decade High in June



## Strong Labor Market and Spending Provide Momentum Against Signs of Economic Slowing

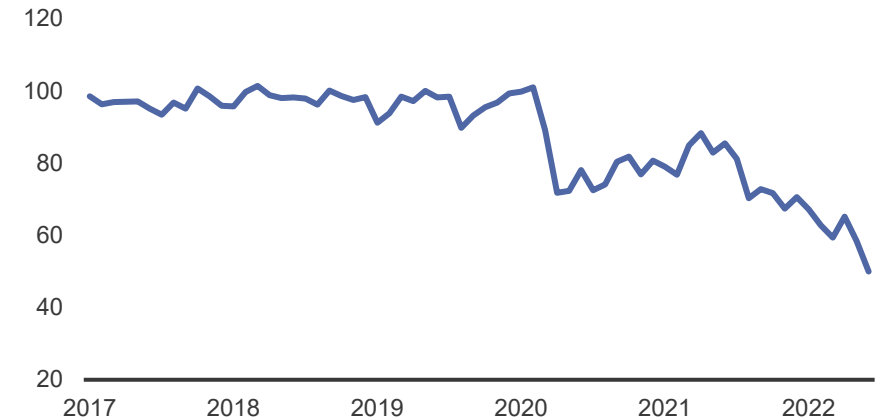
### Tailwinds

U.S. Unemployment Rate

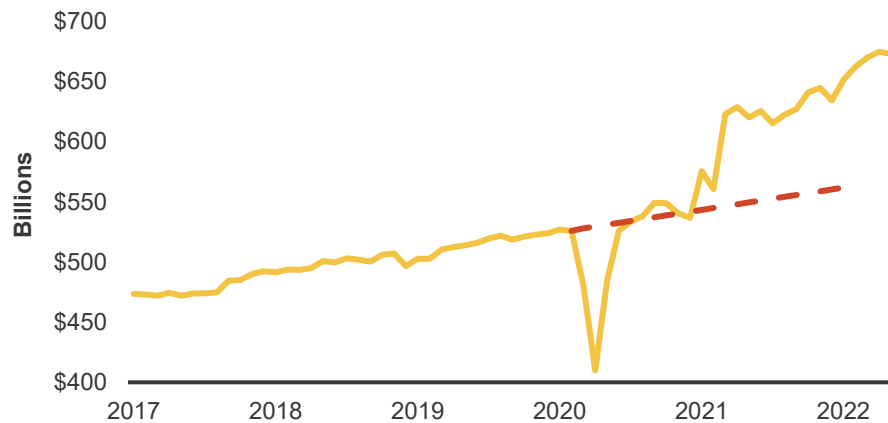


### Headwinds

Index of Consumer Sentiment



Retail Sales (Monthly)

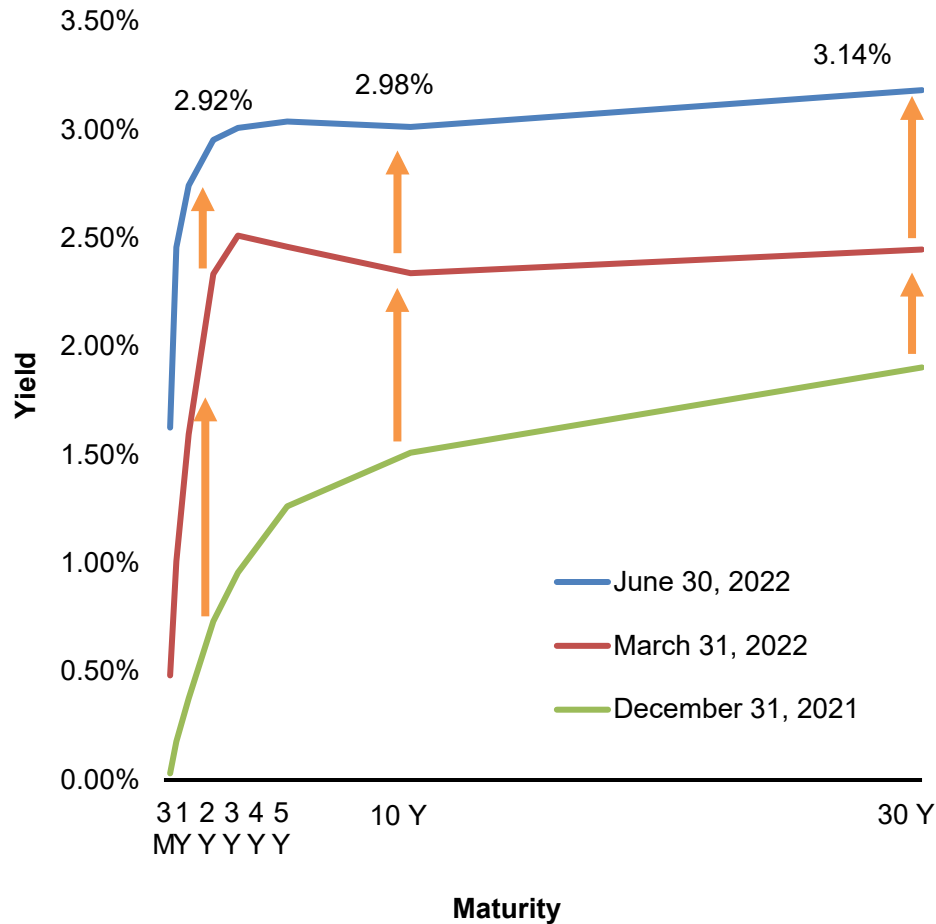


Existing Home Sales

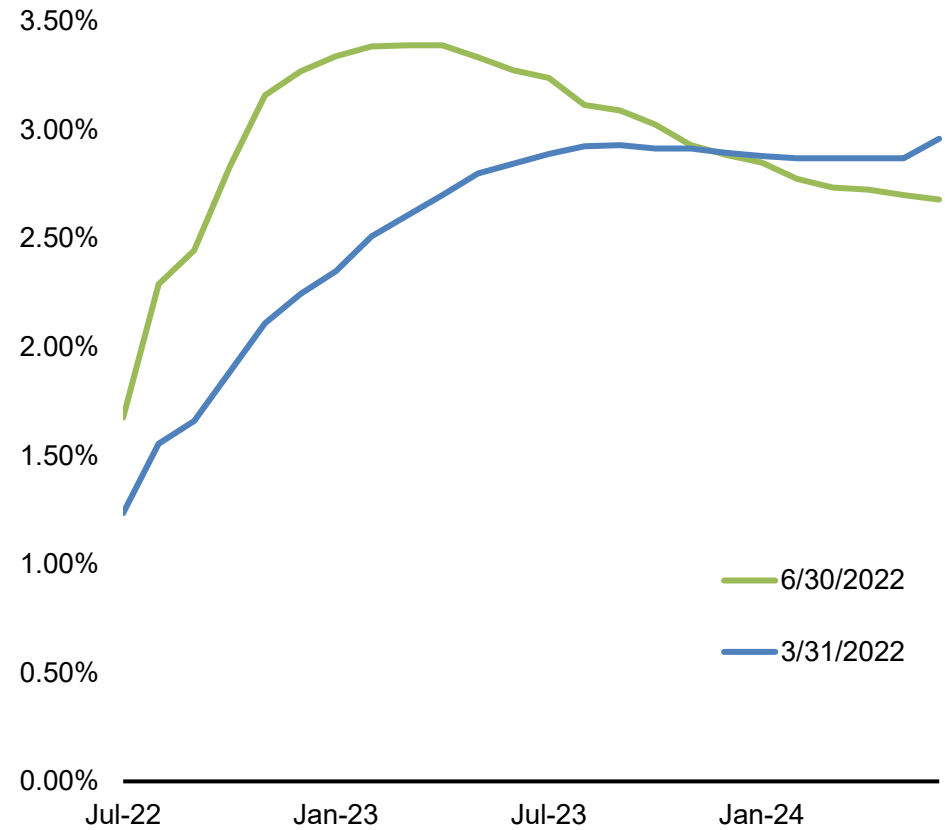


Source: Bloomberg, as of June 2022.

## Treasury Yields Move Higher Across the Curve; Future Expectations Changed Over the Quarter



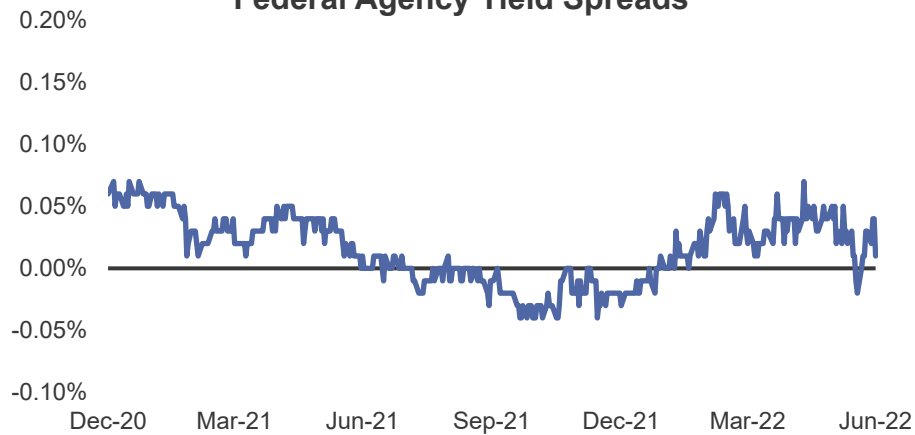
## Fed Funds Futures Curve (Rate)



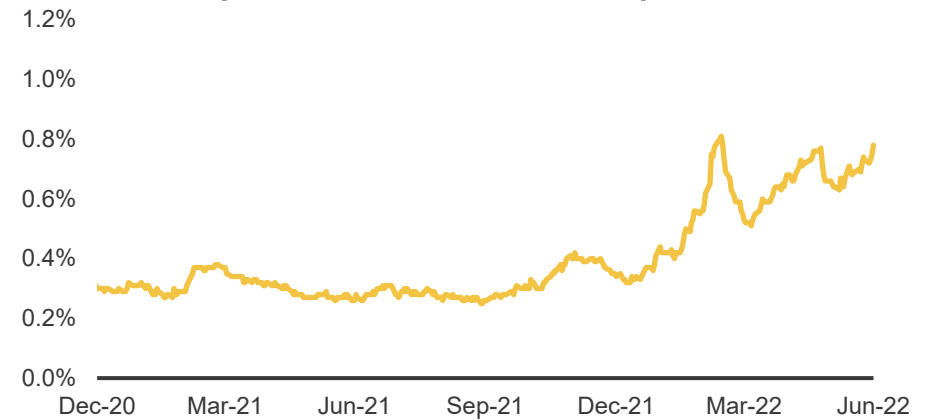
## Sector Yield Spreads Widened in Q2 2022

### 1-3 Year Indices

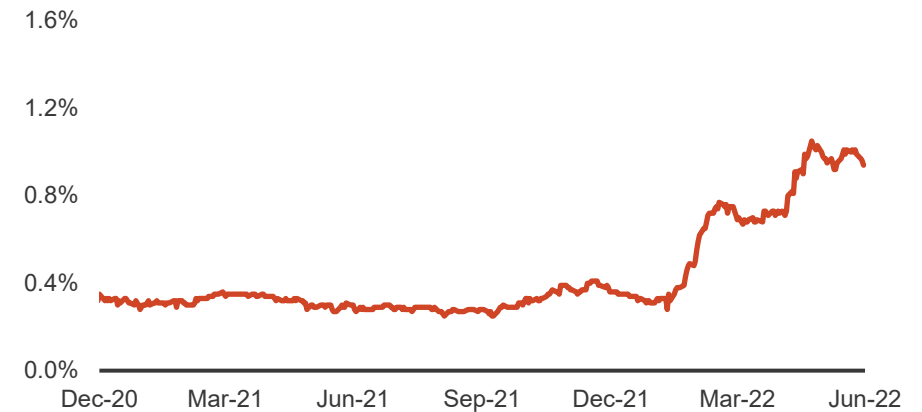
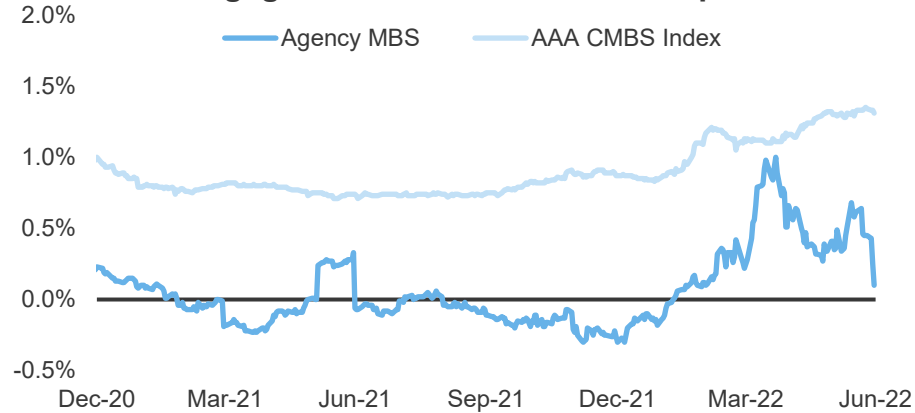
#### Federal Agency Yield Spreads



#### Corporate Notes A-AAA Yield Spreads

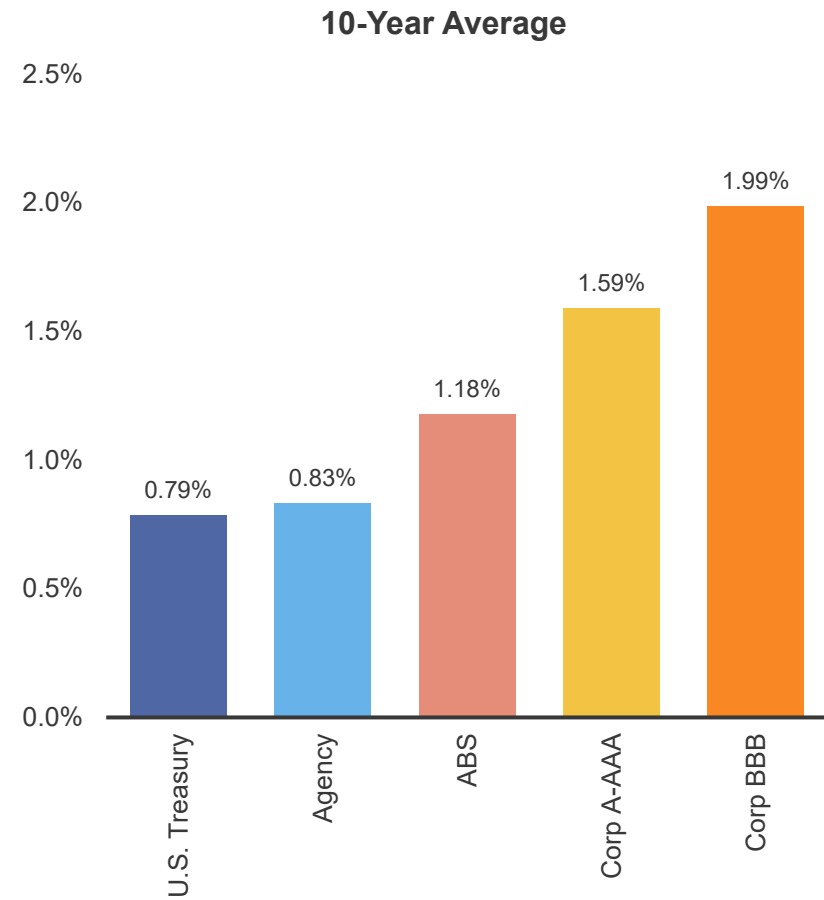
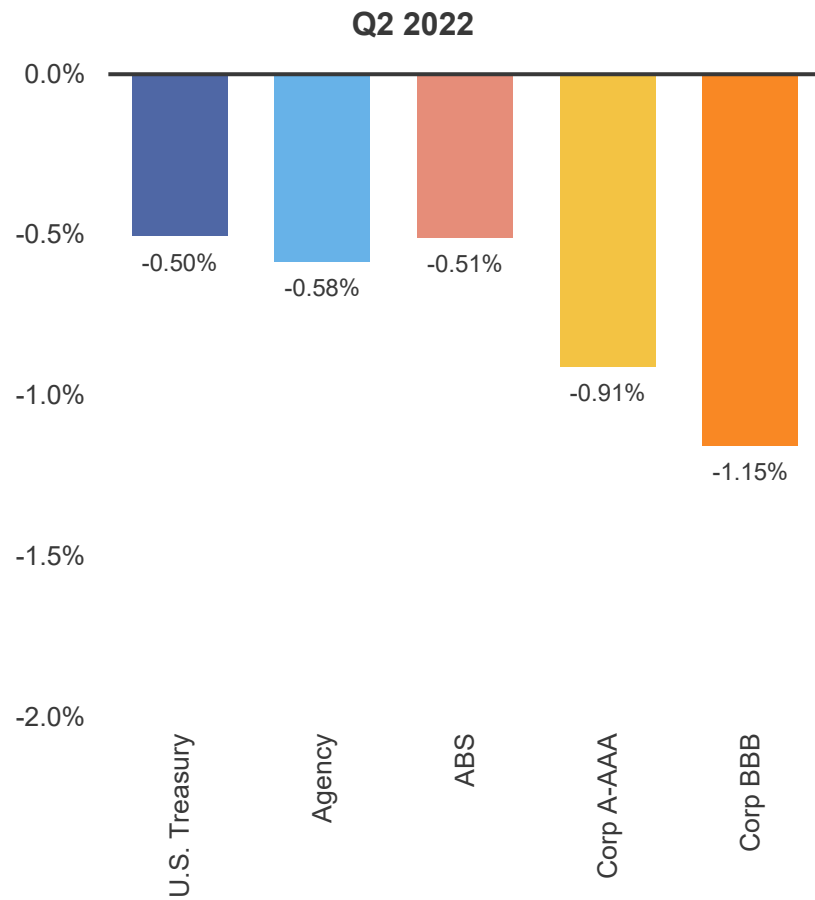


#### Mortgage-Backed Securities Yield Spreads



## Rising Rates and Wider Spreads Hurt Fixed-Income Returns in Q2 2022

### 1-3 Year Indices

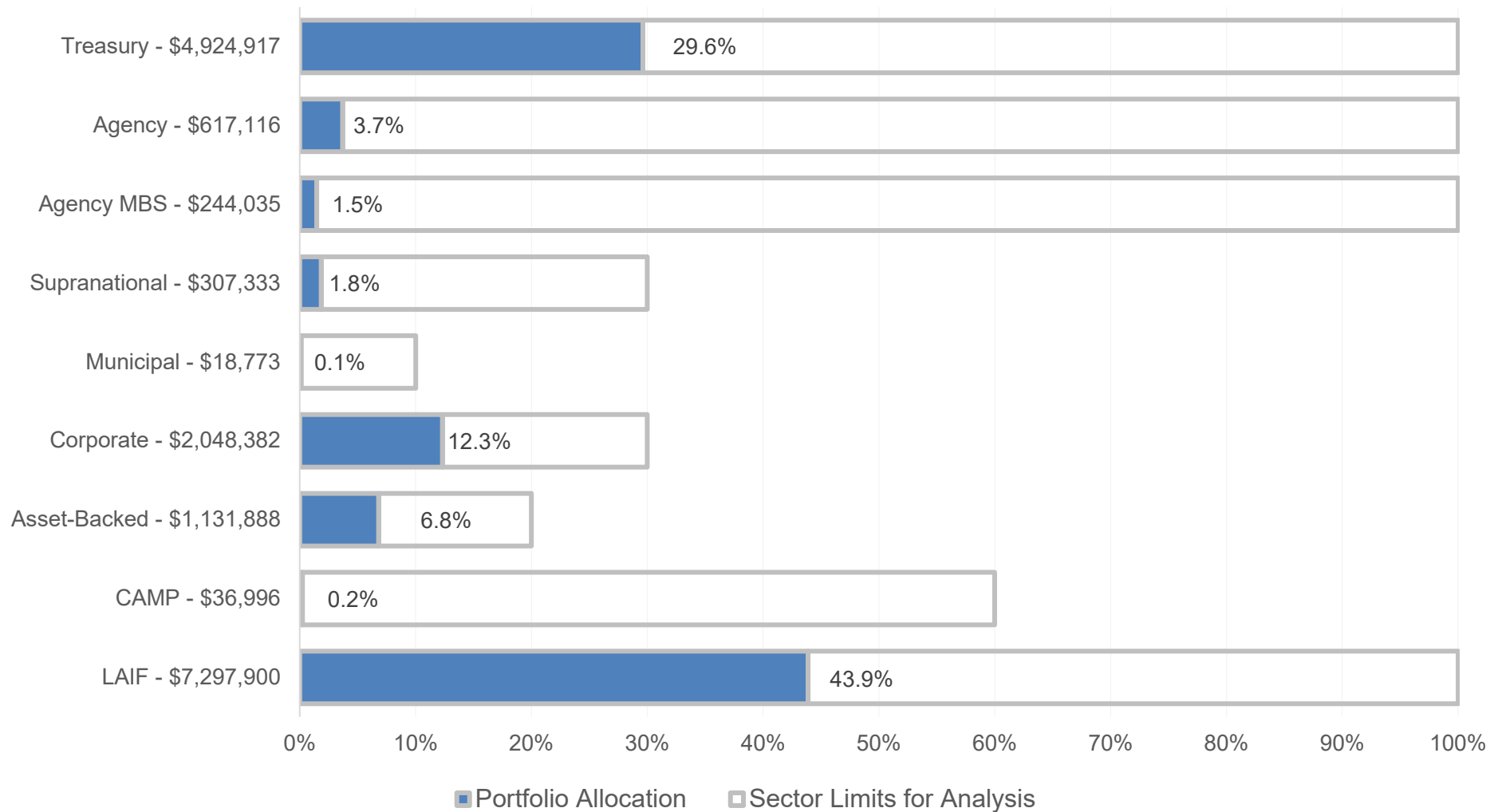




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# Portfolio Review

## Sector Allocation Analytics



For informational/analytical purposes only and is not provided for compliance assurance. Includes accrued interest. \*Sector Limit for Analysis is as derived from our interpretation of your most recent Investment Policy as provided.

## Certificate of Compliance

During the reporting period for the quarter ended June 30, 2022, the account(s) managed by PFM Asset Management ("PFMAM") were in compliance with the applicable investment policy and guidelines as furnished to PFMAM.

Acknowledged : *PFM Asset Management LLC*

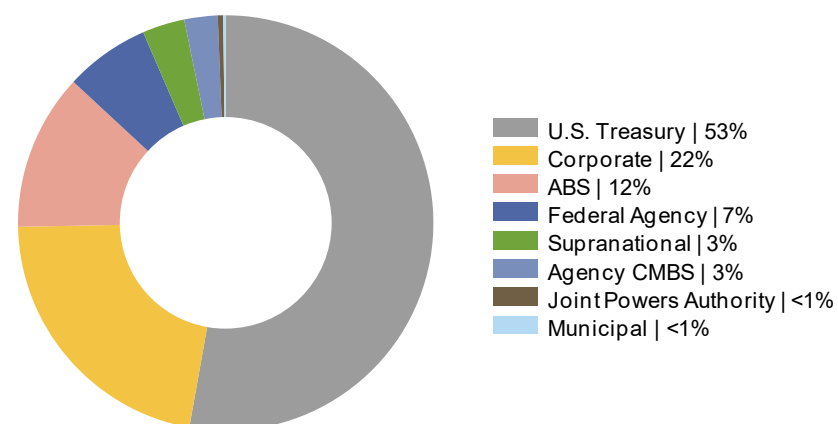
*Note: Pre- and post-trade compliance for the account(s) managed by PFM Asset Management is provided via Bloomberg Asset and Investment Management ("AIM").*

Portfolio Snapshot<sup>1</sup>

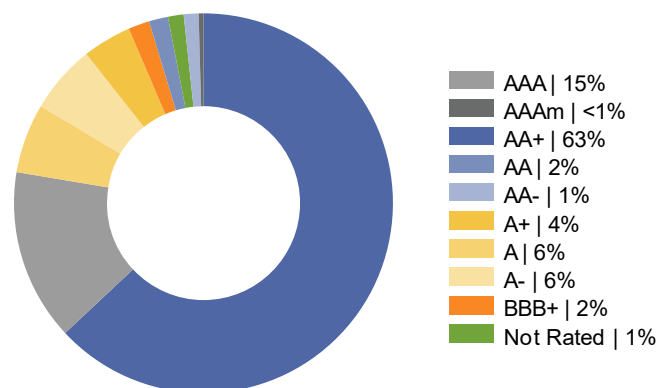
## Portfolio Statistics

<b>Total Market Value</b>	\$9,329,439.87
Managed Account Sub-Total	\$9,273,160.33
Accrued Interest	\$19,283.43
Pool	\$36,996.11
<b>Portfolio Effective Duration</b>	1.34 years
<b>Benchmark Effective Duration</b>	1.34 years
<b>Yield At Cost</b>	0.75%
<b>Yield At Market</b>	2.80%
<b>Portfolio Credit Quality</b>	AA

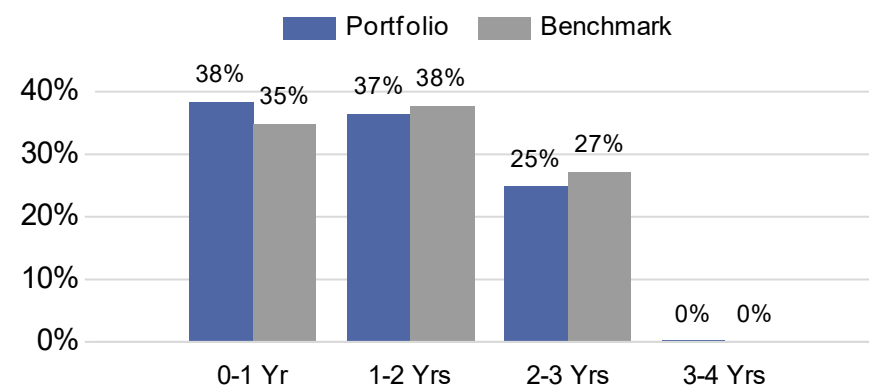
## Sector Allocation



## Credit Quality - S&amp;P



## Duration Distribution



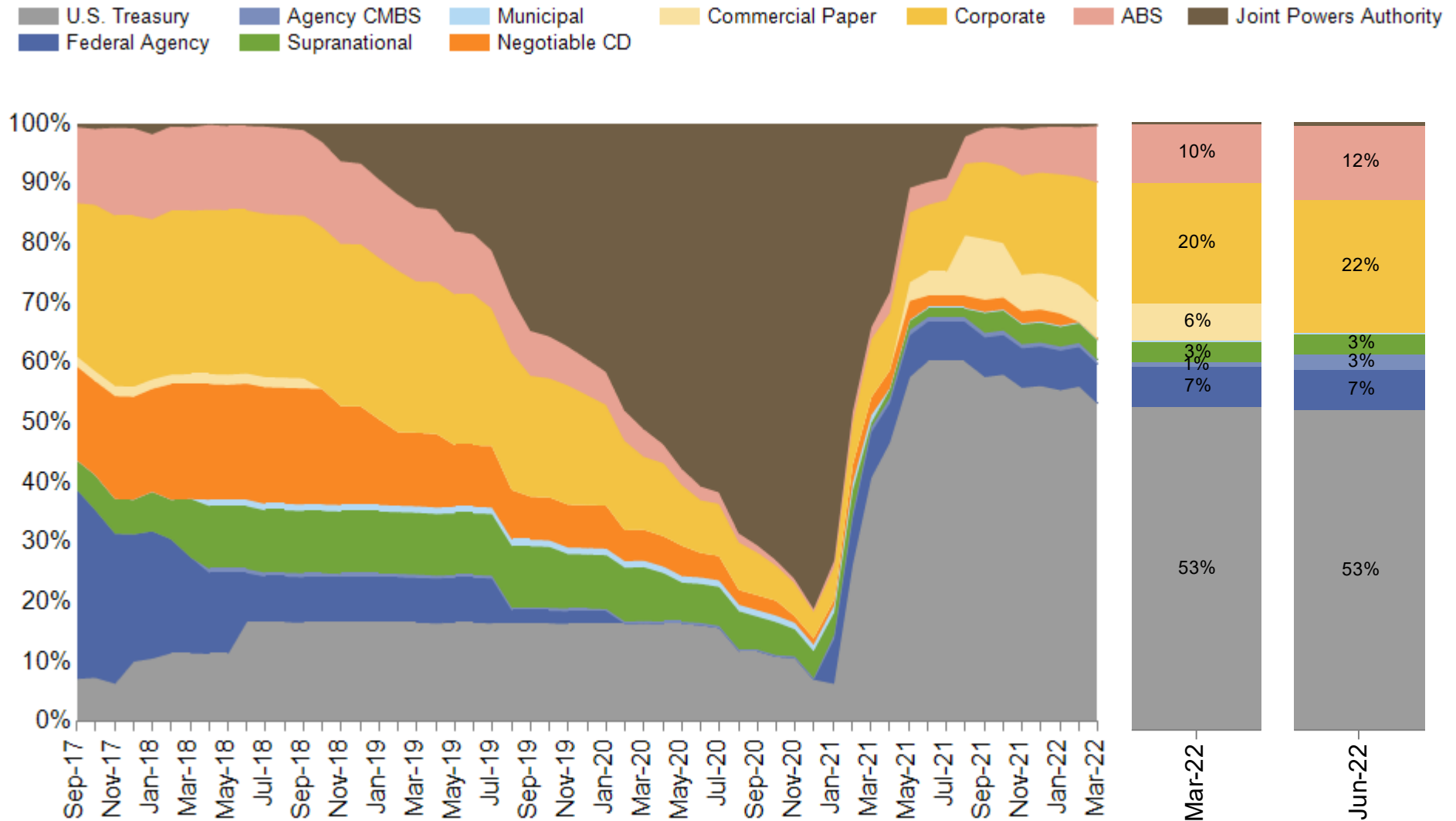
1. Total market value includes accrued interest and balances invested in CAMP, as of June 30, 2022.

Yield and duration calculations exclude balances invested in CAMP.

The portfolio's benchmark is the ICE BofAML 0-3 Year U.S. Treasury Index. Source: Bloomberg.

An average of each security's credit rating was assigned a numeric value and adjusted for its relative weighting in the portfolio.

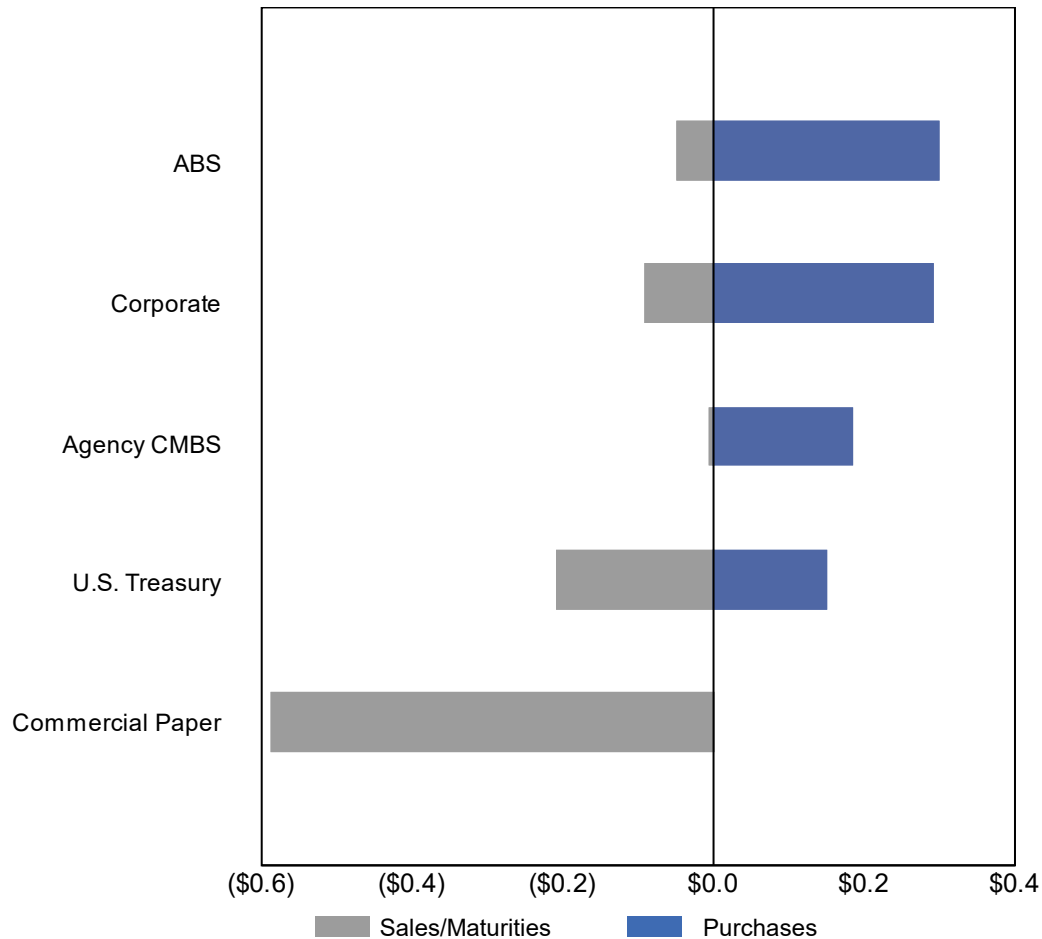
## Historical Sector Allocation



Only includes fixed-income securities held within the separately managed account(s) and LGIPs managed by PFMAM.

## Portfolio Activity

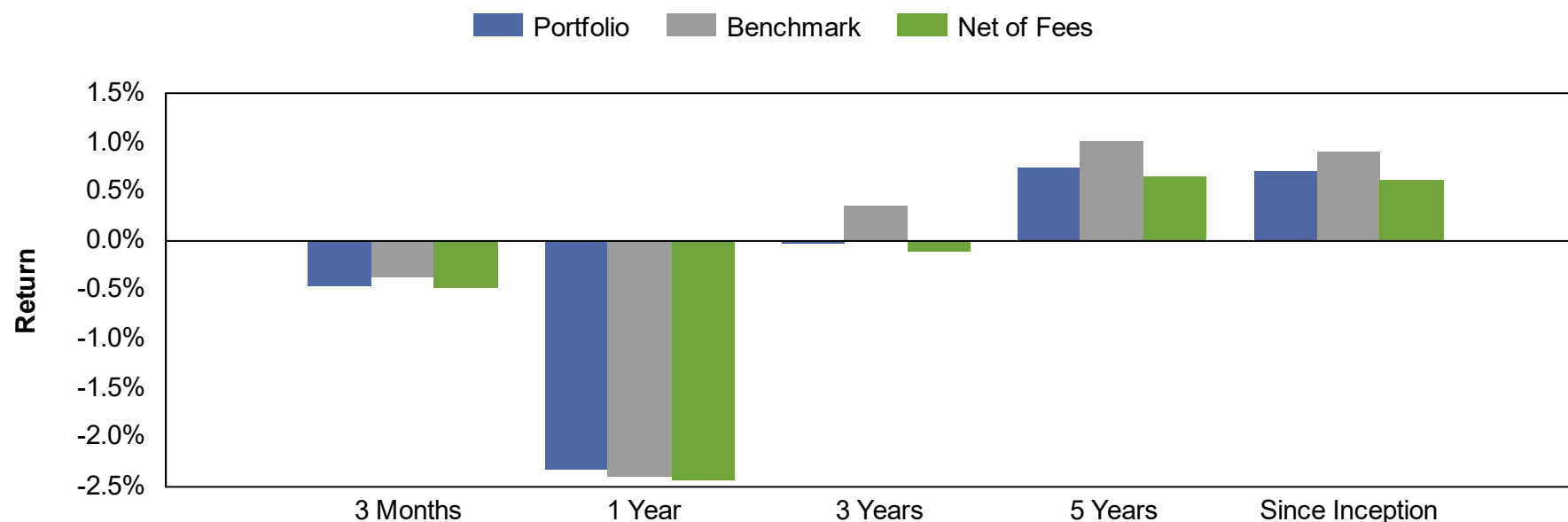
**Net Activity by Sector**  
(\$ millions)



Sector	Net Activity
ABS	\$253,585
Corporate	\$202,898
Agency CMBS	\$180,605
U.S. Treasury	(\$57,098)
Commercial Paper	(\$585,000)
<b>Total Net Activity</b>	<b>(\$5,010)</b>

Based on total proceeds (principal and accrued interest) of buys, sells, maturities, and principal paydowns. Detail may not add to total due to rounding.

## Portfolio Performance



Market Value Basis Earnings	3 Months	1 Year	3 Years	5 Years	Since Inception <sup>1</sup>
Interest Earned <sup>2</sup>	\$21,348	\$63,432	\$294,139	\$626,347	\$714,922
Change in Market Value	(\$63,607)	(\$285,227)	(\$297,367)	(\$285,698)	(\$341,217)
<b>Total Dollar Return</b>	<b>(\$42,259)</b>	<b>(\$221,795)</b>	<b>(\$3,228)</b>	<b>\$340,649</b>	<b>\$373,705</b>
<b>Total Return<sup>3</sup></b>					
Portfolio	-0.45%	-2.32%	-0.01%	0.74%	0.71%
Benchmark <sup>4</sup>	-0.37%	-2.39%	0.37%	1.02%	0.91%
<b>Basis Point Fee</b>	<b>0.02%</b>	<b>0.10%</b>	<b>0.10%</b>	<b>0.10%</b>	<b>0.10%</b>
<b>Net of Fee Return</b>	<b>-0.48%</b>	<b>-2.42%</b>	<b>-0.11%</b>	<b>0.64%</b>	<b>0.61%</b>

1. The lesser of 10 years or since inception is shown. Since inception returns for periods one year or less are not shown. Performance inception date is September 30, 2016.

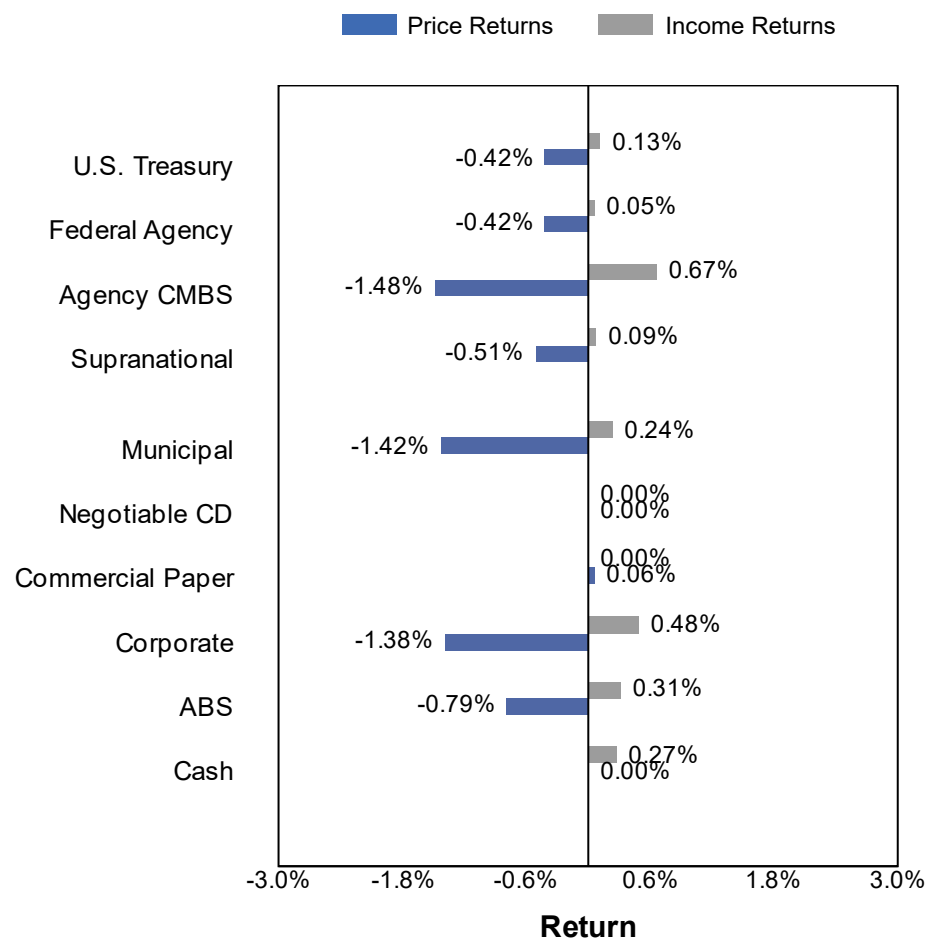
2. Interest earned calculated as the ending accrued interest less beginning accrued interest, plus net interest activity.

3. Returns for periods one year or less are presented on a periodic basis. Returns for periods greater than one year are presented on an annualized basis.

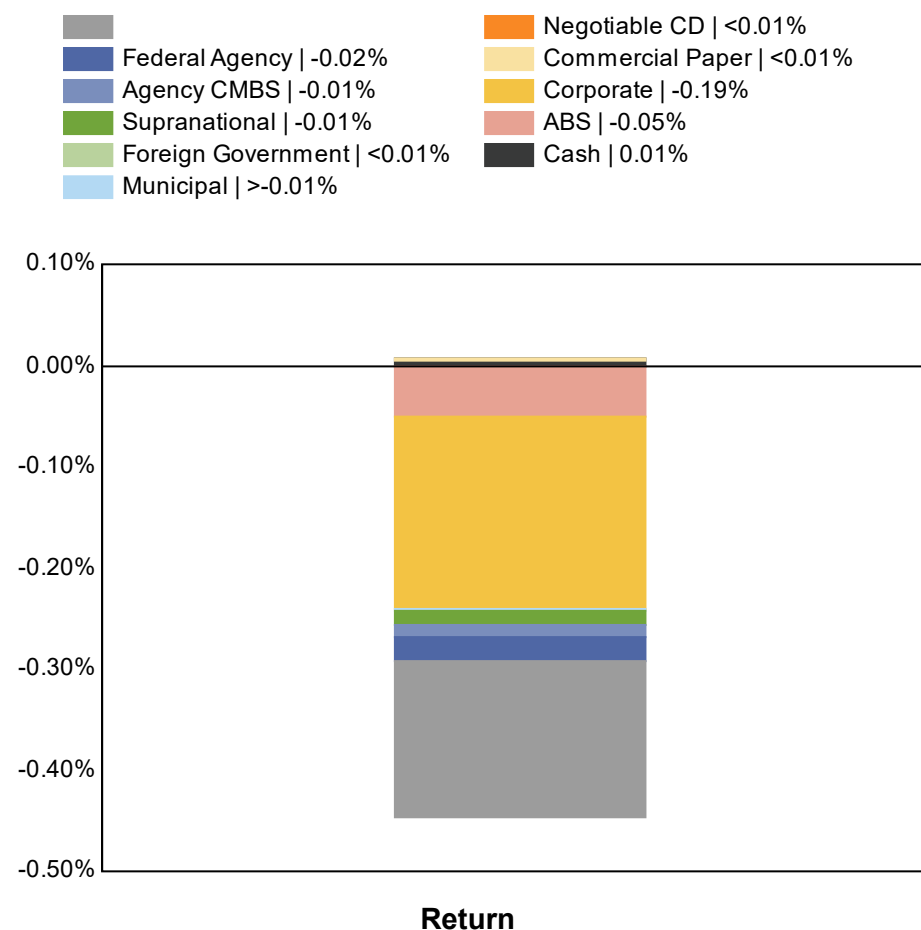
4. The portfolio's benchmark is the ICE BofAML 0-3 Year U.S. Treasury Index. Source: Bloomberg.

## Quarterly Sector Performance

### Total Return by Sector



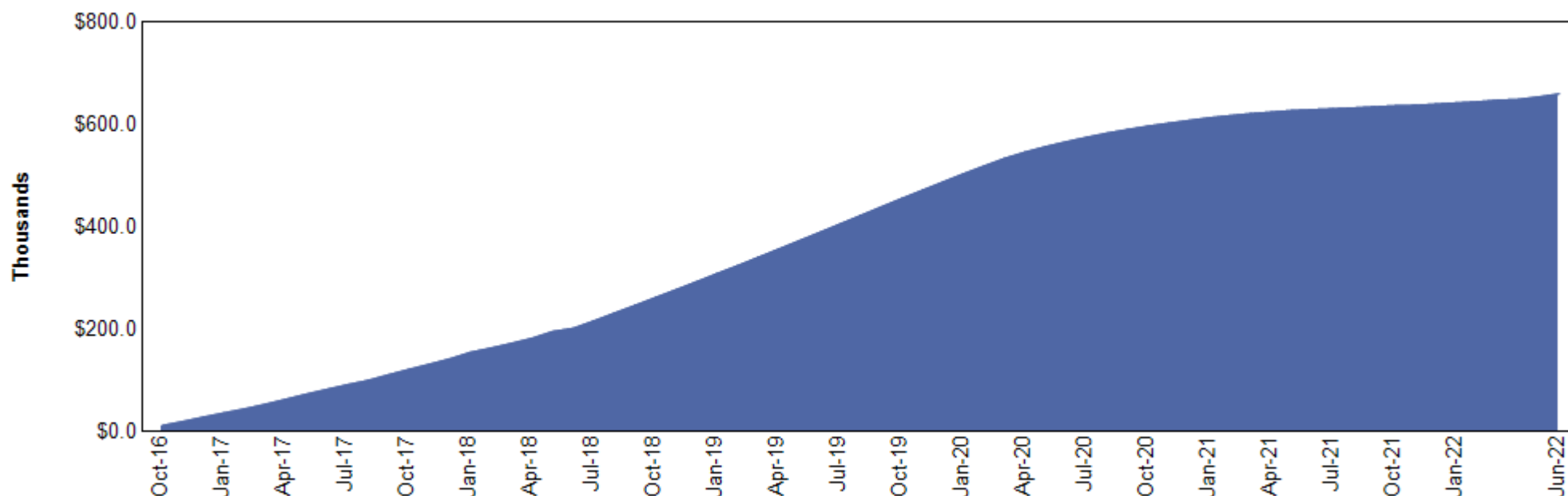
### Contribution to Total Return



1. Performance on trade-date basis, gross (i.e., before fees), in accordance with the CFA Institute's Global Investment Performance Standards (GIPS).
2. Income returns calculated as interest earned on investments during the period.
3. Price returns calculated as the change in market value of each security for the period.
4. Returns are presented on a periodic basis.



## Accrual Basis Earnings



Accrual Basis Earnings	3 Months	1 Year	3 Years	5 Year	Since Inception <sup>1</sup>
Interest Earned <sup>2</sup>	\$21,348	\$63,432	\$294,139	\$626,347	\$714,922
Realized Gains / (Losses) <sup>3</sup>	(\$1,549)	(\$3,515)	(\$2,798)	(\$36,617)	(\$35,737)
Change in Amortized Cost	(\$7,533)	(\$29,203)	(\$20,966)	(\$12,461)	(\$19,713)
<b>Total Earnings</b>	<b>\$12,266</b>	<b>\$30,713</b>	<b>\$270,375</b>	<b>\$577,269</b>	<b>\$659,472</b>

1. The lesser of 10 years or since inception is shown. Performance inception date is September 30, 2016.

2. Interest earned calculated as the ending accrued interest less beginning accrued interest, plus net interest activity.

3. Realized gains / (losses) are shown on an amortized cost basis.

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## Issuer Distribution

## Issuer Diversification

Security Type / Issuer	Market Value (%)	S&P / Moody's / Fitch
<b>U.S. Treasury</b>	<b>53.0%</b>	
UNITED STATES TREASURY	53.0%	AA / Aaa / AAA
<b>Federal Agency</b>	<b>6.6%</b>	
FANNIE MAE	2.6%	AA / Aaa / AAA
FEDERAL FARM CREDIT BANKS	2.4%	AA / Aaa / AAA
FREDDIE MAC	1.6%	AA / Aaa / AAA
<b>Agency CMBS</b>	<b>2.6%</b>	
FREDDIE MAC	2.6%	AA / Aaa / AAA
<b>Supranational</b>	<b>3.3%</b>	
INTER-AMERICAN DEVELOPMENT BANK	1.9%	AAA / Aaa / AAA
INTL BANK OF RECONSTRUCTION AND DEV	1.4%	AAA / Aaa / AAA
<b>Municipal</b>	<b>0.2%</b>	
NEW JERSEY TURNPIKE AUTHORITY	0.2%	AA / A / A
<b>Corporate</b>	<b>22.0%</b>	
3M COMPANY	0.7%	A / A / NR
AMAZON.COM INC	1.6%	AA / A / AA
AMERICAN EXPRESS CO	0.4%	BBB / A / A
AMERICAN HONDA FINANCE	0.7%	A / A / A
APPLE INC	1.0%	AA / Aaa / NR
ASTRAZENECA PLC	0.5%	A / A / NR
BANK OF AMERICA CO	1.3%	A / A / AA
BURLINGTON NORTHERN SANTA FE	0.2%	AA / A / NR
CATERPILLAR INC	0.7%	A / A / A
CHARLES SCHWAB	0.7%	A / A / A
CITIGROUP INC	0.7%	BBB / A / A
COMCAST CORP	0.5%	A / A / A

Security Type / Issuer	Market Value (%)	S&P / Moody's / Fitch
<b>Corporate</b>	<b>22.0%</b>	
DEERE & COMPANY	0.7%	A / A / A
EXXON MOBIL CORP	0.3%	AA / Aa / NR
GOLDMAN SACHS GROUP INC	0.8%	BBB / A / A
HOME DEPOT INC	0.1%	A / A / A
HONEYWELL INTERNATIONAL	0.2%	A / A / A
INTEL CORPORATION	0.7%	A / A / A
JP MORGAN CHASE & CO	1.4%	A / A / AA
MERCK & CO INC	0.5%	A / A / A
MICROSOFT CORP	0.5%	AAA / Aaa / AAA
MORGAN STANLEY	0.7%	A / A / A
NATIONAL RURAL UTILITIES CO FINANCE CORP	0.4%	A / A / A
NOVARTIS AG	0.5%	AA / A / AA
PACCAR FINANCIAL CORP	0.7%	A / A / NR
PEPSICO INC	0.2%	A / A / NR
STATE STREET CORPORATION	0.8%	A / A / AA
TARGET CORP	0.6%	A / A / A
THE BANK OF NEW YORK MELLON CORPORATION	1.5%	A / A / AA
TOYOTA MOTOR CORP	0.7%	A / A / A
TRUIST FIN CORP	1.0%	A / A / A
UNITEDHEALTH GROUP INC	0.6%	A / A / A
<b>ABS</b>	<b>12.2%</b>	
ALLY AUTO RECEIVABLES TRUST	0.6%	AAA / Aaa / NR
BMW FINANCIAL SERVICES NA LLC	0.7%	AAA / Aaa / NR
BMW VEHICLE OWNER TRUST	0.3%	AAA / Aaa / NR
CAPITAL ONE FINANCIAL CORP	2.2%	AAA / Aaa / AAA

Ratings shown are calculated by assigning a numeral value to each security rating, then calculating a weighted average rating for each security type / issuer category using all available security ratings, excluding Not-Rated (NR) ratings. For security type / issuer categories where a rating from the applicable NRSRO is not available, a rating of NR is assigned. Includes accrued interest and excludes balances invested in overnight funds.

## Issuer Diversification

Security Type / Issuer	Market Value (%)	S&P / Moody's / Fitch
<b>ABS</b>	<b>12.2%</b>	
CARMAX AUTO OWNER TRUST	0.6%	AAA / Aaa / AAA
DISCOVER FINANCIAL SERVICES	0.6%	AAA / Aaa / NR
FORD CREDIT AUTO LEASE TRUST	0.9%	AAA / Aaa / AAA
FORD CREDIT AUTO OWNER TRUST	1.0%	AAA / Aaa / AAA
GM FINANCIAL CONSUMER AUTOMOBILE TRUST	0.9%	AAA / Aaa / AAA
GM FINANCIAL LEASINGTRUST	0.3%	NR / Aaa / AAA
HARLEY-DAVIDSON MOTORCYCLE TRUST	0.4%	AAA / Aaa / NR
HONDA AUTO RECEIVABLES	1.8%	AAA / Aaa / AAA
HYUNDAI AUTO RECEIVABLES	0.8%	AAA / NR / AAA
MERCEDES-BENZ AUTO LEASE TRUST	0.1%	AAA / Aaa / NR
TOYOTA MOTOR CORP	0.6%	AAA / Aaa / AAA
WORLD OMNI AUTO REC TRUST	0.4%	AAA / NR / AAA
<b>Total</b>	<b>100.0%</b>	

Ratings shown are calculated by assigning a numeral value to each security rating, then calculating a weighted average rating for each security type / issuer category using all available security ratings, excluding Not-Rated (NR) ratings. For security type / issuer categories where a rating from the applicable NRSRO is not available, a rating of NR is assigned. Includes accrued interest and excludes balances invested in overnight funds.

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## Portfolio Transactions

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>BUY</b>									
4/1/2022	4/5/2022	30,000.00	30231GAF9	EXXON MOBIL CORP CORPORATE NT (CALLABLE)	2.70%	3/6/2025	29,939.77	2.86%	
4/4/2022	4/6/2022	35,000.00	458140AS9	INTEL CORP NOTES (CALLABLE)	3.70%	7/29/2025	36,062.46	2.95%	
4/5/2022	4/13/2022	25,000.00	362585AC5	GMCAR 2022-2 A3	3.10%	2/16/2027	24,994.78	3.10%	
4/7/2022	4/13/2022	30,000.00	89238FAD5	TAOT 2022-B A3	2.93%	9/15/2026	29,999.30	2.93%	
4/11/2022	4/13/2022	75,000.00	023135CE4	AMAZON.COM INC CORPORATE NOTES	3.00%	4/13/2025	74,880.75	3.06%	
4/12/2022	4/20/2022	35,000.00	41284YAD8	HDMOT 2022-A A3	3.06%	2/15/2027	34,994.17	3.06%	
4/19/2022	4/26/2022	20,000.00	06406RBC0	BANK OF NY MELLON CORP (CALLABLE) CORP N	3.35%	4/25/2025	19,997.20	3.35%	
4/19/2022	4/26/2022	80,000.00	46647PCZ7	JPMORGAN CHASE & CO (CALLABLE) CORPORATE	4.08%	4/26/2026	80,000.00	4.08%	
4/21/2022	4/28/2022	35,000.00	14317HAC5	CARMX 2022-2 A3	3.49%	2/16/2027	34,994.68	3.49%	
4/27/2022	5/4/2022	10,000.00	63743HFE7	NATIONAL RURAL UTIL COOP CORPORATE NOTES	3.45%	6/15/2025	9,997.30	3.46%	
5/10/2022	5/18/2022	60,000.00	02008JAC0	ALLYA 2022-1 A3	3.31%	11/15/2026	59,988.38	3.31%	
5/10/2022	5/18/2022	25,000.00	05602RAD3	BMWOT 2022-A A3	3.21%	8/25/2026	24,998.70	3.21%	
5/19/2022	5/24/2022	90,000.00	3137BKRJ1	FHMS K047 A2	3.32%	5/1/2025	90,767.98	3.10%	
5/25/2022	5/31/2022	93,448.21	3137FBTA4	FHLMC MULTIFAMILY STRUCTURED POOL	3.06%	8/1/2024	93,810.92	3.00%	
6/1/2022	6/3/2022	150,000.00	91282CEQ0	US TREASURY N/B NOTES	2.75%	5/15/2025	149,779.39	2.85%	
6/1/2022	6/3/2022	40,000.00	808513AX3	CHARLES SCHWAB CORP (CALLABLE) CORP NOTE	3.85%	5/21/2025	40,666.93	3.30%	
6/6/2022	6/14/2022	65,000.00	14041NGA3	COMET 2022-A2 A	3.49%	5/15/2027	64,989.61	3.49%	

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>BUY</b>									
6/22/2022	6/27/2022	25,000.00	34534LAD9	FORDO 2022-B A3	3.74%	9/15/2026	24,998.65	3.74%	
<b>Total BUY</b>		<b>923,448.21</b>					<b>925,860.97</b>		<b>0.00</b>
<b>INTEREST</b>									
4/1/2022	4/1/2022	20,000.00	12189LAV3	BURLINGTN NORTH SANTA FE CORP NOTES (CAL	3.00%	4/1/2025	300.00		
4/1/2022	4/25/2022	60,000.00	3137BTU25	FHMS K724 A2	3.06%	11/1/2023	153.10		
4/1/2022	4/1/2022	60,000.00	86787EBC0	SUNTRUST BANK (CALLABLE) CORP NOTES	3.20%	4/1/2024	960.00		
4/1/2022	4/25/2022	5,023.55	3137F9ZD6	FHMS KJ33 A1	0.44%	12/1/2025	1.84		
4/15/2022	4/15/2022	55,000.00	254683CP8	DCENT 2021-A1 A1	0.58%	9/15/2026	26.58		
4/15/2022	4/15/2022	50,000.00	20030NCR0	COMCAST CORP (CALLABLE) CORPORATE NOTES	3.70%	4/15/2024	925.00		
4/15/2022	4/15/2022	15,000.00	58770GAC4	MBALT 2021-A A3	0.25%	1/16/2024	3.12		
4/15/2022	4/15/2022	45,000.00	43815BAC4	HAROT 2022-1 A3	1.88%	5/15/2026	70.50		
4/15/2022	4/15/2022	55,000.00	448977AD0	HART 2022-A A3	2.22%	10/15/2026	98.36		
4/15/2022	4/15/2022	48,703.26	98164CAB5	WOART 2021-C A2	0.22%	9/16/2024	8.93		
4/15/2022	4/15/2022	23,375.21	34531KAD4	FORDO 2019-C A3	1.87%	3/15/2024	36.43		
4/15/2022	4/15/2022	20,000.00	44935FAD6	HART 2021-C A3	0.74%	5/15/2026	12.33		
4/15/2022	4/15/2022	15,000.00	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/2025	4.25		
4/15/2022	4/15/2022	25,000.00	14044CAC6	COPAR 2021-1 A3	0.77%	9/15/2026	16.04		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>INTEREST</b>									
4/15/2022	4/15/2022	40,000.00	43811JAC1	HAROT 2021-2 A3	0.33%	8/15/2025	11.00		
4/15/2022	4/15/2022	25,000.00	34532QAC2	FORDL 2021-A A3	0.26%	2/15/2024	5.42		
4/15/2022	4/15/2022	25,000.00	345286AC2	FORDO 2022-A A3	1.29%	6/15/2026	26.88		
4/15/2022	4/15/2022	50,000.00	14041NFY2	COMET 2021-A3 A3	1.04%	11/16/2026	43.33		
4/15/2022	4/15/2022	30,000.00	89238JAC9	TAOT 2021-D A3	0.71%	4/15/2026	17.75		
4/15/2022	4/15/2022	30,000.00	87612EBL9	TARGET CORP (CALLABLE) CORPORATE NOTES	2.25%	4/15/2025	337.50		
4/15/2022	4/15/2022	60,000.00	345329AC0	FORDL 2021-B A3	0.37%	10/15/2024	18.50		
4/15/2022	4/15/2022	30,000.00	34532NAC9	FORDO 2021-A A3	0.30%	8/15/2025	7.50		
4/15/2022	4/15/2022	24,377.68	14316NAB5	CARMX 2021-1 A2A	0.22%	2/15/2024	4.47		
4/16/2022	4/16/2022	20,000.00	380146AC4	GMCAR 2022-1 A3	1.26%	11/16/2026	21.00		
4/16/2022	4/16/2022	25,000.00	362554AC1	GMCAR 2021-4 A3	0.68%	9/16/2026	14.17		
4/16/2022	4/16/2022	15,000.00	36261LAC5	GMCAR 2021-1 A3	0.35%	10/16/2025	4.38		
4/18/2022	4/18/2022	40,000.00	43815EAC8	HAROT 2021-3 A3	0.41%	11/18/2025	13.67		
4/20/2022	4/20/2022		459058JV6	INTL BK OF RECON AND DEV NOTE	0.12%	4/20/2023	85.05		
4/20/2022	4/20/2022	30,000.00	36261RAC2	GMALT 2021-1 A3	0.26%	2/20/2024	6.50		
4/21/2022	4/21/2022	25,000.00	43815GAC3	HAROT 2021-4 A3	0.88%	1/21/2026	18.33		
4/21/2022	4/21/2022	25,000.00	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/2025	5.63		



## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>INTEREST</b>									
4/22/2022	4/22/2022	70,000.00	06051GJR1	BANK OF AMERICA CORP NOTES (CALLABLE)	0.97%	4/22/2025	341.60		
4/24/2022	4/24/2022	45,000.00	06406RAN7	BANK OF NY MELLON (CALLABLE) CORP NOTES	1.60%	4/24/2025	360.00		
4/25/2022	4/25/2022	70,000.00	05591RAC8	BMWLT 2021-1 A3	0.29%	1/25/2024	16.92		
4/25/2022	4/25/2022	25,000.00	06406RAX5	BANK OF NY MELLON CORP (CALLABLE) CORPOR	0.85%	10/25/2024	106.25		
4/26/2022	4/26/2022	55,000.00	06406RAS6	BANK OF NY MELLON CORP NOTES (CALLABLE)	0.50%	4/26/2024	137.50		
4/30/2022	4/30/2022	20,000.00	713448CT3	PEPSICO INCMCORP NOTES (CALLABLE)	2.75%	4/30/2025	275.00		
4/30/2022	4/30/2022	650,000.00	912828M49	US TREASURY NOTES	1.87%	10/31/2022	6,093.75		
5/1/2022	5/1/2022	35,000.00	867914BS1	SUNTRUST BANKS INC (CALLABLE) CORP NOTE	4.00%	5/1/2025	700.00		
5/1/2022	5/25/2022	4,173.24	3137F9ZD6	FHMS KJ33 A1	0.44%	12/1/2025	1.53		
5/1/2022	5/1/2022	35,000.00	172967MX6	CITIGROUP INC (CALLABLE) CORPORATE NOTES	0.98%	5/1/2025	171.68		
5/1/2022	5/25/2022	60,000.00	3137BTU25	FHMS K724 A2	3.06%	11/1/2023	153.10		
5/3/2022	5/3/2022	20,000.00	172967ND9	CITIGROUP INC CORP NOTE (CALLABLE)	1.28%	11/3/2025	128.10		
5/6/2022	5/6/2022	155,000.00	3137EAEZ8	FREDDIE MAC NOTES	0.25%	11/6/2023	193.75		
5/6/2022	5/6/2022	50,000.00	66989HAG3	NOVARTIS CAPITAL CORP CORPORATE NOTES	3.40%	5/6/2024	850.00		
5/12/2022	5/12/2022	80,000.00	023135BW5	AMAZON.COM INC CORPORATE NOTES	0.45%	5/12/2024	180.00		
5/15/2022	5/15/2022	45,000.00	43815BAC4	HAROT 2022-1 A3	1.88%	5/15/2026	70.50		
5/15/2022	5/15/2022	15,000.00	58770GAC4	MBALT 2021-A A3	0.25%	1/16/2024	3.12		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>INTEREST</b>									
5/15/2022	5/15/2022	70,000.00	14041NFZ9	COMET 2022-A1 A1	2.80%	3/15/2027	245.00		
5/15/2022	5/15/2022	25,000.00	14044CAC6	COPAR 2021-1 A3	0.77%	9/15/2026	16.04		
5/15/2022	5/15/2022	25,000.00	34532QAC2	FORDL 2021-A A3	0.26%	2/15/2024	5.42		
5/15/2022	5/15/2022	35,000.00	41284YAD8	HDMOT 2022-A A3	3.06%	2/15/2027	74.38		
5/15/2022	5/15/2022	55,000.00	254683CP8	DCENT 2021-A1 A1	0.58%	9/15/2026	26.58		
5/15/2022	5/15/2022	40,000.00	43811JAC1	HAROT 2021-2 A3	0.33%	8/15/2025	11.00		
5/15/2022	5/15/2022	20,582.35	34531KAD4	FORDO 2019-C A3	1.87%	3/15/2024	32.07		
5/15/2022	5/15/2022	25,000.00	345286AC2	FORDO 2022-A A3	1.29%	6/15/2026	26.88		
5/15/2022	5/15/2022	20,000.00	44935FAD6	HART 2021-C A3	0.74%	5/15/2026	12.33		
5/15/2022	5/15/2022	50,000.00	14041NFY2	COMET 2021-A3 A3	1.04%	11/16/2026	43.33		
5/15/2022	5/15/2022	60,000.00	345329AC0	FORDL 2021-B A3	0.37%	10/15/2024	18.50		
5/15/2022	5/15/2022	90,000.00	91282CAW1	US TREASURY NOTES	0.25%	11/15/2023	112.50		
5/15/2022	5/15/2022	30,000.00	89238JAC9	TAOT 2021-D A3	0.71%	4/15/2026	17.75		
5/15/2022	5/15/2022	30,000.00	89238FAD5	TAOT 2022-B A3	2.93%	9/15/2026	78.13		
5/15/2022	5/15/2022	43,238.25	98164CAB5	WOART 2021-C A2	0.22%	9/16/2024	7.93		
5/15/2022	5/15/2022	60,000.00	91324PEB4	UNITEDHEALTH GROUP INC (CALLABLE) CORP N	0.55%	5/15/2024	165.00		
5/15/2022	5/15/2022	35,000.00	14317HAC5	CARMX 2022-2 A3	3.49%	2/16/2027	57.68		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>INTEREST</b>									
5/15/2022	5/15/2022	55,000.00	448977AD0	HART 2022-A A3	2.22%	10/15/2026	101.75		
5/15/2022	5/15/2022	17,154.01	14316NAB5	CARMX 2021-1 A2A	0.22%	2/15/2024	3.14		
5/15/2022	5/15/2022	30,000.00	34532NAC9	FORDO 2021-A A3	0.30%	8/15/2025	7.50		
5/15/2022	5/15/2022	15,000.00	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/2025	4.25		
5/16/2022	5/16/2022	25,000.00	362554AC1	GMCAR 2021-4 A3	0.68%	9/16/2026	14.17		
5/16/2022	5/16/2022	15,000.00	36261LAC5	GMCAR 2021-1 A3	0.35%	10/16/2025	4.38		
5/16/2022	5/16/2022	25,000.00	362585AC5	GMCAR 2022-2 A3	3.10%	2/16/2027	71.04		
5/16/2022	5/16/2022	20,000.00	380146AC4	GMCAR 2022-1 A3	1.26%	11/16/2026	21.00		
5/17/2022	5/17/2022	45,000.00	14913R2L0	CATERPILLAR FINL SERVICE CORPORATE NOTES	0.45%	5/17/2024	101.25		
5/18/2022	5/18/2022	40,000.00	43815EAC8	HAROT 2021-3 A3	0.41%	11/18/2025	13.67		
5/20/2022	5/20/2022	30,000.00	36261RAC2	GMALT 2021-1 A3	0.26%	2/20/2024	6.50		
5/21/2022	5/21/2022	25,000.00	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/2025	5.63		
5/21/2022	5/21/2022	25,000.00	43815GAC3	HAROT 2021-4 A3	0.88%	1/21/2026	18.33		
5/25/2022	5/25/2022	70,000.00	05591RAC8	BMWLT 2021-1 A3	0.29%	1/25/2024	16.92		
5/27/2022	5/27/2022	250,000.00	3135G06H1	FANNIE MAE NOTES	0.25%	11/27/2023	312.50		
5/28/2022	5/28/2022	50,000.00	04636NAC7	ASTRAZENECA FINANCE LLC (CALLABLE) CORP	0.70%	5/28/2024	175.00		
5/30/2022	5/30/2022	10,000.00	61747YEA9	MORGAN STANLEY CORP NOTES (CALLABLE)	0.79%	5/30/2025	39.50		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>INTEREST</b>									
5/31/2022	5/31/2022	200,000.00	91282CAX9	US TREASURY NOTES	0.12%	11/30/2022	125.00		
6/1/2022	6/1/2022	20,000.00	438516CB0	HONEYWELL INTL CORP NOTES (CALLABLE)	1.35%	6/1/2025	135.00		
6/1/2022	6/25/2022	93,448.21	3137FBTA4	FHLMC MULTIFAMILY STRUCTURED POOL	3.06%	8/1/2024	238.60		
6/1/2022	6/1/2022	25,000.00	46647PCH7	JPMORGAN CHASE & CO (CALLABLE) CORP NOTE	0.82%	6/1/2025	103.00		
6/1/2022	6/25/2022	3,160.44	3137F9ZD6	FHMS KJ33 A1	0.44%	12/1/2025	1.16		
6/1/2022	6/25/2022	90,000.00	3137BKRJ1	FHMS K047 A2	3.32%	5/1/2025	249.68		
6/1/2022	6/25/2022	60,000.00	3137BTU25	FHMS K724 A2	3.06%	11/1/2023	153.10		
6/7/2022	6/7/2022	10,000.00	24422EVQ9	JOHN DEERE CAPITAL CORP CORPORATE NOTES	0.45%	6/7/2024	22.50		
6/15/2022	6/15/2022	35,000.00	14317HAC5	CARMX 2022-2 A3	3.49%	2/16/2027	101.79		
6/15/2022	6/15/2022	17,872.53	34531KAD4	FORDO 2019-C A3	1.87%	3/15/2024	27.85		
6/15/2022	6/15/2022	15,000.00	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/2025	4.25		
6/15/2022	6/15/2022	30,000.00	89238FAD5	TAOT 2022-B A3	2.93%	9/15/2026	73.25		
6/15/2022	6/15/2022	35,000.00	41284YAD8	HDMOT 2022-A A3	3.06%	2/15/2027	89.25		
6/15/2022	6/15/2022	30,000.00	89238JAC9	TAOT 2021-D A3	0.71%	4/15/2026	17.75		
6/15/2022	6/15/2022	50,000.00	14041NFY2	COMET 2021-A3 A3	1.04%	11/16/2026	43.33		
6/15/2022	6/15/2022	55,000.00	448977AD0	HART 2022-A A3	2.22%	10/15/2026	101.75		
6/15/2022	6/15/2022	55,000.00	254683CP8	DCENT 2021-A1 A1	0.58%	9/15/2026	26.58		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>INTEREST</b>									
6/15/2022	6/15/2022	30,000.00	34532NAC9	FORDO 2021-A A3	0.30%	8/15/2025	7.50		
6/15/2022	6/15/2022	45,000.00	43815BAC4	HAROT 2022-1 A3	1.88%	5/15/2026	70.50		
6/15/2022	6/15/2022	25,000.00	345286AC2	FORDO 2022-A A3	1.29%	6/15/2026	26.88		
6/15/2022	6/15/2022	60,000.00	345329AC0	FORDL 2021-B A3	0.37%	10/15/2024	18.50		
6/15/2022	6/15/2022	38,607.08	98164CAB5	WOART 2021-C A2	0.22%	9/16/2024	7.08		
6/15/2022	6/15/2022	20,000.00	44935FAD6	HART 2021-C A3	0.74%	5/15/2026	12.33		
6/15/2022	6/15/2022	70,000.00	14041NFZ9	COMET 2022-A1 A1	2.80%	3/15/2027	163.33		
6/15/2022	6/15/2022	400,000.00	912828ZU7	US TREASURY NOTES	0.25%	6/15/2023	500.00		
6/15/2022	6/15/2022	60,000.00	02008JAC0	ALLYA 2022-1 A3	3.31%	11/15/2026	148.95		
6/15/2022	6/15/2022	40,000.00	43811JAC1	HAROT 2021-2 A3	0.33%	8/15/2025	11.00		
6/15/2022	6/15/2022	10,997.63	14316NAB5	CARMX 2021-1 A2A	0.22%	2/15/2024	2.02		
6/15/2022	6/15/2022	25,000.00	34532QAC2	FORDL 2021-A A3	0.26%	2/15/2024	5.42		
6/15/2022	6/15/2022	14,845.82	58770GAC4	MBALT 2021-A A3	0.25%	1/16/2024	3.09		
6/15/2022	6/15/2022	25,000.00	14044CAC6	COPAR 2021-1 A3	0.77%	9/15/2026	16.04		
6/16/2022	6/16/2022	15,000.00	36261LAC5	GMCAR 2021-1 A3	0.35%	10/16/2025	4.38		
6/16/2022	6/16/2022	25,000.00	362585AC5	GMCAR 2022-2 A3	3.10%	2/16/2027	64.58		
6/16/2022	6/16/2022	20,000.00	380146AC4	GMCAR 2022-1 A3	1.26%	11/16/2026	21.00		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>INTEREST</b>									
6/16/2022	6/16/2022	25,000.00	362554AC1	GMCAR 2021-4 A3	0.68%	9/16/2026	14.17		
6/18/2022	6/18/2022	40,000.00	43815EAC8	HAROT 2021-3 A3	0.41%	11/18/2025	13.67		
6/20/2022	6/20/2022	30,000.00	36261RAC2	GMALT 2021-1 A3	0.26%	2/20/2024	6.50		
6/21/2022	6/21/2022	25,000.00	43815GAC3	HAROT 2021-4 A3	0.88%	1/21/2026	18.33		
6/21/2022	6/21/2022	25,000.00	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/2025	5.63		
6/25/2022	6/25/2022	25,000.00	05602RAD3	BMWOT 2022-A A3	3.21%	8/25/2026	82.48		
6/25/2022	6/25/2022	70,000.00	05591RAC8	BMWLT 2021-1 A3	0.29%	1/25/2024	16.92		
6/30/2022	6/30/2022	400,000.00	91282CBD2	US TREASURY NOTES	0.12%	12/31/2022	250.00		
<b>Total INTEREST</b>		<b>6,275,559.26</b>					<b>17,911.55</b>		<b>0.00</b>
<b>MATURITY</b>									
4/4/2022	4/4/2022	285,000.00	19424JD45	COLLAT COMM PAPER V CO COMM PAPER	0.00%	4/4/2022	285,000.00		
4/29/2022	4/29/2022	300,000.00	22533UDV2	CREDIT AGRICOLE CIB NY COMM PAPER	0.00%	4/29/2022	300,000.00		
5/11/2022	5/11/2022	20,000.00	539830BE8	LOCKHEED MARTIN CORP NOTES (CALLED,OMD 3	2.90%	5/11/2022	20,112.78		
5/31/2022	5/31/2022	130,000.00	912828XD7	US TREASURY NOTES	1.87%	5/31/2022	131,218.75		
<b>Total MATURITY</b>		<b>735,000.00</b>					<b>736,331.53</b>		<b>0.00</b>
<b>PAYDOWNS</b>									
4/1/2022	4/25/2022	850.31	3137F9ZD6	FHMS KJ33 A1	0.44%	12/1/2025	850.31		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>PAYDOWNS</b>									
4/15/2022	4/15/2022	7,223.67	14316NAB5	CARMX 2021-1 A2A	0.22%	2/15/2024	7,223.67		
4/15/2022	4/15/2022	5,465.01	98164CAB5	WOART 2021-C A2	0.22%	9/16/2024	5,465.01		
4/15/2022	4/15/2022	2,792.86	34531KAD4	FORDO 2019-C A3	1.87%	3/15/2024	2,792.86		
5/1/2022	5/25/2022	1,012.80	3137F9ZD6	FHMS KJ33 A1	0.44%	12/1/2025	1,012.80		
5/15/2022	5/15/2022	2,709.82	34531KAD4	FORDO 2019-C A3	1.87%	3/15/2024	2,709.82		
5/15/2022	5/15/2022	6,156.38	14316NAB5	CARMX 2021-1 A2A	0.22%	2/15/2024	6,156.38		
5/15/2022	5/15/2022	4,631.17	98164CAB5	WOART 2021-C A2	0.22%	9/16/2024	4,631.17		
5/15/2022	5/15/2022	154.18	58770GAC4	MBALT 2021-A A3	0.25%	1/16/2024	154.18		
6/1/2022	6/25/2022	108.76	3137FBTA4	FHLMC MULTIFAMILY STRUCTURED POOL	3.06%	8/1/2024	108.76		
6/1/2022	6/25/2022	2,001.90	3137F9ZD6	FHMS KJ33 A1	0.44%	12/1/2025	2,001.90		
6/15/2022	6/15/2022	1,702.60	34532QAC2	FORDL 2021-A A3	0.26%	2/15/2024	1,702.60		
6/15/2022	6/15/2022	5,896.89	14316NAB5	CARMX 2021-1 A2A	0.22%	2/15/2024	5,896.89		
6/15/2022	6/15/2022	1,257.96	58770GAC4	MBALT 2021-A A3	0.25%	1/16/2024	1,257.96		
6/15/2022	6/15/2022	4,798.05	98164CAB5	WOART 2021-C A2	0.22%	9/16/2024	4,798.05		
6/15/2022	6/15/2022	2,431.79	34531KAD4	FORDO 2019-C A3	1.87%	3/15/2024	2,431.79		
6/20/2022	6/20/2022	1,071.15	36261RAC2	GMALT 2021-1 A3	0.26%	2/20/2024	1,071.15		
6/25/2022	6/25/2022	17.54	05591RAC8	BMWLT 2021-1 A3	0.29%	1/25/2024	17.54		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>PAYDOWNS</b>									
6/25/2022	6/25/2022	64.31	05591RAC8	BMWLT 2021-1 A3	0.29%	1/25/2024	64.31		
<b>Total PAYDOWNS</b>		<b>50,347.15</b>					<b>50,347.15</b>		<b>0.00</b>
<b>SELL</b>									
4/11/2022	4/13/2022	75,000.00	912828XD7	US TREASURY NOTES	1.87%	5/31/2022	75,658.32		-35.57
4/19/2022	4/21/2022	70,000.00	46647PBZ8	JPMORGAN CHASE & CO CORPORATE NOTES (CAL	0.69%	3/16/2024	68,534.03		-1,513.40
<b>Total SELL</b>		<b>145,000.00</b>					<b>144,192.35</b>		<b>-1,548.97</b>



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## Portfolio Holdings

## Managed Account Detail of Securities Held

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>U.S. Treasury</b>											
US TREASURY NOTES DTD 07/31/2020 0.125% 07/31/2022	91282CAC5	225,000.00	AA+	Aaa	3/1/2021	3/3/2021	225,043.95	0.11	117.32	225,002.56	224,718.75
US TREASURY NOTES DTD 09/30/2020 0.125% 09/30/2022	91282CAN1	360,000.00	AA+	Aaa	5/4/2021	5/6/2021	360,070.31	0.11	113.11	360,012.50	358,425.00
US TREASURY NOTES DTD 11/02/2015 1.875% 10/31/2022	912828M49	400,000.00	AA+	Aaa	5/4/2021	5/6/2021	410,421.87	0.12	1,263.59	402,341.56	399,625.00
US TREASURY NOTES DTD 11/02/2015 1.875% 10/31/2022	912828M49	250,000.00	AA+	Aaa	5/25/2021	5/26/2021	256,328.13	0.10	789.74	251,476.16	249,765.63
US TREASURY NOTES DTD 11/30/2020 0.125% 11/30/2022	91282CAX9	200,000.00	AA+	Aaa	2/1/2021	2/3/2021	200,054.69	0.11	21.17	200,012.50	198,156.24
US TREASURY NOTES DTD 12/31/2020 0.125% 12/31/2022	91282CBD2	400,000.00	AA+	Aaa	2/1/2021	2/3/2021	400,125.00	0.11	1.36	400,032.87	395,187.52
US TREASURY NOTES DTD 01/31/2021 0.125% 01/31/2023	91282CBG5	400,000.00	AA+	Aaa	2/18/2021	2/19/2021	400,140.63	0.11	208.57	400,042.33	394,250.00
US TREASURY NOTES DTD 01/31/2021 0.125% 01/31/2023	91282CBG5	200,000.00	AA+	Aaa	3/1/2021	3/3/2021	199,976.56	0.13	104.28	199,992.82	197,125.00
US TREASURY NOTES DTD 06/15/2020 0.250% 06/15/2023	912828ZU7	400,000.00	AA+	Aaa	2/18/2021	2/19/2021	401,046.88	0.14	43.72	400,431.87	389,812.48
US TREASURY NOTES DTD 07/15/2020 0.125% 07/15/2023	912828ZY9	400,000.00	AA+	Aaa	2/1/2021	2/3/2021	399,828.13	0.14	230.66	399,926.97	388,437.52
US TREASURY NOTES DTD 07/15/2020 0.125% 07/15/2023	912828ZY9	200,000.00	AA+	Aaa	3/1/2021	3/3/2021	199,687.50	0.19	115.33	199,862.92	194,218.76
US TREASURY NOTES DTD 08/15/2020 0.125% 08/15/2023	91282CAF8	500,000.00	AA+	Aaa	4/1/2021	4/6/2021	498,808.59	0.23	234.81	499,432.66	484,296.90
US TREASURY NOTES DTD 11/15/2020 0.250% 11/15/2023	91282CAW1	90,000.00	AA+	Aaa	4/26/2021	4/27/2021	89,982.42	0.26	28.74	89,990.53	86,695.31
US TREASURY NOTES DTD 02/15/2021 0.125% 02/15/2024	91282CBM2	300,000.00	AA+	Aaa	3/1/2021	3/3/2021	298,734.38	0.27	140.88	299,303.26	286,546.86
US TREASURY N/B NOTES DTD 08/15/2021 0.375% 08/15/2024	91282CCT6	165,000.00	AA+	Aaa	9/1/2021	9/3/2021	164,806.64	0.42	232.46	164,860.68	156,053.90

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>U.S. Treasury</b>											
US TREASURY N/B NOTES DTD 09/15/2021 0.375% 09/15/2024	91282CCX7	35,000.00	AA+	Aaa	10/5/2021	10/7/2021	34,853.71	0.52	38.52	34,890.08	33,020.31
US TREASURY N/B NOTES DTD 01/15/2022 1.125% 01/15/2025	91282CDS7	350,000.00	AA+	Aaa	2/3/2022	2/4/2022	347,046.88	1.42	1,816.47	347,450.33	333,703.13
US TREASURY N/B NOTES DTD 05/15/2022 2.750% 05/15/2025	91282CEQ0	150,000.00	AA+	Aaa	6/1/2022	6/3/2022	149,566.41	2.85	526.83	149,577.68	148,851.57
<b>Security Type Sub-Total</b>		<b>5,025,000.00</b>					<b>5,036,522.68</b>	<b>0.33</b>	<b>6,027.56</b>	<b>5,024,640.28</b>	<b>4,918,889.88</b>
<b>Supranational</b>											
INTL BK OF RECON AND DEV NOTE DTD 04/20/2021 0.125% 04/20/2023	459058JV6	135,000.00	AAA	Aaa	4/13/2021	4/20/2021	134,720.55	0.23	33.28	134,887.84	132,153.12
INTER-AMERICAN DEVEL BK NOTES DTD 09/23/2021 0.500% 09/23/2024	4581X0DZ8	185,000.00	AAA	Aaa	9/15/2021	9/23/2021	184,863.10	0.52	251.81	184,898.20	174,894.93
<b>Security Type Sub-Total</b>		<b>320,000.00</b>					<b>319,583.65</b>	<b>0.40</b>	<b>285.09</b>	<b>319,786.04</b>	<b>307,048.05</b>
<b>Municipal</b>											
NJ TURNPIKE AUTHORITY TXBL REV BONDS DTD 02/04/2021 0.897% 01/01/2025	646140DN0	20,000.00	AA-	A1	1/22/2021	2/4/2021	20,000.00	0.90	89.70	20,000.00	18,682.80
<b>Security Type Sub-Total</b>		<b>20,000.00</b>					<b>20,000.00</b>	<b>0.90</b>	<b>89.70</b>	<b>20,000.00</b>	<b>18,682.80</b>
<b>Joint Powers Authority</b>											
CAMP Pool		36,996.11	AAAm	NR			36,996.11		0.00	36,996.11	36,996.11
<b>Security Type Sub-Total</b>		<b>36,996.11</b>					<b>36,996.11</b>		<b>0.00</b>	<b>36,996.11</b>	<b>36,996.11</b>
<b>Federal Agency</b>											
FEDERAL FARM CREDIT BANK NOTES DTD 02/03/2021 0.125% 02/03/2023	3133EMPH9	230,000.00	AA+	Aaa	1/26/2021	2/3/2021	229,871.20	0.15	118.19	229,961.71	226,840.72

## EL TORO WATER DISTRICT

## Portfolio Holdings

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>Federal Agency</b>											
FREDDIE MAC NOTES DTD 11/05/2020 0.250% 11/06/2023	3137EAEZ8	155,000.00	AA+	Aaa	1/6/2021	1/8/2021	155,086.95	0.23	59.20	155,041.54	149,457.20
FANNIE MAE NOTES DTD 11/25/2020 0.250% 11/27/2023	3135G06H1	250,000.00	AA+	Aaa	1/6/2021	1/8/2021	250,107.25	0.24	59.03	250,052.35	240,581.25
<b>Security Type Sub-Total</b>		<b>635,000.00</b>					<b>635,065.40</b>	<b>0.20</b>	<b>236.42</b>	<b>635,055.60</b>	<b>616,879.17</b>
<b>Corporate</b>											
TOYOTA MOTOR CREDIT CORP CORPORATE NOTES DTD 01/11/2021 0.450% 01/11/2024	89236THU2	70,000.00	A+	A1	1/6/2021	1/11/2021	69,995.80	0.45	148.75	69,997.86	67,016.39
JOHN DEERE CAPITAL CORP CORPORATE NOTES DTD 03/04/2021 0.450% 01/17/2024	24422EVN6	55,000.00	A	A2	3/1/2021	3/4/2021	54,960.95	0.48	112.75	54,978.97	52,726.74
MORGAN STANLEY CORP NOTES (CALLABLE) DTD 01/25/2021 0.529% 01/25/2024	6174468W2	55,000.00	A-	A1	1/20/2021	1/25/2021	55,000.00	0.53	126.08	55,000.00	53,912.54
PACCAR FINANCIAL CORP CORPORATE NOTES DTD 02/02/2021 0.350% 02/02/2024	69371RR24	65,000.00	A+	A1	1/28/2021	2/2/2021	64,924.60	0.39	94.16	64,959.99	62,024.37
MICROSOFT CORP(CALLABLE) NOTE DTD 02/06/2017 2.875% 02/06/2024	594918BX1	45,000.00	AAA	Aaa	11/29/2021	12/1/2021	46,864.35	0.95	521.09	46,326.61	44,899.56
NATIONAL RURAL UTIL COOP CORPORATE NOTES DTD 02/08/2021 0.350% 02/08/2024	63743HEU2	25,000.00	A-	A2	2/1/2021	2/8/2021	24,982.75	0.37	34.76	24,990.75	23,791.00
APPLE INC (CALLABLE) BONDS DTD 02/09/2017 3.000% 02/09/2024	037833CG3	50,000.00	AA+	Aaa	11/1/2021	11/3/2021	52,380.50	0.87	591.67	51,634.65	49,909.90
GOLDMAN SACHS CORP NOTES DTD 03/03/2014 4.000% 03/03/2024	38141GVM3	40,000.00	BBB+	A2	1/21/2021	1/25/2021	44,062.00	0.69	524.44	42,190.54	40,136.96
MERCK & CO INC (CALLABLE) CORP NOTES DTD 03/07/2019 2.900% 03/07/2024	58933YAU9	30,000.00	A+	A1	11/16/2021	11/18/2021	31,377.00	0.88	275.50	30,994.97	29,809.29
GOLDMAN SACHS GROUP INC CORPORATE NOTES DTD 03/08/2021 0.673% 03/08/2024	38141GXZ2	20,000.00	BBB+	A2	3/1/2021	3/8/2021	20,000.00	0.67	42.25	20,000.00	19,532.24

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>Corporate</b>											
CHARLES SCHWAB CORP NOTES (CALLABLE) DTD 03/18/2021 0.750% 03/18/2024	808513BN4	30,000.00	A	A2	3/16/2021	3/18/2021	29,985.00	0.77	64.38	29,991.43	28,776.63
SUNTRUST BANK (CALLABLE) CORP NOTES DTD 03/18/2019 3.200% 04/01/2024	86787EBC0	60,000.00	A	A2	11/1/2021	11/3/2021	63,197.40	0.96	480.00	62,293.54	59,695.74
COMCAST CORP (CALLABLE) CORPORATE NOTES DTD 10/05/2018 3.700% 04/15/2024	20030NCR0	50,000.00	A-	A3	11/1/2021	11/3/2021	53,305.00	0.96	390.56	52,385.88	50,142.90
BANK OF NY MELLON CORP NOTES (CALLABLE) DTD 04/26/2021 0.500% 04/26/2024	06406RAS6	55,000.00	A	A1	4/19/2021	4/26/2021	54,941.15	0.54	49.65	54,964.29	52,219.26
NOVARTIS CAPITAL CORP CORPORATE NOTES DTD 02/21/2014 3.400% 05/06/2024	66989HAG3	50,000.00	AA-	A1	11/1/2021	11/3/2021	53,111.50	0.89	259.72	52,295.37	50,216.45
AMAZON.COM INC CORPORATE NOTES DTD 05/12/2021 0.450% 05/12/2024	023135BW5	80,000.00	AA	A1	5/10/2021	5/12/2021	79,883.20	0.50	49.00	79,927.43	76,053.12
UNITEDHEALTH GROUP INC (CALLABLE) CORP N DTD 05/19/2021 0.550% 05/15/2024	91324PEB4	30,000.00	A+	A3	5/17/2021	5/19/2021	29,968.80	0.59	21.09	29,980.46	28,582.38
UNITEDHEALTH GROUP INC (CALLABLE) CORP N DTD 05/19/2021 0.550% 05/15/2024	91324PEB4	30,000.00	A+	A3	1/21/2022	1/25/2022	29,475.60	1.32	21.09	29,573.50	28,582.38
CATERPILLAR FINL SERVICE CORPORATE NOTES DTD 05/17/2021 0.450% 05/17/2024	14913R2L0	45,000.00	A	A2	5/10/2021	5/17/2021	44,939.70	0.50	24.75	44,962.26	42,674.72
ASTRAZENECA FINANCE LLC (CALLABLE) CORP DTD 05/28/2021 0.700% 05/28/2024	04636NAC7	50,000.00	A-	A3	5/25/2021	5/28/2021	49,995.50	0.70	32.08	49,997.14	47,408.50
JOHN DEERE CAPITAL CORP CORPORATE NOTES DTD 06/10/2021 0.450% 06/07/2024	24422EVQ9	10,000.00	A	A2	6/7/2021	6/10/2021	9,987.50	0.49	3.00	9,991.91	9,547.04
TARGET CORP CORPORATE NOTES DTD 06/26/2014 3.500% 07/01/2024	87612EBD7	30,000.00	A	A2	11/23/2021	11/29/2021	31,879.20	1.04	525.00	31,453.65	30,088.26

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>Corporate</b>											
AMERICAN EXPRESS CO CORP NOTES (CALLABLE DTD 07/30/2019 2.500% 07/30/2024	025816CG2	35,000.00	BBB+	A2	11/19/2021	11/23/2021	36,253.00	1.14	367.01	35,962.83	34,091.12
AMERICAN HONDA FINANCE CORPORATE NOTES DTD 09/09/2021 0.750% 08/09/2024	02665WDY4	35,000.00	A-	A3	9/13/2021	9/15/2021	35,025.20	0.72	103.54	35,018.32	32,912.64
AMERICAN HONDA FINANCE CORPORATE NOTES DTD 09/09/2021 0.750% 08/09/2024	02665WDY4	30,000.00	A-	A3	9/7/2021	9/9/2021	29,980.20	0.77	88.75	29,985.68	28,210.83
CATERPILLAR FINL SERVICE CORPORATE NOTES DTD 09/14/2021 0.600% 09/13/2024	14913R2P1	20,000.00	A	A2	9/7/2021	9/14/2021	19,972.80	0.65	36.00	19,980.00	18,821.02
BANK OF NY MELLON CORP (CALLABLE) CORPOR DTD 10/25/2021 0.850% 10/25/2024	06406RAX5	25,000.00	A	A1	10/20/202	10/25/202	24,983.75	0.87	38.96	24,987.44	23,532.35
APPLE INC CORP NOTES (CALLABLE) DTD 11/13/2017 2.750% 01/13/2025	037833DF4	40,000.00	AA+	Aaa	3/11/2021	3/15/2021	42,786.40	0.89	513.33	41,802.11	39,463.20
GOLDMAN SACHS GROUP INC (CALLABLE) CORP DTD 01/24/2022 1.757% 01/24/2025	38141GZH0	10,000.00	BBB+	A2	1/19/2022	1/24/2022	10,000.00	1.76	76.62	10,000.00	9,643.13
BANK OF AMERICA CORP CORPORATE NOTES DTD 02/04/2022 1.843% 02/04/2025	06051GKG3	20,000.00	A-	A2	2/1/2022	2/4/2022	20,000.00	1.84	150.51	20,000.00	19,305.76
MERCK & CO INC CORP NOTES DTD 02/10/2015 2.750% 02/10/2025	58933YAR6	20,000.00	A+	A1	3/5/2021	3/9/2021	21,388.80	0.94	215.42	20,893.10	19,737.40
3M COMPANY (CALLABLE) CORP NOTES DTD 08/26/2019 2.000% 02/14/2025	88579YBH3	70,000.00	A+	A1	3/3/2022	3/7/2022	69,743.80	2.13	532.78	69,771.45	67,233.53
JPMORGAN CHASE & CO CORP NOTES (CALLABLE DTD 02/16/2021 0.563% 02/16/2025	46647PBY1	30,000.00	A-	A2	2/9/2021	2/16/2021	30,000.00	0.56	63.34	30,000.00	28,274.16
EXXON MOBIL CORP CORPORATE NT (CALLABLE) DTD 03/06/2015 2.709% 03/06/2025	30231GAF9	30,000.00	AA-	Aa2	4/1/2022	4/5/2022	29,874.30	2.86	259.61	29,884.56	29,344.26

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>Corporate</b>											
BANK OF AMERICA CORP CORP NOTES DTD 03/15/2019 3.458% 03/15/2025	06051GHR3	40,000.00	A-	A2	7/22/2021	7/26/2021	42,714.40	1.53	407.28	42,019.45	39,454.80
INTEL CORP CORPORATE NOTES DTD 03/25/2020 3.400% 03/25/2025	458140BP4	30,000.00	A+	A1	3/8/2022	3/10/2022	30,872.70	2.40	272.00	30,783.94	29,908.86
BURLINGTN NORTH SANTA FE CORP NOTES (CAL DTD 03/09/2015 3.000% 04/01/2025	12189LAV3	20,000.00	AA-	A3	3/5/2021	3/9/2021	21,532.60	1.07	150.00	21,005.97	19,721.08
AMAZON.COM INC CORPORATE NOTES DTD 04/13/2022 3.000% 04/13/2025	023135CE4	75,000.00	AA	A1	4/11/2022	4/13/2022	74,880.75	3.06	487.50	74,889.35	74,348.55
HOME DEPOT INC (CALLABLE) CORPORATE NOTE DTD 03/28/2022 2.700% 04/15/2025	437076CM2	5,000.00	A	A2	3/24/2022	3/28/2022	4,991.25	2.76	34.88	4,992.00	4,893.55
TARGET CORP (CALLABLE) CORPORATE NOTES DTD 03/31/2020 2.250% 04/15/2025	87612EBL9	30,000.00	A	A2	3/8/2022	3/10/2022	30,014.70	2.23	142.50	30,013.19	28,968.87
BANK OF AMERICA CORP NOTES (CALLABLE) DTD 04/22/2021 0.976% 04/22/2025	06051GJR1	70,000.00	A-	A2	4/16/2021	4/22/2021	70,000.00	0.98	130.95	70,000.00	65,819.18
BANK OF NY MELLON (CALLABLE) CORP NOTES DTD 04/24/2020 1.600% 04/24/2025	06406RAN7	45,000.00	A	A1	3/10/2021	3/12/2021	46,147.50	0.97	134.00	45,776.69	42,400.89
BANK OF NY MELLON CORP (CALLABLE) CORP N DTD 04/26/2022 3.350% 04/25/2025	06406RBC0	20,000.00	A	A1	4/19/2022	4/26/2022	19,997.20	3.36	120.97	19,997.37	19,773.92
PEPSICO INCMCORP NOTES (CALLABLE) DTD 04/30/2015 2.750% 04/30/2025	713448CT3	20,000.00	A+	A1	3/5/2021	3/9/2021	21,400.00	1.02	93.19	20,928.74	19,683.50
CITIGROUP INC (CALLABLE) CORPORATE NOTES DTD 05/04/2021 0.981% 05/01/2025	172967MX6	35,000.00	BBB+	A3	4/27/2021	5/4/2021	35,000.00	0.98	57.23	35,000.00	32,780.09
SUNTRUST BANKS INC (CALLABLE) CORP NOTE DTD 04/26/2018 4.000% 05/01/2025	867914BS1	35,000.00	A-	A3	3/8/2022	3/10/2022	36,372.70	2.69	233.33	36,230.00	35,087.43

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>Corporate</b>											
CHARLES SCHWAB CORP (CALLABLE) CORP NOTE DTD 05/22/2018 3.850% 05/21/2025	808513AX3	40,000.00	A	A2	6/1/2022	6/3/2022	40,615.60	3.30	171.11	40,598.73	40,177.40
MORGAN STANLEY CORP NOTES (CALLABLE) DTD 06/01/2021 0.790% 05/30/2025	61747YEA9	10,000.00	A-	A1	5/26/2021	6/1/2021	10,000.00	0.79	6.80	10,000.00	9,288.16
HONEYWELL INTL CORP NOTES (CALLABLE) DTD 05/18/2020 1.350% 06/01/2025	438516CB0	20,000.00	A	A2	3/5/2021	3/9/2021	20,360.40	0.91	22.50	20,246.38	18,859.92
JPMORGAN CHASE & CO (CALLABLE) CORP NOTE DTD 06/01/2021 0.824% 06/01/2025	46647PCH7	25,000.00	A-	A2	5/24/2021	6/1/2021	25,000.00	0.82	17.17	25,000.00	23,385.05
NATIONAL RURAL UTIL COOP CORPORATE NOTES DTD 05/04/2022 3.450% 06/15/2025	63743HFE7	10,000.00	A-	A2	4/27/2022	5/4/2022	9,997.30	3.46	54.62	9,997.44	9,943.11
INTEL CORP NOTES (CALLABLE) DTD 07/29/2015 3.700% 07/29/2025	458140AS9	35,000.00	A+	A1	4/4/2022	4/6/2022	35,821.45	2.95	546.78	35,758.32	35,150.19
CITIGROUP INC CORP NOTE (CALLABLE) DTD 11/03/2021 1.281% 11/03/2025	172967ND9	20,000.00	BBB+	A3	10/27/202	11/3/2021	20,000.00	1.28	41.28	20,000.00	18,541.22
STATE STREET CORP (CALLABLE) CORPORATE N DTD 02/07/2022 1.746% 02/06/2026	857477BR3	20,000.00	A	A1	2/2/2022	2/7/2022	20,000.00	1.75	139.68	20,000.00	19,210.82
CITIGROUP INC CORP NOTES (CALLABLE) DTD 03/17/2022 3.290% 03/17/2026	172967NL1	15,000.00	BBB+	A3	3/10/2022	3/17/2022	15,000.00	3.29	142.57	15,000.00	14,511.62
STATE STREET CORP NOTES (CALLABLE) DTD 10/29/2020 2.901% 03/30/2026	857477BM4	60,000.00	A	A1	2/17/2022	2/22/2022	61,207.80	2.38	439.99	61,070.16	58,056.24
JPMORGAN CHASE & CO (CALLABLE) CORPORATE DTD 04/26/2022 4.080% 04/26/2026	46647PCZ7	80,000.00	A-	A2	4/19/2022	4/26/2022	80,000.00	4.08	589.33	80,000.00	78,828.56
<b>Security Type Sub-Total</b>		<b>2,100,000.00</b>					<b>2,137,152.10</b>	<b>1.36</b>	<b>11,273.30</b>	<b>2,126,484.42</b>	<b>2,037,108.78</b>



Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>Agency CMBS</b>											
FHMS K724 A2 DTD 01/01/2017 3.062% 11/01/2023	3137BTU25	60,000.00	AA+	Aaa	1/28/2021	2/2/2021	64,052.34	0.58	153.10	61,973.59	59,614.46
FHLMC MULTIFAMILY STRUCTURED POOL DTD 11/01/2017 3.064% 08/01/2024	3137FBTA4	93,339.45	AA+	Aaa	5/25/2022	5/31/2022	93,463.42	3.00	238.33	93,458.57	92,721.95
FHMS K047 A2 DTD 07/30/2015 3.329% 05/01/2025	3137BKRJ1	90,000.00	AA+	Aaa	5/19/2022	5/24/2022	90,576.56	3.10	249.68	90,576.56	89,931.38
FHMS KJ33 A1 DTD 02/01/2021 0.440% 12/01/2025	3137F9ZD6	1,158.54	AA+	Aaa	2/17/2021	2/26/2021	1,158.50	0.44	0.42	1,158.51	1,125.41
<b>Security Type Sub-Total</b>		<b>244,497.99</b>					<b>249,250.82</b>	<b>2.43</b>	<b>641.53</b>	<b>247,167.23</b>	<b>243,393.20</b>
<b>ABS</b>											
MBALT 2021-A A3 DTD 01/27/2021 0.250% 01/16/2024	58770GAC4	13,587.86	AAA	Aaa	1/20/2021	1/27/2021	13,586.49	0.25	1.51	13,587.15	13,437.67
BMWLT 2021-1 A3 DTD 03/10/2021 0.290% 01/25/2024	05591RAC8	54,935.69	AAA	Aaa	10/19/202	10/21/202	54,912.09	0.31	2.66	54,919.32	54,312.98
BMWLT 2021-1 A3 DTD 03/10/2021 0.290% 01/25/2024	05591RAC8	14,982.46	AAA	Aaa	3/2/2021	3/10/2021	14,981.98	0.29	0.72	14,982.20	14,812.63
CARMX 2021-1 A2A DTD 01/27/2021 0.220% 02/15/2024	14316NAB5	5,100.74	AAA	NR	4/15/2021	4/19/2021	5,097.55	0.24	0.50	5,098.90	5,098.63
FORDL 2021-A A3 DTD 01/25/2021 0.260% 02/15/2024	34532QAC2	23,297.40	NR	Aaa	1/20/2021	1/25/2021	23,294.59	0.26	2.69	23,295.90	23,149.24
GMALT 2021-1 A3 DTD 02/24/2021 0.260% 02/20/2024	36261RAC2	28,928.85	NR	Aaa	2/17/2021	2/24/2021	28,925.89	0.26	2.30	28,927.22	28,695.09
FORDO 2019-C A3 DTD 11/22/2019 1.870% 03/15/2024	34531KAD4	15,440.74	AAA	Aaa	4/15/2021	4/19/2021	15,654.86	1.38	12.83	15,566.47	15,409.47
WOART 2021-C A2 DTD 08/11/2021 0.220% 09/16/2024	98164CAB5	33,809.03	AAA	NR	8/3/2021	8/11/2021	33,808.70	0.22	3.31	33,808.79	33,568.33
FORDL 2021-B A3 DTD 09/24/2021 0.370% 10/15/2024	345329AC0	60,000.00	AAA	NR	9/21/2021	9/24/2021	59,989.46	0.38	9.87	59,992.10	58,164.84
HAROT 2021-1 A3 DTD 02/24/2021 0.270% 04/21/2025	43813GAC5	25,000.00	NR	Aaa	2/17/2021	2/24/2021	24,999.54	0.27	1.88	24,999.69	24,413.76

## EL TORO WATER DISTRICT

## Portfolio Holdings

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>ABS</b>											
HAROT 2021-2 A3 DTD 05/26/2021 0.330% 08/15/2025	43811JAC1	40,000.00	AAA	Aaa	5/18/2021	5/26/2021	39,998.44	0.33	5.87	39,998.85	38,731.17
FORDO 2021-A A3 DTD 02/22/2021 0.300% 08/15/2025	34532NAC9	30,000.00	AAA	Aaa	2/17/2021	2/22/2021	29,997.47	0.30	4.00	29,998.23	29,151.77
GMCAR 2021-1 A3 DTD 01/20/2021 0.350% 10/16/2025	36261LAC5	15,000.00	AAA	Aaa	1/12/2021	1/20/2021	14,997.61	0.35	2.19	14,998.34	14,652.76
HAROT 2021-3 A3 DTD 08/25/2021 0.410% 11/18/2025	43815EAC8	40,000.00	AAA	NR	8/17/2021	8/25/2021	39,999.42	0.41	5.92	39,999.54	38,288.35
CARMX 2021-1 A3 DTD 01/27/2021 0.340% 12/15/2025	14316NAC3	15,000.00	AAA	NR	1/20/2021	1/27/2021	14,997.04	0.34	2.27	14,997.90	14,622.08
HAROT 2021-4 A3 DTD 11/24/2021 0.880% 01/21/2026	43815GAC3	25,000.00	NR	Aaa	11/16/2021	11/24/2021	24,994.73	0.89	6.11	24,995.49	23,885.30
TAOT 2021-D A3 DTD 11/15/2021 0.710% 04/15/2026	89238JAC9	30,000.00	AAA	NR	11/9/2021	11/15/2021	29,999.36	0.71	9.47	29,999.45	28,651.44
HAROT 2022-1 A3 DTD 02/23/2022 1.880% 05/15/2026	43815BAC4	45,000.00	AAA	Aaa	2/15/2022	2/23/2022	44,993.23	1.88	37.60	44,993.79	43,592.62
HART 2021-C A3 DTD 11/17/2021 0.740% 05/15/2026	44935FAD6	20,000.00	AAA	NR	11/9/2021	11/17/2021	19,995.54	0.75	6.58	19,996.15	19,080.31
FORDO 2022-A A3 DTD 01/24/2022 1.290% 06/15/2026	345286AC2	25,000.00	AAA	NR	1/19/2022	1/24/2022	24,997.03	1.29	14.33	24,997.32	23,960.33
BMWOT 2022-A A3 DTD 05/18/2022 3.210% 08/25/2026	05602RAD3	25,000.00	AAA	Aaa	5/10/2022	5/18/2022	24,998.70	3.21	13.38	24,998.74	24,746.52
DCENT 2021-A1 A1 DTD 09/27/2021 0.580% 09/15/2026	254683CP8	55,000.00	AAA	Aaa	9/20/2021	9/27/2021	54,988.22	0.58	14.18	54,990.02	51,518.85
TAOT 2022-B A3 DTD 04/13/2022 2.930% 09/15/2026	89238FAD5	30,000.00	AAA	Aaa	4/7/2022	4/13/2022	29,999.30	2.93	39.07	29,999.33	29,659.26
COPAR 2021-1 A3 DTD 10/27/2021 0.770% 09/15/2026	14044CAC6	25,000.00	AAA	Aaa	10/19/2021	10/27/2021	24,999.53	0.77	8.56	24,999.60	23,666.99
FORDO 2022-B A3 DTD 06/27/2022 3.740% 09/15/2026	34534LAD9	25,000.00	NR	Aaa	6/22/2022	6/27/2022	24,998.65	3.74	10.39	24,998.65	25,068.21
GMCAR 2021-4 A3 DTD 10/21/2021 0.680% 09/16/2026	362554AC1	25,000.00	AAA	Aaa	10/13/2021	10/21/2021	24,999.36	0.68	7.08	24,999.45	23,750.09
HART 2022-A A3 DTD 03/16/2022 2.220% 10/15/2026	448977AD0	55,000.00	AAA	NR	3/9/2022	3/16/2022	54,997.88	2.22	54.27	54,998.02	53,390.36

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>ABS</b>											
ALLYA 2022-1 A3 DTD 05/18/2022 3.310% 11/15/2026	02008JAC0	60,000.00	AAA	Aaa	5/10/2022	5/18/2022	59,988.38	3.31	88.27	59,988.69	59,448.23
GMCAR 2022-1 A3 DTD 01/19/2022 1.260% 11/16/2026	380146AC4	20,000.00	AAA	NR	1/11/2022	1/19/2022	19,998.26	1.26	10.50	19,998.42	19,113.36
COMET 2021-A3 A3 DTD 11/30/2021 1.040% 11/16/2026	14041NFY2	50,000.00	AAA	NR	11/18/2021	11/30/2021	49,993.11	1.04	23.11	49,993.92	47,275.57
HDMOT 2022-A A3 DTD 04/20/2022 3.060% 02/15/2027	41284YAD8	35,000.00	AAA	Aaa	4/12/2022	4/20/2022	34,994.17	3.06	47.60	34,994.41	34,552.29
GMCAR 2022-2 A3 DTD 04/13/2022 3.100% 02/16/2027	362585AC5	25,000.00	AAA	Aaa	4/5/2022	4/13/2022	24,994.78	3.10	32.29	24,995.01	24,766.45
CARMX 2022-2 A3 DTD 04/28/2022 3.490% 02/16/2027	14317HAC5	35,000.00	AAA	Aaa	4/21/2022	4/28/2022	34,994.68	3.49	54.29	34,994.87	34,840.85
COMET 2022-A1 A1 DTD 03/30/2022 2.800% 03/15/2027	14041NFZ9	70,000.00	AAA	NR	3/23/2022	3/30/2022	69,994.72	2.80	87.11	69,994.99	68,552.46
COMET 2022-A2 A DTD 06/14/2022 3.490% 05/15/2027	14041NGA3	65,000.00	AAA	NR	6/6/2022	6/14/2022	64,989.61	3.49	107.12	64,989.71	65,130.19
<b>Security Type Sub-Total</b>		<b>1,160,082.77</b>					<b>1,160,150.37</b>	<b>1.55</b>	<b>729.83</b>	<b>1,160,086.63</b>	<b>1,131,158.45</b>
<b>Managed Account Sub Total</b>		<b>9,504,580.76</b>					<b>9,557,725.02</b>	<b>0.75</b>	<b>19,283.43</b>	<b>9,533,220.20</b>	<b>9,273,160.33</b>
<b>Securities Sub Total</b>		<b>\$9,541,576.87</b>					<b>\$9,594,721.13</b>	<b>0.75%</b>	<b>\$19,283.43</b>	<b>\$9,570,216.31</b>	<b>\$9,310,156.44</b>
<b>Accrued Interest</b>											<b>\$19,283.43</b>
<b>Total Investments</b>											<b>\$9,329,439.87</b>

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- Market values that include accrued interest are derived from closing bid prices as of the last business day of the month as supplied by Refinitiv, Bloomberg, or Telerate. Where prices are not available from generally recognized sources, the securities are priced using a yield-based matrix system to arrive at an estimated market value.
- In accordance with generally accepted accounting principles, information is presented on a trade date basis; forward settling purchases are included in the monthly balances, and forward settling sales are excluded.
- Performance is presented in accordance with the CFA Institute's Global Investment Performance Standards (GIPS). Unless otherwise noted, performance is shown gross of fees. Quarterly returns are presented on an unannualized basis. Returns for periods greater than one year are presented on an annualized basis. Past performance is not indicative of future returns.
- Bank of America/Merrill Lynch Indices provided by Bloomberg Financial Markets.
- Money market fund/cash balances are included in performance and duration computations.
- Standard & Poor's is the source of the credit ratings. Distribution of credit rating is exclusive of money market fund/LGIP holdings.
- Callable securities in the portfolio are included in the maturity distribution analysis to their stated maturity date, although, they may be called prior to maturity.
- MBS maturities are represented by expected average life.

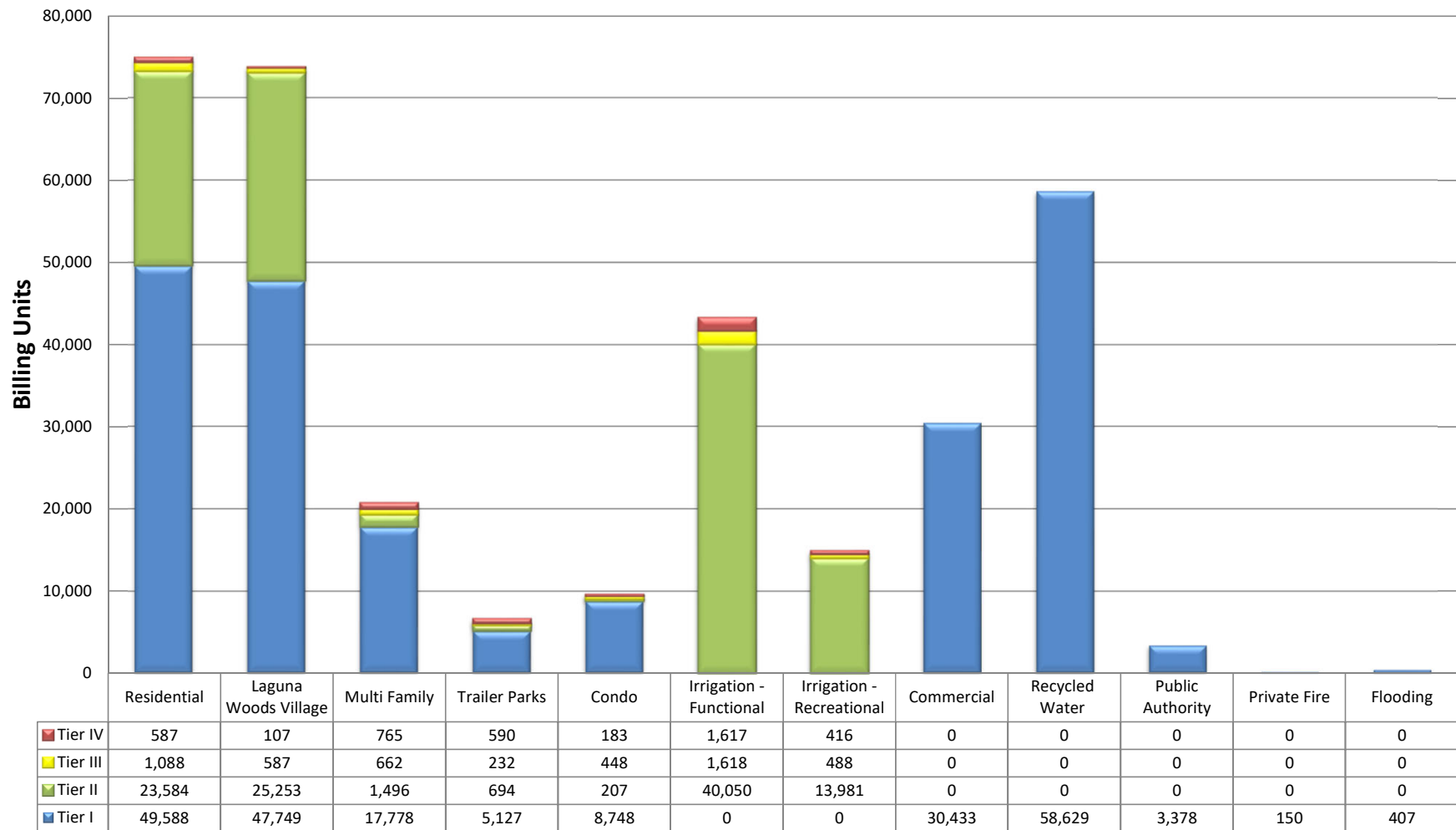
## Glossary

- **Accrued Interest:** Interest that is due on a bond or other fixed income security since the last interest payment was made.
- **Agencies:** Federal agency securities and/or Government-sponsored enterprises.
- **Amortized Cost:** The original cost of the principal of the security is adjusted for the amount of the periodic reduction of any discount or premium from the purchase date until the date of the report. Discount or premium with respect to short-term securities (those with less than one year to maturity at time of issuance) is amortized on a straight line basis. Such discount or premium with respect to longer-term securities is amortized using the constant yield basis.
- **Asset-Backed Security:** A financial instrument collateralized by an underlying pool of assets – usually ones that generate a cash flow from debt, such as loans, leases, credit card balances, and receivables.
- **Bankers' Acceptance:** A draft or bill of exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill as well as the insurer.
- **Commercial Paper:** An unsecured obligation issued by a corporation or bank to finance its short-term credit needs, such as accounts receivable and inventory.
- **Contribution to Total Return:** The weight of each individual security multiplied by its return, then summed for each sector to determine how much each sector added or subtracted from the overall portfolio performance.
- **Effective Duration:** A measure of the sensitivity of a security's price to a change in interest rates, stated in years.
- **Effective Yield:** The total yield an investor receives in relation to the nominal yield or coupon of a bond. Effective yield takes into account the power of compounding on investment returns, while nominal yield does not.
- **FDIC:** Federal Deposit Insurance Corporation. A federal agency that insures bank deposits to a specified amount.
- **Interest Rate:** Interest per year divided by principal amount and expressed as a percentage.
- **Market Value:** The value that would be received or paid for an investment in an orderly transaction between market participants at the measurement date.
- **Maturity:** The date upon which the principal or stated value of an investment becomes due and payable.
- **Negotiable Certificates of Deposit:** A CD with a very large denomination, usually \$1 million or more, that can be traded in secondary markets.
- **Par Value:** The nominal dollar face amount of a security.
- **Pass-through Security:** A security representing pooled debt obligations that passes income from debtors to its shareholders. The most common type is the mortgage-backed security.

## Glossary

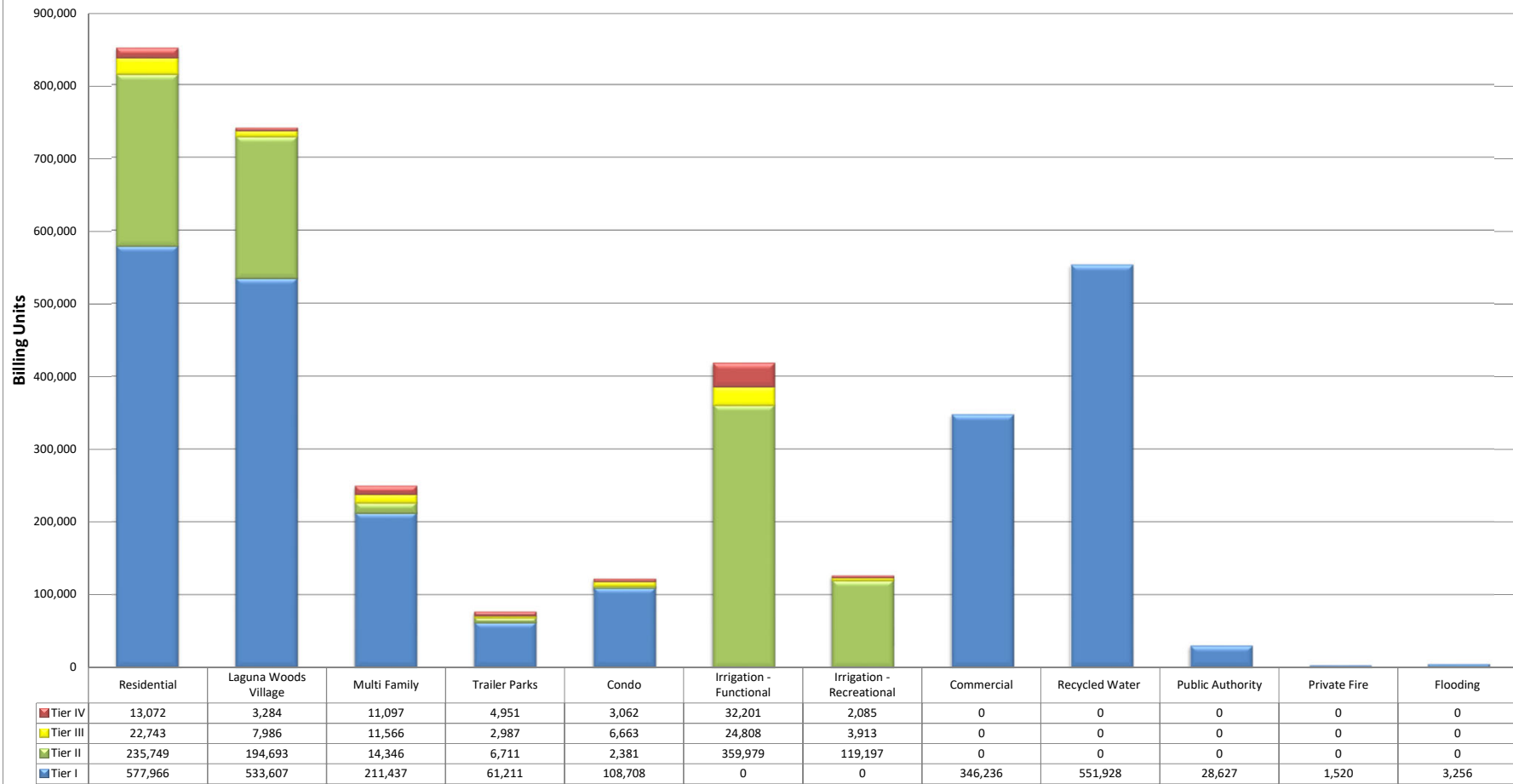
- Repurchase Agreements: A holder of securities sells these securities to an investor with an agreement to repurchase them at a fixed price on a fixed date.
- Settle Date: The date on which the transaction is settled and monies/securities are exchanged. If the settle date of the transaction (i.e., coupon payments and maturity proceeds) occurs on a non-business day, the funds are exchanged on the next business day.
- Supranational: A multinational union or association in which member countries cede authority and sovereignty on at least some internal matters to the group, whose decisions are binding on its members.
- Trade Date: The date on which the transaction occurred; however, the final consummation of the security transaction and payment has not yet taken place.
- Unsettled Trade: A trade which has been executed; however, the final consummation of the security transaction and payment has not yet taken place.
- U.S. Treasury: The department of the U.S. government that issues Treasury securities.
- Yield: The rate of return based on the current market value, the annual interest receipts, maturity value, and the time period remaining until maturity, stated as a percentage on an annualized basis.
- YTM at Cost: The yield to maturity at cost is the expected rate of return based on the original cost, the annual interest receipts, maturity value, and the time period from purchase date to maturity, stated as a percentage on an annualized basis.
- YTM at Market: The yield to maturity at market is the rate of return based on the current market value, the annual interest receipts, maturity value, and the time period remaining until maturity, stated as a percentage on an annualized basis.

## June 2022 Water Sales



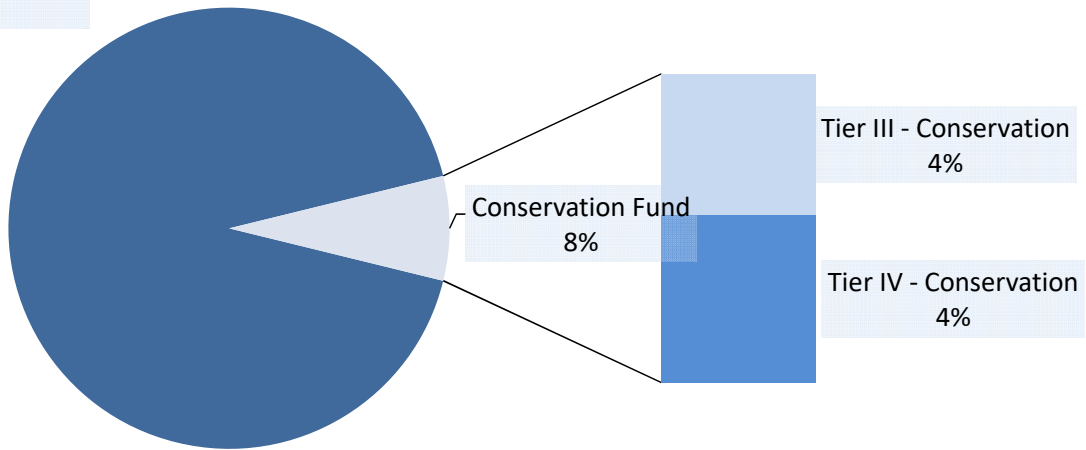


### Year-to-Date Water Sales as of June 2022



## Year to Date Water Sales as of June 2022

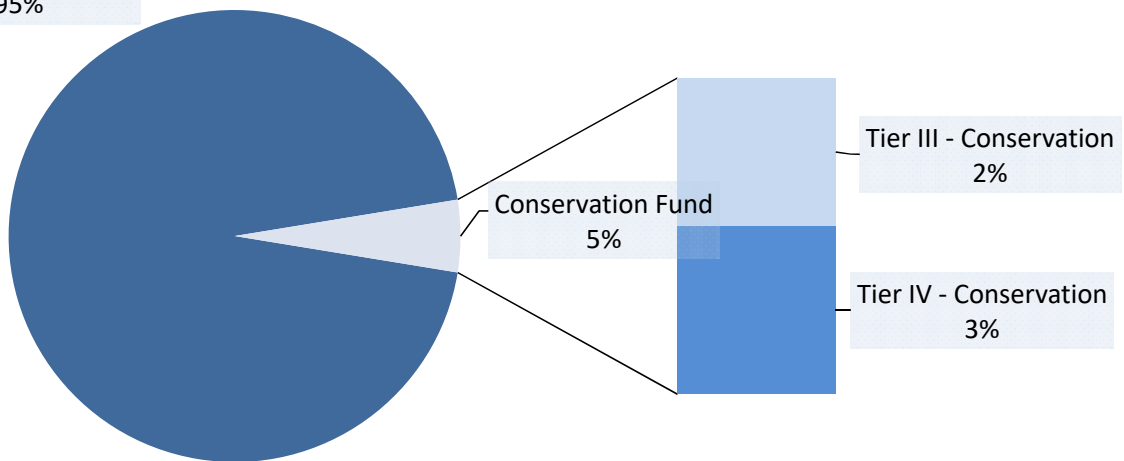
Water Delivery Cost  
92%



Category	Billings	Percentage
Water Delivery Cost	\$7,444,427.49	92.36%
Tier III - Conservation	\$281,685.14	3.49%
Tier IV - Conservation	\$334,320.61	4.15%
	<b>\$8,060,433.24</b>	<b>100.00%</b>

## June 2022 Water Sales

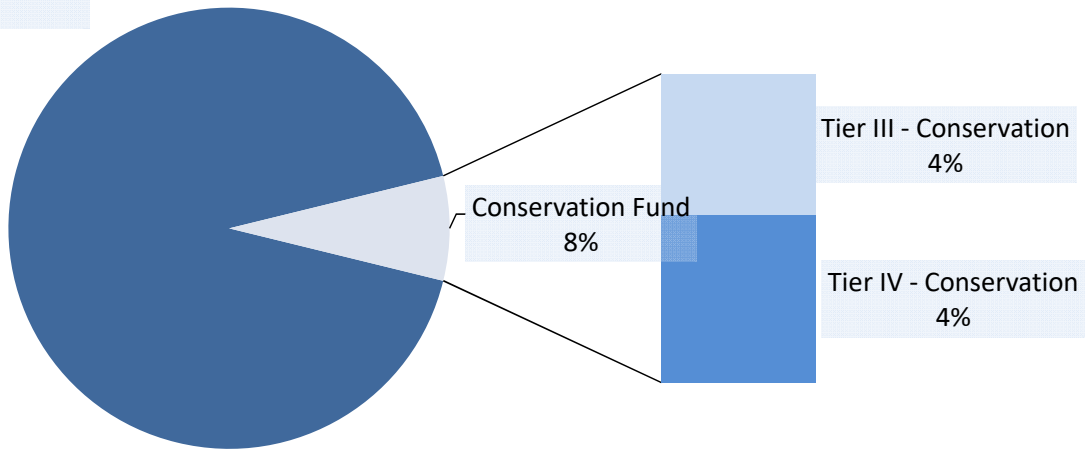
Water Delivery Cost  
95%



Category	Billings	Percentage
Water Delivery Cost	\$709,539.72	94.83%
Tier III - Conservation	\$18,135.42	2.42%
Tier IV - Conservation	\$20,532.80	2.74%
	<b>\$748,207.94</b>	<b>100.00%</b>

## Year to Date Water Sales as of June 2022

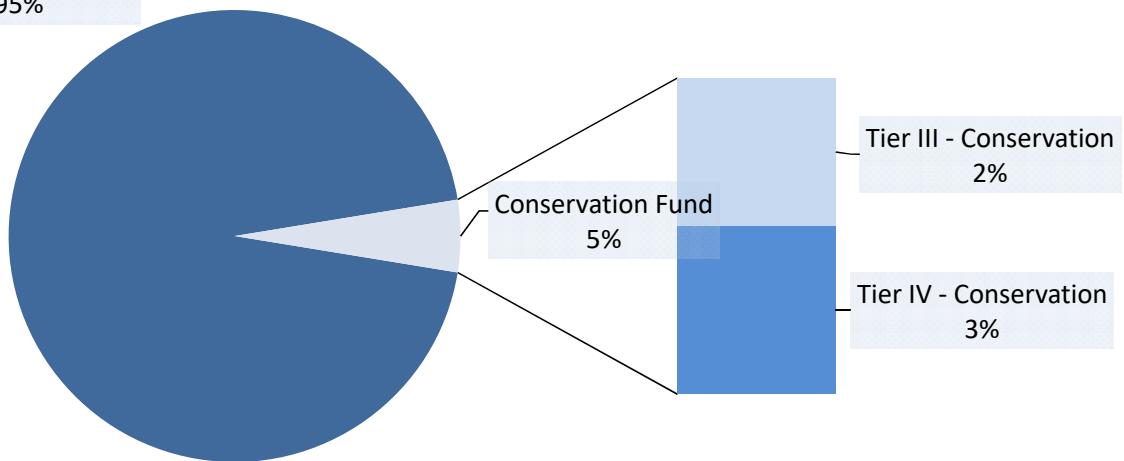
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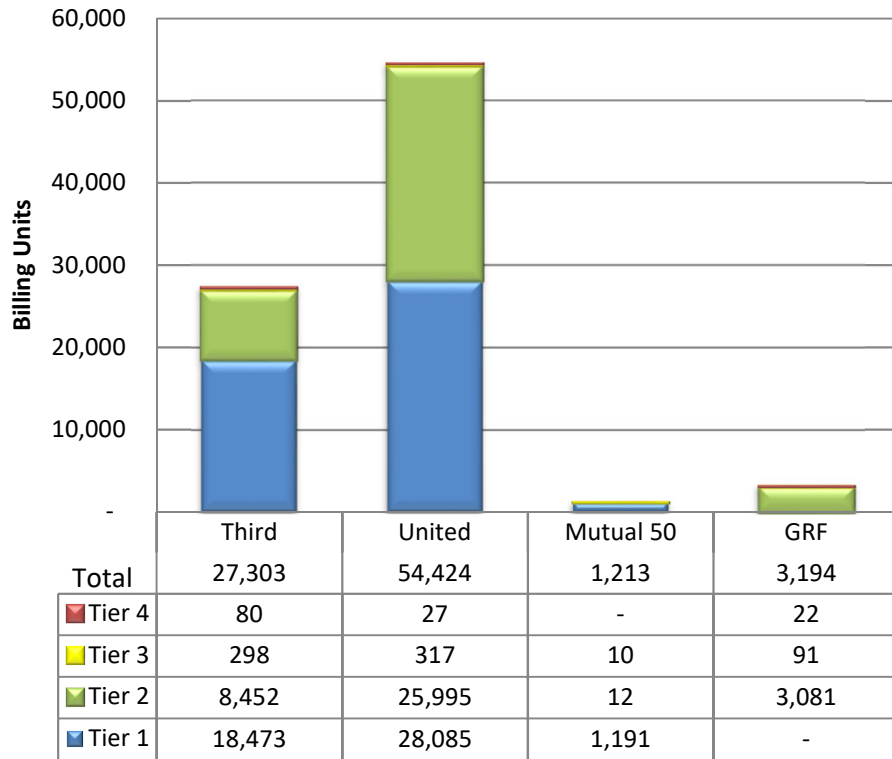
## June 2022 Water Sales

Water Delivery Cost  
95%

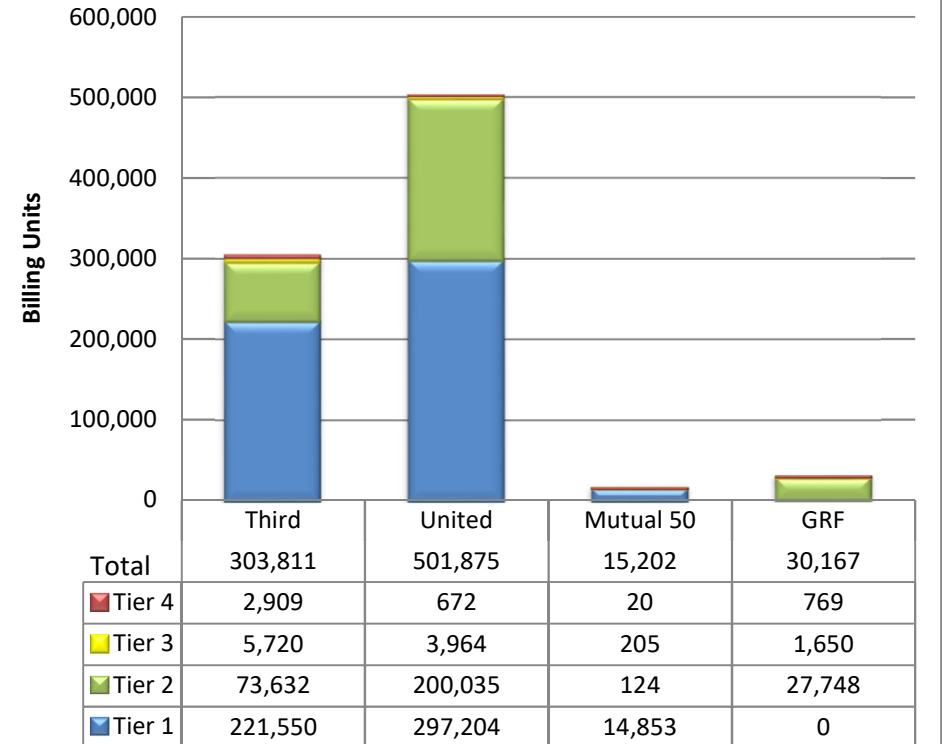


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	<b>\$748,207.94</b>	<b>100.00%</b>

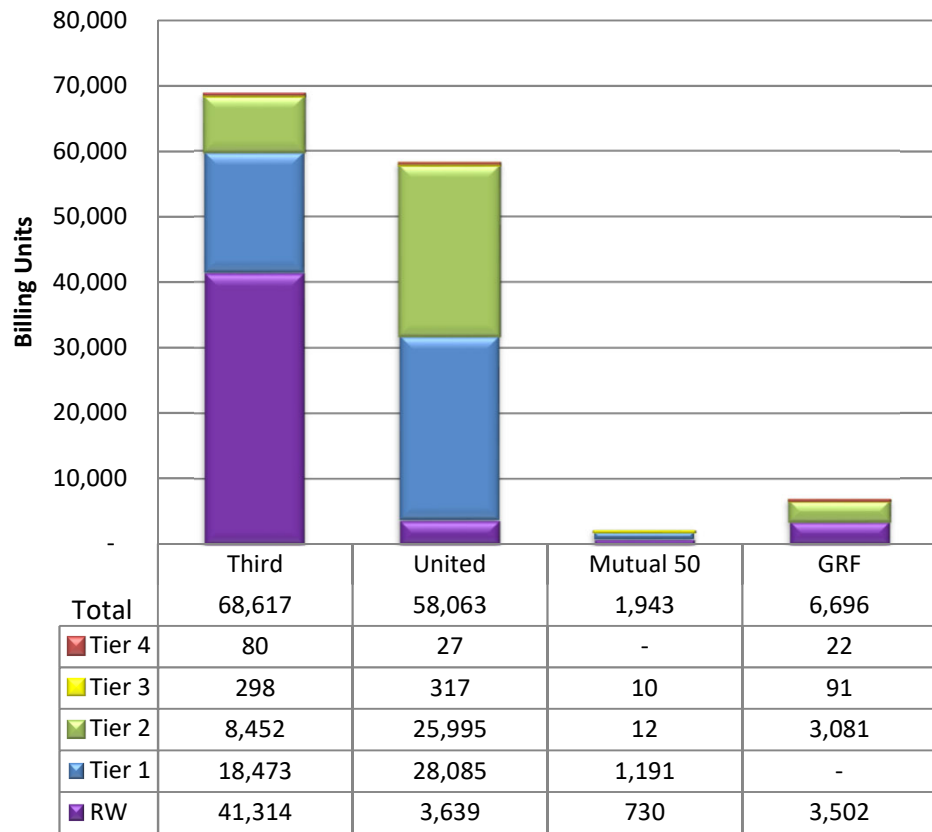
## Laguna Woods Village June 2022 Water Sales



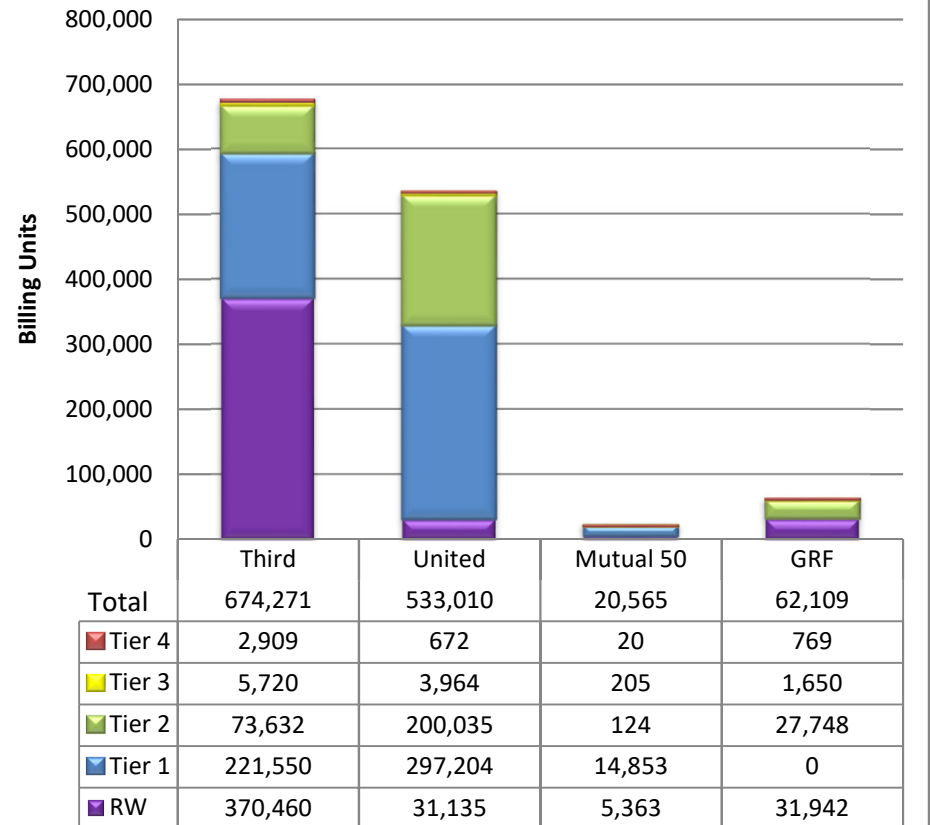
## Laguna Woods Village Year-to-Date Water Sales June 2022



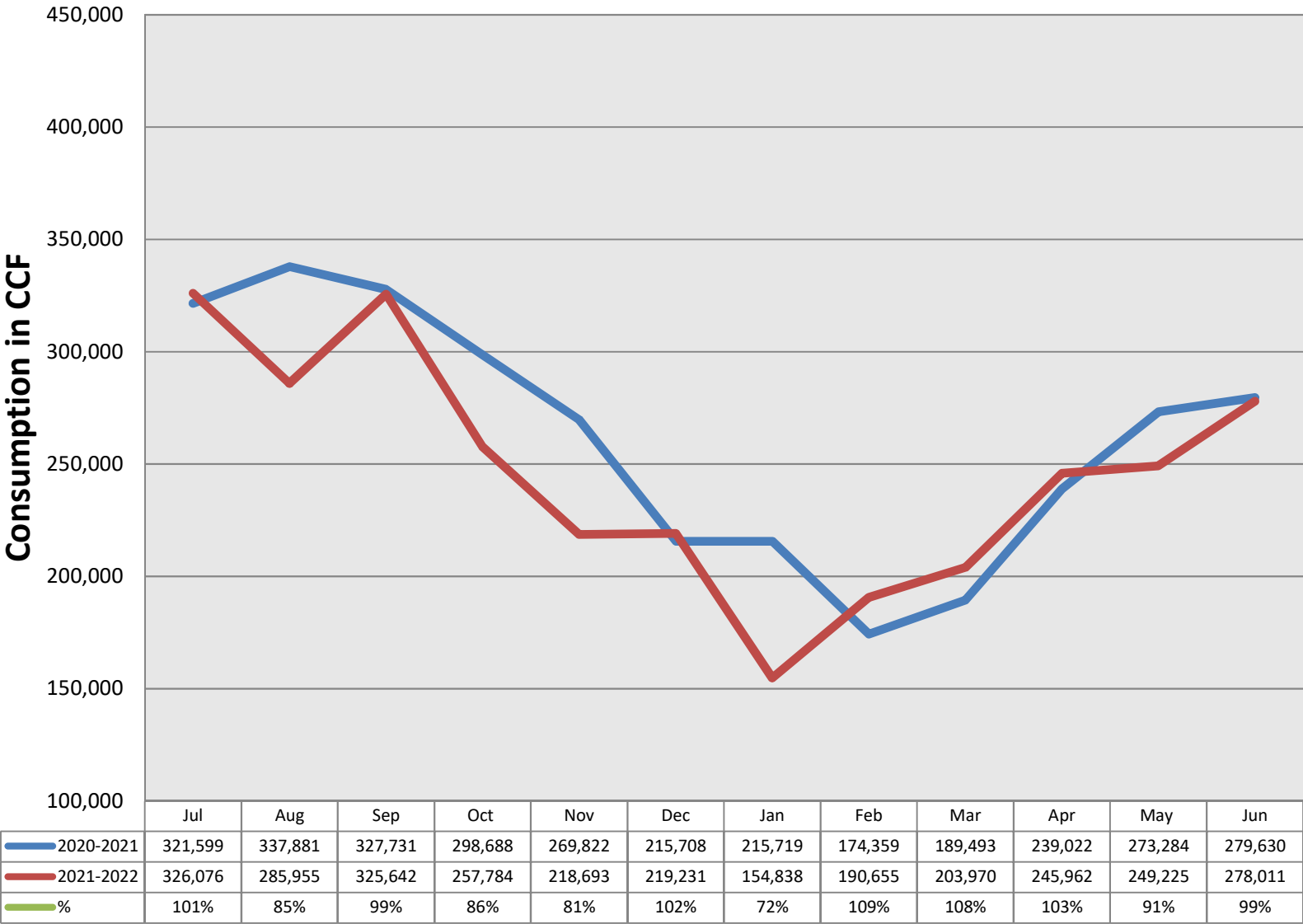
## Laguna Woods Village June 2022 Water & RW Sales



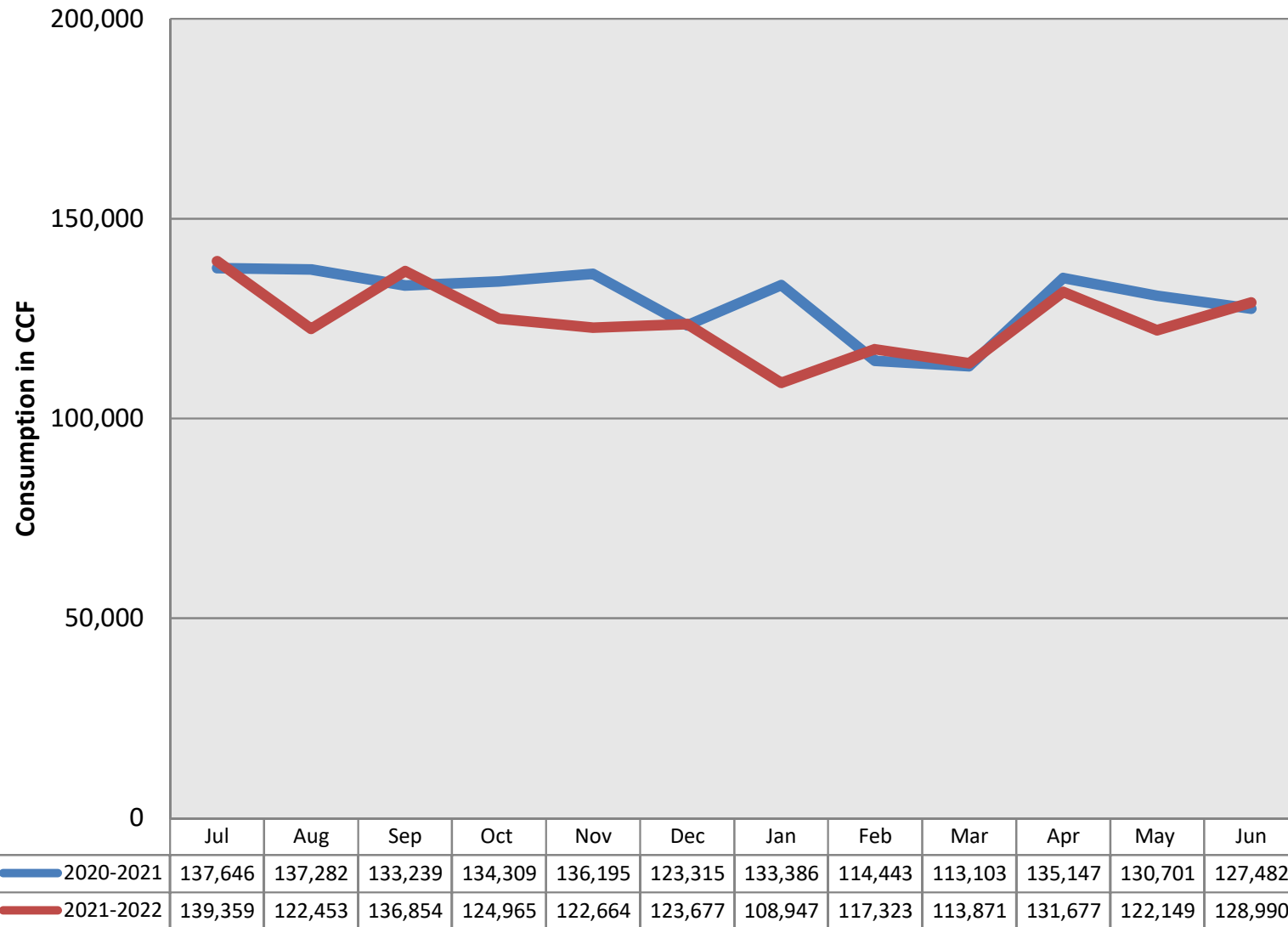
## Laguna Woods Village Year-to-Date Water & RW Sales June 2022



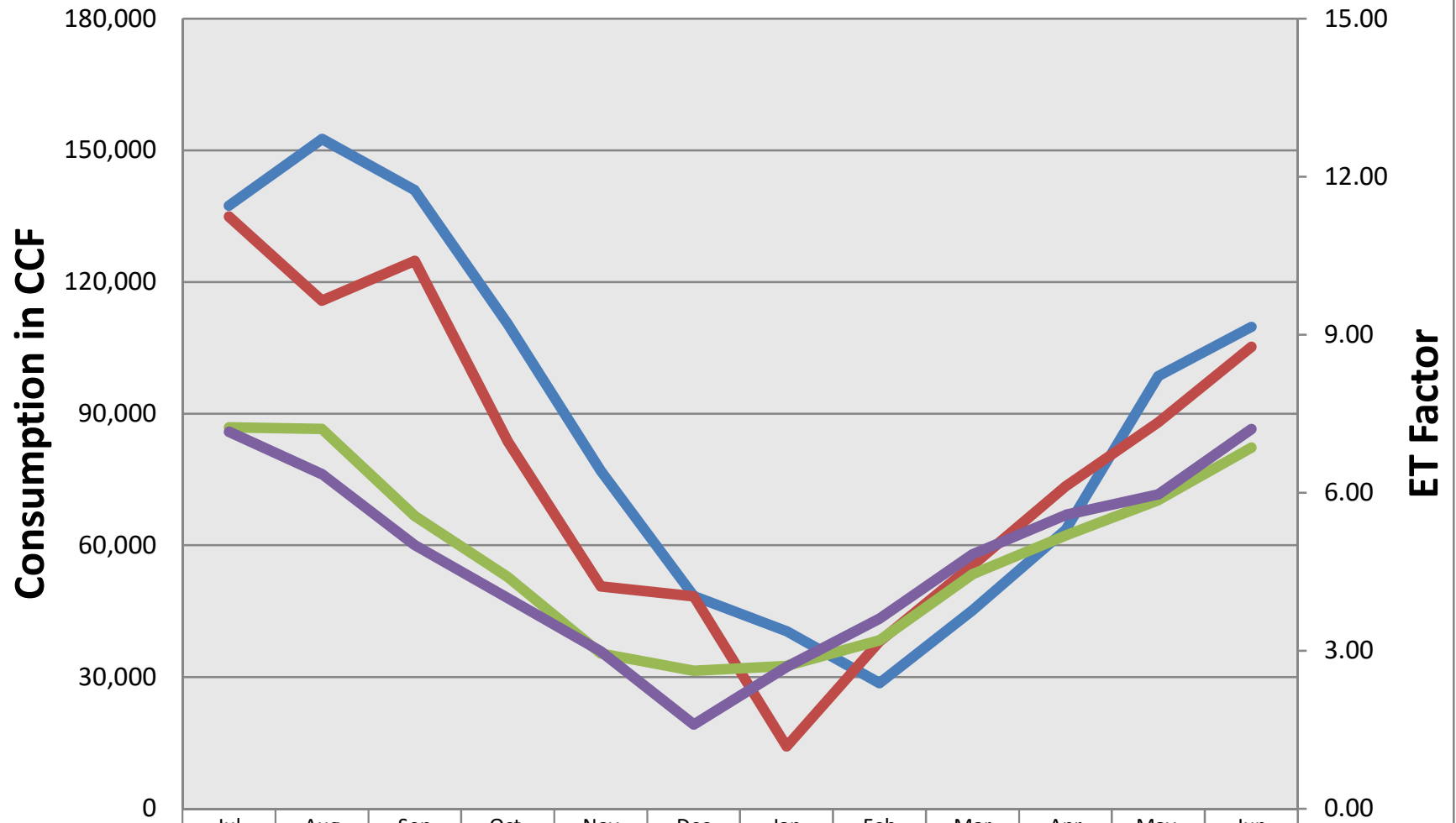
# ETWD Total Consumption



## Tier I Consumption



## Tier II Consumption



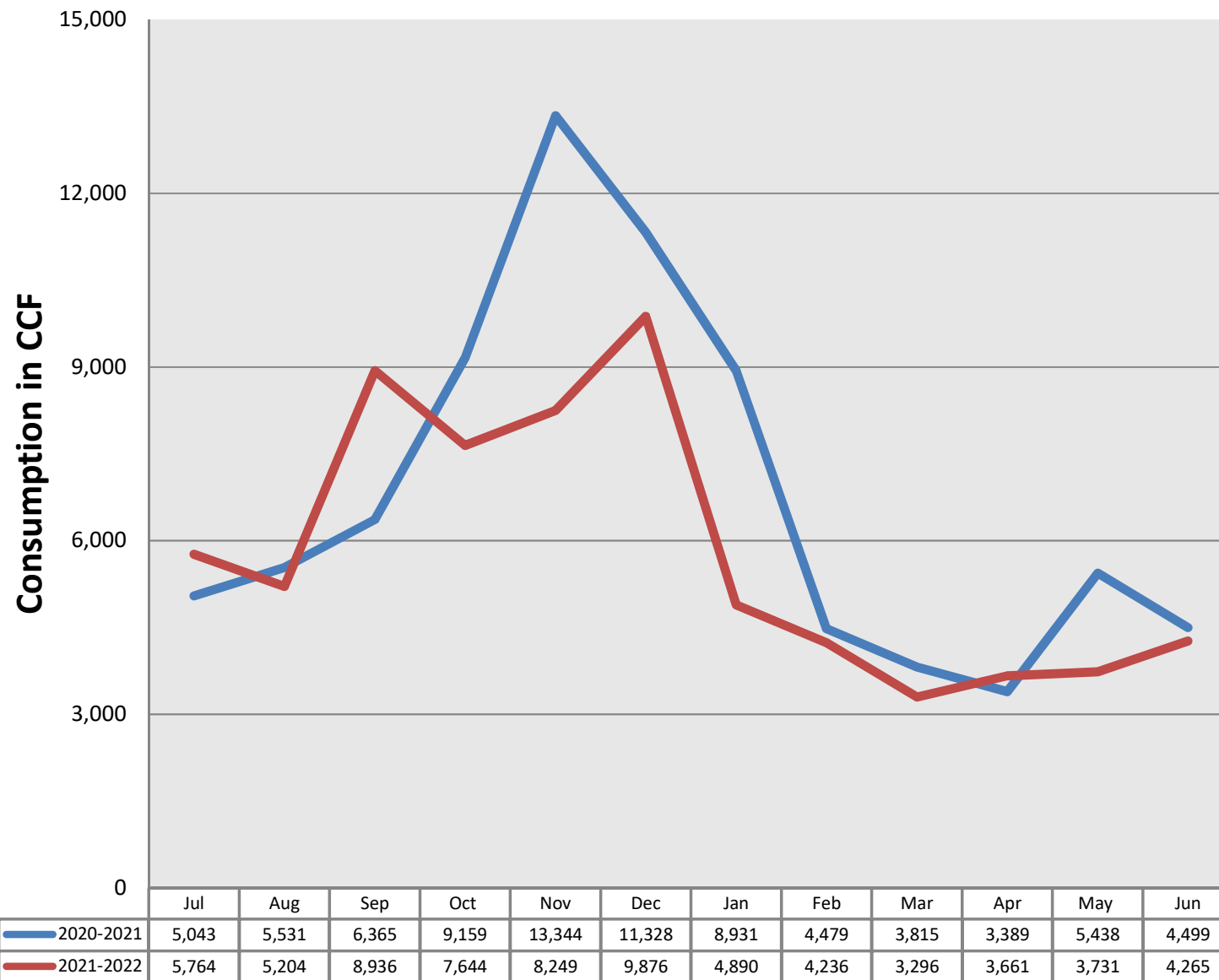
2020-2021	137,408	152,593	140,982	110,443	76,968	48,415	40,480	28,615	45,213	63,524	98,547	109,792
2021-2022	134,929	115,782	124,822	83,711	50,681	48,390	14,202	38,183	55,520	73,496	88,075	105,265
20/21 ET	7.24	7.21	5.56	4.40	2.95	2.62	2.71	3.20	4.45	5.19	5.86	6.86
21/22 ET	7.16	6.35	5.01	4.00	2.99	1.60	2.69	3.61	4.83	5.58	5.97	7.21



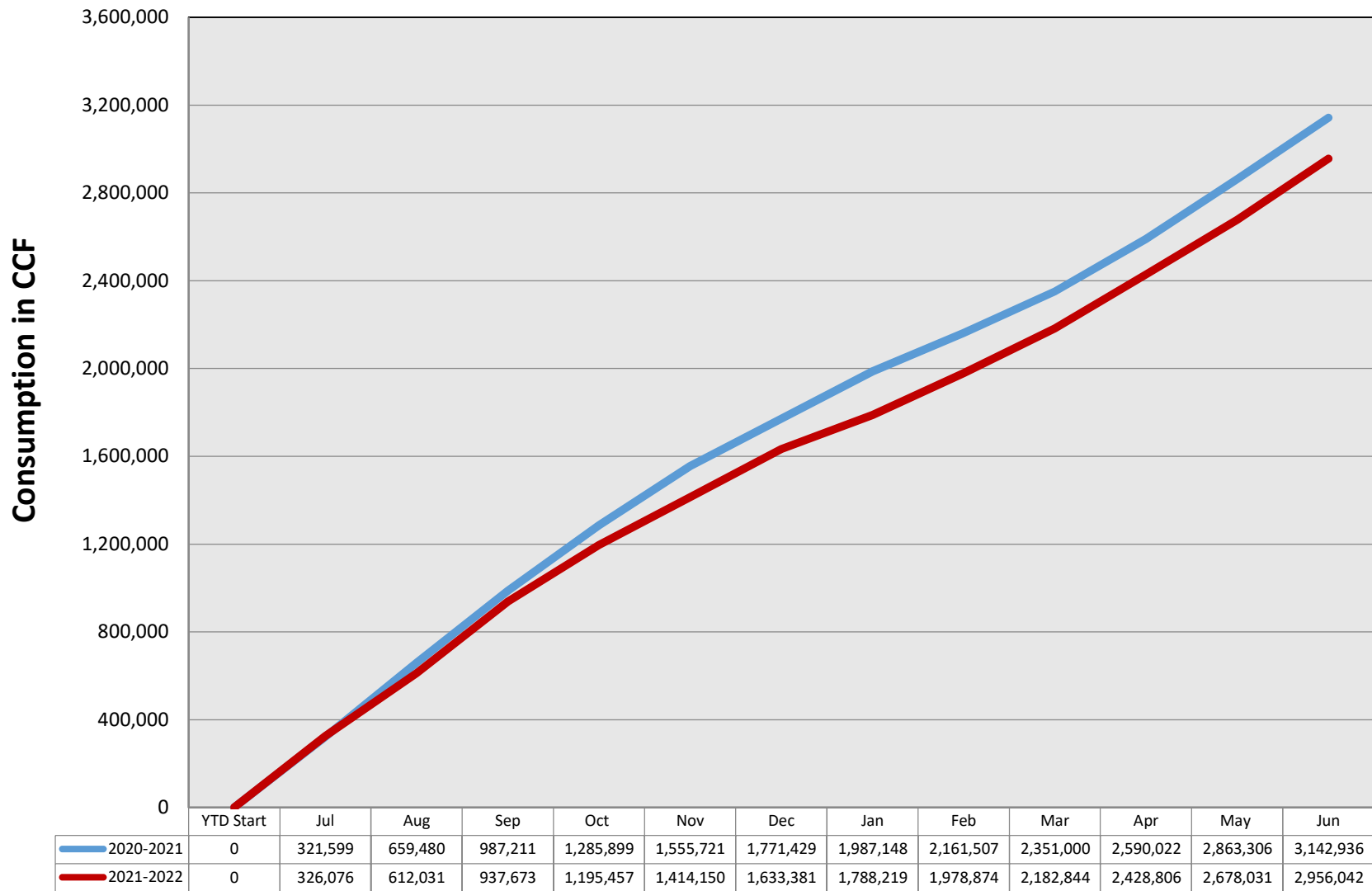
## Tier III Consumption



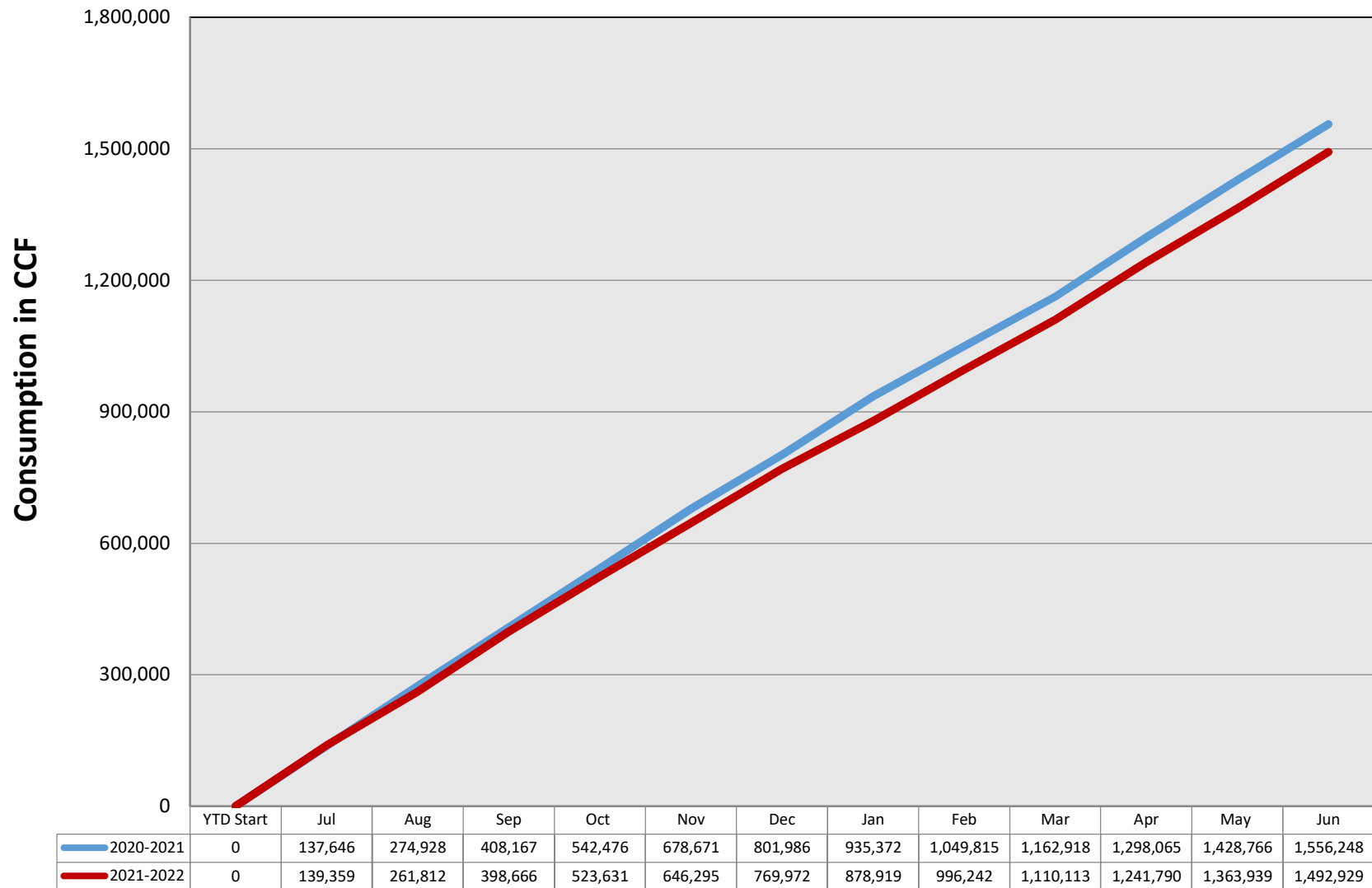
## Tier IV Consumption



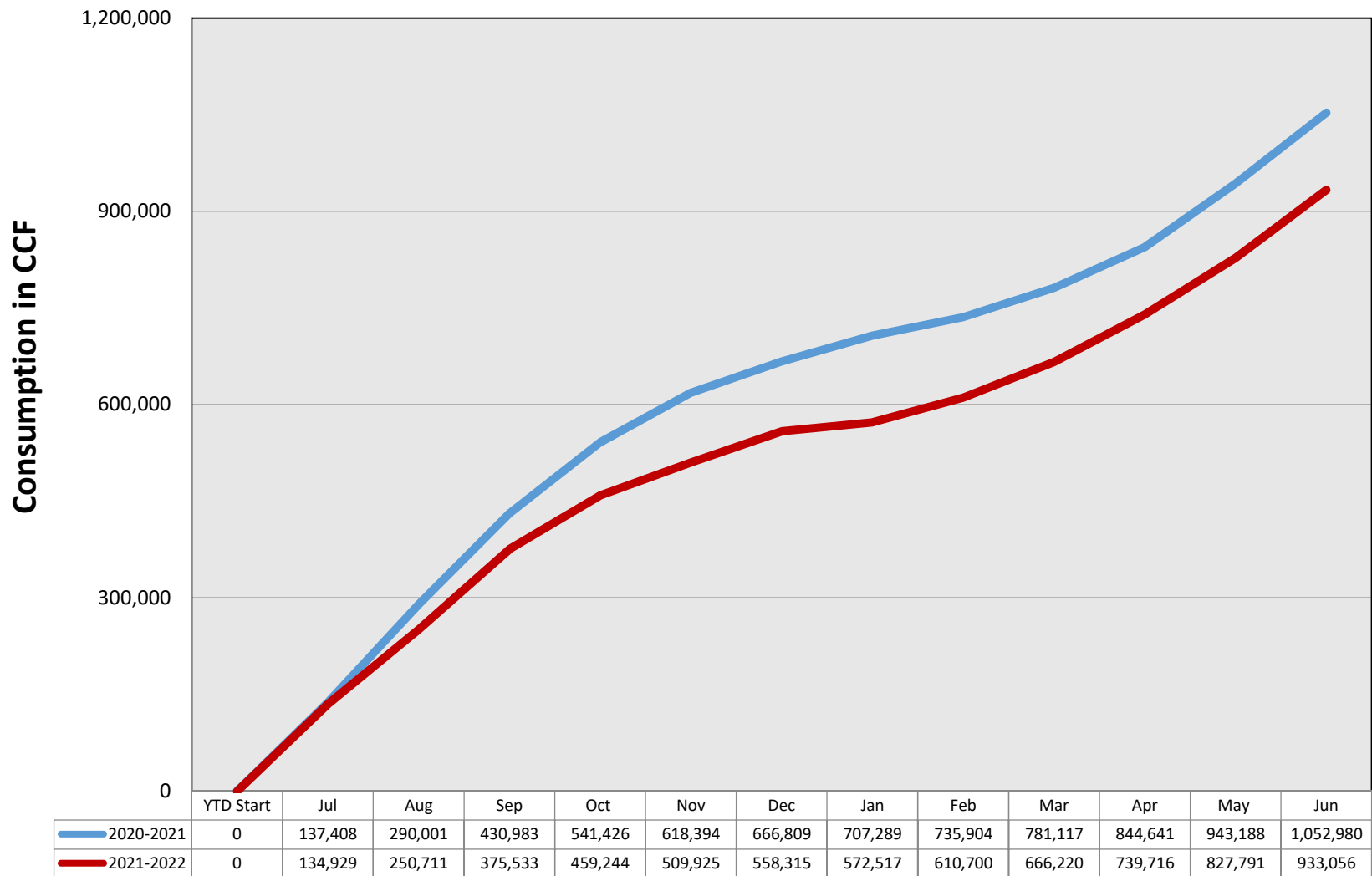
## ETWD YTD Consumption



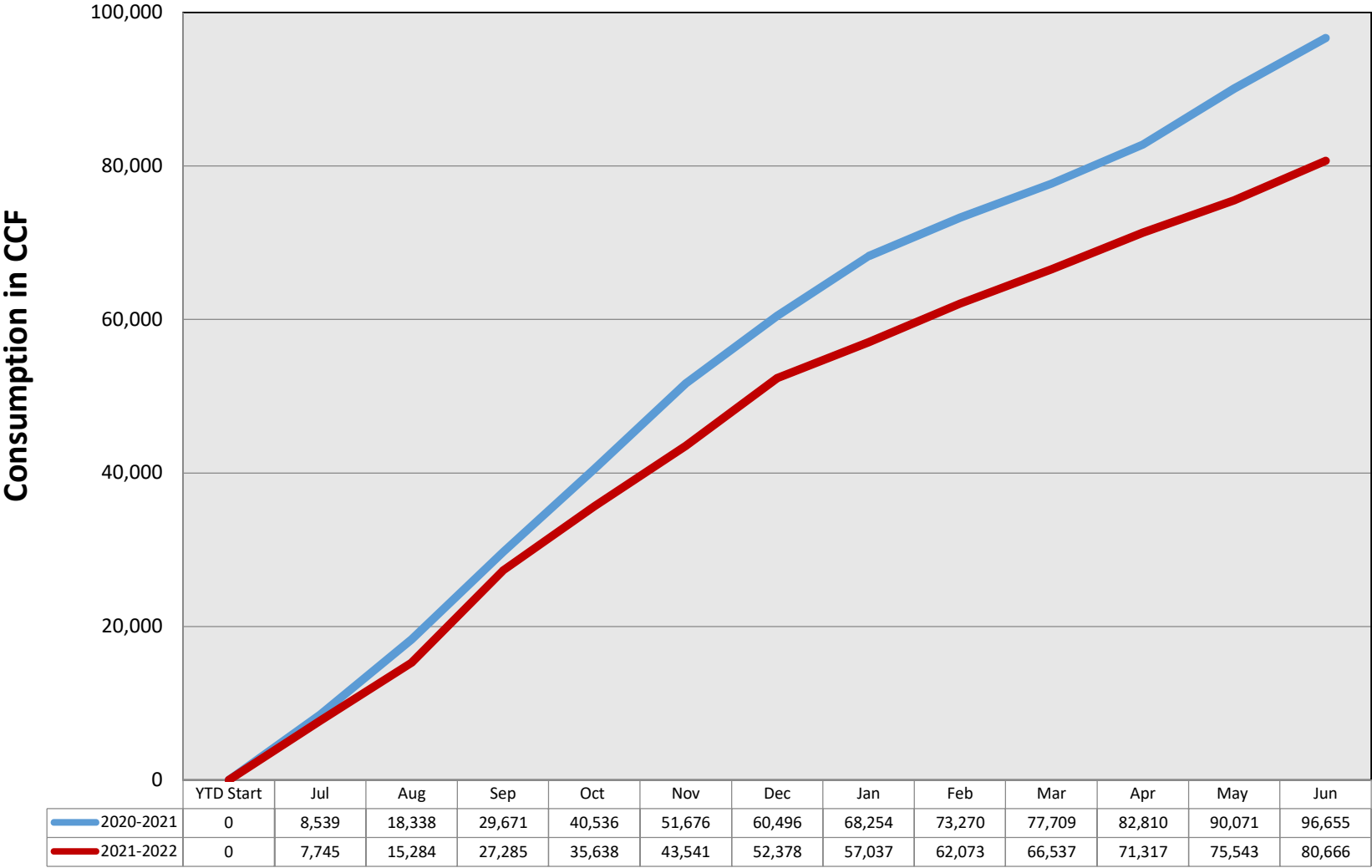
## Tier I YTD Consumption



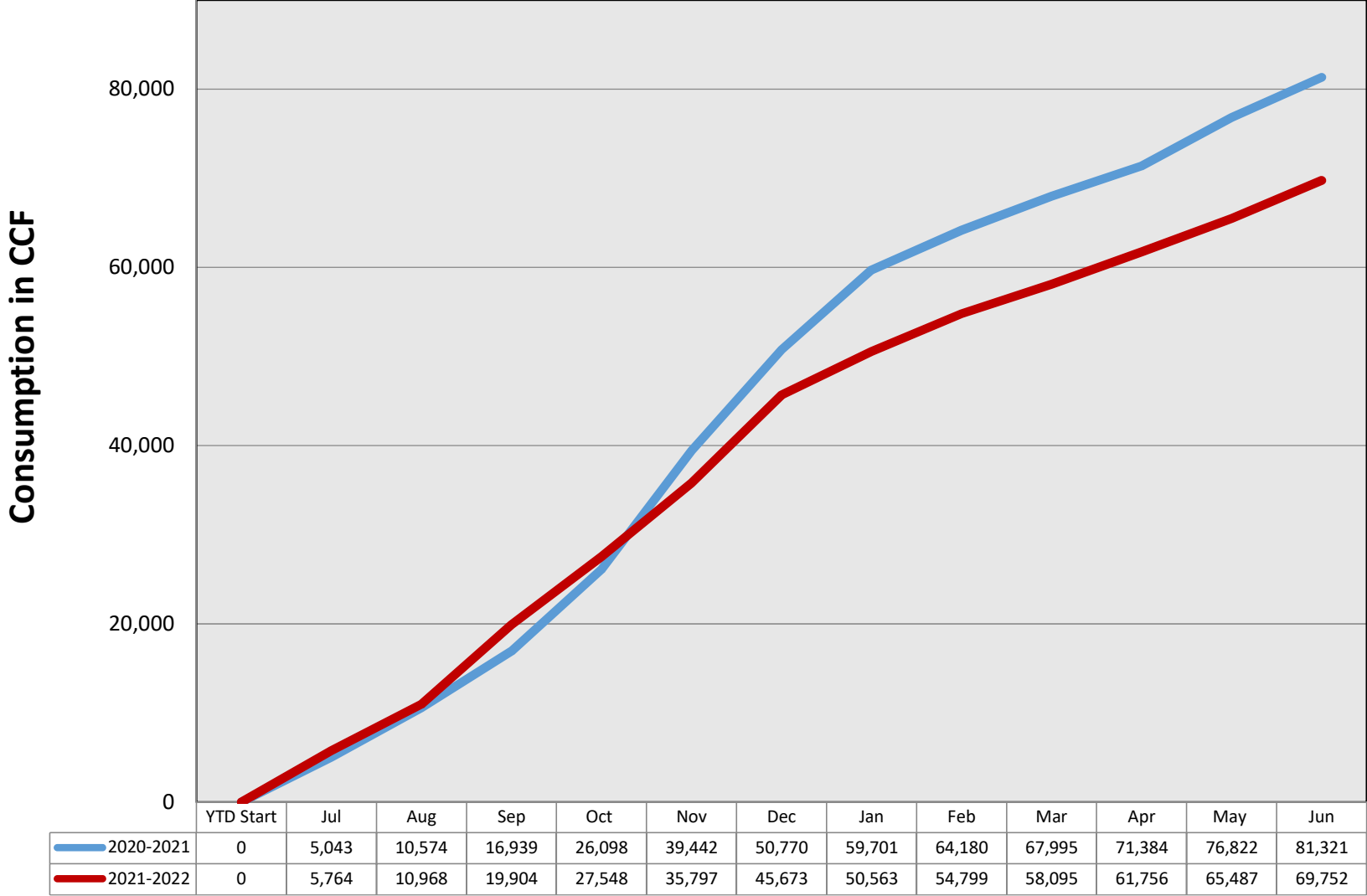
## Tier II YTD Consumption



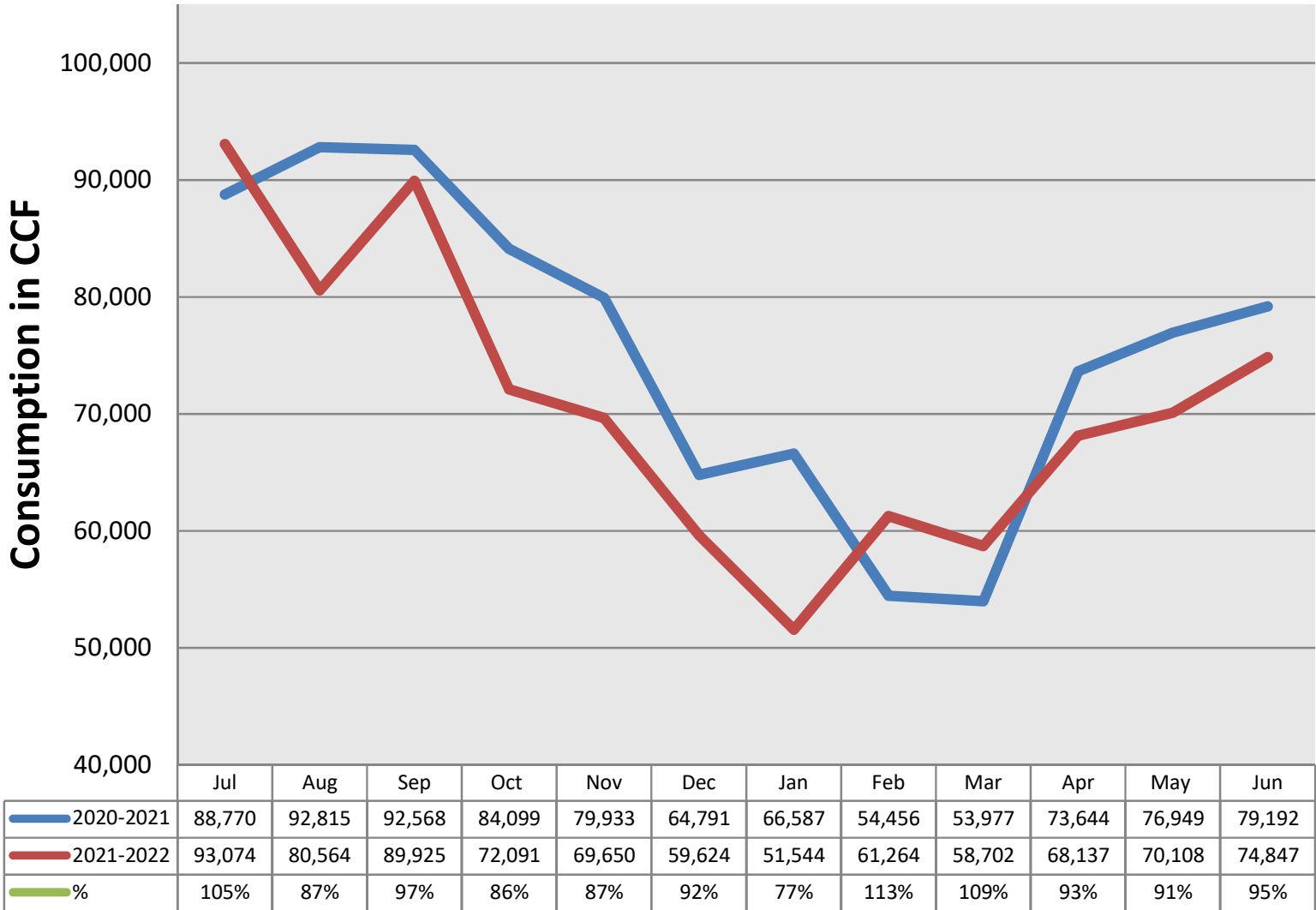
Tier III YTD Consumption



# Tier IV YTD Consumption

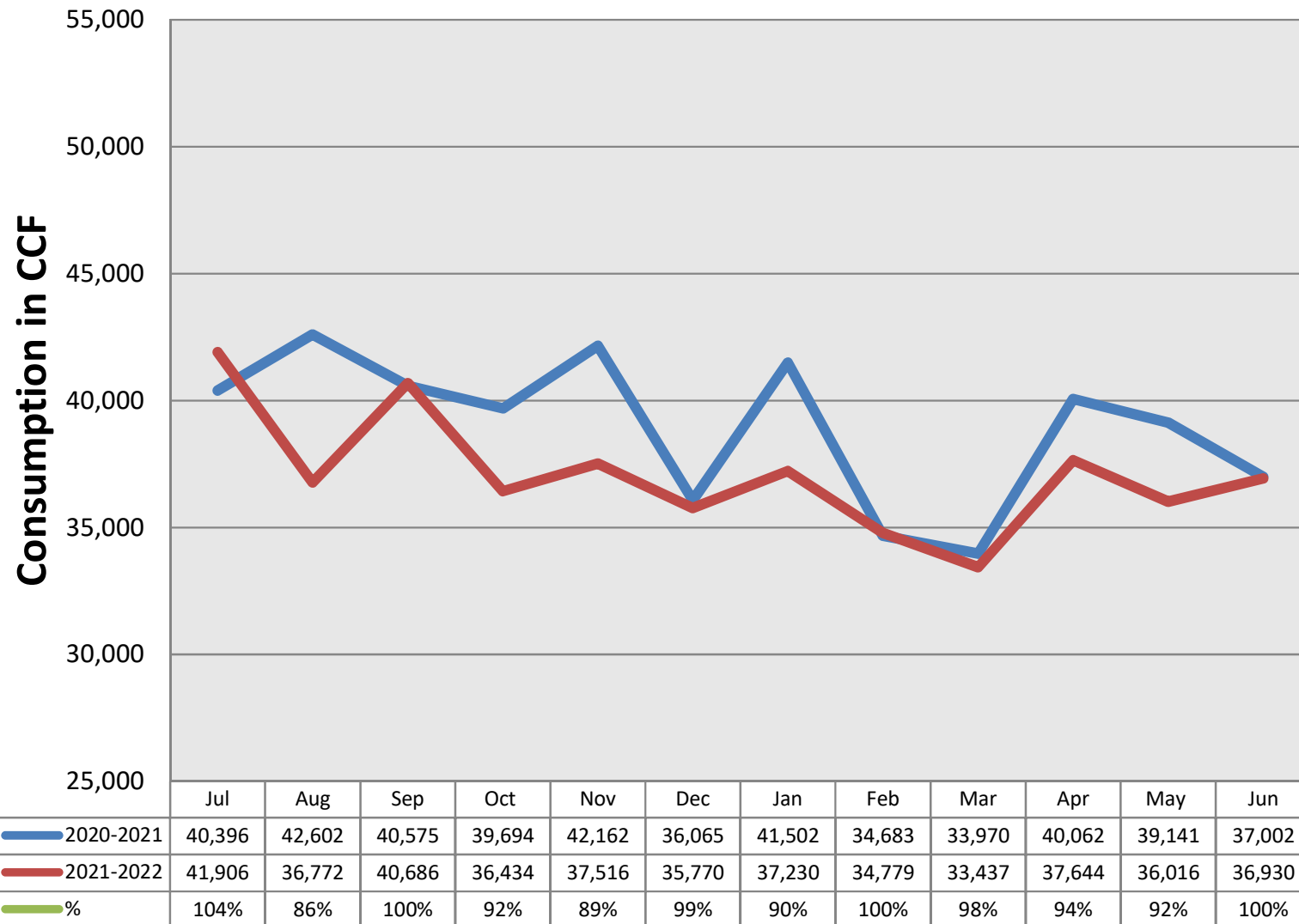


# Single Family Residents Consumption





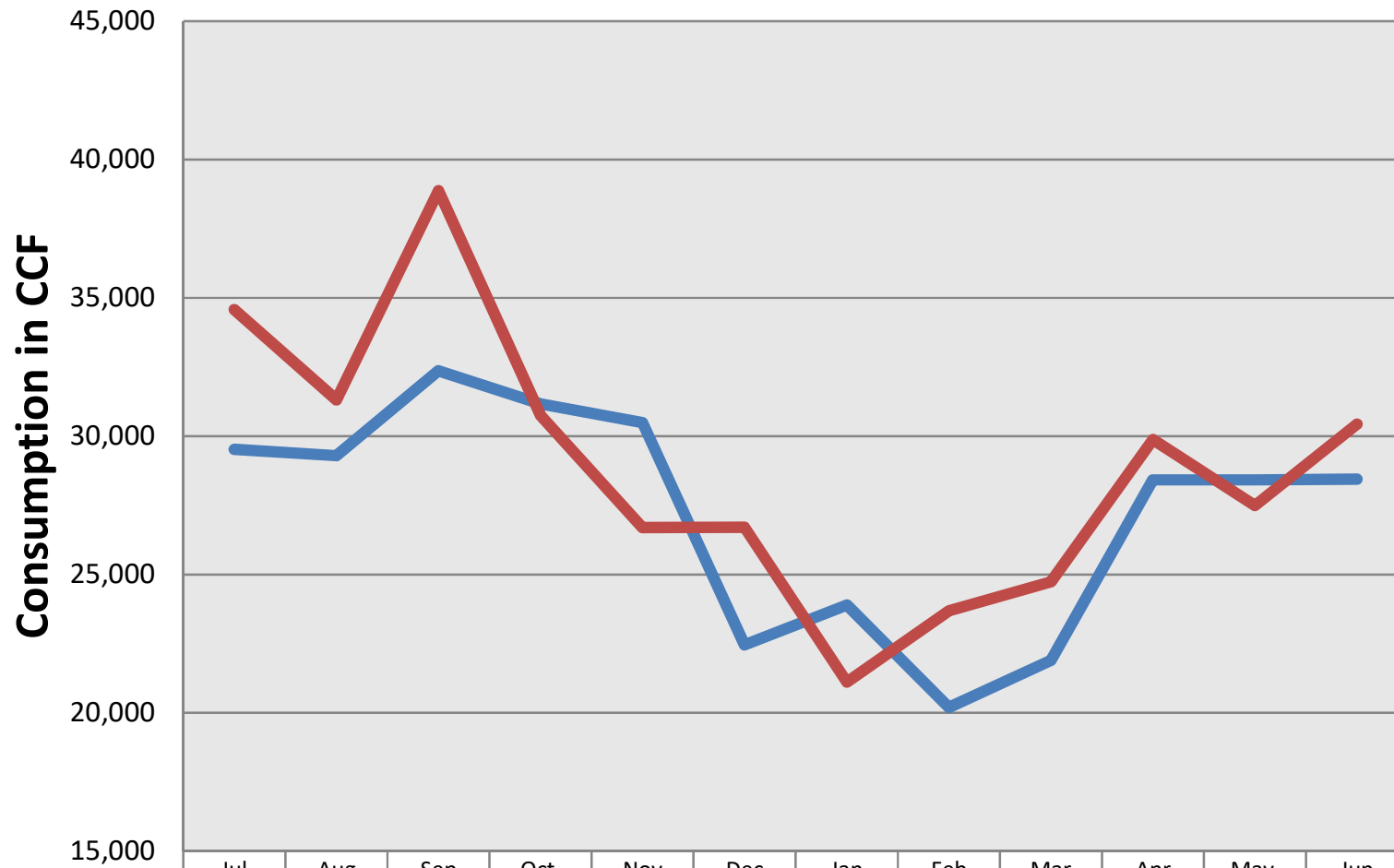
## Multi Family Residents Consumption



## Laguna Woods Village Consumption (Excluding Dedicated Irrigation)

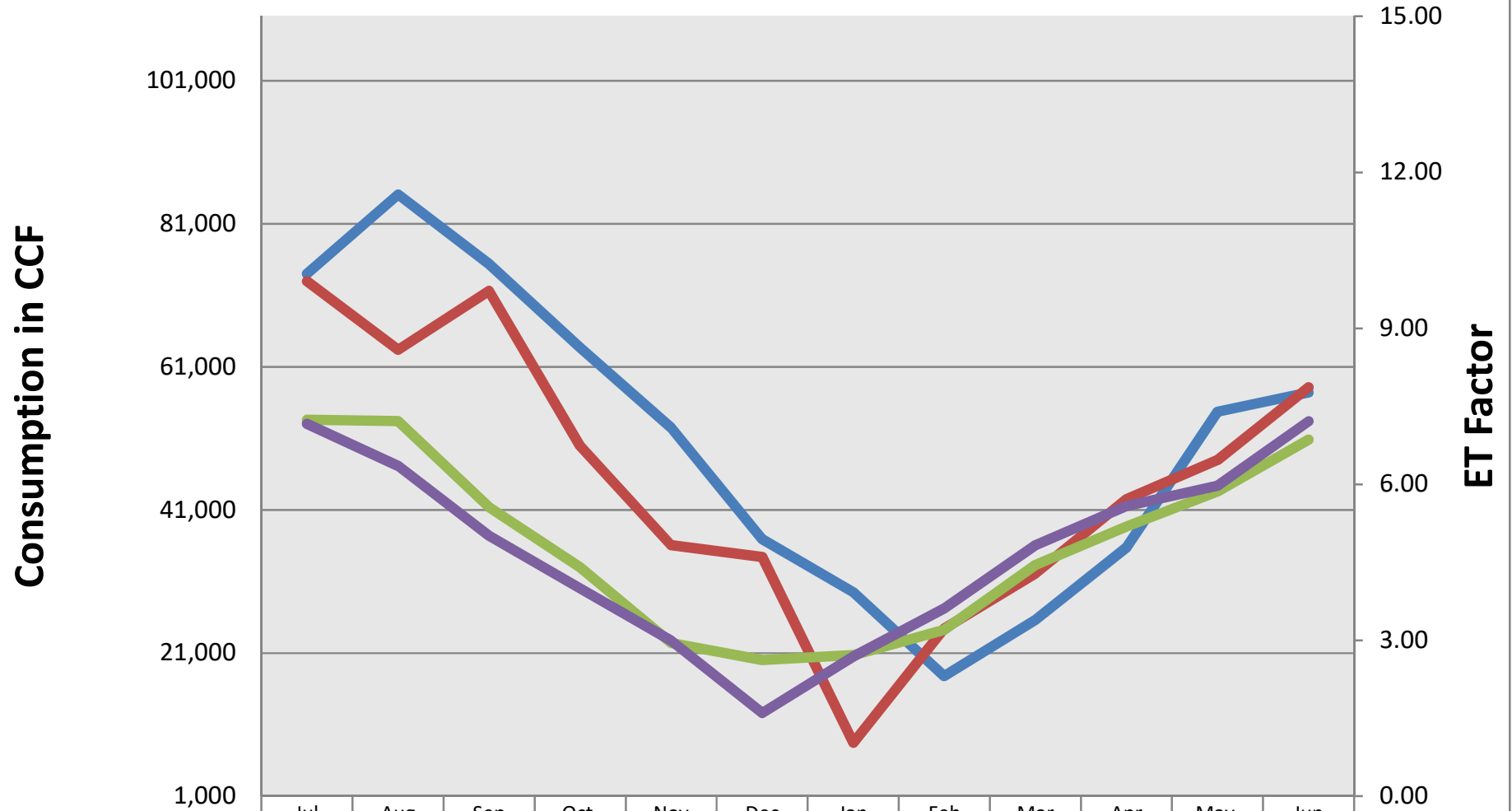


## Commercial Consumption



	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	30,750	26,696	26,703	21,106	23,681	24,737	29,879	27,496	30,433
%	117%	107%	120%	99%	88%	119%	88%	117%	113%	105%	97%	107%

## 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	49,947	36,071	34,438	8,474	24,456	32,108	42,525	47,995	58,170
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	4.00	2.99	1.60	2.69	3.61	4.83	5.58	5.97	7.21
%	99%	75%	95%	78%	69%	93%	29%	137%	125%	119%	88%	101%



## STAFF REPORT

**To: BOARD OF DIRECTORS**

**Meeting Date: July 25, 2022**

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

**Subject: Springbrook Implementation – Progress Update**

Since the last update on the Springbrook implementation process on June 20, 2022, District Staff has continued with implementation tasks, including:

- On July 1, 2022 ETWD Staff began using Springbrook to account for the activities in the 2022-2023 Fiscal Year. The budget has been entered into Springbrook and Payroll and Accounts Payable activities are occurring in the software.
- The first payroll process in Springbrook occurred during the week of July 11 with ETWD Staff worked extensively with the Springbrook consultant to complete the process. Processing payroll in Springbrook was completed fairly smoothly but Staff had some challenges with transmitting the electronic files to the bank and the retirement accounts. These challenges were resolved and the next payroll process should be smoother.
- ETWD Staff will begin the setup and implementation for the Utility Billing module in the first week of August.

### **Springbrook Finance/Payroll Systems Project Schedule as of 6/15:**

Week or Day	System	Description	Complete
1/13	Finance	Project Kick-off Conference Call	Yes
1/17 – 1/21	Finance	Business Process Questionnaire Review	Yes
1/31 – 2/4	Finance	Discovery Session Meetings	Yes
2/7 – 2/11	Finance	General Ledger/Chart of Accounts Consulting Session	Yes
3/4/22	Finance	Chart of Accounts/Accounts Payable Vendor List Due	Yes
3/4/22	Payroll	Payroll Business Process Questionnaire Due	Yes
3/7 – 3/11	Payroll	Payroll Questionnaire Review	Yes
3/14 – 3/18	Finance	General Ledger & Accounts Payable – Data Review and Load	Yes
3/14 – 3/18	Payroll	Discovery Session between ETWD and Springbrook	Yes
3/21 – 3/25	Finance	Setup & Configuration Session	Yes
5/6	Payroll	Payroll Data / Templates Due	Yes
6/28 – 7/7	Finance	Go Live Sessions	Yes

7/11 – 7/15	Payroll	Go Live Sessions	Yes
7/15 – 7/31	Both	Post Go Live Support	Ongoing

**Springbrook Utility Billing Project Schedule as of 6/15:**

Week/Day	System	Description	Complete
5/2 – 5/6	Utility Billing	Utility billing discovery session begins	Yes
6/3	Utility Billing	Utility billing data transmitted to Springbrook	Yes
6/6 – 6/10	Utility Billing	Springbrook works on Data Mapping from CUSI	Yes
6/13/ - 6/17	Utility Billing	Initial data conversion and load	Yes
6/20 – 6/24	Utility Billing	Initial Data Review	In process
8/1 – 8/5	Utility Billing	Setup and Configuration Sessions	No

# **REVISED BUDGET SCHEDULE**

## **FY 2022/2023**

<b>DESCRIPTION</b>	<b>DATE</b>	<b>DAY</b>
<b>Board Budget Committee #1</b>	<b>4/19/2022</b>	<b>Tuesday</b>
<b>Board Budget Committee #2</b>	<b>5/9/2022</b>	<b>Monday</b>
<b>Board Budget Workshop</b>	<b>5/24/2022</b>	<b>Tuesday</b>
<b>CAG</b>	<b>6/2/2022</b>	<b>Thursday</b>
<b>Publish Public Hearing Notice - Newspaper</b>	<b>6/6/2022</b>	<b>Monday</b>
<b>Distribute Prop 218 Notice</b>	<b>6/10/2022</b>	<b>Friday</b>
<b>FIC Meeting Budget Update</b>	<b>6/20/2022</b>	<b>Monday</b>
<b>Conduct Public Hearing - Regular Board Meeting</b>	<b>7/28/2022</b>	<b>Thursday</b>
<b>Implement Board Action</b>	<b>8/1/2022</b>	<b>Monday</b>

**Note: Board Budget Committee #1, Committee #2, and Workshop are at 7:30 am**

# **EL TORO WATER DISTRICT INSURANCE UPDATE**

**July 2022**

## **Liability Program**

There is nothing new to report this quarter.

## **Property Insurance**

There is nothing new to report this quarter.

## **Excess Public Employee Fidelity Program**

There is nothing new to report this quarter.

## **Underground Storage Tank Pollution Liability**

There is nothing new to report this quarter.

## **Dam Failure Liability**

There is nothing new to report this quarter.

## **Fiduciary Liability Policy**

There is nothing new to report this quarter.

## **Liability & Property Claims**

On June 29, 2022, our back fence was cut. 500 feet of copper generator cables, a generator and connections were stolen, with an estimated cost of \$10,394.00. This was reported to the police and a police report was taken. The claim has been sent to JPIA for reimbursement.

## **Workers' Compensation Policy**

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

## **Workers' Compensation Claims**

There was one workers' compensation claim this quarter with no loss time.



### **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 fourth quarter is \$1463.00.

### **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 fourth 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 fourth quarter is \$78.89.

### **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 fourth quarter is \$54.17.

**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 fourth quarter is \$14.71.

**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 fourth quarter is \$45.16.

**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 fourth 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 - Q4 2021/2022**  
**7/1/2022**

	<b>Annual Budget</b>	<b>Actual Paid to Date</b>	<b>Difference</b>	
<b>Insurance Coverage</b>				
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	\$45,427	\$19,927	
less SMWD- 50% &	(\$7,950)	(\$22,714)	(\$14,764)	
MNWD 5% - R-6	(\$795)	(\$2,271)	(\$1,476)	
Underground Storage Tank	\$1,500	\$1,555	\$55	
Excess Crime	\$2,100	\$2,095	(\$5)	
<b>Total Insurance</b>	<b>\$296,655</b>	<b>\$240,886</b>	<b>(\$55,769)</b>	
	<b>Annual Budget</b>	<b>Q4 Budget</b>	<b>Accumulative Q4 Actual</b>	<b>Difference</b>
<b>Benefits - Directors</b>				
Long Term Care	\$16,702	\$16,702	\$13,509	(\$3,193)
Medical Employer Paid	\$21,807	\$21,807	\$18,886	(\$2,921)
Dental	\$2,401	\$2,401	\$2,401	\$0
Vision	\$1,033	\$1,033	\$1,032	(\$1)
Life	\$138	\$138	\$136	(\$2)
<b>Total Benefits Directors</b>	<b>\$42,081</b>	<b>\$42,081</b>	<b>\$35,964</b>	<b>(\$6,117)</b>
<b>Retiree Benefits</b>				
Medical Employer Paid	\$302,967	\$302,967	\$261,401	(\$41,566)
<b>Total retiree benefits</b>	<b>\$302,967</b>	<b>\$302,967</b>	<b>\$261,401</b>	<b>(\$41,566)</b>
<b>Employee Benefits</b>				
Emp.Assistance Program	\$1,281	\$1,281	\$1,169	(\$112)
Medical Employer Paid	\$1,123,254	\$1,123,254	\$1,049,934	(\$73,320)
Life/AD&D	\$32,025	\$32,025	\$32,086	\$61
Dental	\$57,283	\$57,283	\$56,737	(\$546)
Vision	\$12,724	\$12,724	\$12,322	(\$402)
LTD/STD	\$39,391	\$39,391	\$37,917	(\$1,474)
LTC Employer Paid	\$10,980	\$10,980	\$8,451	(\$2,529)
Workers comp.	\$125,050	\$125,050	\$129,613	\$4,563
<b>Total Employee Benefits</b>	<b>\$1,401,988</b>	<b>\$1,401,988</b>	<b>\$1,328,229</b>	<b>(\$73,759)</b>

## SUMMARY OF COVERAGE

Page 5

Type of Coverage	<b><u>GENERAL LIABILITY</u></b>	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	<b><u>AUTO LIABILITY</u></b>	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	<b><u>PUBLIC OFFICIALS LIABILITY</u></b>	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	<b><u>PROPERTY</u></b>	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

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

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

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<b>Type of Coverage</b>	<b><u>DAM FAILURE LIABILITY</u></b>	<b>Coverage Term: 10/21-09/22</b>
<b>Coverage (Includes Excess Ins. for El Toro Reservoir)</b>	\$10,000,000.00	<b>Premium - \$45,427</b>
<b>Covers: El Toro Reservoir Rossmoor Dam</b>	\$5,000,000.00	
<b>Coverage Limits</b>	<b>Insurance Carrier</b>	<b>Policy Number</b>
		MOLC - 100110

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

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Type of Coverage	<b><u>WORKERS' COMPENSATION</u></b>	Coverage Term: 7/21 - 6/22
Coverage Includes	1. Coverage A - Workers' Compensation 2. Coverage B - Employer's Liability	4th Quarter Premium <b>\$32,403 (Estimate)</b>
Coverage Limits	Insurance Carrier	Policy Number
Coverage A		
\$0 - \$2 Million	Pooled Self-insured	MOLC - 100110
\$2 Million to Statutory		
Coverage Limits	Insurance Carrier	Policy Number
Coverage B		
\$0 - \$2 Million	Pooled Self-insured	MOLC - 100110
\$2 Million excess of \$2 Million SIR		

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Type of Coverage	<b><u>LIFE &amp; ACCIDENT</u></b>	4th Quarter Premium <b>\$8,161</b>
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	

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Type of Coverage	<b><u>LONG / SHORT TERM DISABILITY</u></b>	4th Quarter Premium <b>\$9,751</b>
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	

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Type of Coverage	<b><u>LONG TERM CARE</u></b>	4th Quarter Premium <b>\$2,649</b>
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	

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Type of Coverage	<u>MEDICAL</u>	4th Quarter Premium \$328,634
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	

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Type of Coverage	<u>DENTAL</u>	4th Quarter Premium \$14,801
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	

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Type of Coverage	<u>VISION</u>	4th Quarter Premium \$3,339
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	

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Type of Coverage	<u>PERSONAL ACCIDENT INSURANCE</u>	4th 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	

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Type of Coverage	<u>Supplemental Financial Insurance Program</u>	4th 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	

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EL TORO WATER DISTRICT  
FINANCIAL REPORT  
July 25, 2022

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**EL TORO WATER DISTRICT  
BALANCE SHEET**

	<b>6/30/22 (Unaudited)</b>	<b>June 30, 2021 (Audited)</b>
<b>ASSETS</b>		
Current Assets		
Cash	\$2,995,891	\$3,118,166
2022 Revenue Bonds Cash	25,068,240	-
Investments:		
Investments Cash	16,608,029	16,830,892
Investments FMV Adjustment	604	604
Restricted Assets	(34,764,321)	(9,787,357)
Receivables:		
Accounts Receivable	3,767,518	3,633,876
Inventories	700,085	714,751
Prepaid Expenses	158,496	159,944
Total Current Assets	<u>\$14,534,542</u>	<u>14,670,875</u>
Restricted Assets		
Cash & Investments	<u>34,764,321</u>	<u>9,787,357</u>
Total Restricted Assets	<u>34,764,321</u>	<u>9,787,357</u>
Non-Current Assets		
Utility Plant:		
Land & Easements	7,451,585	7,451,585
Long Term Leases	342,382	342,382
Equipment	122,596,257	121,940,111
Collection & Impound Reservoirs	6,243,706	6,243,706
Structure & Improvements	35,035,090	34,950,613
Total Utility Plant	<u>171,669,022</u>	<u>170,928,398</u>
Less Accumulated Depreciation & Amortization	<u>(88,215,117)</u>	<u>(83,944,167)</u>
Net Utility Plant	83,453,905	86,984,231
Construction Work in Progress	4,253,944	3,064,334
Deffered Outflow OPEB	<u>5,469,108</u>	<u>5,469,108</u>
Total Non-current Assets	<u>93,176,956</u>	<u>95,517,673</u>
<b>TOTAL ASSETS</b>	<u><u>\$142,475,820</u></u>	<u><u>\$119,975,906</u></u>

**EL TORO WATER DISTRICT  
BALANCE SHEET**

	<b>6/30/22 (Unaudited)</b>	<b>June 30, 2021 (Audited)</b>
<b>LIABILITIES and EQUITY</b>		
<b>Liabilities</b>		
Current Liabilities Payable		
Accounts Payable	\$2,112,899	\$2,732,736
Current Portion of Long-Term Debt	6,180	2,249,058
Other Current Liabilities	1,585,077	2,342,021
	<hr/>	<hr/>
Total Current Liabilities Payable		
From Current Assets	3,704,156	7,323,815
Long Term Debt		
Long Term Debt	77,697,704	51,798,466
	<hr/>	<hr/>
Total Long Term Debt	77,697,704	51,798,466
	<hr/>	<hr/>
Total Liabilities	81,401,860	59,122,282
<b>Fund Equity</b>		
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	220,336	(1,885,662)
Total Fund Equity	61,073,960	60,853,624
	<hr/>	<hr/>
Total Liabilities & Fund Equity	\$142,475,820	\$119,975,906
	<hr/>	<hr/>

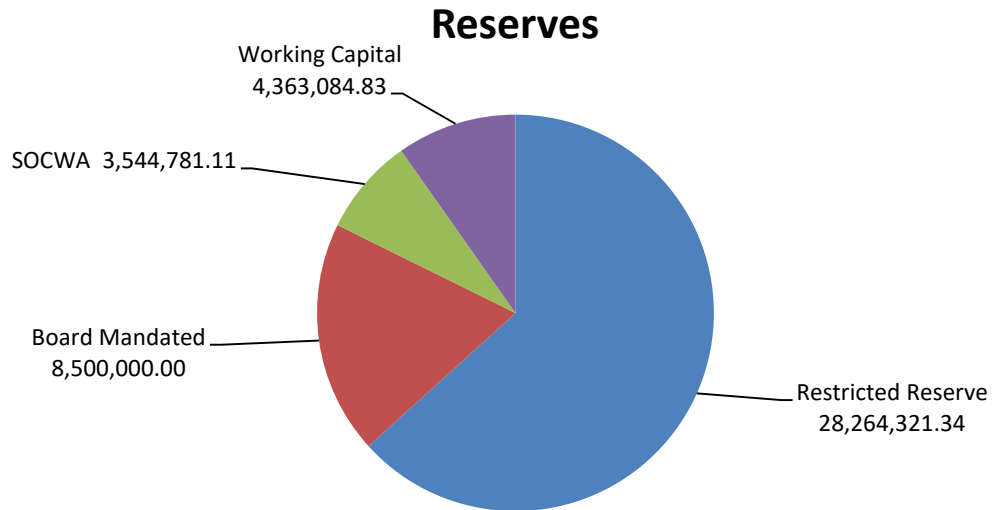
CASH & INVESTMENTS (General Fund)  
SUMMARY OF INVESTMENTS BY TYPE

	Maturity Dates		Par	Market Value	Financial	YTM	Original Cost
	NA	NA		6/30/22	Institution	6/30/22	6/30/22
State Local Agency Investment Fund				\$7,297,900	LAIF	0.86%	\$7,297,900
US Treasury N/B - Coupon Rate 0.125%	7/31/2022		225,000	224,719	US Bank/CAMP	0.11%	225,044
US Treasury N/B - Coupon Rate 0.125%	9/30/2022		360,000	358,425	US Bank/CAMP	0.11%	360,070
US Treasury N/B - Coupon Rate 1.875%	10/31/2022		250,000	249,766	US Bank/CAMP	0.10%	256,328
US Treasury N/B - Coupon Rate 1.875%	10/31/2022		400,000	399,626	US Bank/CAMP	0.12%	410,422
US Treasury N/B - Coupon Rate 0.125%	11/30/2022		200,000	198,156	US Bank/CAMP	0.11%	200,055
US Treasury N/B - Coupon Rate 0.125%	12/31/2022		400,000	395,188	US Bank/CAMP	0.11%	400,125
US Treasury N/B - Coupon Rate 0.125%	1/31/2023		200,000	197,125	US Bank/CAMP	0.13%	199,977
US Treasury N/B - Coupon Rate 0.125%	1/31/2023		400,000	394,250	US Bank/CAMP	0.11%	400,141
US Treasury N/B - Coupon Rate 0.250%	6/15/2023		400,000	389,812	US Bank/CAMP	0.14%	401,047
US Treasury N/B - Coupon Rate 0.125%	7/15/2023		200,000	194,219	US Bank/CAMP	0.19%	199,688
US Treasury N/B - Coupon Rate 0.125%	7/15/2023		400,000	388,438	US Bank/CAMP	0.14%	399,828
US Treasury N/B - Coupon Rate 0.125%	8/15/2023		500,000	484,297	US Bank/CAMP	0.23%	498,809
US Treasury N/B - Coupon Rate 0.250%	11/15/2023		90,000	86,695	US Bank/CAMP	0.29%	89,982
US Treasury N/B - Coupon Rate 0.125%	2/15/2024		300,000	285,547	US Bank/CAMP	0.27%	298,734
US Treasury N/B - Coupon Rate 0.375%	8/15/2024		165,000	156,054	US Bank/CAMP	0.42%	164,807
US Treasury N/B - Coupon Rate 0.375%	9/15/2024		35,000	33,020	US Bank/CAMP	0.52%	34,854
US Treasury N/B - Coupon Rate 1.125%	1/15/2025		350,000	333,703	US Bank/CAMP	1.42%	347,047
US Treasury N/B - Coupon Rate 2.750%	5/15/2025		150,000	148,852	US Bank/CAMP	2.85%	149,566
Intl BK of Recon and Dev Note - Coupon Rate 0.125%	4/20/2023		135,000	132,153	US Bank/CAMP	0.23%	134,721
Inter-American Devel BK Note - Coupon Rate 0.500%	9/23/2024		185,000	174,895	US Bank/CAMP	0.52%	184,863
NJ TPK Auth -B- Txd Muni Bond - Coupon Rate 0.897%	1/1/2025		20,000	18,683	US Bank/CAMP	0.90%	20,000
FHMS K724 A2 - Coupon Rate 3.062%	11/1/2023		60,000	59,614	US Bank/CAMP	0.58%	64,052
FILMC Multifamily Structured Pool - Coupon Rate 3.064%	8/1/2024		93,339	92,722	US Bank/CAMP	3.00%	93,463
FHMS K047 A2 - Coupon Rate 3.329%	5/1/2025		90,000	89,931	US Bank/CAMP	3.10%	90,577
FHMS K133 A1 - Coupon Rate 0.440%	12/1/2025		1,159	1,125	US Bank/CAMP	0.44%	1,159
Federal Farm Credit Bank Note - Coupon Rate 0.125%	2/3/2023		230,000	226,841	US Bank/CAMP	0.15%	229,871
Freddie Mac Notes - Coupon Rate 0.250%	11/6/2023		155,000	149,457	US Bank/CAMP	0.23%	155,087
Fannie Mae Notes - Coupon Rate 0.250%	11/27/2023		250,000	240,581	US Bank/CAMP	0.24%	250,107
Federal Notes			6,244,498	6,104,893			6,260,423
Toyota Motor Credit Corp Corporate Note - Coupon Rate 0.450%	1/11/2024		70,000	67,016	US Bank/CAMP	0.45%	69,996
John Deere Corp Notes - Coupon Rate 0.450%	1/17/2024		55,000	52,727	US Bank/CAMP	0.48%	54,961
Morgan Stanley Corp Notes - Coupon Rate 0.529%	1/25/2024		55,000	53,913	US Bank/CAMP	0.53%	55,000
PACCAR Financial Corp Corporate Note - Coupon Rate 0.350%	2/2/2024		65,000	62,024	US Bank/CAMP	0.39%	64,925
Microsoft Corp (Callable) Note - Coupon Rate 2.875%	2/6/2024		45,000	44,900	US Bank/CAMP	0.95%	46,864
National Rural Util Coop Corporate Note - Coupon Rate 0.350%	2/8/2024		25,000	23,791	US Bank/CAMP	0.37%	24,983
Apple Inc (Callable) Note - Coupon Rate 3.000%	2/9/2024		50,000	49,910	US Bank/CAMP	0.87%	52,381
Goldman Sachs Corp Notes - Coupon Rate 4.000%	3/3/2024		40,000	40,137	US Bank/CAMP	0.69%	44,062
Merck & Co Inc Corp Notes - Coupon Rate 2.900%	3/7/2024		30,000	29,809	US Bank/CAMP	0.88%	31,377
Goldman Sachs Corp Notes - Coupon Rate 0.673%	3/8/2024		20,000	19,532	US Bank/CAMP	0.67%	20,000
Charles Schwab Corp Note - Coupon Rate 0.750%	3/18/2024		30,000	28,777	US Bank/CAMP	0.77%	29,985
Suntrust Bank (Callable) Corp Note - Coupon Rate 3.200%	4/1/2024		60,000	59,696	US Bank/CAMP	0.96%	63,197
Comcast Corp (Callable) Corp Note - Coupon Rate 3.700%	4/15/2024		50,000	50,143	US Bank/CAMP	0.96%	53,305
Bank of NY Mellon Corp Note - Coupon Rate 0.500%	4/26/2024		55,000	52,219	US Bank/CAMP	0.54%	54,941
Novartis Capital Corp Note - Coupon Rate 3.400%	5/6/2024		50,000	50,216	US Bank/CAMP	0.89%	53,112
Amazon.com Inc Corp Note - Coupon Rate 0.450%	5/12/2024		80,000	76,053	US Bank/CAMP	0.50%	79,883
Unitedhealth Group Inc Corp Note - Coupon Rate 0.550%	5/15/2024		30,000	28,582	US Bank/CAMP	0.59%	29,969
Unitedhealth Group Inc Corp Note - Coupon Rate 0.550%	5/15/2024		30,000	28,582	US Bank/CAMP	1.32%	29,476
Caterpillar Finl Service Corp Note - Coupon Rate 0.450%	5/17/2024		45,000	42,675	US Bank/CAMP	0.50%	44,940
Astrazenca Finance LLC (Callable) Corp - Coupon Rate 0.700%	5/28/2024		50,000	47,409	US Bank/CAMP	0.70%	49,996
John Deere Capital Corp Notes - Coupon Rate 0.450%	6/7/2024		10,000	9,547	US Bank/CAMP	0.49%	9,988
Target Corp Notes - Coupon Rate 3.900%	7/1/2024		30,000	30,088	US Bank/CAMP	1.04%	31,879
American Express Co Corp Notes - Coupon Rate 2.500%	7/30/2024		35,000	34,091	US Bank/CAMP	1.14%	36,253
American Honda Finance Corp Notes - Coupon Rate 0.750%	8/9/2024		30,000	28,211	US Bank/CAMP	0.77%	29,980
American Honda Finance Corp Notes - Coupon Rate 0.750%	8/9/2024		35,000	32,913	US Bank/CAMP	0.72%	35,025
Caterpillar Finl Service Corp Notes - Coupon Rate 0.600%	9/13/2024		20,000	18,821	US Bank/CAMP	0.65%	19,973
Bank of NY Mellon Corp Note - Coupon Rate 0.850%	10/25/2024		25,000	23,532	US Bank/CAMP	0.87%	24,984
Apple Inc Corp Note - Coupon Rate 2.750%	11/3/2025		40,000	39,463	US Bank/CAMP	0.89%	42,786
Goldman Sachs Corp Notes - Coupon Rate 1.757%	1/24/2025		10,000	9,643	US Bank/CAMP	1.76%	10,000
Bank of America Corp Notes - Coupon Rate 1.843%	2/4/2025		20,000	19,306	US Bank/CAMP	1.84%	20,000
Merck & Co Inc Corp Note - Coupon Rate 2.750%	2/10/2025		20,000	19,737	US Bank/CAMP	0.94%	21,389
3M Company Corp Note - Coupon Rate 2.000%	2/14/2025		70,000	67,234	US Bank/CAMP	2.13%	69,744
JPMorgan Chase & Co Corp Note Call - Coupon Rate 0.563%	2/16/2025		30,000	28,274	US Bank/CAMP	0.56%	30,000
Exxon Mobil Corp Note - Coupon Rate 2.709%	3/6/2025		30,000	29,344	US Bank/CAMP	2.86%	29,874
Bank of America Corp Notes - Coupon Rate 3.458%	3/15/2025		40,000	39,455	US Bank/CAMP	1.53%	42,714
Intel Corp Note - Coupon Rate 3.400%	3/25/2025		30,000	29,909	US Bank/CAMP	2.40%	30,873
Burlington North Santa Fe Corp Note Call - Coupon Rate 3.000%	4/1/2025		20,000	19,721	US Bank/CAMP	1.07%	21,533
Amazon.com Inc Corp Notes - Coupon Rate 3.000%	4/13/2025		75,000	74,349	US Bank/CAMP	3.06%	74,881
Home Depot Inc Corp Note - Coupon Rate 2.700%	4/15/2025		5,000	4,894	US Bank/CAMP	2.76%	4,991
Target Corp Note - Coupon Rate 2.250%	4/15/2025		30,000	28,969	US Bank/CAMP	2.23%	30,015
Bank of America Corp Note (Callable) - Coupon Rate 0.976%	4/22/2025		70,000	65,819	US Bank/CAMP	0.98%	70,000
Bank of NY Mellon Corp Note - Coupon Rate 1.600%	4/24/2025		45,000	42,401	US Bank/CAMP	0.97%	46,148
Bank of NY Mellon Corp Note - Coupon Rate 3.350%	4/25/2025		20,000	19,774	US Bank/CAMP	3.36%	19,997
Pepsico Inc Corp Note Call - Coupon Rate 2.750%	4/30/2025		20,000	19,684	US Bank/CAMP	1.02%	21,400
Citigroup Inc Corp Notes - Coupon Rate 0.981%	5/1/2025		35,000	32,780	US Bank/CAMP	0.98%	35,000
Suntrust Banks Inc Corp Notes - Coupon Rate 4.000%	5/1/2025		35,000	35,087	US Bank/CAMP	2.69%	36,373
Charles Schwab Corp (Callable) Notes - Coupon Rate 3.850%	5/21/2025		40,000	40,177	US Bank/CAMP	3.30%	40,616
Morgan Stanley Corp Notes (Callable) - Coupon Rate 0.790%	5/30/2025		10,000	9,288	US Bank/CAMP	0.79%	10,000
Honeywell Intl Corp Note - Coupon Rate 1.350%	6/1/2025		20,000	18,860	US Bank/CAMP	0.91%	20,360
JPMorgan Chase & Co Corp Note - Coupon Rate 0.824%	6/1/2025		25,000	23,385	US Bank/CAMP	0.82%	25,000
National Rural Util Corp Corp Note - Coupon Rate 3.450%	6/15/2025		10,000	9,943	US Bank/CAMP	3.46%	9,997
Intel Corp Notes - Coupon Rate 3.700%	7/29/2025		35,000	35,150	US Bank/CAMP	2.95%	35,821
Citigroup Inc Corp Notes - Coupon Rate 1.281%	11/3/2025		20,000	18,541	US Bank/CAMP	1.28%	20,000
State Street Corp Note - Coupon Rate 1.746%	2/6/2026		20,000	19,211	US Bank/CAMP	1.75%	20,000
Citigroup Inc Corp Notes - Coupon Rate 3.290%	3/17/2026		15,000	14,512	US Bank/CAMP	3.29%	15,000
State Street Corp Note - Coupon Rate 2.901%	3/30/2026		60,000	58,056	US Bank/CAMP	2.38%	61,208
JPMorgan Chase & Co (Callable) - Coupon Rate 4.080%	4/26/2026		80,000	78,829	US Bank/CAMP	4.08%	80,000
Corporate Notes			2,100,000	2,037,109			2,137,152
			-	-	US Bank/CAMP	0.00%	-
Certificate of Deposit							
MBalt 2021-1 A3 - Coupon Rate 0.250%	1/16/2024		13,588	13,438	US Bank/CAMP	0.25%	13,586
BMWLT 2021-1 A3 - Coupon Rate 0.290%	1/25/2024		14,982	14,813	US Bank/CAMP	0.29%	14,982
BMWLT 2021-1 A3 - Coupon Rate 0.290%	1/25/2024		54,936	54,313	US Bank/CAMP	0.31%	54,912
Carmx 2021-1 A2A- Coupon Rate 0.220%	2/15/2024		5,101	5,099	US Bank/CAMP	0.24%	5,098
FordL 2021-A A3 - Coupon Rate 0.260%	2/15/2024		23,297	23,149	US Bank/CAMP	0.26%	23,295
GMALT 2021-1 A3 - Coupon Rate 0.260%	2/20/2024		28,929	28,695	US Bank/CAMP	0.26%	28,926
FordO 2019-C A3 - Coupon Rate 1.870%	3/15/2024		15,441	15,409	US Bank/CAMP	1.38%	15,655
Worat 2021-C A2 - Coupon Rate 0.220%	9/16/2024		33,809	33,568	US Bank/CAMP	0.22%	33,809
FordL 2021-B A3 - Coupon Rate 0.370%	10/15/2024		60,000	58,165	US Bank/CAMP	0.38%	59,989
Harst 2021-A A3 - Coupon Rate 0.270%	4/7/2025		25,000	24,414	US Bank/CAMP	0.27%	25,000
FordO 2021-A A3 - Coupon Rate 0.300%	8/15/2025		30,000	29,152	US Bank/CAMP	0.30%	29,997
Harst 2021-2 A3 - Coupon Rate 0.330%	8/15/2025		40,000	38,731	US Bank/CAMP	0.33%	39,998
GMCar 2021-1 A3 - Coupon Rate 0.350%	10/16/2025		15,000	14,653	US Bank/CAMP	0.35%	14,998
Harst 2021-3 A3 - Coupon Rate 0.410%	11/18/2025		40,000	38,288	US Bank/CAMP	0.41%	39,999
Carmx 2021-1 A3 - Coupon Rate 0.340%	12/15/2025		15,000	14,622	US Bank/CAMP	0.34%	14,997
Harst 2021-4 A3 - Coupon Rate 0.880%	1/21/2026		25,000	23,885	US Bank/CAMP	0.89%	24,995
TAOT 2021-D A3 - Coupon Rate 0.710%	4/15/2026		30,000	28,651	US Bank/CAMP	0.71%	29,999
Harst 2021-C A3 - Coupon Rate 0.740%	5/15/2026		20,000	19,080	US Bank/CAMP	0.75%	19,996
Harst 2022-1 A3 - Coupon Rate 1.880%	5/15/2026		45,000	43,593	US Bank/CAMP	1.88%	44,993
FordO 2022-A A3 - Coupon Rate 1.290%	6/15/2026		25,000	23,960	US Bank/CAMP	1.29%	24,997
BMWOT 2021-1 A3 - Coupon Rate 3.210%	8/25/2026		25,000	24,747	US Bank/CAMP	3.21%	24,999
COPAR 2021-1 A3 - Coupon Rate 0.770%	9/15/2026		25,000	23,667	US Bank/CAMP	0.77%	25,000
FordO 2022-B A3 - Coupon Rate 3.740%	9/15/2026		25,000	25,068	US Bank/CAMP	3.74%	24,999
TAOT 2022-B A3 - Coupon Rate 2.930%	9/15/2026		30,000	29,659	US Bank/CAMP	2.93%	29,999
DCENT 2021-A1 A1 - Coupon Rate 0.580%	9/15/2026		55,000	51,519	US Bank/CAMP	0.58%	54,988
GMCar 2021-4 A3 - Coupon Rate 0.680%	9/16/2026		25,000	23,750	US Bank/CAMP	0.68%	24,999
Harst 2022-A A3 - Coupon Rate 2.220%	10/15/2026		55,000	53,390	US Bank/CAMP	2.22%	54,998
AllyA 2022-1 A3 - Coupon Rate 3.310%	11/15/2026		60,000	59,448	US Bank/CAMP	3.31%	59,988
GMCar 2022-1 A3 - Coupon Rate 1.260%	11/16/2026		20,000	19,113	US Bank/CAMP	1.26%	19,998
Comet 2021-A3 A3 - Coupon Rate 1.040%	11/16/2026		50,000	47,276	US Bank/CAMP	1.04%	49,993
HDMOT 2022-A A3 - Coupon Rate 3.060%	2/15/2027		35,000	34,552	US Bank/CAMP	3.06%	34,994
GMCar 2022-2 A3 - Coupon Rate 3.100%	2/16/2027		25,000	24,766	US Bank/CAMP	3.10%	24,995
Carmx 2022-2 A3 - Coupon Rate 3.490%	2/16/2027		35,000	34,841	US Bank/CAMP	3.49%	34,995
Comet 2022-A1 A1 - Coupon Rate 2.800%	3/15/2027		70,000	68,552	US Bank/CAMP	2.80%	69,995
Comet 2022-A2 A - Coupon Rate 3.490%	5/15/2027		65,000	65,130	US Bank/CAMP	3.49%	64,990
CAMP Money Market Fund	NA	NA		36,996	US Bank/CAMP	0.82%	36,996
Asset Based Securities & Money Market			1,160,083	1,168,155			1,197,146
Total Camp Investments			9,504,581	9,310,156			9,594,721
Operational & Non-Interest Bearing Accounts							
ETWD General Cash Account	NA	NA		2,992,296	Union Bank of Cal.	0.00%	2,992,296
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 Bond Project Fund Account	NA	NA					

# EL TORO WATER DISTRICT

## RESERVE ANALYSIS

30-Jun-22



Restricted Reserve	\$	28,264,321
Board Mandated	\$	8,500,000
SOCWA	\$	3,544,781
Capital Cash Flow / Compliance	\$	4,363,085
<b>Total</b>	<b>\$</b>	<b>44,672,187</b>

### Restricted Reserve

State Revolving Fund Loans	\$	-
2022 Revenue Bonds	\$	26,794,992
Capital Facilities Reserve	\$	2,895
Tiered Cons Fund	\$	1,073,730
Baker Funding	\$	392,705
<b>Total</b>	<b>\$</b>	<b>28,264,321</b>

### Board Mandated Minimum Reserve Levels

Capital Construction	\$	3,000,000
Rate Stabilization	\$	2,200,000
Operations	\$	1,300,000
Working Capital	\$	2,000,000
<b>Total</b>	<b>\$</b>	<b>8,500,000</b>

Six months operating expense requirement:	\$12,800,791
Cash less restricted reserve on hand:	\$16,407,866

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

## EL TORO WATER DISTRICT CHANGE IN RESERVES

	<u>June 30, 2022</u>	<u>Year to Date</u>	<u>Year Ended June 30, 2021</u>
Operating Revenue	2,429,059	27,184,409	26,393,477
Non-operating Revenue	88,332	1,994,879	1,723,488
Total Revenue	<u>2,517,391</u>	<u>29,179,288</u>	<u>28,116,965</u>
Operating Expenses	2,216,210	23,976,985	25,497,573
Depreciation & Amortization	355,912	4,270,950	4,345,555
Non-operating Expenses	59,295	711,534	159,499
Total Expenses	<u>2,631,417</u>	<u>28,959,470</u>	<u>30,002,627</u>
NET INCOME	(114,026)	219,818	(1,885,662)
Add Depreciation & Amortization	355,507	4,270,950	4,112,113
Net Cash Provided by Operating Activities	517,938	(28,713,634)	604,322
Net Cash Provided by Investing Activities	(191,276)	(1,930,233)	(2,723,140)
Net Cash Provided by Financing Activities	-	25,899,237	(627,412)
Net Increase/(Decrease) Cash for the Period	<u>568,143</u>	<u>(253,862)</u>	<u>(519,779)</u>
Cash at End of Period from Balance Sheet		9,908,443	
Restricted Cash		34,764,321	
Unrealized (Gains)/Losses Fair Market Value		<u>(604)</u>	
Cash at End of Period		44,672,160	
Net (Increase)/Decrease Cash for the Period		(568,143)	
Net (Increase)/Decrease in Restricted Cash for the Period		895,210	
Net Increase/(Decrease) in Unrealized Gains/(Losses) Fair Market Value		-	
Funds Transfer Prior Period			
Void Checks in Prior Period		<u>(12,159)</u>	
Cash at Beginning of Period		44,987,067	

**EL TORO WATER DISTRICT**  
**Cash Sheet**  
**For the month ending June 30, 2022**

CHECK NUMBER	PAYMENT DATE	VENDOR NAME	PAYMENT AMOUNT
92434	06/29/2022	SUNFLOWER BANK	558,558.61
92340	06/09/2022	MUNICIPAL WATER DISTRICT OF ORANGE CO.	295,708.34
92317	06/06/2022	ASSOCIATED TANK CONSTRUCTORS, INC.	159,030.00
92430	06/23/2022	ACWA HEALTH BENEFITS AUTHORITY	128,128.26
92386	06/16/2022	SO. CALIFORNIA EDISON CO.	120,134.50
92320	06/06/2022	RICHARD BRADY & ASSOCIATES, INC.	108,283.47
92394	06/23/2022	CAROLLO ENGINEERS, INC.	68,689.93
92319	06/06/2022	HILTS CONSULTING GROUP, INC.	62,046.85

**TOTAL CHECKS OVER \$50,000** **\$ 1,500,579.96**

**TOTAL CHECKS IN REGISTER** **\$ 1,897,762.12**

**DEBIT TRANSFERS**

06/03/2022	PAYROLL DIRECT DEPOSIT	142,920.16
06/03/2022	FEDERAL DEPOSIT LIABILITY	35,282.74
06/03/2022	SDI & STATE TAX	14,146.98
06/03/2022	WAGE GARNISHMENTS	282.50
06/03/2022	PRUDENTIAL (401K)	54,361.70
06/03/2022	PRUDENTIAL (457)	18,452.74
06/03/2022	HEALTH SAVINGS ACCOUNT	53.85
06/15/2022	PAYROLL BOARD OF DIRECTOR	6,217.57
06/15/2022	SS, MEDICARE, SDI & STATE TAX	1,896.74
06/15/2022	PRUDENTIAL (457)	2,791.15
06/15/2022	HEALTH SAVINGS ACCOUNT	315.00
06/17/2022	PAYROLL DIRECT DEPOSIT	146,084.87
06/17/2022	FEDERAL DEPOSIT LIABILITY	34,902.12
06/17/2022	SDI & STATE TAX	13,865.30
06/17/2022	WAGE GARNISHMENTS	282.50
06/17/2022	PRUDENTIAL (401K)	56,237.60
06/17/2022	PRUDENTIAL (457)	19,197.26
06/17/2022	HEALTH SAVINGS ACCOUNT	53.85
06/30/2022	PAYROLL DIRECT DEPOSIT	140,476.89
06/30/2022	FEDERAL DEPOSIT LIABILITY	32,756.75
06/30/2022	SDI & STATE TAX	12,710.65
06/30/2022	PRUDENTIAL (401K)	53,719.93
06/30/2022	PRUDENTIAL (457)	17,857.12
06/30/2022	HEALTH SAVINGS ACCOUNT	53.85
06/30/2022	ADP AND BANK FEES	6,509.94

**TOTAL INTERBANK WIRES / DEBIT TRANSFERS** **\$ 811,429.76**

**TOTAL DISBURSEMENTS** **\$ 2,709,191.88**

**REIMBURSEMENTS TO ETWD EMPLOYEES**

CHECK NUMBER	PAYMENT DATE	PAYEE (DESCRIPTION)	PAYMENT AMOUNT
92412	06/23/2022	RAYMUND LLADA (Education)	3,939.32
92432	06/29/2022	RORY HARNISCH (HVAC Permit)	443.37
92437	06/29/2022	ERIC NGUYEN (CWEA Membership, LA-2 Certificate & Mileage)	362.48
92371	06/16/2022	ERIC NGUYEN (Safety Glasses)	360.96
92313	06/02/2022	TROY DAVIS (Workboots)	293.60
92417	06/23/2022	SCOTT HOPKINS (D4 & T4 Certificate)	215.00
92294	06/02/2022	DENNIS CAFFERTY (Civil Engineer Renewal)	180.00
92375	06/16/2022	JIM REDDING (T3 Certificate)	140.00
92298	06/02/2022	HANNAH FORD (Refreshments for Engineering Meeting)	116.46
92310	06/02/2022	STEVE SANCHEZ (Grade 2 Certification)	96.00
92397	06/23/2022	DANIEL LOPEZ (D2 Certificate)	60.00
92352	06/09/2022	RORY HARNISCH (Mileage)	40.95

**TOTAL CHECKS TO EMPLOYEES** **\$ 6,248.14**

**REINBURSEMENTS TO ETWD DIRECTORS**

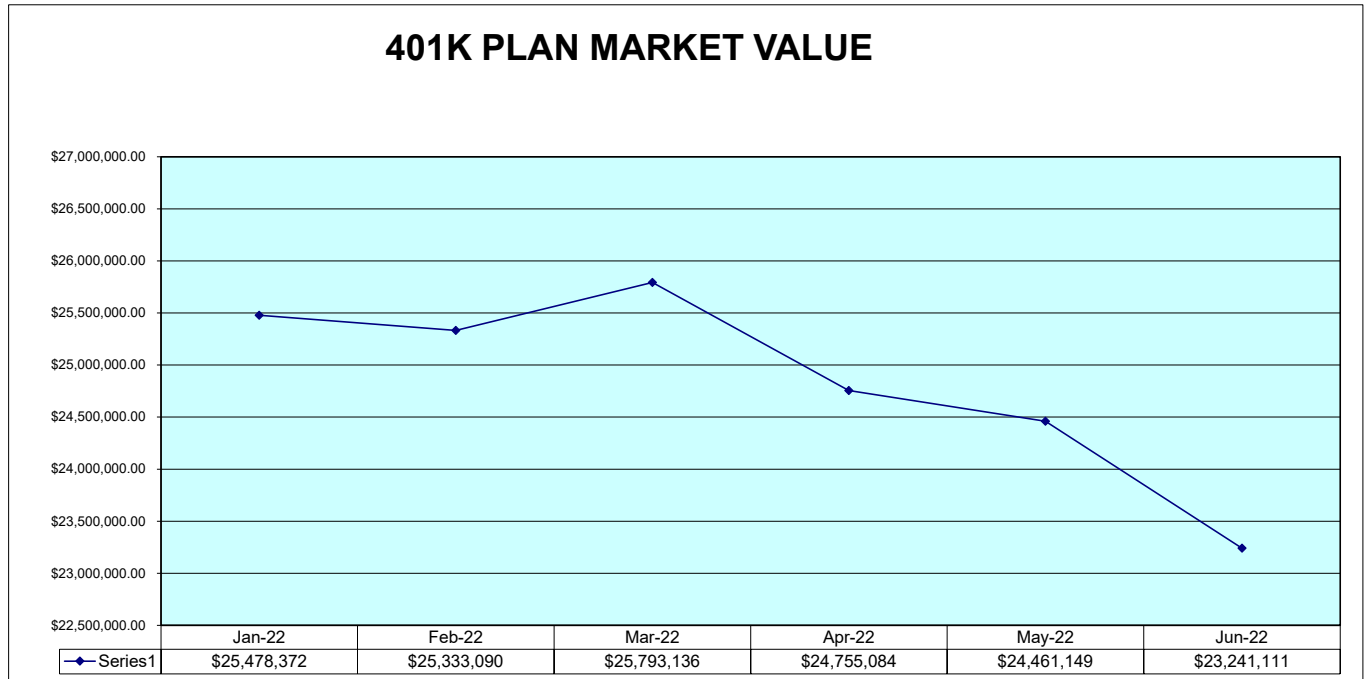
CHECK NUMBER	PAYMENT DATE	PAYEE (DESCRIPTION)	PAYMENT AMOUNT
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No Activity

**TOTAL CHECKS TO DIRECTORS** **\$ -**

## EL TORO WATER DISTRICT 401K PLAN SUMMARY

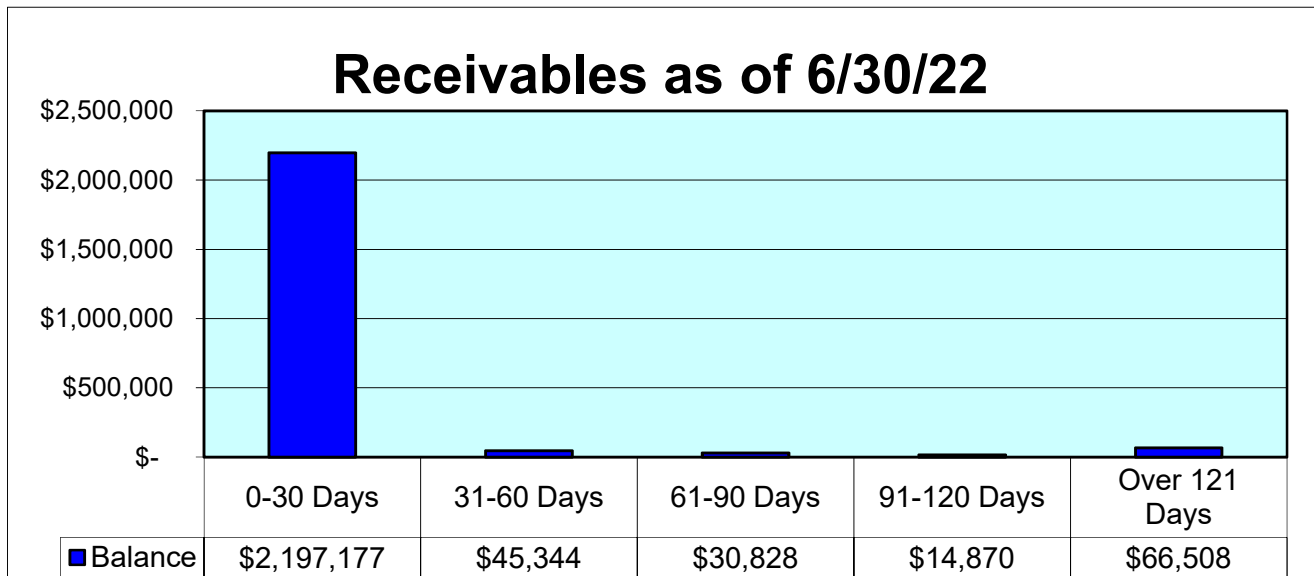
### 401K PLAN MARKET VALUE



	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	356,991.95	113,955.51	151,858.35	149,407.48	302,021.86	342,433.25	141,635.55
Withdrawals	(120,654.61)	0.00	0.00	0.00	(698,237.48)	(135,725.68)	(251,509.76)
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	(272,500.07)	(226,145.07)	(171,488.37)	(447,240.60)	(927,351.20)	(669,563.54)	(205,405.19)
Balance at June 30, 2022	\$ 1,733,972.40	\$1,464,595.40	\$953,052.03	\$3,481,975.23	\$7,738,613.81	\$6,406,094.97	\$1,462,806.94
Average return YTD June 30, 2022	-10.83%	-24.27%	-19.67%	-7.07%	-11.21%	-12.19%	-14.75%

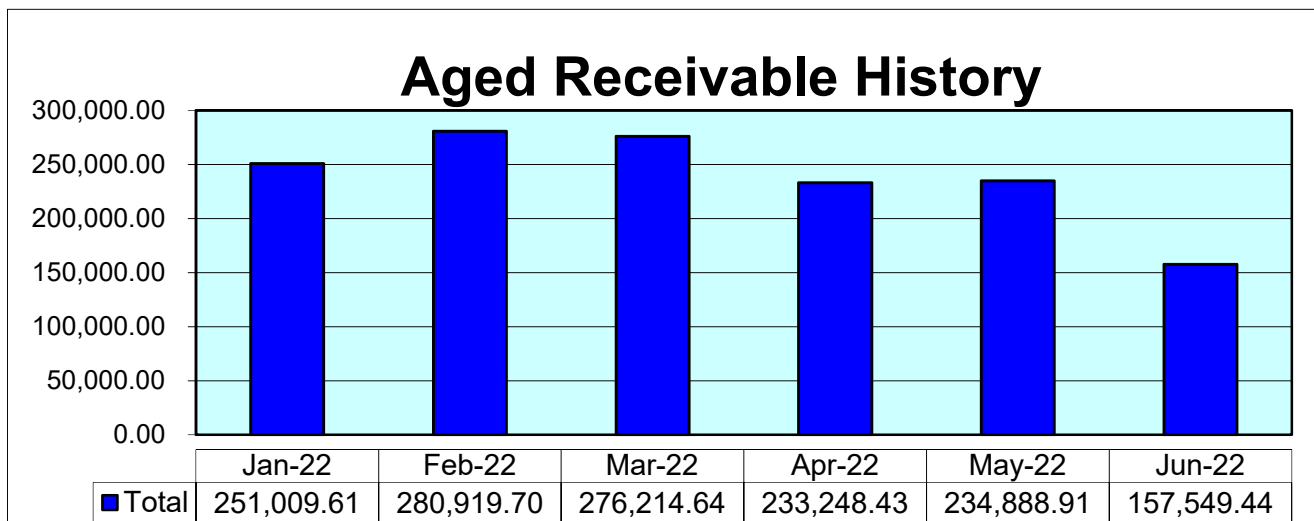
Average return is calculated by dividing the interest, dividends and appreciation, net of fees by beginning fiscal year fund balance.

## RECEIVABLES AGEING



	0-30 Days	31-60 Days	61-90 Days	91-120 Days	Over 121 Days
Jun-21	2,070,079	72,550	26,112	14,393	62,893

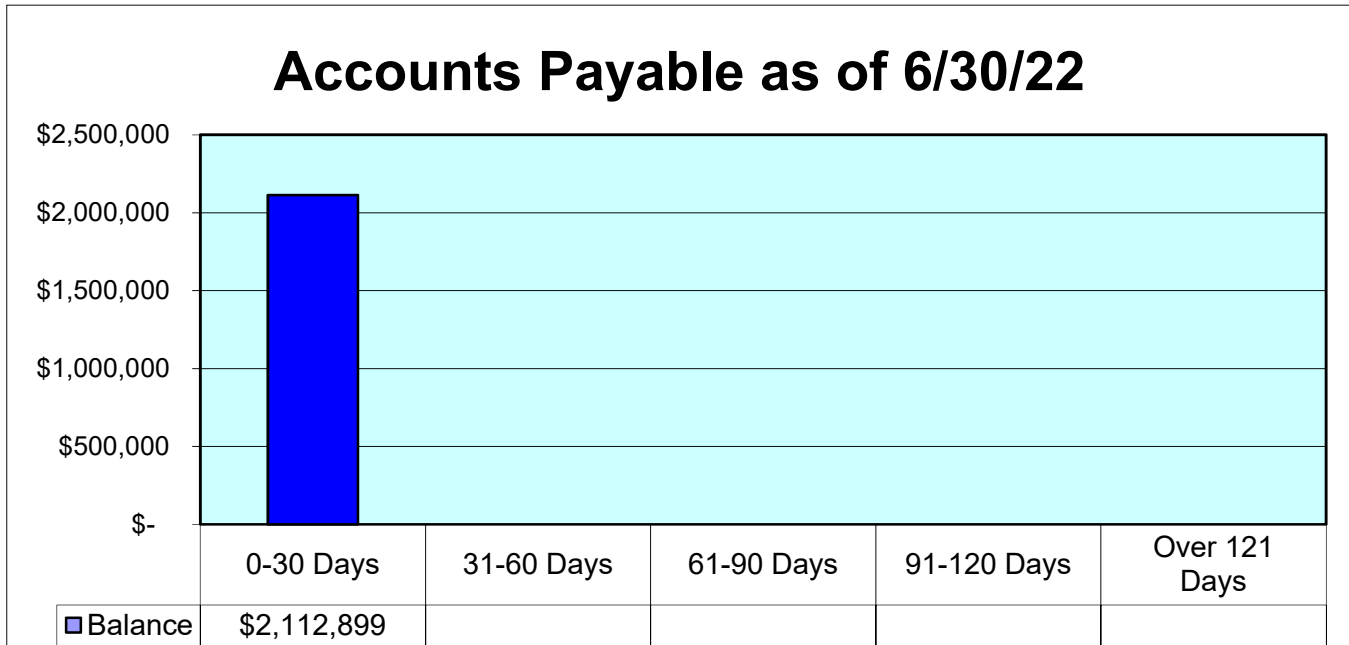
Bad Debts Year to Date: 2,097.48



Total receivables greater than 30 Days

	31-60 Days	61-90 Days	91-120 Days	Over 121 Days	Total
Jan-22	82,816.76	34,318.43	19,957.25	113,917.17	251,009.61
Feb-22	102,094.22	41,641.06	12,340.34	124,844.08	280,919.70
Mar-22	92,560.17	30,085.34	21,103.19	132,465.94	276,214.64
Apr-22	88,073.55	33,228.53	18,331.33	93,615.02	233,248.43
May-22	114,397.91	30,927.27	18,326.80	71,236.93	234,888.91
Jun-22	45,344.03	30,827.51	14,869.88	66,508.02	157,549.44



**PAYABLES AGEING**

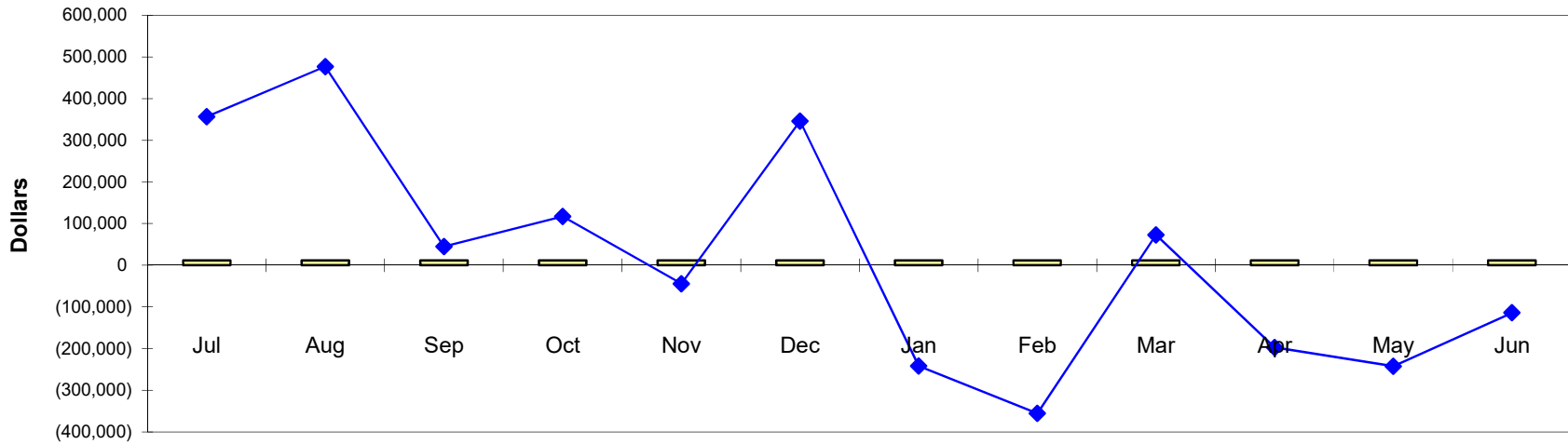
Year to Date Discounts Taken:

\$1,065

Page 11  
El Toro Water District  
Income Statement  
June 2022

	Jun 22	Budget	% of Budget	Jul '20 - Jun 21	Jul '21 - Jun 22	YTD Budget	% of Budget	Annual Budget
Income								
4600 · Water Service Charge	351,770.34	352,427.61	99.81%	3,805,647.65	4,186,880.26	4,229,130.00	99.0%	4,229,130.00
4700 · Sanitary Service	681,863.73	686,461.27	99.33%	7,549,752.08	8,073,933.16	8,237,537.00	98.01%	8,237,537.00
4722 · Recycled Water Tertiary Sales	261,125.29	150,935.13	173.01%	1,898,112.31	2,012,144.08	1,811,222.00	111.09%	1,811,222.00
4724 · Service Charge - Recycled Water	31,141.60	32,325.00	96.34%	308,199.31	370,253.64	387,900.00	95.45%	387,900.00
4750 · Capital Facilities Charge	250,578.66	252,124.00	99.39%	3,005,272.98	3,005,882.52	3,025,468.00	99.35%	3,025,468.00
4800 · Commodity Charge	849,909.31	770,280.00	110.34%	9,571,560.64	9,212,400.63	9,243,364.00	99.67%	9,243,364.00
4950 · Other Operating Income	2,670.00	4,584.00	58.25%	123,881.77	199,804.88	55,000.00	363.28%	55,000.00
4960 · Other Income	45,630.24	48,470.00	94.14%	604,388.92	1,072,855.61	581,625.00	184.46%	581,625.00
4967 · SMWD	0.00	0.00	0.0%	108,812.93	101,650.54	0.00	100.0%	0.00
4970 · Charges for Service/Facilities	0.00	11,126.00	0.0%	22,237.16	21,458.95	133,500.00	16.07%	133,500.00
4980 · Investment Income	-48,131.54	8,334.00	-577.53%	21,509.99	-201,212.94	100,000.00	-201.21%	100,000.00
4990 · Property Taxes	90,833.33	90,835.00	100.0%	1,097,588.86	1,123,236.56	1,090,000.00	103.05%	1,090,000.00
Total Income	2,517,390.96	2,407,902.01	104.55%	28,116,964.60	29,179,287.89	28,894,746.00	100.99%	28,894,746.00
Gross Profit	2,517,390.96	2,407,902.01	104.55%	28,116,964.60	29,179,287.89	28,894,746.00	100.99%	28,894,746.00
Expense								
5100 · Personnel Cost	713,550.36	752,764.00	94.79%	10,068,131.30	8,680,502.00	9,032,900.00	96.1%	9,032,900.00
5405 · Water Purchases	848,003.40	677,626.40	125.14%	8,559,820.45	8,526,003.54	8,131,516.73	104.85%	8,131,516.73
5410 · Electrical Power	135,859.06	104,216.69	130.36%	1,179,589.68	1,478,312.63	1,250,600.00	118.21%	1,250,600.00
5415 · Repair Parts & Materials	39,209.36	34,308.29	114.29%	323,760.50	349,878.88	411,700.00	84.98%	411,700.00
5420 · Equipment Maintenance & Repair	9,477.72	8,283.35	114.42%	142,014.10	94,943.06	99,400.00	95.52%	99,400.00
5425 · Pump Maintenance & Repair	71,023.74	6,958.34	1,020.7%	124,583.17	142,809.48	83,500.00	171.03%	83,500.00
5430 · Motor Maintenance & Repair	2,198.82	3,375.01	65.15%	30,590.62	23,308.13	40,500.00	57.55%	40,500.00
5440 · Electrical/Contl Maint & Repair	15,090.93	7,641.65	197.48%	73,747.96	73,247.61	91,700.00	79.88%	91,700.00
5445 · Meter Maintenance & Repair	0.00	833.34	0.0%	7,445.87	7,716.42	10,000.00	77.16%	10,000.00
5455 · Chemicals	18,830.28	19,249.99	97.82%	217,457.58	233,927.34	231,000.00	101.27%	231,000.00
5460 · Structure Maint & Repair	2,281.78	1,862.53	122.51%	50,793.43	39,434.71	22,350.00	176.44%	22,350.00
5465 · Asphalt Maintenance & Repair	14,234.86	6,416.68	221.84%	74,725.00	74,544.54	77,000.00	96.81%	77,000.00
5470 · Consultants	-47,657.11	5,125.00	-929.9%	89,293.67	9,441.39	61,500.00	15.35%	61,500.00
5475 · Contractors	94,759.10	101,524.97	93.34%	1,262,277.03	1,325,820.37	1,218,300.00	108.83%	1,218,300.00
5480 · Engineers	13,132.64	5,333.33	246.24%	170,905.75	56,666.80	64,000.00	88.54%	64,000.00
5482 · Dump Fees	1,277.95	1,500.00	85.2%	18,453.48	14,194.57	18,000.00	78.86%	18,000.00
5485 · Laboratory	85.00	2,775.00	3.06%	29,374.88	30,602.67	33,300.00	91.9%	33,300.00
5490 · License & Permits	8,861.10	15,116.68	58.62%	155,088.21	169,117.24	181,400.00	93.23%	181,400.00
5495 · Gas & Oil	14,025.44	8,500.00	165.01%	93,096.16	121,922.73	102,000.00	119.53%	102,000.00
5500 · Equipment Rental	509.56	1,616.67	31.52%	14,917.30	13,677.76	19,400.00	70.5%	19,400.00
5505 · Landscaping	4,747.14	13,683.34	34.69%	138,525.52	113,710.17	164,200.00	69.25%	164,200.00
5510 · Small Tools & Equipment	6,725.46	6,116.69	109.95%	52,938.54	57,858.90	73,400.00	78.83%	73,400.00
5515 · Security	17,713.54	1,600.01	1,107.09%	17,659.40	23,866.76	19,200.00	124.31%	19,200.00
5520 · Operating Supplies	3,245.56	4,933.33	65.79%	66,971.59	49,045.13	59,200.00	82.85%	59,200.00
5525 · Safety Equipment	4,947.39	3,458.32	143.06%	28,536.73	26,739.51	41,500.00	64.43%	41,500.00
5530 · Temporary Help	1,673.28	1,458.33	114.74%	0.00	16,591.68	17,500.00	94.81%	17,500.00
5535 · Other Employee Cost	4,675.12	11,333.33	41.25%	164,090.10	115,411.98	136,000.00	84.86%	136,000.00
5540 · Depreciation	355,342.00	362,500.00	98.03%	4,338,708.72	4,264,104.00	4,350,000.00	98.03%	4,350,000.00
5545 · Insurance	25,254.85	27,608.33	91.48%	335,461.27	339,779.21	331,300.00	102.56%	331,300.00
5548 · Retiree Medical Insurance	20,187.45	27,083.33	74.54%	280,577.34	239,172.54	325,000.00	73.59%	325,000.00
5555 · Advertising & Publicity	445.00	166.67	267.0%	11,360.00	11,545.00	2,000.00	577.25%	2,000.00
5560 · Amortization	570.49	575.00	99.22%	6,845.88	6,845.88	6,900.00	99.22%	6,900.00
5570 · Annual Event	0.00	500.00	0.0%	3,866.19	10,484.83	6,000.00	174.75%	6,000.00
5575 · Audit	4,400.00	2,141.67	205.45%	27,760.00	23,960.00	25,700.00	93.23%	25,700.00
5580 · Bad Debts	303.98	1,666.67	18.24%	18,672.05	2,097.48	20,000.00	10.49%	20,000.00
5585 · Bank Charges	6,509.94	5,916.67	110.03%	67,713.64	77,371.59	71,000.00	108.97%	71,000.00
5590 · Data Processing Supply & Access	146.49	2,499.99	5.86%	16,364.57	10,337.54	30,000.00	34.46%	30,000.00
5595 · Data Processing Equipment	0.00	2,916.65	0.0%	38,207.97	45,444.07	35,000.00	129.84%	35,000.00
5600 · Data Processing Consultants	15,250.19	5,000.00	305.0%	6,561.37	45,530.26	60,000.00	75.88%	60,000.00
5605 · Directors Fees	10,950.00	10,583.33	103.47%	127,896.00	127,239.00	127,000.00	100.19%	127,000.00
5610 · Dues & Memberships	4,485.88	7,266.67	61.73%	90,112.55	95,877.93	87,200.00	109.95%	87,200.00
5615 · Education & Training	10,732.31	1,300.00	825.56%	10,985.50	32,002.51	15,600.00	205.14%	15,600.00
5620 · Election Expense	0.00			0.00	0.00	0.00	0.0%	0.00
5625 · Employee Service Awards	0.00	316.67	0.0%	4,400.00	-117.50	3,800.00	-3.09%	3,800.00
5630 · Software Maintenance & Licenses	22,372.34	15,416.67	145.12%	185,484.73	206,692.92	185,000.00	111.73%	185,000.00
5640 · Interest Expense	59,294.54	59,833.33	99.1%	758,338.69	711,534.48	718,000.00	99.1%	718,000.00
5645 · Janitorial	3,115.49	3,750.00	83.08%	79,552.00	74,010.14	45,000.00	164.47%	45,000.00
5650 · Legal	16,218.60	8,791.66	184.48%	159,499.29	131,993.93	105,500.00	125.11%	105,500.00
5655 · Meets, Conventions & Travel	3,838.42	2,416.67	158.83%	6,898.62	24,918.60	29,000.00	85.93%	29,000.00
5657 · Meets, Con & Travel - Directors	769.50	3,658.31	21.03%	8,013.00	22,053.58	43,900.00	50.24%	43,900.00
5660 · Office Supplies	184.04	1,650.00	11.15%	14,783.98	10,106.53	19,800.00	51.04%	19,800.00
5665 · Office Support	0.00				3,156.77			
5670 · Postage	19,432.97	1,716.67	1,132.02%	15,640.95	27,311.80	20,600.00	132.58%	20,600.00
5675 · Printing & Reproduction	18,795.46	1,550.00	1,212.61%	16,189.83	22,961.53	18,600.00	123.45%	18,600.00
5680 · Property Tax	46.46	425.00	10.93%	9,403.24	5,115.76	5,100.00	100.31%	5,100.00
5685 · Public Education & Outreach	18,719.64	19,683.33	95.1%	70,851.15	119,877.14	236,200.00	50.75%	236,200.00
5690 · Publications & Subscriptions	0.00	125.00	0.0%	560.64	612.66	1,500.00	40.84%	1,500.00
5695 · Communications	13,523.05	9,474.99	142.72%	117,296.97	121,453.26	113,700.00	106.82%	113,700.00
5700 · Utilities	2,046.47	2,150.00	95.19%	19,832.61	22,106.55	25,800.00	85.68%	25,800.00
5710600 · Bond - Cost of Issuance	0.00				254,593.81			
Total Expense	2,631,417.04	2,396,294.55	109.81%	30,002,626.77	28,959,469.80	28,755,266.73	100.71%	28,755,266.73
	Jun 22	Budget	% of Budget	Jul '20 - Jun 21	Jul '21 - Jun 22	YTD Budget	% of Budget	Annual Budget
Net Income	-114,026.08	11,607.46	-982.35%	-1,885,662.17	219,818.09	139,479.27	157.6%	139,479.27

**ANALYSIS OF REVENUE & EXPENSE**  
**Fiscal Year 2021/2022**

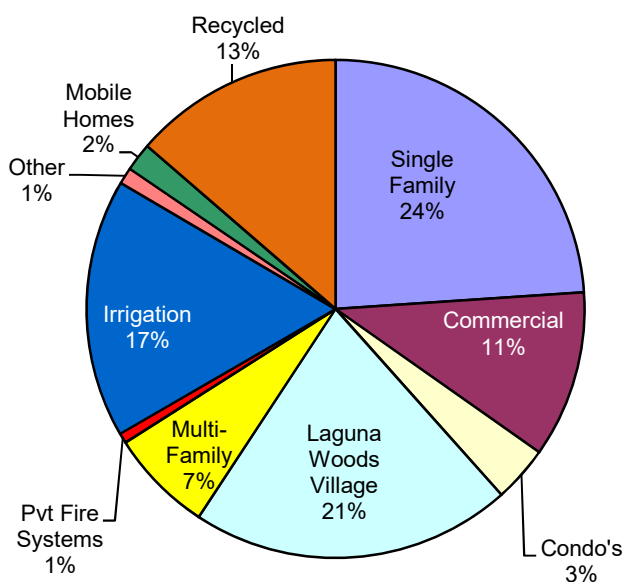
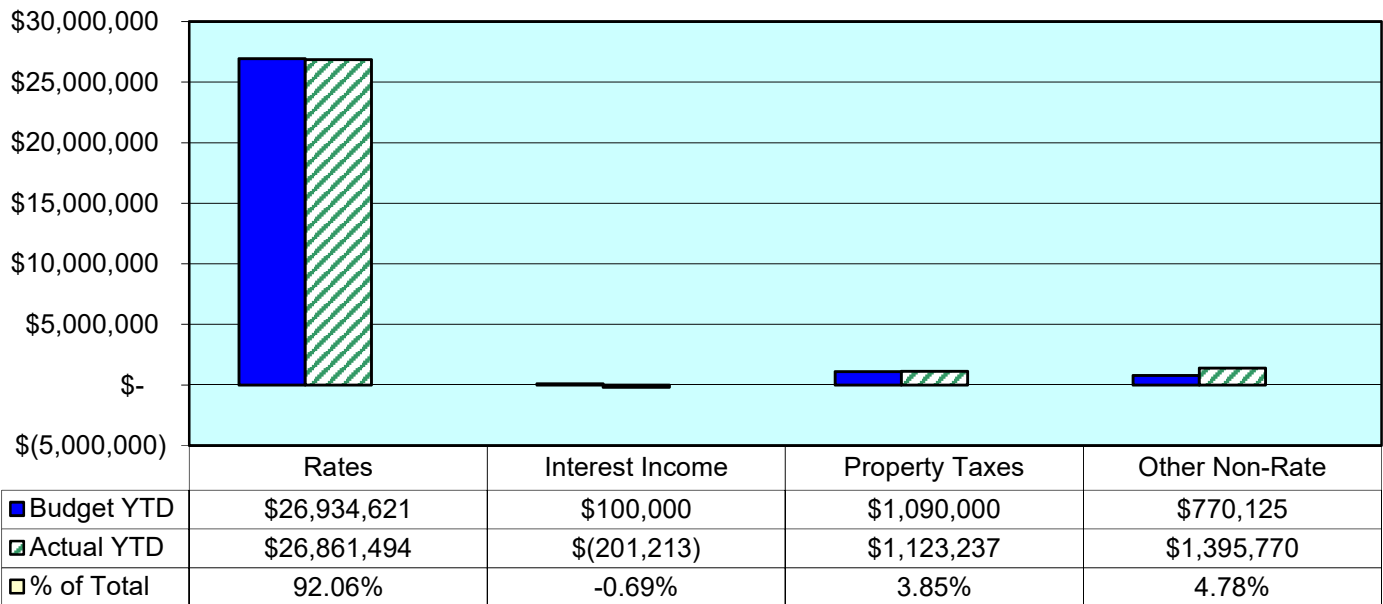


**ANALYSIS OF REVENUES & EXPENSES**  
**BUDGET COMPARED TO ACTUAL**  
**FISCAL YEAR 2021/2022**

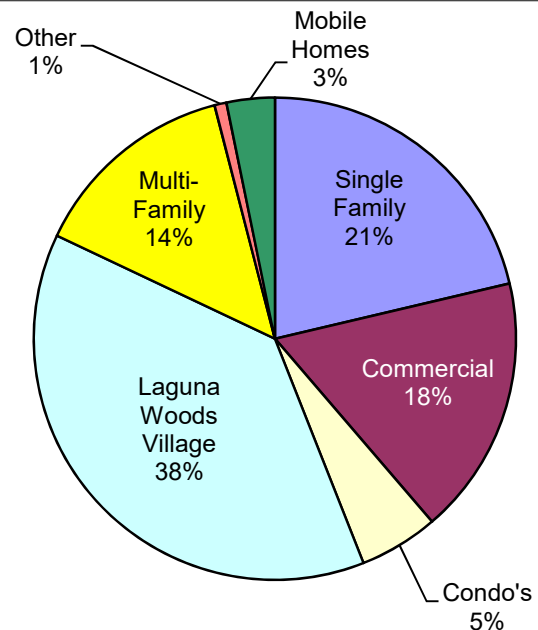
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>Budget</b>												
Revenue	2,407,889	2,407,889	2,407,889	2,407,890	2,407,895	2,407,895	2,407,895	2,407,895	2,407,901	2,407,903	2,407,902	2,407,902
Expense	2,396,253	2,396,253	2,396,253	2,396,253	2,396,270	2,396,270	2,396,270	2,396,270	2,396,295	2,396,295	2,396,295	2,396,295
Profit/Loss	11,636	11,637	11,637	11,638	11,626	11,626	11,626	11,626	11,607	11,609	11,608	11,607
<b>Actual</b>												
Revenue	2,694,337	2,834,487	2,557,301	2,448,880	2,137,061	2,547,406	1,927,574	2,152,952	2,324,825	2,442,304	2,594,770	2,517,391
Expense	2,337,720	2,357,260	2,512,164	2,331,695	2,181,247	2,201,235	2,169,220	2,508,515	2,252,051	2,639,586	2,837,362	2,631,417
Profit/Loss	356,617	477,227	45,137	117,185	(44,185)	346,171	(241,646)	(355,562)	72,774	(197,283)	(242,592)	(114,026)

## EL TORO WATER DISTRICT REVENUES FROM WATER & WASTE WATER SALES AS OF 6/30/22

### Where the Money Comes From



**WATER REVENUE YTD 2021/2022**



**WASTE WATER REVENUE YTD 2021/2022**

**EL TORO WATER DISTRICT  
REVENUE COMPARISON  
For the Month Ended June 30, 2022**

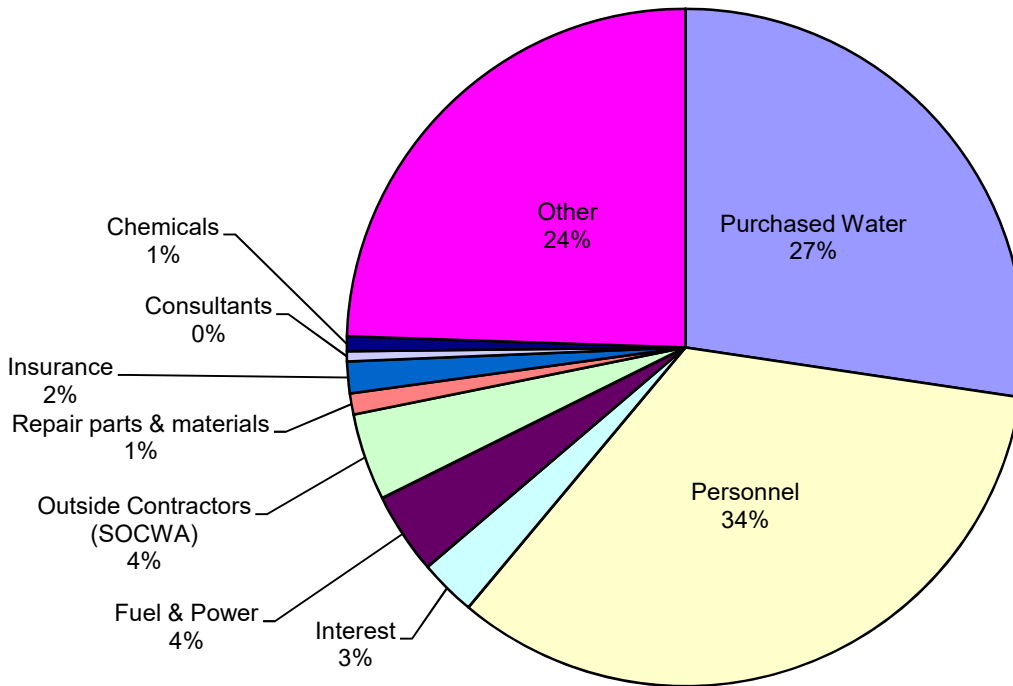
	ACTUAL	CURRENT MONTH BUDGET	VARIANCE DOLLARS	% +/-	YEAR TO DATE ACTUAL	YEAR TO DATE BUDGET	VARIANCE DOLLARS	% +/-	BUDGET	REMAINING BUDGET
<u>From Rates</u>										
Capital Facilities Charge	\$ 250,579	\$ 252,124	\$ (1,545)	-1%	\$ 3,005,883	\$ 3,025,468	\$ (19,585)	-1%	\$ 3,025,468	\$ 19,585
Water sales - Commodity	849,909	770,280	79,629	10%	9,212,401	9,243,364	(30,963)	0%	9,243,364	30,963
Water sales - Fixed Meter	351,770	352,428	(657)	0%	4,186,881	4,229,130	(42,249)	-1%	4,229,130	42,249
Waste water sales	681,864	686,461	(4,598)	-1%	8,073,933	8,237,537	(163,604)	-2%	8,237,537	163,604
Recycled water tertiary sales	261,125	150,935	110,190	73%	2,012,144	1,811,222	200,922	11%	1,811,222	(200,922)
Service charge - Recycled water	31,142	32,325	(1,183)	-4%	370,254	387,900	(17,646)	-5%	387,900	17,646
TOTAL FROM RATES	2,426,389	2,244,553	181,836	8%	26,861,495	26,934,621	(73,126)	0%	26,934,621	73,126
<u>Non-rate Revenue</u>										
Admin fee	1,260	1,600	(340)	-21%	197,845	19,200	178,645	930%	19,200	(178,645)
48 Hour notice fee	20	2,451	(2,431)	-99%	20	29,416	(29,396)	-100%	29,416.44	29,396
Restoration fee	1,320	370	950	257%	1,320	4,440	(3,120)	-70%	4,440	3,120
Unpaid check fee	70	150	(80)	-53%	620	1,800	(1,180)	-66%	1,800	1,180
Cut lock fee	-	12	(12)	-100%	-	144	(144)	-100%	144	144
TOTAL NON-RATE	2,670	4,583	(1,913)	-42%	199,805	55,000	144,805	263%	55,000	(144,805)
<u>Other Revenue</u>										
Investment Income	(48,132)	8,334	(56,466)	-678%	(201,213)	100,000	(301,213)	-301%	100,000	301,213
Property taxes	90,833	90,835	(2)	0%	1,123,237	1,090,000	33,237	3%	1,090,000	(33,237)
Other	45,630	48,470	(2,841)	-6%	1,072,856	581,625	491,231	84%	581,625	(491,231)
TOTAL OTHER REVENUE	88,332	147,639	(59,307)	-40%	1,994,879	1,771,625	223,254	13%	1,771,625	(223,254)
<u>Contract Service</u>										
Santa Margarita W. D.	-	-	-	0%	101,651	-	101,651	0%	0	(101,651)
Moulton Niguel W. D.	-	11,126	(11,126)	-100%	21,459	133,500	(112,041)	-84%	133,500	112,041
TOTAL CONTRACT SERVICES	-	11,126	(11,126)	-100%	123,109	133,500	(10,391)	-8%	133,500	10,391
 TOTAL REVENUE	 \$ 2,517,391	 \$ 2,407,901	 \$ 109,490	 5%	 \$ 29,179,288	 \$ 28,894,746	 \$ 284,542	 1%	 \$ 28,894,746	 \$ (284,542)

**EL TORO WATER DISTRICT  
NON-RATE REVENUE ANALYSIS  
FOR THE MONTH ENDING June 30, 2022**

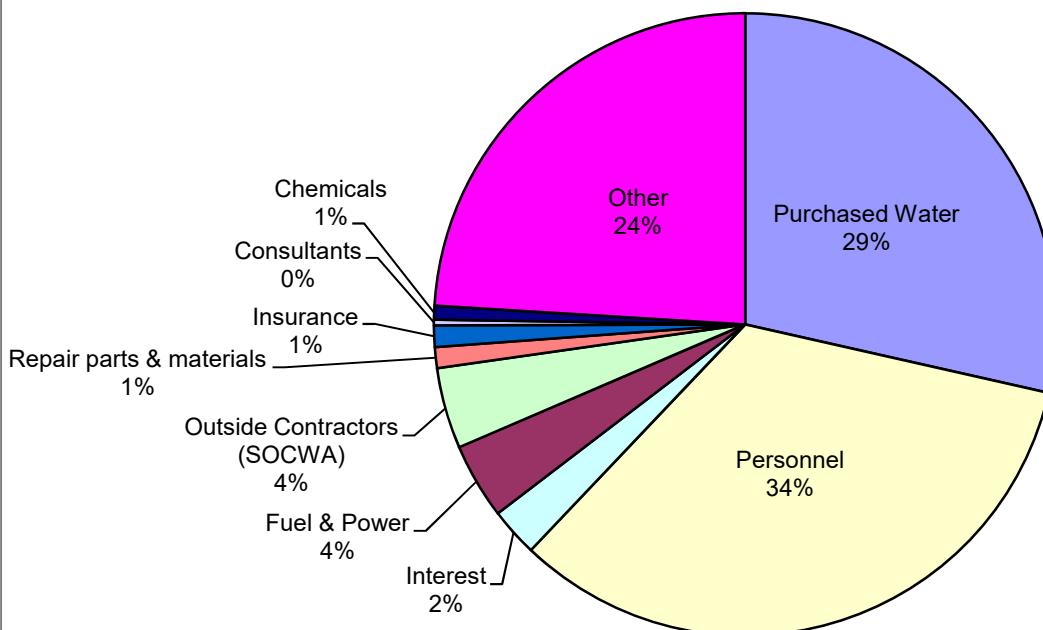
	<b>Jun-22 Actual</b>	<b>Jun-22 Budget</b>	<b>Jul 21- Jun 22 YTD Actual</b>	<b>Jul 21- Jun 22 YTD Budget</b>
Site Leases	15,034	19,582	223,858	234,984
MWD Recycled Water LRP Rebate	29,388	27,219	446,003	326,625
JPIA Refund	-	-	78,470	-
SOCWA Refund	-	-	317,081	-
Recycled Metal	-	-	2,367	-
Diesel Fuel Tax Refund	47	-	339	-
Sale of District Trucks	-	-	-	-
Purchase Discounts Taken	-	-	1,065	-
Misc Work for Customers	1,162	1,669	3,673	20,016
	<u>\$ 45,630</u>	<u>\$ 48,470</u>	<u>\$ 1,072,856</u>	<u>\$ 581,625</u>
<b>Other Operating Income</b>				
Sales to Santa Margarita	-		-	
Sales to Moulton Niguel	-		-	
	<u>-</u>		<u>-</u>	
	<u>-</u>		<u>-</u>	
<b>Total</b>	<u>45,630</u>		<u>1,072,856</u>	

## WHERE THE MONEY GOES

### YTD EXPENSES AT 6/30/22



### EXPENSES YEAR ENDING 6/30/21



**EL TORO WATER DISTRICT**  
**Expense Comparison**  
**For the Month Ended June 30, 2022**

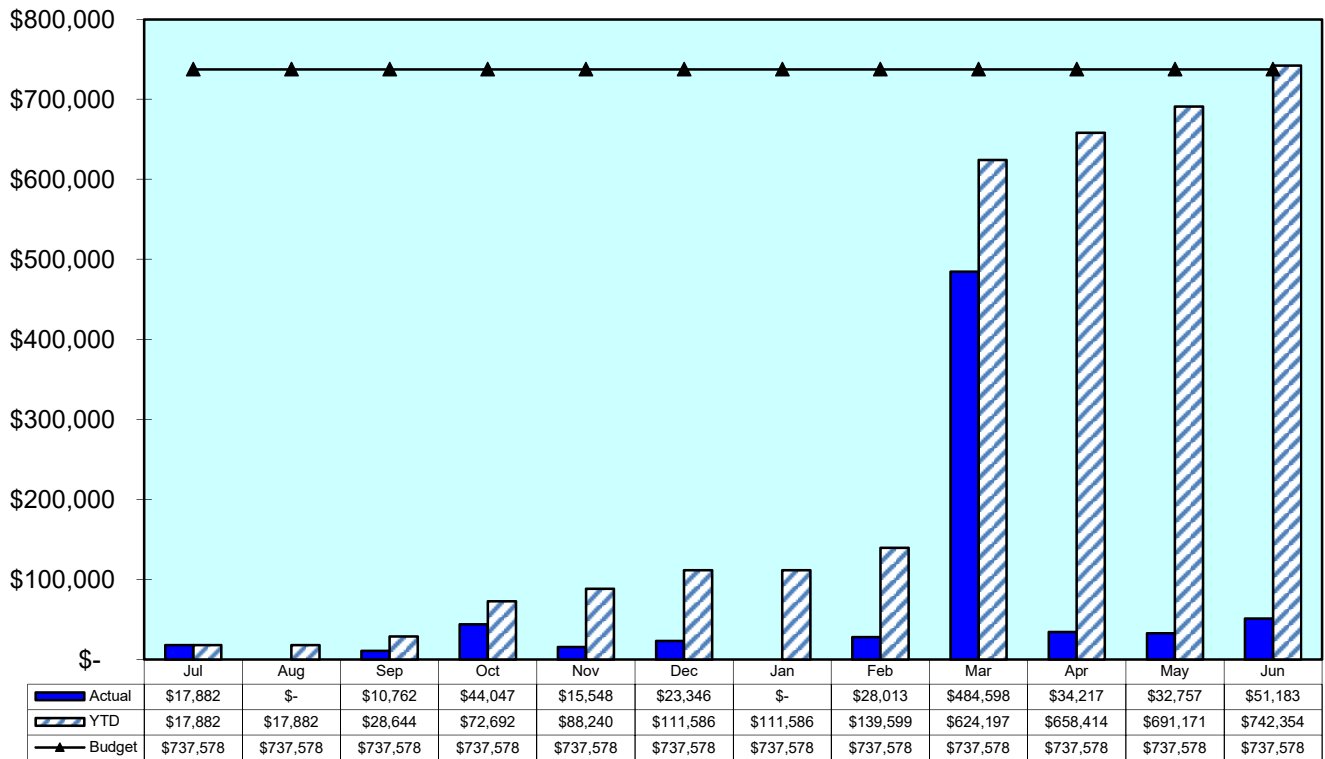
	ACTUAL	CURRENT MONTH BUDGET	VARIANCE DOLLARS	% +/-	YEAR TO DATE ACTUAL	YEAR TO DATE BUDGET	VARIANCE DOLLARS	% +/-	Annual BUDGET	REMAINING BUDGET
<b><u>Operating Expenses</u></b>										
Personnel cost	\$713,550	\$752,764	\$39,214	5%	\$8,680,502	\$9,032,900	\$352,398	4%	\$9,032,900	352,398
Purchased water	848,003	677,626	(170,377)	-25%	8,526,004	8,131,517	(394,487)	-5%	8,131,517	(394,487)
Electrical power	135,859	104,217	(31,642)	-30%	1,478,313	1,250,600	(227,713)	-18%	1,250,600	(227,713)
Repair parts & materials	39,209	34,308	(4,901)	-14%	349,879	411,700	61,821	15%	411,700	61,821
Equipment repairs & maintenance	9,478	8,283	(1,194)	-14%	94,943	99,400	4,457	4%	99,400	4,457
Pump repairs & maintenance	71,024	6,958	(64,065)	-921%	142,809	83,500	(59,309)	-71%	83,500	(59,309)
Motor repairs & maintenance	2,199	3,375	1,176	35%	23,308	40,500	17,192	42%	40,500	17,192
Electrical repairs & maintenance	15,091	7,642	(7,449)	-97%	73,248	91,700	18,452	20%	91,700	18,452
Meter repairs & maintenance	0	833	833	100%	7,716	10,000	2,284	23%	10,000	2,284
Chemicals	18,830	19,250	420	2%	233,927	231,000	(2,927)	-1%	231,000	(2,927)
Structure repairs & maintenance	2,282	1,863	(419)	-23%	39,435	22,350	(17,085)	-76%	22,350	(17,085)
Asphalt repairs & maintenance	14,235	6,417	(7,818)	-122%	74,545	77,000	2,455	3%	77,000	2,455
Consultants - outside	(47,657)	5,125	52,782	1030%	9,441	61,500	52,059	85%	61,500	52,059
Contractors - outside	94,759	101,525	6,766	7%	1,325,820	1,218,300	(107,520)	-9%	1,218,300	(107,520)
Engineers - outside	13,133	5,333	(7,799)	-146%	56,667	64,000	7,333	11%	64,000	7,333
Dump fees	1,278	1,500	222	15%	14,195	18,000	3,805	21%	18,000	3,805
Laboratories	85	2,775	2,690	97%	30,603	33,300	2,697	8%	33,300	2,697
License & permits	8,861	15,117	6,256	41%	169,117	181,400	12,283	7%	181,400	12,283
Automotive fuel & oil	14,025	8,500	(5,525)	-65%	121,923	102,000	(19,923)	-20%	102,000	(19,923)
Equipment rental	510	1,617	1,107	68%	13,678	19,400	5,722	29%	19,400	5,722
Landscaping	4,747	13,683	8,936	65%	113,710	164,200	50,490	31%	164,200	50,490
Small tools & equipment	6,725	6,117	(609)	-10%	57,859	73,400	15,541	21%	73,400	15,541
Security	17,714	1,600	(16,114)	-1007%	23,867	19,200	(4,667)	-24%	19,200	(4,667)
Operating supplies	3,246	4,933	1,688	34%	49,045	59,200	10,155	17%	59,200	10,155
Safety equipment	4,947	3,458	(1,489)	-43%	26,740	41,500	14,760	36%	41,500	14,760
Temporary help	1,673	1,458	(215)	-15%	16,592	17,500	908	5%	17,500	908
Other employee cost	4,675	11,333	6,658	59%	115,412	136,000	20,588	15%	136,000	20,588
Employee service awards	0	317	317	100%	(118)	3,800	3,918	103%	3,800	3,918
Education & training	10,732	1,300	(9,432)	-726%	32,003	15,600	(16,403)	-105%	15,600	(16,403)
<b>Total Operating Expenses</b>	<b>2,009,214</b>	<b>1,809,228</b>	<b>(199,986)</b>	<b>-11%</b>	<b>21,901,181</b>	<b>21,710,467</b>	<b>(190,714)</b>	<b>-1%</b>	<b>21,710,467</b>	<b>(190,714)</b>



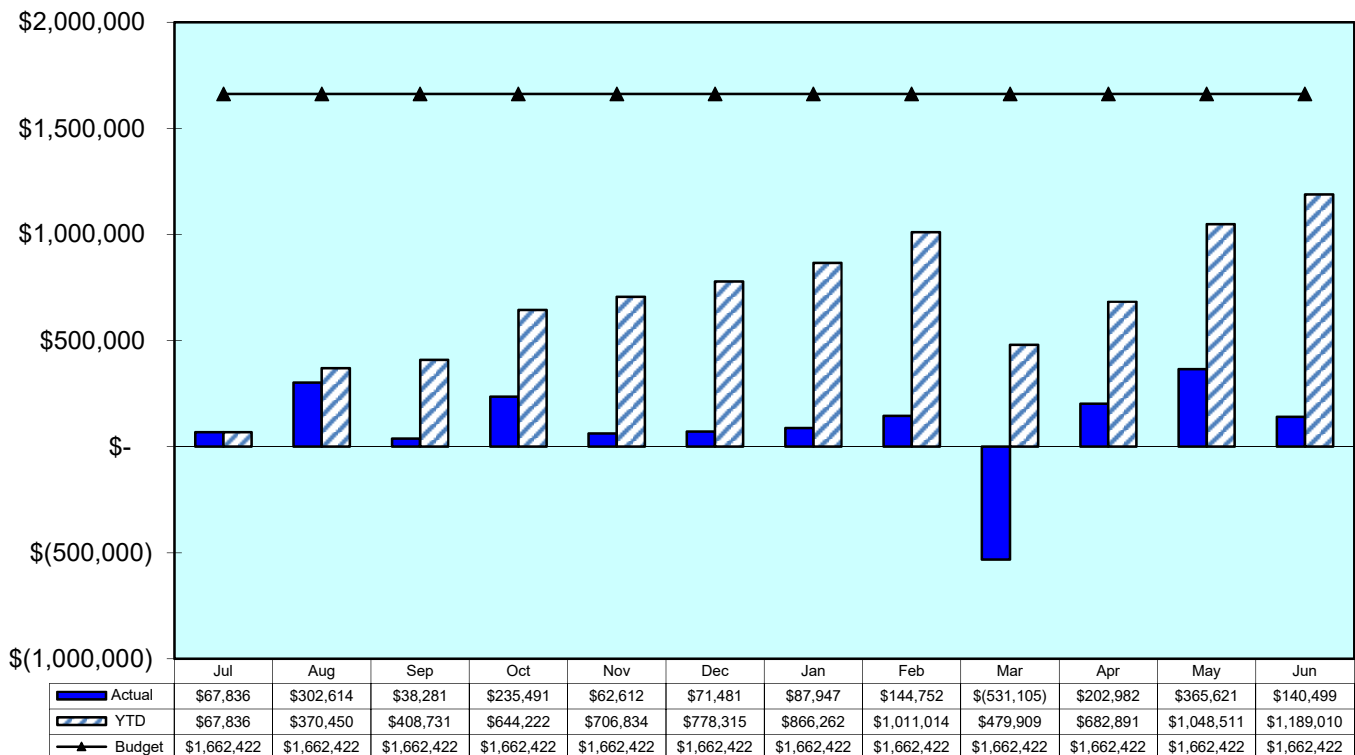
**EL TORO WATER DISTRICT**  
**Expense Comparison**  
**For the Month Ended June 30, 2022**

	ACTUAL	CURRENT MONTH BUDGET	VARIANCE DOLLARS	% +/-	YEAR TO DATE ACTUAL	YEAR TO DATE BUDGET	VARIANCE DOLLARS	% +/-	Annual BUDGET	REMAINING BUDGET
<b><u>Indirect Cost</u></b>										
Depreciation	355,342	362,500	7,158	2%	4,264,104	4,350,000	85,896	2%	4,350,000	85,896
Amortization	570	575	5	1%	6,846	6,900	54	1%	6,900	54
Insurance	25,255	27,608	2,353	9%	339,779	331,300	(8,479)	-3%	331,300	(8,479)
Retiree Medical Insurance	20,187	27,083	6,896	25%	239,173	325,000	85,827	26%	325,000	85,827
Data processing supplies & assc.	146	2,500	2,354	94%	10,338	30,000	19,662	66%	30,000	19,662
Data processing equipment	0	2,917	2,917	100%	45,444	35,000	(10,444)	-30%	35,000	(10,444)
Data processing consultants	15,250	5,000	(10,250)	-205%	45,530	60,000	14,470	24%	60,000	14,470
Software maintenance & licenses	22,372	15,417	(6,956)	-45%	206,693	185,000	(21,693)	-12%	185,000	(21,693)
Janitorial	3,115	3,750	635	17%	74,010	45,000	(29,010)	-64%	45,000	(29,010)
Printing & reproduction	18,795	1,550	(17,245)	-1113%	22,962	18,600	(4,362)	-23%	18,600	(4,362)
Publications & subscriptions	0	125	125	100%	613	1,500	887	59%	1,500	887
Communications - voice	2,226	1,333	(893)	-67%	16,005	16,000	(5)	0%	16,000	(5)
Communications - data	8,126	5,058	(3,067)	-61%	69,531	60,700	(8,831)	-15%	60,700	(8,831)
Communications - mobile	3,171	3,083	(88)	-3%	35,918	37,000	1,082	3%	37,000	1,082
Utilities	2,046	2,150	104	5%	22,107	25,800	3,693	14%	25,800	3,693
<b>Total Indirect Cost</b>	<b>476,604</b>	<b>460,650</b>	<b>(15,954)</b>	<b>-3%</b>	<b>5,399,051</b>	<b>5,527,800</b>	<b>128,749</b>	<b>2%</b>	<b>5,527,800</b>	<b>128,749</b>
<b><u>Overhead Cost</u></b>										
Annual events	0	500	500	100%	10,485	6,000	(4,485)	-75%	6,000	(4,485)
Audit	4,400	2,142	(2,258)	-105%	23,960	25,700	1,740	7%	25,700	1,740
Bad debts	304	1,667	1,363	82%	2,097	20,000	17,903	90%	20,000	17,903
Bank charges	6,510	5,917	(593)	-10%	77,372	71,000	(6,372)	-9%	71,000	(6,372)
Bond Issuance Fees	-	-	0	0%	254,594	0	(254,594)	0%	0	(254,594)
Directors fees	10,950	10,583	(367)	-3%	127,239	127,000	(239)	0%	127,000	(239)
Dues & memberships	4,486	7,267	2,781	38%	95,878	87,200	(8,678)	-10%	87,200	(8,678)
Election Expense	0	0	0	0%	0	0	0	0%	0	0
Interest	59,295	59,833	539	1%	711,534	718,000	6,466	1%	718,000	6,466
Legal	16,219	8,792	(7,427)	-84%	131,994	105,500	(26,494)	-25%	105,500	(26,494)
Meetings, conventions & travel	3,838	2,417	(1,422)	-59%	24,919	29,000	4,081	14%	29,000	4,081
Meets, con & travel - Directors	770	3,658	2,889	79%	22,054	43,900	21,846	50%	43,900	21,846
Office supplies	184	1,650	1,466	89%	10,107	19,800	9,693	49%	19,800	9,693
Office support	-	-	0	0%	3,157	0	(3,157)	0%	0	(3,157)
Postage	19,433	1,717	(17,716)	-1032%	27,312	20,600	(6,712)	-33%	20,600	(6,712)
Property taxes	46	425	379	89%	5,116	5,100	(16)	0%	5,100	(16)
Advertising & Publicity	445	167	(278)	-167%	11,545	2,000	(9,545)	-477%	2,000	(9,545)
Public education & outreach	18,720	19,683	964	5%	119,877	236,200	116,323	49%	236,200	116,323
<b>Total Overhead Cost</b>	<b>145,599</b>	<b>126,417</b>	<b>(19,182)</b>	<b>-15%</b>	<b>1,659,238</b>	<b>1,517,000</b>	<b>(142,238)</b>	<b>-9%</b>	<b>1,517,000</b>	<b>(142,238)</b>
<b>TOTAL EXPENSES</b>	<b>\$2,631,417</b>	<b>\$2,396,295</b>	<b>(\$235,122)</b>	<b>-10%</b>	<b>\$28,959,470</b>	<b>\$28,755,267</b>	<b>(\$204,203)</b>	<b>-1%</b>	<b>\$28,755,267</b>	<b>(\$204,203)</b>

## CAPITAL COST ANALYSIS - EQUIPMENT 6/22



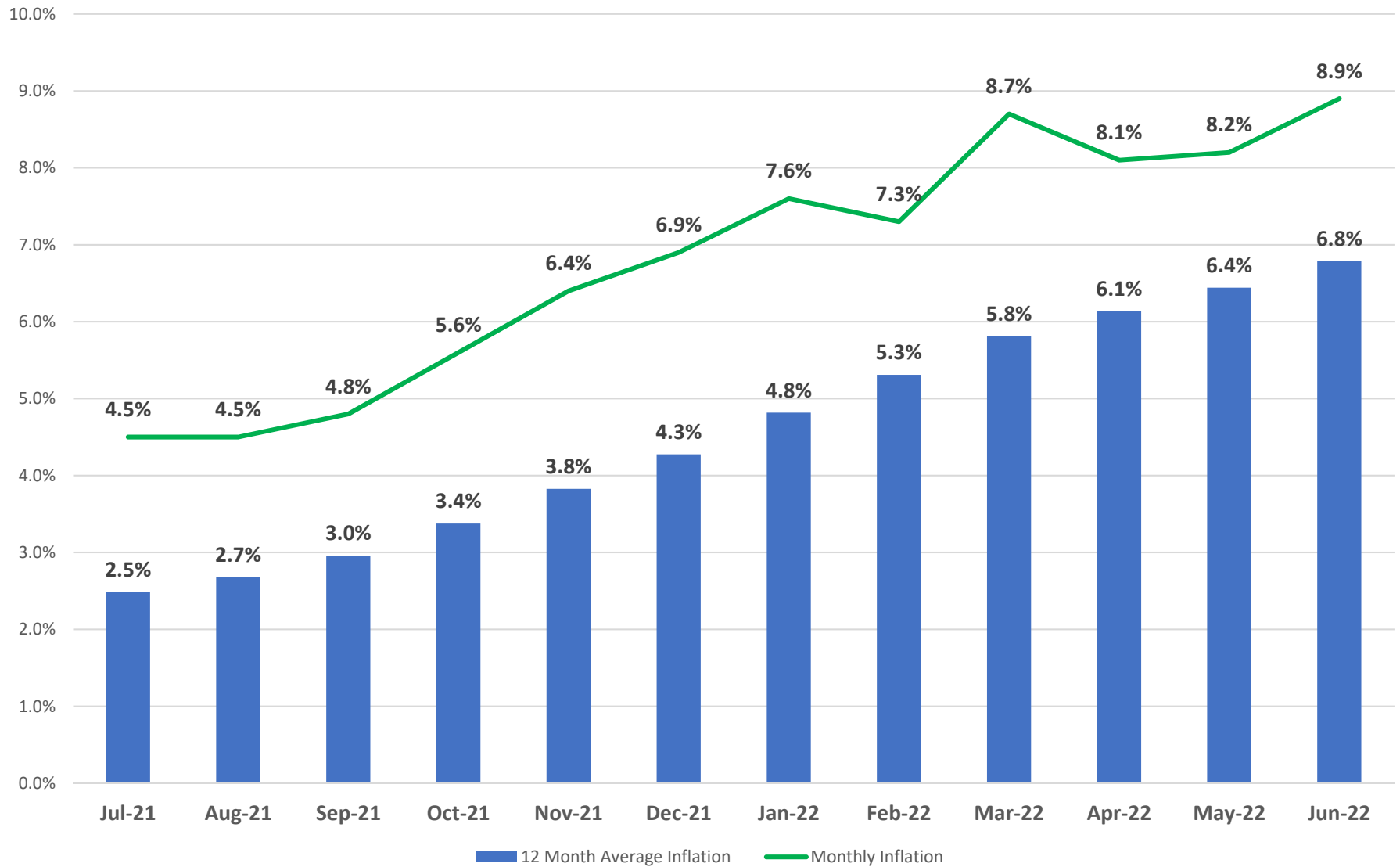
## CAPITAL COST ANALYSIS - PROJECTS 6/22



# Consumer Price Index

## Urban Wage Earners and Clerical Workers (CPI-W)

### Los Angeles -Long Beach-Anaheim





## STAFF REPORT

**To: BOARD OF DIRECTORS**

**Meeting Date: July 25, 2022**

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

**Subject: Cash Reserves Policy Update**

As the District transitions to the Springbrook Accounting System, a new chart of accounts, and changes some budget processes, Staff determined that a review of the District's Cash Reserve Policy was needed due to the changes. Some significant changes are recommended for the Policy and these are outlined below:

- Terminology – Staff is recommending the District adopt the terms used in Governmental Accounting Standards Board (GASB) Statement 54 which governs the terminology used for Governmental Fund Balances. Although the District does not have any governmental funds (all of the District's activities are Enterprise type activities), adopting the terminology from GASB Statement 54 provides a frame of reference for outside parties (bond analysts, accountants, auditors, attorneys) when District Staff discusses the various categories of Cash Reserves. GASB Statement 54 provides for several types of balances:
  - Restricted Reserves are equivalent to "Legally Restricted Reserves" in the current Cash Reserve Policy. This Reserves category includes amounts that can be spent only for the specified purposes stipulated by constitution, external resource providers, or through enabling legislation.
  - Committed Reserves are equivalent to "Board Mandated Reserves" in the current policy and include amounts that can be used only for the specific purpose determined by a formal action of the Government's highest level of decision-making authority.
  - Assigned Reserves are equivalent to "Board Restricted" category used in the current policy and include amounts that are intended to be used for specific purposes but do not meet the criteria to be classified as restricted or committed.
- Reallocation of Reserve Balances into New Categories – After establishing the new Reserve categories, the revised Reserve Policy reallocates the various Reserves to the appropriate category and establishes within the Policy several Reserve Balances that have been accounted for in the Monthly Financial Reports (under the headings "SOCWA" and "Capital Cash Flow / Compliance") but were not included in the Reserve Policy. These new Reserve Balances include:
  - Carryover Capital
  - Accumulated Capital
  - SOCWA Capital Projects
  - Bond Project Reserve

The following Reserve Balances were reallocated to different categories:

- Tiered Conservation was moved from Board Restricted Reserves to Restricted Reserves
- Baker Funding was moved from Legally Restricted Reserves to Assigned Reserves
- Working Capital was moved from Board Mandated Minimum Reserve Levels to Assigned Reserves
- Minimum Reserve balances have been modified in the policy based on a review of the Government Finance Officers Association reserve recommendations and an analysis of the stability of the District's revenues and operating and capital expenses.

### **Attachments**

- Resolution 22-7-1 Resolution of the Board of Directors of the El Toro Water District Amending in It's Entirety Policy Statement 1994-12 (IV) "Cash Reserve Policy"
- Proposed Amended Cash Reserve Policy
- Redlined Cash Reserve Policy, Approved May 24, 2021
- Cash Reserve Policy, Approved May 24 2021, reference document
- Comparison of Cash Reserve Report Before and After Proposed Reserve Policy Changes
- Sample Cash Reserve Status Report for the Month ended June 30, 2022

## **Attachment 1**

Resolution 22-7-1 Resolution of the Board of Directors of the El Toro Water District Amending in  
It's Entirety Policy Statement 1994-12 (IV) "Cash Reserve Policy"

**RESOLUTION NO. 22-7-1**

**RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE EL TORO WATER DISTRICT  
AMENDING IN IT'S ENTIRETY  
POLICY STATEMENT 1994-12 (IV)  
"CASH RESERVE POLICY"**

**WHEREAS**, the Board of Directors of the El Toro Water District desires to amend its existing Cash Reserve Policy;

**NOW, THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED** as follows:

Policy Statement – Cash Reserve Policy 1994-12 (IV) is hereby amended, approved and adopted in the form and content attached to this Resolution marked Exhibit "A";

ADOPTED, SIGNED AND APPROVED this 25<sup>th</sup> day of July 2022.

---

KATHRYN FRESHLEY, 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

## **Attachment 2**

Proposed Amended Cash Reserve Policy



Prepared by: Staff	<b>EL TORO WATER DISTRICT POLICY STATEMENT 1994-12 (IV) CASH RESERVE POLICY</b>	Page 1 of 5 Item 9 Section IV
Approved by: Board of Directors		Date: 07/25/22 Revision: 20

The District allocates its cash and investment balances into the following reserve categories.

- Restricted Reserves
- Committed Reserves
- Assigned Reserves

### **Restricted Reserves**

The District is required to establish, maintain, and restrict certain Cash reserves to comply with contractual and/or legal obligations ("Restricted Reserves"). Accordingly, the District restricts Cash from operational revenues and various other sources to fulfill the following Restricted Reserve obligations.

- Debt Covenant Reserve:** Bond and Debt Indenture Agreements (including State Revolving Fund Loans) may require the District to establish and maintain certain restricted funds. These amounts may change from year to year as annual debt service requirements change, debt is retired and new debt is issued.
- Debt Project Reserve:** Debt is typically issued by the District for specific projects and debt covenants may require the District to expend the debt proceeds for the purposes identified in the Official Statement or loan document. Debt proceeds will be maintained in this Reserve until expended in compliance with the Debt Covenants.
- Capital Facility Fees:** State law requires the District to establish, maintain and separately account for Capital Facility fees collected from commercial and residential developments for improvements to the District's infrastructure. Funds are held in reserve until disbursed for the designated purpose.

Superseded by Resolution: 94-6-1	Date: 06/16/94
Superseded by Resolution: 95-2-2	Date: 02/12/95
Superseded by Resolution: 96-7-1	Date: 07/18/96
Superseded by Resolution: 97-6-5	Date: 07/19/97
Superseded by Resolution: 98-6-1	Date: 06/18/98
Superseded by Resolution: 99-6-1	Date: 06/17/99
Superseded by Resolution: 00-6-3	Date: 06/22/00
Superseded by Resolution: 01-6-2	Date: 06/21/01
Superseded by Resolution: 03-4-2	Date: 04/24/03
Superseded by Resolution: 04-5-1	Date: 05/27/04
Superseded by Resolution: 06-9-1	Date: 09/28/06
Superseded by Resolution: 11-3-2	Date: 03/24/11
Superseded by Resolution: 12-3-1	Date: 03/22/12
Superseded by Resolution: 13-3-1	Date: 03/28/13
Superseded by Resolution: 15-4-1	Date: 04/23/15
Superseded by Resolution: 16-4-1	Date: 04/28/16
Superseded by Resolution: 17-3-2	Date: 03/28/17
Superseded by Resolution: 20-4-1	Date: 04/20/20
Superseded by Resolution: 21-5-1	Date: 05/24/21
Superseded by Resolution: 22-7-1	Date: 07/25/22

Prepared by: Staff	<p style="text-align: center;"><b>EL TORO WATER DISTRICT POLICY STATEMENT 1994-12 (IV) CASH RESERVE POLICY</b></p>	Page 2 of 5 Item 9 Section IV
Approved by: Board of Directors		Date: 07/25/22 Revision: 20

- D. Tiered Conservation Reserve: The amount of this restricted reserve varies based upon Tier III and Tier IV water sales less the water supply and delivery rate component. This reserve is established to provide a source of revenue to fund Water Use Efficiency efforts and development of Water Supply Resources as follows:
- 1) The Water Use Efficiency program inclusive of personnel, outreach, newsletters, website support, consultant support, and any other efforts dedicated to supporting, encouraging and promoting water use efficiency and water conservation.
  - 2) To enhance, expand and/or add to water use efficiency rebate programs the District participates in or initiates.
  - 3) To fund the investigation, study, design and construction of Recycled Water Treatment and Delivery Projects.
  - 4) To fund supplemental revenue as necessary to balance the revenues and operational expenses of the Recycled Water Enterprise.
  - 5) To fund the investigation, study, design and construction of Supplemental Potable Water Supply Projects.

### **Committed Reserves**

Committed Reserves have been established by Board action and are intended to provide stability to the District's finances by establishing reserves that will be maintained unless the District is experiencing an emergency or other extreme circumstance. The Board may authorize the utilization of the Committed Reserves but a plan to replenish them will be identified when they are utilized. Any shortfalls in the Committed Reserves balances will be reported to the Board on a timely basis. The Committed Reserves include:

- A. Rate Stabilization Reserve: (7.5% to 15% of annual Operations & Maintenance expenses, excluding depreciation and interest expenses) This reserve is established to provide a source of funds when unusually wet weather or drought restrictions cause water sales to fall below levels used to prepare the budget for the year in question or when unusual conditions result in revenue shortfalls. In addition, the rate stabilization reserve will provide necessary funds in those years where budgeted revenues from all sources are not sufficient to meet budgeted expenses.
- B. Operating Continuity Reserve: (7.5% to 15% of annual Operations & Maintenance expenses, excluding depreciation and interest expenses) This reserve is established to provide a source of funds to ensure continual operations in challenging circumstances, such as:
- 1) Other revenue sources fall short of expectations. (i.e. interest income, property taxes, etc.)
  - 2) Budget overages are experienced; such as the need to complete major repairs to critical operating equipment when such equipment was not scheduled for major repair.
  - 3) SOCWA operations and/or capital expenditures that exceed the budgeted amounts.
  - 4) Needed repairs that may be necessary to restore operations after a natural disaster. As a public agency providing a vital service to the community, the District cannot afford to be inoperable for an extended period of time.

Prepared by: Staff	<b>EL TORO WATER DISTRICT POLICY STATEMENT 1994-12 (IV) CASH RESERVE POLICY</b>	Page 3 of 5 Item 9 Section IV
Approved by: Board of Directors		Date: 07/25/22 Revision: 20

- C. Capital Improvement Reserve: This reserve is established to provide a funding source for the Capital Improvement Program. In addition, the reserve serves as a source of funds to meet construction project progress payments for planned or unplanned capital replacement and restoration projects for which other financing sources are not immediately adequate. Typically capital expenditures are funded out of the current year collections of the water, sewer and recycled water Capital Facility charge. To the extent that the current year Capital Facility Charge collections are not sufficient to cover capital expenditures for a particular year, the District then relies on capital reserves. Based on historical expenditures and future revenues, the Capital Improvement Reserve is targeted to equal \$3.0 million at the end of each fiscal year.

During the course of a fiscal year, the Capital Improvement Reserve will accumulate resources (primarily from Capital Facility revenues and the Carryover Capital Assigned Reserve) and pay capital expenditures for the current year Capital Improvement Program. At the end of each fiscal year, the General Manager, working with the Finance Department, will allocate any remaining capital budget to the Carryover Capital Assigned Reserve for those projects or purchases that will be completed in future years. Any funds remaining in the Capital Improvement Reserve at the end of a fiscal year greater than \$3.0 million that are not allocated to the Carryover Capital Reserve, should be allocated to future capital improvement related activities (Accumulated Capital Reserve, SOCWA Capital Reserve).

The minimum total Committed Reserves has been set at \$7,200,000 as noted below. Interest earned on those funds held in reserve will be deemed unreserved and be utilized as a source of revenue to meet the needs of the operating budget. If the Board of Directors authorizes the General Manager to utilize a Committed Reserve balance and the balance is less than the minimum level established by this policy, the reserves will be replenished from Working Capital to the extent available and then operating revenues or other revenue or cash flow sources as required. If Working Capital, operating revenues or other revenue or cash flow sources are not immediately sufficient to replenish any reserve that has been drawn below the minimum reserve level, the General Manager shall present the Board with a plan to replenish the reserve. The Committed Reserve balances shall be reported to the Board as part of the monthly financial report.

<b><u>Committed Reserves</u></b>	<b><u>Minimum Level</u></b>
Capital Improvement Reserve	\$3,000,000
Rate Stabilization Reserve	\$2,100,000
Operating Continuity Reserve	\$2,100,000
<b>Total</b>	<b><u>\$7,200,000</u></b>

Prepared by: Staff	<p style="text-align: center;"><b>EL TORO WATER DISTRICT POLICY STATEMENT 1994-12 (IV) CASH RESERVE POLICY</b></p>	Page 4 of 5 Item 9 Section IV
Approved by: Board of Directors		Date: 07/25/22 Revision: 20

### **Assigned Reserves**

Assigned Reserves consist of collected rate revenues that are allocated to particular purposes, including Capital Projects, Debt Service, and Working Capital for Operations & Maintenance.

The General Manager is authorized to create, amend, or close Assigned Reserves provided such action does not impair any obligation that has been incurred by the District. Any remaining cash in an Assigned Reserve that is closed will be returned to the appropriate Working Cash Assigned Reserve. The following Assigned Reserves are hereby established:

- Carryover Capital Projects – This Assigned Reserve is for capital budget items from prior years that were not completed but are intended to be completed in a future Capital budget. The revenue for these projects was collected from the Capital Facility Charge in the year in which the project was budgeted and is therefore allocated to this reserve to maintain budget funding for the project.
- Accumulated Capital – This Assigned Reserve is cash that has been accumulated from capital budget items that were either cancelled or completed under budget and therefore had cash remaining at the end of the project. The Accumulated Capital Assigned Reserve is intended to provide resources for capital projects that may exceed their initial budget or for capital projects that are unanticipated but need to be completed.
- SOCWA Capital Projects – This Assigned Reserve is intended to provide stability to the District's finances by accumulating cash in anticipation of future SOCWA capital obligations. The District is contractually required to pay a portion of SOCWA capital projects but in certain years the District's obligation may exceed the entire Capital Facilities revenue received in that year. This Assigned Reserve accumulates cash reserves in anticipation of these future SOCWA capital obligations.
- 2022 Revenue Bond Projects – A portion of the Restricted Reserve for the former SRF Loans was allocated to the 2022 Bond projects. This Assigned Reserve maintains these funds until they will be used for the projects.
- Baker Funding Reserve – This Assigned Reserve accumulates a portion of the revenue generated from the Water Capital Facility Charge which is used to fund the debt associated with the Baker Water Treatment Plant project. Beginning with the 2021-2022 Budget, this amount will increase through 2025-2026 to eventually fully fund the Baker Water Treatment Plant Debt Service. This portion of the Water Capital Facility Charge revenue is accumulated in the Baker Funding Reserve to be used when the Baker Water Treatment Plant loan payments are due.
- Operations & Maintenance Working Capital – This Assigned Reserve is intended to provide working capital for the operations and maintenance activities of the District. This Assigned Reserve will fluctuate throughout the year as revenues are received and expenses and liabilities are paid. At the end of each Fiscal Year, the District's goal is to have 7.5% to 15% of annual operations and maintenance expenses, excluding depreciation and interest in the Working Capital Assigned Reserve. The Working Capital Assigned Reserve is the net cash remaining after the reconciled cash balance has been allocated to all of the other Reserve Balances.

Prepared by: Staff	<b>EL TORO WATER DISTRICT POLICY STATEMENT 1994-12 (IV) CASH RESERVE POLICY</b>	Page 5 of 5 Item 9 Section IV
Approved by: Board of Directors		Date: 07/25/22 Revision: 20

### **Minimum Total Reserve Balance**

The total minimum Reserve Balance target for the District at the end of each Fiscal Year should equal the minimum balances from the Rate Stabilization, Operational Continuity, Capital Improvement, and Working Capital Reserves. If in a particular year or for multiple years the District anticipates it will not meet the Minimum Total Reserve Balance, during the budget development process, the General Manager and Chief Financial Officer will develop a plan to replenish the reserves as necessary to meet the minimum total balance and present the plan to the Board of Directors for discussion.

### **Minimum Total Reserve Balance**

Rate Stabilization	\$2,100,000
Operational Continuity	\$2,100,000
Working Capital	\$2,100,000
Capital Project Expenses	\$3,000,000
<b>Total</b>	<b>\$9,300,000</b>

## **Attachment 3**

Redlined Cash Reserve Policy, Approved May 24, 2021


Prepared by: Staff	<p style="text-align: center;"><b>EL TORO WATER DISTRICT POLICY STATEMENT 1994-12 (IV) CASH RESERVE POLICY</b></p>	Page 1 of 5 Item 9 Section IV
Approved by: Board of Directors		Date: 07/5/254/224 Revision: 2019

The District ~~maintains the following three categories of reserves. allocates its cash and investment balances into the following reserve categories.~~

- ~~Legally~~ Restricted Reserves
- ~~Board Mandated~~ Committed Reserves
- ~~Board Restricted~~ Assigned Reserves

### **Legally Restricted Reserves**

~~The District is required to establish, maintain, and restrict certain Cash reserves to comply with contractual and/or legal obligations ("legally Restricted Reserves"). Accordingly, the District reserves Cash from operational revenues and various other sources to restrict cash as necessary to fulfill the following reserve requirements. The District is required to establish, maintain, and restrict certain Cash reserves to comply with contractual and/or legal obligations ("Restricted Reserves"). Accordingly, the District restricts Cash from operational revenues and various other sources to fulfill the following Restricted Reserve obligations.~~

- A. ~~Bond Reserve Investment~~ Debt Covenant Reserve: Bond ~~and~~ Indenture Agreements (including State Revolving Fund Loans) may require ~~that~~ the District to establish and maintain certain ~~restricted~~ erve funds ~~as established by the loan agreements~~. These amounts will change from year to year as annual debt service requirements change, ~~bonds are~~ debt is retired and new debt is ~~bonds are~~ issued.
- B. Debt Project Reserve: Debt is typically issued by the District for specific projects and debt covenants may require the District to expend the debt proceeds for the purposes identified in the Official Statement or loan document. Debt proceeds will be maintained in this Reserve until expended in compliance with the Debt Covenants.
- C. Capital Facility Fees: State law requires ~~that~~ the District to establish, maintain and separately account for Capacity Access ~~ital Facility~~ fees collected from commercial and residential development in exchange for access to District utilities ~~customers~~. Funds are held in reserve until disbursed for the designated purpose.
- D.  Conservation Water Supply Reserve: The amount of this restricted reserve varies based upon Tier III and Tier IV water sales less the water supply and delivery rate component. This reserve is established to provide a source of revenue to fund Water Use Efficiency Conservation efforts and development of Water Supply Resources (Conservation/Water Supply Reserves) as follows:
  - 1) The ~~conservation~~ Water Use Efficiency program inclusive of personnel, outreach, newsletters, website support and any other efforts dedicated to supporting, encouraging and promoting water conservation.
  - 2) To enhance, expand and/or add to ~~customer~~ water use efficiency rebate programs in which the District participates in or initiates.
  - 3) To fund the investigation, study, design and construction of Recycled Water Treatment and

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### Delivery Projects.

- 4) To fund supplemental revenue as necessary to balance the revenues and operational expenses of the Recycled Water Enterprise.
- 5) To fund the investigation, study, design and construction of Supplemental Potable Water Supply Projects.

Superseded by Resolution: 94-6-1	Date: 06/16/94
Superseded by Resolution: 95-2-2	Date: 02/12/95
Superseded by Resolution: 96-7-1	Date: 07/18/96
Superseded by Resolution: 97-6-5	Date: 07/19/97
Superseded by Resolution: 98-6-1	Date: 06/18/98
Superseded by Resolution: 99-6-1	Date: 06/17/99
Superseded by Resolution: 00-6-3	Date: 06/22/00
Superseded by Resolution: 01-6-2	Date: 06/21/01
Superseded by Resolution: 03-4-2	Date: 04/24/03
Superseded by Resolution: 04-5-1	Date: 05/27/04
Superseded by Resolution: 06-9-1	Date: 09/28/06
Superseded by Resolution: 11-3-2	Date: 03/24/11
Superseded by Resolution: 12-3-1	Date: 03/22/12
Superseded by Resolution: 13-3-1	Date: 03/28/13
Superseded by Resolution: 15-4-1	Date: 04/23/15
Superseded by Resolution: 16-4-1	Date: 04/28/16
Superseded by Resolution: 17-3-2	Date: 03/28/17
Superseded by Resolution: 20-4-1	Date: 04/20/20
Superseded by Resolution: 21-5-1	Date: 05/24/21
<u>Superseded by Resolution: 22-7-1</u>	<u>Date: 07/25/22</u>

### **Board Mandated Committed Reserves**

Committed Reserves have been established by Board action and are intended to provide stability to the District's finances by establishing reserves that will be maintained unless the District is experiencing an emergency or other extreme circumstance. The Board may authorize the utilization of the Committed Reserves but a plan to replenish them will be identified when they are utilized. Any shortfalls in the Committed Reserves balances will be reported to the Board on a timely basis. The Committed Reserves include:

- Rate Stabilization Reserve: (approx. 7.5% to 15% of annual Operations & Maintenance expenses, excluding depreciation.) This reserve is established to provide a source of funds when unusually wet weather or drought restrictions cause water sales to fall below levels used to prepare the budget for the year in question or when unusual conditions result in revenue shortfalls. In addition, the rate stabilization reserve will provide necessary funds in those years where budgeted revenues from all sources are not sufficient to meet budgeted expenses.
- Operating Continuity Reserves: (approx. 5% to 10% of annual Operations & Maintenance expenses, excluding depreciation.) This reserve is established to provide a source of funds to



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ensure continual operations in challenging circumstances, such as:

- 1) Other revenue sources fall short of expectations. (i.e. interest income, property taxes, etc.)
- 2) Budget overages are experienced; such as the need to complete major repairs to critical operating equipment when such equipment was not scheduled for major repair.
- 3) SOCWA operations and/or capital expenditures that exceed the budgeted amounts.
- 4) Needed repairs that may be necessary to restore operations after a natural disaster. As a public agency providing a vital service to the community, the District cannot afford to be inoperable for an extended period of time.

Capital **Improvement** Reserve: (approx. 100% of average annual capital expenditures) This reserve is established to provide a funding source for the Long Term Capital **Improvement Program** Replacement and Restoration Program "Capital R&R Program". In addition, **the Reserve serves as** it is a source of funds to meet construction project progress payments for planned or unplanned capital replacement and restoration projects for which other financing sources are not immediately adequate.

Typically capital expenditures are funded out of the current year collections of the water, sewer and recycled water Capital **Facility charge** Replacement and Restoration charge ("Capital R & R Charge"). To the extent that the current year Capital R & R **Facility** Charge collections are not sufficient to cover capital expenditures for a particular year, then the District **then** relies on capital reserves. **Based on historical expenditures and future revenues, the Capital Improvement Reserve is targeted to equal \$3.0 million at the end of each fiscal year.** If current annual Capital R & R Charge collections plus capital reserves are not sufficient to cover the District's five-year capital expenditure program, then the District will investigate alternative funding sources and/or rate adjustments.

During the course of a fiscal year, the Capital Improvement Reserve will accumulate resources (primarily from Capital Facility revenues and the Carryover Capital Assigned Reserve) and pay capital expenditures for the current year Capital Improvement Program. At the end of each fiscal year, the General Manager, working with the Finance Department, will allocate any remaining capital budget to the Carryover Capital Assigned Reserve for those projects or purchases that will be completed in future years. Any funds remaining in the Capital Improvement Reserve at the end of a fiscal year greater than \$3.0 million that are not allocated to the Carryover Capital Reserve, should be allocated to future capital improvement related activities (Accumulated Capital Reserve, SOCWA Capital Reserve).

It is the District's intent to fund capital expenditures out of current cash flows and to have adequate capital reserves to assure total funding of the District's ongoing five-year Capital R & R Program. The determination of the Capital Reserve will be as follows:

Funds available from Capital R & R Charge collections, based on the District's current year operating budget, will be projected for the five year period.

Funds carried over from previous fiscal years Capital R & R Charge collections for projects that have not yet been completed, have been cancelled or have been completed under

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budget.

Capital expenditures, as included in the operating budget, will be projected for the five year period. The Capital Reserve will be the difference between the funds available (items 1 and 2) and the funds required (item 3) but not less than \$3 million.

~~The Board mandated reserves are maintained for funding basic needs of the District, including revenue shortfalls, unplanned expenses or unanticipated risks ("Rate Stabilization" and "Operating" Reserves). Also included in Board Mandated Reserves are the Board mandated minimum funds utilized to support monthly cash flow ("Working Capital") and cash designated for funding the Capital Replacement and Restoration Program ("Capital Reserves").~~

~~Reserves may be amended or closed by the Board provided such action does not impair any obligation that has been incurred by the District. Upon completion of a project for which a reserve exists, the General Manager shall close that reserve after all work has been completed and all other costs have been paid. Unused reserve balances shall be returned to Working Capital. All reserves shall be reviewed at least annually to determine the status of work and changes. The General Manager shall report annually to the Board on the status of reserves to permit the Board to consider which, if any, reserves should remain open, be closed, or have their minimum levels adjusted.~~

~~The General Manager is authorized to restrict the source of funds for reserves to pay for capital programs or other contractual or legal obligations. The General Manager shall report quarterly to the Board all changes in sources of funding for those restricted revenues used to fund the reserve at the time of approval of the reserve.~~

The minimum total Committed Reserves has been set at \$7,200,000 as noted below. should be maintained at a level that will provide for financial security required of a fiscally responsible local government. The minimum level of Board Mandated reserves has been deemed to be \$8,500,000 excluding contractual or legal obligations. Interest earned on those funds held in reserve will be deemed unreserved and be utilized as a source of revenue to meet the needs of the operating budget. If the Board of Directors authorizes the General Manager to utilize a Committed Reserve balance and the balance is less than the minimum level established by this policy, reserves are drawn below contractual or legal requirements or the minimum level established by this policy, the reserves will~~ould~~be replenished from Working Capital to the extent available and then operating revenues or other revenue or cash flow sources as required. If Working Capital, operating revenues or other revenue or cash flow sources are not immediately sufficient to replenish any reserve that has been drawn below the minimum reserve level, the General Manager shall present the Board with a plan to replenish the reserve. The Committed Reserve balances shall be reported to the Board as part of the monthly financial report.

#### **Board Mandated Reserves**

#### **Minimum Level**

Capital Improvement Reserves

\$3,000,000

Rate Stabilization Reserve

\$2,1200,000

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Operating <u>Continuity</u> Reserve	\$24,3100,000
<u>Working Capital</u>	<u>\$2,000,000</u>
<b>Total</b>	<b><u>\$7,200,0008,500,000</u></b>

### **Board Mandated Reserve Description /Purpose**

- ~~Capital Reserve: (approx. 100% of average annual capital expenditures) This reserve is established to provide a funding source for the Long Term Capital Replacement and Restoration Program "Capital R&R Program". In addition, it is a source of funds to meet construction project progress payments for planned or unplanned capital replacement and restoration projects for which other financing sources are not immediately adequate.~~

~~Typically capital expenditures are funded out of the current year collections of the water, sewer and recycled water Capital Replacement and Restoration charge ("Capital R & R Charge"). To the extent that the current year Capital R & R Charge collections are not sufficient to cover capital expenditures for a particular year, then the District relies on capital reserves. If current annual Capital R & R Charge collections plus capital reserves are not sufficient to cover the District's five-year capital expenditure program, then the District will investigate alternative funding sources and/or rate adjustments.~~

~~It is the District's intent to fund capital expenditures out of current cash flows and to have adequate capital reserves to assure total funding of the District's ongoing five-year Capital R & R Program. The determination of the Capital Reserve will be as follows:~~

- ~~1) Funds available from Capital R & R Charge collections, based on the District's current year operating budget, will be projected for the five-year period.~~
- ~~2)1) Funds carried over from previous fiscal years Capital R & R Charge collections for projects that have not yet been completed, have been cancelled or have been completed under budget.~~
- ~~3)1) Capital expenditures, as included in the operating budget, will be projected for the five-year period. The Capital Reserve will be the difference between the funds available (items 1 and 2) and the funds required (item 3) but not less than \$3 million.~~

- ~~Rate Stabilization Reserve: (approx. 7.5% to 15% of annual Operations & Maintenance expenses, excluding depreciation.) This reserve is established to provide a source of funds when unusually wet weather or drought restrictions cause water sales to fall below levels used to prepare the budget for the year in question or when unusual conditions result in revenue shortfalls. In addition, the rate stabilization reserve will provide necessary funds in those years where budgeted revenues from all sources are not sufficient to meet budgeted expenses.~~

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- ~~Operating Reserves: (approx. 5% to 10% of annual Operations & Maintenance expenses, excluding depreciation.) This reserve is established to provide a source of funds to ensure continual operations in challenging circumstances, such as:~~
  - ~~1) Other revenue sources fall short of expectations. (i.e. interest income, property taxes, etc.)~~
  - ~~2) 1) Budget overages are experienced; such as the need to complete major repairs to critical operating equipment when such equipment was not scheduled for major repair.~~
  - ~~3) 1) SOCWA operations and/or capital expenditures that exceed the budgeted amounts.~~
  - ~~4) 1) Needed repairs that may be necessary to restore operations after a natural disaster. As a public agency providing a vital service to the community, the District cannot afford to be inoperable for an extended period of time.~~

### **Assigned Reserves**

Assigned Reserves consist of collected rate revenues that are allocated to particular purposes, including Capital Projects, Debt Service, and Working Capital for Operations & Maintenance.

The General Manager is authorized to create, amend, or close Assigned Reserves provided such action does not impair any obligation that has been incurred by the District. Any remaining cash in an Assigned Reserve that is closed will be returned to the appropriate Working Cash Assigned Reserve. The following Assigned Reserves are hereby established:

- Carryover Capital Projects – This Assigned Reserve is for capital budget items from prior years that were not completed but are intended to be completed in a future Capital budget. The revenue for these projects was collected from the Capital Facility Charge in the year in which the project was budgeted and is therefore allocated to this reserve to maintain budget funding for the project.
- Accumulated Capital – This Assigned Reserve is cash that has been accumulated from capital budget items that were either cancelled or completed under budget and therefore had cash remaining at the end of the project. The Accumulated Capital Assigned Reserve is intended to provide resources for capital projects that may exceed their initial budget or for capital projects that are unanticipated but need to be completed.
- SOCWA Capital Projects – This Assigned Reserve is intended to provide stability to the District's finances by accumulating cash in anticipation of future SOCWA capital obligations. The District is contractually required to pay a portion of SOCWA capital projects but in certain years the District's obligation may exceed the entire Capital Facilities revenue received in that year. This Assigned Reserve accumulates cash reserves in anticipation of these future SOCWA capital

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#### obligations.

2022 Revenue Bond Projects – A portion of the Restricted Reserve for the former SRF Loans was allocated to the 2022 Bond projects. This Assigned Reserve maintains these funds until they will be used for the projects.

- Operations & Maintenance Working Capital:- —This Assigned Reserve is intended to provide working capital for the operations and maintenance activities of the District. This Assigned Reserve will fluctuate throughout the year as revenues are received and expenses and liabilities are paid. At the end of each Fiscal Year, the District's goal is to have 7.5% to 15% of annual operations and maintenance expenses, excluding depreciation and interest in the Working Capital Assigned Reserve. The Working Capital Assigned Reserve is the net cash remaining after the reconciled cash balance has been allocated to all of the other Reserve Balances. ~~In order to ensure adequate operating cash the District will maintain Working Capital funds equal to at least 1 month of cash flow requirements (Operations & Maintenance expenses, excluding depreciation). Reserve funds in excess of the Board Mandated Reserves, not otherwise designated as Legally Restricted, Board Restricted or Capital Reserves, will be considered as Working Capital.~~
- Baker Funding Reserve: A portion of the revenue generated from the Water Capital R&R Charge will be used to fund a portion of the debt associated with the Baker Water Treatment Plant project in the amount of \$500,000. Beginning with the 2021-2022 Budget, this amount will increase through 2025-2026 to approximately \$680,000 and will eventually fully fund the Baker Water Treatment Plant Debt Service. This portion of the Water Capital R&R Charge revenue is accumulated in the Baker Funding Reserve to be used when the Baker Water Treatment Plant loan payments are due.

#### Minimum Total Reserve Balance

The total minimum Reserve Balance target for the District at the end of each Fiscal Year should equal the minimum balances from the Rate Stabilization, Operational Continuity, Capital Improvement, and Working Capital Reserves. If in a particular year or for multiple years the District anticipates it will not meet the Minimum Total Reserve Balance, during the budget development process, the General Manager and Chief Financial Officer will develop a plan to replenish the reserves as necessary to meet the minimum total balance and present the plan to the Board of Directors for discussion.

#### Minimum Total Reserve Balance

<u>Rate Stabilization</u>	<u>\$2,100,000</u>
<u>Operational Continuity</u>	<u>\$2,100,000</u>
<u>Working Capital</u>	<u>\$2,100,000</u>
<u>Capital Project Expenses</u>	<u>\$3,000,000</u>
<b><u>Total</u></b>	<b><u>\$9,300,000</u></b>

Prepared by: Staff	<p style="text-align: center;"><b>EL TORO WATER DISTRICT POLICY STATEMENT 1994-12 (IV) CASH RESERVE POLICY</b></p>	Page 8 of 5 Item 9 Section IV
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~~C.A. Conservation Water Supply Reserve: The amount of this restricted reserve varies based upon Tier III and Tier IV water sales less the water supply and delivery rate component. This reserve is established to provide a source of revenue to fund Conservation efforts and development of Water Supply Resources (Conservation/Water Supply Reserves) as follows:~~

- ~~1) The conservation program inclusive of personnel, outreach, newsletters, website support and any other efforts dedicated to supporting, encouraging and promoting water conservation.~~
- ~~2)1) To enhance, expand and/or add to customer water use efficiency rebate programs in which the District participates in or initiates.~~
- ~~3)1) To fund the investigation, study, design and construction of Recycled Water Treatment and Delivery Projects.~~
- ~~4)1) To fund supplemental revenue as necessary to balance the revenues and operational expenses of the Recycled Water Enterprise.~~
- ~~5)1) To fund the investigation, study, design and construction of Supplemental Potable Water Supply Projects.~~

~~D.A. Baker Funding Reserve: A portion of the revenue generated from the Water Capital R&R Charge will be used to fund a portion of the debt associated with the Baker Water Treatment Plant project in the amount of \$500,000. Beginning with the 2021-2022 Budget, this amount will increase through 2025-2026 to approximately \$680,000 and will eventually fully fund the Baker Water Treatment Plant Debt Service. This portion of the Water Capital R&R Charge revenue is accumulated in the Baker Funding Reserve to be used when the Baker Water Treatment Plant loan payments are due.~~

## **Attachment 4**

Cash Reserve Policy, Approved May 24 2021, reference document

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Approved by: Board of Directors		Date: 05/24/21 Revision: 19

The District maintains the following three categories of reserves.

- Legally Restricted Reserves
- Board Mandated Reserves
- Board Restricted Reserves

### **Legally Restricted Reserves**

The District is required to establish, maintain, and restrict certain Cash reserves to comply with contractual and/or legal obligations ("legally Restricted Reserves"). Accordingly, the District reserves Cash from operational revenues and various other sources to restrict cash as necessary to fulfill the following reserve requirements.

- A. Bond Reserve Investment: Bond Indentures (including State Revolving Fund Loans) require that the District establish and maintain certain reserve funds as established by the loan agreements. These amounts will change from year to year as annual debt service requirements change, bonds are retired and new bonds are issued.
- B: Capital Facility Fee: State law requires that the District establish, maintain and separately account for Capital Facility fees collected from customers. Funds are held in reserve until disbursed for the designated purpose.

Superseded by Resolution: 94-6-1	Date: 06/16/94
Superseded by Resolution: 95-2-2	Date: 02/12/95
Superseded by Resolution: 96-7-1	Date: 07/18/96
Superseded by Resolution: 97-6-5	Date: 07/19/97
Superseded by Resolution: 98-6-1	Date: 06/18/98
Superseded by Resolution: 99-6-1	Date: 06/17/99
Superseded by Resolution: 00-6-3	Date: 06/22/00
Superseded by Resolution: 01-6-2	Date: 06/21/01
Superseded by Resolution: 03-4-2	Date: 04/24/03
Superseded by Resolution: 04-5-1	Date: 05/27/04
Superseded by Resolution: 06-9-1	Date: 09/28/06
Superseded by Resolution: 11-3-2	Date: 03/24/11
Superseded by Resolution: 12-3-1	Date: 03/22/12
Superseded by Resolution: 13-3-1	Date: 03/28/13
Superseded by Resolution: 15-4-1	Date: 04/23/15
Superseded by Resolution: 16-4-1	Date: 04/28/16
Superseded by Resolution: 17-3-2	Date: 03/28/17
Superseded by Resolution: 20-4-1	Date: 04/20/20
Superseded by Resolution: 21-5-1	Date: 05/24/21



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### **Board Mandated Reserves**

The Board mandated reserves are maintained for funding basic needs of the District, including revenue shortfalls, unplanned expenses or unanticipated risks ("Rate Stabilization" and "Operating" Reserves). Also included in Board Mandated Reserves are the Board mandated minimum funds utilized to support monthly cash flow ("Working Capital") and cash designated for funding the Capital Replacement and Restoration Program ("Capital Reserves").

Reserves may be amended or closed by the Board provided such action does not impair any obligation that has been incurred by the District. Upon completion of a project for which a reserve exists, the General Manager shall close that reserve after all work has been completed and all other costs have been paid. Unused reserve balances shall be returned to Working Capital. All reserves shall be reviewed at least annually to determine the status of work and changes. The General Manager shall report annually to the Board on the status of reserves to permit the Board to consider which, if any, reserves should remain open, be closed, or have their minimum levels adjusted.

The General Manager is authorized to restrict the source of funds for reserves to pay for capital programs or other contractual or legal obligations. The General Manager shall report quarterly to the Board all changes in sources of funding for those restricted revenues used to fund the reserve at the time of approval of the reserve.

Reserves should be maintained at a level that will provide for financial security required of a fiscally responsible local government. The minimum level of Board Mandated reserves has been deemed to be \$8,500,000 excluding contractual or legal obligations. Interest earned on those funds held in reserve will be deemed unreserved and be utilized as a source of revenue to meet the needs of the operating budget. If reserves are drawn below contractual or legal requirements or the minimum level established by this policy, the reserves would be replenished from Working Capital to the extent available and then operating revenues or other revenue or cash flow sources as required. If Working Capital, operating revenues or other revenue or cash flow sources are not immediately sufficient to replenish any reserve that has been drawn below the minimum reserve level, the General Manager shall present the Board with a plan to replenish the reserve.

<b><u>Board Mandated Reserves</u></b>	<b><u>Minimum Level</u></b>
Capital Reserves	\$3,000,000
Rate Stabilization Reserve	\$2,200,000
Operating Reserve	\$1,300,000
Working Capital	\$2,000,000
<b>Total</b>	<b>\$8,500,000</b>

Prepared by: Staff	<p style="text-align: center;"><b>EL TORO WATER DISTRICTPOLICY STATEMENT 1994-12 (IV) CASH RESERVE POLICY</b></p>	Page 3 of 5 Item 9 Section IV
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### **Board Mandated Reserve Description /Purpose**

- A. Capital Reserve: (approx. 100% of average annual capital expenditures) This reserve is established to provide a funding source for the Long Term Capital Replacement and Restoration Program "Capital R&R Program". In addition, it is a source of funds to meet construction project progress payments for planned or unplanned capital replacement and restoration projects for which other financing sources are not immediately adequate.

Typically capital expenditures are funded out of the current year collections of the water, sewer and recycled water Capital Replacement and Restoration charge ("Capital R & R Charge"). To the extent that the current year Capital R & R Charge collections are not sufficient to cover capital expenditures for a particular year, then the District relies on capital reserves. If current annual Capital R & R Charge collections plus capital reserves are not sufficient to cover the District's five-year capital expenditure program, then the District will investigate alternative funding sources and/or rate adjustments.

It is the District's intent to fund capital expenditures out of current cash flows and to have adequate capital reserves to assure total funding of the District's ongoing five-year Capital R & R Program. The determination of the Capital Reserve will be as follows:

- 1) Funds available from Capital R & R Charge collections, based on the District's current year operating budget, will be projected for the five-year period.
  - 2) Funds carried over from previous fiscal years Capital R & R Charge collections for projects that have not yet been completed, have been cancelled or have been completed under budget.
  - 3) Capital expenditures, as included in the operating budget, will be projected for the five-year period. The Capital Reserve will be the difference between the funds available (items 1 and 2) and the funds required (item 3) but not less than \$3 million.
- B. Rate Stabilization Reserve: (approx. 7.5% to 15% of annual Operations & Maintenance expenses, excluding depreciation.) This reserve is established to provide a source of funds when unusually wet weather or drought restrictions cause water sales to fall below levels used to prepare the budget for the year in question or when unusual conditions result in revenue shortfalls. In addition, the rate stabilization reserve will provide necessary funds in those years where budgeted revenues from all sources are not sufficient to meet budgeted expenses.

Prepared by: Staff	<b>EL TORO WATER DISTRICT POLICY STATEMENT 1994-12 (IV) CASH RESERVE POLICY</b>	Page 4 of 5 Item 9 Section IV
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- C. Operating Reserves: (approx. 5% to 10% of annual Operations & Maintenance expenses, excluding depreciation.) This reserve is established to provide a source of funds to ensure continual operations in challenging circumstances, such as:
- 1) Other revenue sources fall short of expectations. (i.e. interest income, property taxes, etc.)
  - 2) Budget overages are experienced; such as the need to complete major repairs to critical operating equipment when such equipment was not scheduled for major repair.
  - 3) SOCWA operations and/or capital expenditures that exceed the budgeted amounts.
  - 4) Needed repairs that may be necessary to restore operations after a natural disaster. As a public agency providing a vital service to the community, the District cannot afford to be inoperable for an extended period of time.
- D. Working Capital: In order to ensure adequate operating cash the District will maintain Working Capital funds equal to at least 1 month of cash flow requirements (Operations & Maintenance expenses, excluding depreciation). Reserve funds in excess of the Board Mandated Reserves, not otherwise designated as Legally Restricted, Board Restricted or Capital Reserves, will be considered as Working Capital.

Prepared by: Staff	<p style="text-align: center;"><b>EL TORO WATER DISTRICT POLICY STATEMENT 1994-12 (IV) CASH RESERVE POLICY</b></p>	Page 5 of 5 Item 9 Section IV
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### **Board Restricted Reserves**

- A. Conservation Water Supply Reserve: The amount of this restricted reserve varies based upon Tier III and Tier IV water sales less the water supply and delivery rate component. This reserve is established to provide a source of revenue to fund Conservation efforts and development of Water Supply Resources (Conservation/Water Supply Reserves) as follows:
- 1) The conservation program inclusive of personnel, outreach, newsletters, website support and any other efforts dedicated to supporting, encouraging and promoting water conservation.
  - 2) To enhance, expand and/or add to customer water use efficiency rebate programs in which the District participates in or initiates.
  - 3) To fund the investigation, study, design and construction of Recycled Water Treatment and Delivery Projects.
  - 4) To fund supplemental revenue as necessary to balance the revenues and operational expenses of the Recycled Water Enterprise.
  - 5) To fund the investigation, study, design and construction of Supplemental Potable Water Supply Projects.
- B. Baker Funding Reserve: A portion of the revenue generated from the Water Capital R&R Charge will be used to fund a portion of the debt associated with the Baker Water Treatment Plant project in the amount of \$500,000. Beginning with the 2021-2022 Budget, this amount will increase through 2025-2026 to approximately \$680,000 and will eventually fully fund the Baker Water Treatment Plant Debt Service. This portion of the Water Capital R&R Charge revenue is accumulated in the Baker Funding Reserve to be used when the Baker Water Treatment Plant loan payments are due.

## **Attachment 5**

Comparison of Cash Reserve Report Before and After Proposed Reserve Policy Changes

El Toro Water District  
Cash Reserve Status Report for the month ended June 30, 2022  
Comparison of Cash Reserve Report Before and After Proposed Reserve Policy Changes

	Prior Cash Reserve Balances		Proposed Cash Reserve Balances
Reconciled Cash Balance	\$ 44,672,160	Reconciled Cash Balance	\$ 44,672,160
Restricted Reserve		Restricted Reserves	
State Revolving Fund Loans	-	Debt Covenant Reserve	-
2022 Revenue Bonds	26,794,992	Bond Project Reserve	25,146,181
Capital Facilities	2,895	Capital Facilities	2,895
Tiered Conservation	1,073,730	Tiered Conservation	1,073,730
Baker Funding	392,705		-
Restricted Reserve Total	<u>28,264,321</u>	Restricted Reserves	<u>26,222,806</u>
Board Mandated Minimum Reserve Levels		Committed Reserves	
Capital Construction	3,000,000	Capital Improvements	3,000,000
Rate Stabilization	2,200,000	Rate Stabilization	2,100,000
Operations	1,300,000	Operational Continuity	2,100,000
Working Capital	2,000,000	Working Capital	-
		Current CIP Working Cash	<u>1,048,955</u>
Board Mandated Reserves	<u>8,500,000</u>	Committed Reserves Total	<u>8,248,955</u>
SOCWA	3,544,781	Assigned Reserves	
Capital Cash Flow / Compliance	4,363,058	Capital Improvement	
		Carryover Capital	3,742,611
		Accumulated Capital	840,094
		SOCWA Capital Projects	3,544,781
		Bond Project Reserve	1,648,811
		Debt Service	
		Baker Funding	392,705
		O&M Working Capital	<u>31,397</u>
		Assigned Reserves Total	<u>10,200,399</u>
Total Cash Reserves	<u><u>44,672,160</u></u>		<u><u>44,672,160</u></u>

Summary	
Restricted Reserve	28,264,321
Board Mandated	8,500,000
SOCWA	3,544,781
Capital Cash Flow / Compliance	4,363,058
<b>Total</b>	<b>44,672,160</b>

Summary	
Restricted Reserves	26,222,806
Committed Reserves	8,248,955
Assigned Reserves	10,200,399
<b>Total</b>	<b>44,672,160</b>

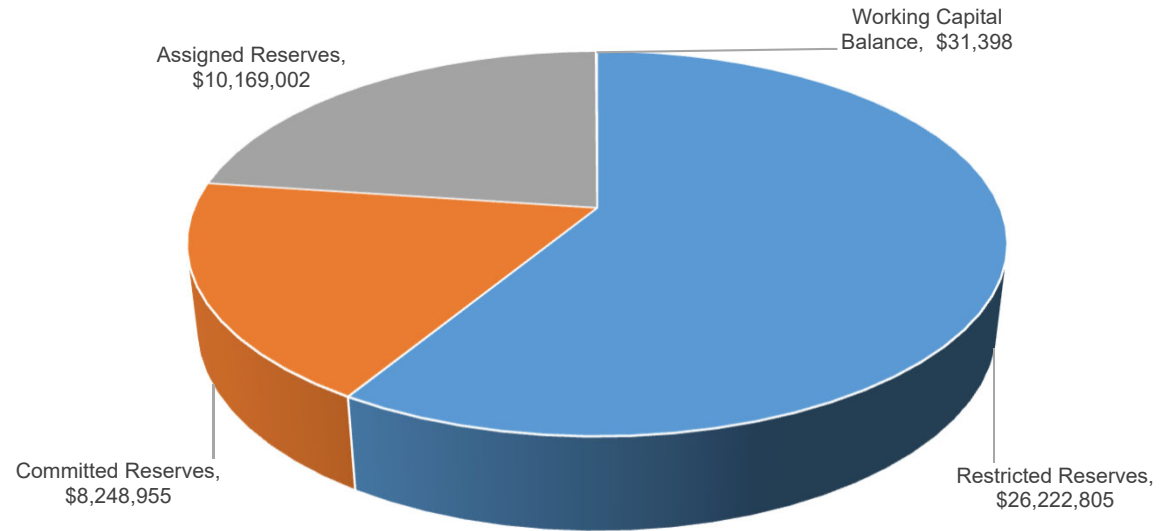
## **Attachment 6**

Sample Cash Reserve Status Report for the Month ended June 30, 2022

**El Toro Water District**  
**Cash Reserve Status Report for the month ended June 30, 2022**

	Cash Reserve Balances	Reserve Targets
<b>Reconciled Cash Balance</b>	<b>\$ 44,672,160</b>	
<b>Restricted Reserve</b>		
Debt Covenant Reserve	-	-
Bond Project Reserve	25,146,181	-
Capital Facilities	2,895	-
Tiered Conservation	1,073,730	-
<b>Restricted Reserve Total</b>	<b>26,222,805</b>	-
<b>Committed Reserves</b>		
Rate Stabilization	2,100,000	2,100,000
Operational Continuity	2,100,000	2,100,000
Capital Improvements	3,000,000	3,000,000
Current CIP Working Cash	1,048,955	-
<b>Committed Reserves Total</b>	<b>8,248,955</b>	<b>7,200,000</b>
<b>Assigned Reserves</b>		
Capital Improvement		
Carryover Capital	3,742,611	-
Accumulated Capital	840,094	-
SOCWA Capital Projects	3,544,781	-
Bond Project Reserve	1,648,811	-
Debt Service		
Baker Funding	392,705	-
O&M Working Capital	31,398	2,100,000
<b>Assigned Reserves Total</b>	<b>10,200,400</b>	<b>2,100,000</b>
<b>Total Cash Reserves</b>	<b>44,672,160</b>	
<b>Adjusted Cash Reserves<sup>(1)</sup></b>	<b>19,525,979</b>	<b>9,300,000</b>

Distribution of Reserve Balances



(1) the Adjusted Cash Reserves excludes the 2022 Bond Proceeds which are obligated to the projects identified in the 2022 Bond Official Statement and are therefore not available for Operations & Maintenance activities or the annual Capital Improvement Program.



MINUTES OF THE REGULAR MEETING  
& OF THE  
ENGINEERING COMMITTEE MEETING

June 20, 2022

At approximately 8:55 a.m. Director Vergara called the Engineering Committee meeting to order.

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

Also participating were DENNIS P. CAFFERTY, General Manager, JASON HAYDEN, CFO, JUDY CIMORELL, Human Resources Manager, GILBERT J. GRANITO, General Counsel, SCOTT HOPKINS, Operations Superintendent, HANNAH FORD, Engineering Manager, and POLLY WELSCH, Recording Secretary.

Committee Member MARK MONIN was absent.

Consent Calendar

Director Vergara asked for a Motion.

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

Roll Call Vote:

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

Engineering Action Items

Resolution No. 22-6-2 Approving a Mitigated Negative Declaration (MND) and Mitigation Monitoring & Reporting Program (MM&RP) for the Joint Transmission Main (JTM) Pump Station Project

Ms. Ford stated that we have notified the Gabrieleno Tribe that consultation was considered closed with no need for further mitigation based on our CEQA consultant's conclusions when evaluating the geotechnical report and tribal cultural resource survey. She further stated that we still have two mitigation measures that require construction to stop should any tribal cultural resource or human remains become uncovered.

Mr. Cafferty stated that the Tribe is asking to have a monitor on site observing construction and to get paid for doing so. President Freshley asked who would pay for the monitor. Mr. Cafferty replied we would, but we have not agreed due to the CEQA consultant's investigations concluding there would likely be no artifacts given the nature of that site.

Director Vergara asked what happens if we find an artifact. Ms. Ford replied that we would stop construction and notify the Tribe. She further stated that the project excavation is very minimal, consisting of a pump on a pad that ties into the piping with the deepest excavation as the short length of piping's 6- to 9-feet deep trench.

Director Vergara asked for a Motion.

Motion: Director Gaskins made a Motion, seconded by President Freshley and carried across the Board to approve Resolution No. 22-6-2 which approves the JTM Pump Station Project and adopts the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Plan and authorizes the General Manager or designee to file a Notice of Determination of same for the JTM Pump Station Project.

### Roll Call Vote:

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

### Engineering General Information Items

#### Capital Projects Status Report

#### R-6 Reservoir Floating Cover and Liner Replacement Project

Ms. Ford stated that next month she plans to bring the R-6 Reservoir construction contract to the Board for award along with a contract for inspection services and a contract for construction management, and engineering services. She further stated that a mandatory pre-bid meeting was held last week with both contractors attending.

Ms. Ford stated that staff is testing operation without the R-6 Reservoir and plans to fully isolate the distribution system from the R-6 Reservoir as part of this testing.

Vice President Havens asked if there is any maintenance there that could be done while R-6 Reservoir is offline. Ms. Ford replied yes, there is a flow meter that we need to install on the inlet pipe and calibration testing that we need to conduct on the outlet flow meter.

#### JTM Pump Station Project

Ms. Ford stated that we would like to award this contract soon, but we won't have the final bid documents until the end of this month or early next month. She further stated that we may need a Special Board meeting in August to award the contract.

Ms. Ford stated that we realized there is a shortage in rolled steel so the lead time for the Variable Frequency Drive (VFD), Programmable Logic Controller (PLC),

and the Motor Control Center (MCC) will take longer than the project identified. She further stated that we need to pre-purchase this equipment but have not received all three quotes yet.

Ms. Ford stated that, in order to keep the project moving, we will be using spare parts from the warehouse until we can install the full-scale electrical equipment once it arrives. She further stated that bids are expected at the end of July.

President Freshley asked who is supplying the electrical equipment. Ms. Ford replied that we are getting quotes from three vendors.

Ms. Ford stated that staff made a couple of changes during design so the contract for the design is going to be approximately \$4,000 over the original quote. Mr. Cafferty stated that, since they are going to be extending the design consultant's contract with additional scope for engineering services during construction, we will bring this back for Board approval at a Special Board meeting in August.

#### Filter Building Site Use Project

Ms. Ford stated that the final demo plans are done and staff plans to put out for bid this week. She further stated that we plan to leave the site uncovered and with compacted dirt that slopes away from the Filter Building area to control runoff.

Ms. Ford stated that CEQA is going well; we completed the Notice of Exemption filing, and the 30-day comment period has expired with no comments.

#### R-2 Reservoir Interior Recoating Project

Ms. Ford stated that staff has been able to identify some recommended modifications to the structure of the tank in the center vent area. She further stated that the cost to replace the vent is \$12,000, well below the \$50,000 in structural repair allowance for this Project.

Ms. Ford stated that the grant agreement is under development, but we won't be able to invoice expenses for reimbursement until mid-September.

#### Water and Sewer Master Plan Update

Ms. Ford stated that staff conducted a workshop that included site visits with the Consultant this past month and focused on stations that need attention based on the energy efficiency analysis and ability to handle additional flows from The Village at Laguna Hills. She further stated that staff is expecting a memo regarding the Aliso Creek Lift Station's capacity issues.

#### Caltrans I-5 Widening Utility Relocations

Ms. Ford stated that there is no update this month.

#### Aeration Basin Diffuser Project

Ms. Ford stated that she included a financial summary in the report. She further stated that this project is closed out, with the Board approved cost coming in slightly higher than actual cost.

Ms. Ford stated that part of the Change Order was a staff-directed change to improve the structural integrity of the walkway.

#### Grit Chamber Rehabilitation Project

Ms. Ford stated that staff will need to conduct a bypass in order for the contractor, SS Mechanical, to install a more permanent bypass solution so they can complete the recoating.

President Freshley asked how long construction will take. Ms. Ford replied that it is scheduled through September, with a lot of the delay due to the slide gate delivery.

Vice President Havens asked how long the contractor will be on site. Ms. Ford replied possibly a few months.

### Board Room Expansion Project

Ms. Ford stated that staff met with a firm called People Space and discussed the possibility of improving the room space without expanding outward. She further stated that their rendering would increase the number of people at the center table, allow enough room for accessibility between walls and chairs, and provide a movable podium; however it would not allow six feet spacing between seats, and would cost approximately \$50,000. Mr. Cafferty stated that the identified modifications do not appear cost effective and staff does not plan to pursue them further. Ms. Ford stated that staff is reviewing technology improvements in the Board room.

### Effluent Pump Station Rehabilitation Project

Ms. Ford stated that there is no update on this project.

### Ocean Outfall Pump Station (OOPS) Generator Replacement Project

Ms. Ford stated that this project will start mid-July and will last through September.

### Tertiary System Optimization

Ms. Ford stated that staff received the ammonia analyzer and are working with SCE to pursue a rebate to offset costs.

### Main Office HVAC Replacement and Improvement Project

Ms. Ford stated that staff has received the mechanical component for the City of Lake Forest plan review and anticipates the remaining component to be completed this week. She further stated that the next steps will be to develop the bid documents for August and potential award in September.

Ms. Ford stated that construction on this project will not allow staff to use the Admin building due to the extent of demolition required to make structural modifications.

### WRP Main Electrical Power Breakers Replacement Project

Ms. Ford stated that staff is expecting delivery this month, however Schneider Electric delayed shipping the breakers until the end of August of September citing supply chain shortages.

### Wash Press System at Headworks

Ms. Ford stated that there is no update on this project.

### Energy Efficiency Analysis

Ms. Ford stated that there are incentives available on some of the energy efficient projects for the WRP and pump stations, and staff is working to determine the amount and feasibility of collecting those incentives.

### Comments Regarding Non-Agenda Engineering Committee Items

Ms. Ford stated that the Asset Management Intern, Alexander, started today and should remain through September.

Ms. Ford stated that the District received a grant for the R-2 Reservoir through IRWM for Round 1 of the Multi-Benefit Drought Relief Funding. Round 2 of that funding is coming out; because the project does not have to be finished until 2027, we could pursue grant funding for a Direct Potable Reuse (DPR) Feasibility Study. \$3.2 million of grant funding is available with over \$1 million set aside for Disadvantage Communities (DAC), for which the District qualifies.

### SOCWA Update

Mr. Cafferty stated that there needed to be further comment from the SOCWA member agencies regarding the potential change in service model, so it was decided that a third-party facilitator would solicit feedback from the agencies.

Mr. Cafferty stated that the SOCWA Board awarded the contract to Ohlund Management & Technical Services. He further stated that the SOCWA Task Force met with Lisa Ohlund and Marilyn Thoms and prepared follow-up questions and set up dates to meet with the agencies.

President Freshley stated that what drives up costs at SOCWA is the accounting that is necessary and the time it takes to allocate all of the individual costs.

#### Engineering Items Discussed at Various Conferences and Meetings

There were no comments.

#### 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 10:00 a.m.

#### Attorney Report

Mr. Granito reported that there is a need for a Closed Session at today's meeting.

#### Closed Session

At approximately 10:05 a.m. the Board went into Closed Session as agendized on today's Closed Session agenda. Also at this time Ms. Ford, Mr. Hopkins, Mr. Hayden, Ms. Cimorell, Ms. Seitz, and Ms. Welsch left the meeting.

At approximately 10:25 a.m. Mr. Cafferty was invited to the Closed Session.

#### Regular Session/Report

At approximately 10:45 a.m. regular session resumed. Also at this time, Ms. Welsch returned to the meeting.



Mr. Granito reported that the Board went into Closed Session with regard to both matters reflected on today's Agenda.

Mr. Granito reported that during the first phase of the Closed Session (Item 1), the Board discussed the status of the matter and provided input. No further reportable action was taken.

During the second phase of the Closed Session (Item 2), the Board initiated the evaluation of the General Manager's performance and postponed the matter for a future timeframe.

#### Reconveyance of today's Engineering & Finance Committee meetings

President Freshley asked for a Motion.

Motion: Director Gaskins made a Motion, seconded by Director Vergara and unanimously carried across the Board to reconvene today's Finance Committee meeting to Thursday, June 23, 2022 at 7:30 a.m. or shortly thereafter.

#### Roll Call Vote

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

#### Adjournment

At approximately 10:55 a.m. the meeting was adjourned.

Respectfully submitted,

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POLLY WELSCH  
Recording Secretary

APPROVED:

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KATHRYN FRESHLEY, President  
of the El Toro Water District and the  
Board of Directors thereof

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



## STAFF REPORT

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**To: Board of Directors**

**Meeting Date: July 25, 2022**

**From: Hannah Ford, Engineering Manager**

**Subject: R-6 Reservoir Floating Cover and Liner Replacement Project**

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### BACKGROUND

Originally constructed in the 1964, the R-6 Reservoir, shown in Figure 1, provides 275 million gallons (MG) of storage for the District's water supply. In 1984, the District constructed a flexible geomembrane floating cover to protect water quality. In 2000/2001, the District expanded the reservoir by increasing the earthen dam height, which increased the reservoir storage capacity, and installed a flexible geomembrane liner with leakage collection and monitoring system and installed a replacement flexible geomembrane floating cover. The District shares capacity of the R-6 Reservoir with partner agencies, Santa Margarita Water District (SMWD) and Moulton Niguel Water District (MNWD).



**Figure 1 – Existing R-6 Reservoir**

Both the liner and cover are made of reinforced polypropylene (RPP) installed 20 years ago, which equates the end of their expected useful life. To address material degradation observed on the R-6 Reservoir cover and liner, the District hired Hilts Consulting Group (HCG) to develop the final design of their replacement.

### BID EVALUATION

The District invited two qualified contractors to bid on Wednesday, May 25. Both attended the mandatory pre-bid meeting. Following the pre-bid meeting and a subsequent deadline for written questions, the District issued two addenda to the original bid documents.

Staff opened two bids on Monday, July 18, with the breakdown shown in Table 1. Figure 2 also shows the breakdown of bid costs compared to the engineer's estimate.

**Table 1 – Bid Comparison to Engineer's Estimate**

<b>Bid Value</b>	<b>Engineer's Estimate</b>	<b>Layfield USA Corp</b>	<b>Raven CLI Construction, Inc.</b>
Total, Excluding Optional Bid Items 25 & 26	\$21,986,200	\$23,203,300	\$24,498,000
Total, Including All Optional Bid Items	\$22,497,100	\$23,608,825	\$24,879,540

The spread between the low and high bids is approximately 6 percent. Higher bid results than originally estimated are likely due to the following:

- Current state of the economy with talk of pending recession and/or stagflation
- Continuous price escalations that many have not experienced in the past
- High inflation rates for both the CPI and PPI along with uncertainty on how long high inflation rates will continue
- Uncertainty on pricing for a project that will last well into next year
- All contractors and subcontractors are extremely busy and therefore prices have escalated due low supply and high demand
- Bidders having difficulties obtaining subcontractor bids
- Contractors having difficulties hiring and retaining employees

Overall, the increase is due to higher prices for materials, labor, and incidentals along with future uncertainty. The bidders are providing a fixed price that is far into the future for costs that they cannot control resulting in uncertainty in pricing. This leads to higher than traditional contingencies to hedge these unknown future costs.

During bidding, two new optional bids items of requiring repair and replacement of existing perimeter road asphalt were added to the project scope based on feedback from the contractors. The current condition of the perimeter road needs repair with cracks throughout and some areas with more severe erosion. The optional bid items would slurry cap and seal approximately 75% of the perimeter road and fully remove and replace the remaining 25% (billed on a unit cost basis). Cost for these optional bid items is less than the engineer's estimate, so District staff recommend including this work as part of this project to capitalize on the existing site mobilization.

The apparent low bid was submitted by Layfield USA Corp. Staff performed a detailed evaluation of the bids and did not find any errors or other discrepancies. Layfield USA Corp is a reputable contractor, who successfully executed the 2001 R-6 Reservoir liner installation and cover replacement.

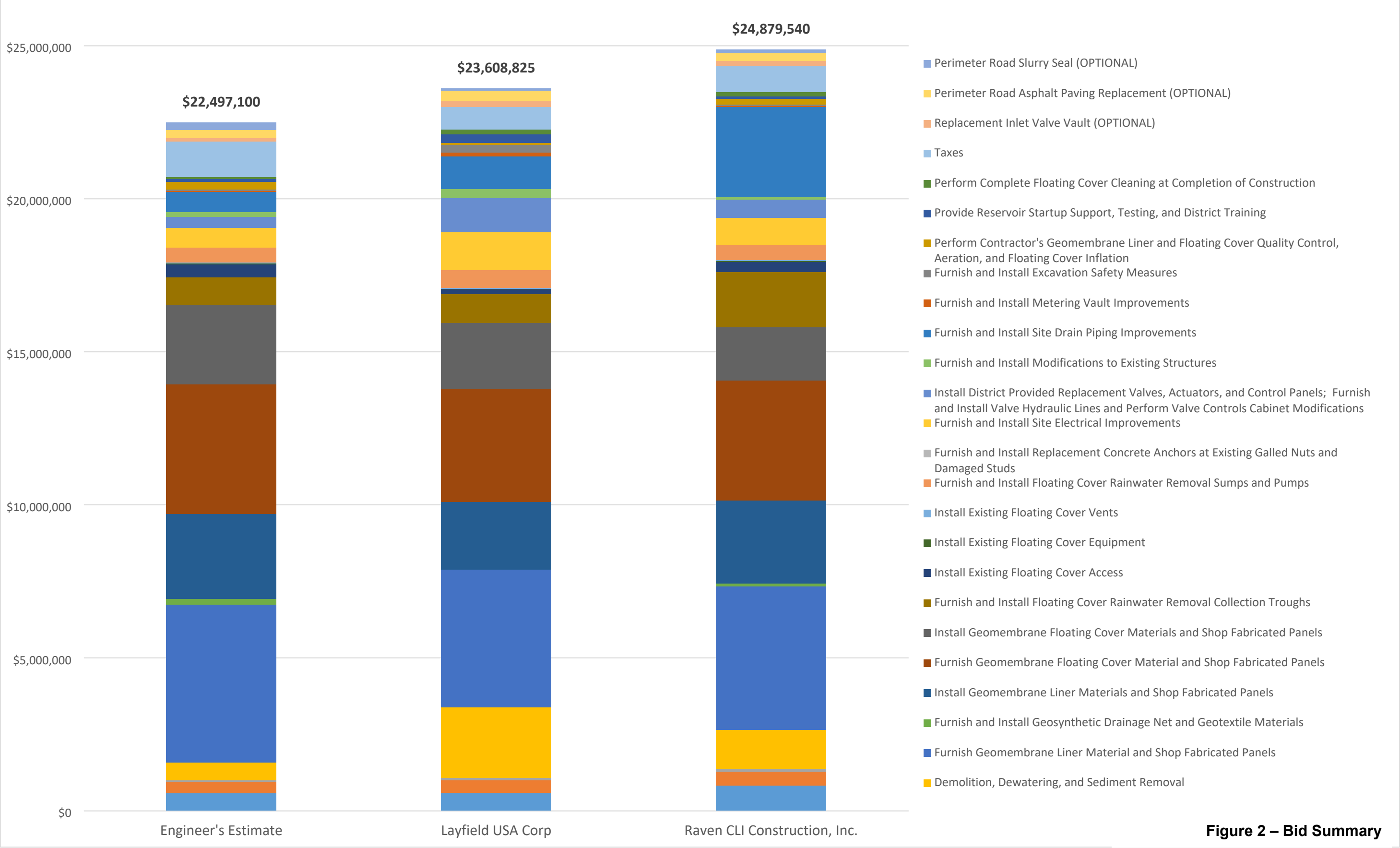


Figure 2 – Bid Summary

## CONSTRUCTION MANAGEMENT (CM) AND ENGINEERING DURING CONSTRUCTION SERVICES (ESDC)

District staff recommends hiring the designer, HCG, to perform CM/ESDC. Doug Hilts at HCG performed the same role for the 2001 job and possesses unique technical knowledge to execute the job well. Attachment A contains the proposal from HCG, which amounts to \$499,088. The proposed cost is comparable to that proposed in 2001 assuming 3% inflation. Table 2 summarizes tasks, associated hours, and fee.

**Table 2 – CM/ESDC Tasks and Proposed Fee**

<b>Task</b>	<b>Hours</b>	<b>Fee</b>
Project Management / Coordination	294	\$62,652
Office Engineering Support Services	640	\$118,856
Field Engineering Support Services	906	\$178,532
Owner Representative Services	628	\$122,460
Reimbursables	-	\$16,588
<b>Total</b>	<b>2,468</b>	<b>\$499,088</b>

## INSPECTION SERVICES

The District invited four qualified inspection firms to respond to a Request for Proposals (RFP) for inspection services on Thursday, May 5. Two attended the mandatory pre-proposal meeting. Following the pre-bid meeting, no questions were submitted and no addenda issued to the original RFP. Staff opened two proposals on Thursday, June 16, with the breakdown shown in Table 3.

**Table 3 – Inspection Services Summary**

<b>Firm</b>	<b>Description</b>	<b>Benefits</b>	<b>Drawbacks</b>
<b>Dudek</b>	\$306,000	<ul style="list-style-type: none"> <li>Local services (no travel expenses required)</li> <li>Lower total fee</li> </ul>	<ul style="list-style-type: none"> <li>Do not meet RFP stated minimum qualifications of at least 1 million square feet (sf) of liner installed over the past 5 years (only installed 250,000 sf in the past 5 years)</li> <li>Less experience</li> <li>Higher hourly rate at \$150 (in the event longer days are requested by contractor)</li> </ul>
<b>Go2CQA</b>	\$372,100	<ul style="list-style-type: none"> <li>Lower hourly rate at \$95-\$120</li> <li>Exceed minimum qualifications</li> <li>Greater level of experience, including on recently performed projects</li> </ul>	<ul style="list-style-type: none"> <li>Higher total fee (includes cost to commute from San Diego)</li> </ul>

Attachment B contains the full detail of both proposals. Because Dudek does not meet the minimum qualifications and because Go2CQA offers a greater level of experience with similar, recent projects, District staff recommends awarding the inspection services contract to Go2CQA.

## BUDGET ANALYSIS

Table 4 summarizes total project costs. The original estimate for the revenue bond was based on a 60% design and did not include some of the project components later added, such as the replacement of the existing hydraulic system and asphalt rehabilitation. Market conditions and supply chain has significantly worsened since the original estimate was developed.

**Table 4 – Summary of Project Budget**

Organization	Description	Amount
HGC	Design	\$714,253
Layfield USA Corp	Construction Contract	\$23,608,825
	Construction Contingency (5%)	\$1,160,000
Henry Pratt	Pre-Purchased Valves	\$197,273
HGC	Engineering Services During Construction	\$499,088
GO2CQA	Third Party Inspection	\$372,100
<b>Total</b>		<b>\$26,551,539</b>
<b>ETWD Responsibility of Total (45%)</b>		<b>\$11,948,193</b>
<b>Revenue Bond</b>		<b>\$9,776,400</b>
<b>Difference</b>		<b>(\$2,171,793)</b>

Despite the budget overage, the project remains an important and necessary investment in the reliability of the water distribution system. District staff are also developing a revenue bond tracking mechanism to report progress on the revenue bond amount collected for the R-6 Reservoir Floating Cover and Liner Replacement Project compared to actual. Using this tool, staff will monitor expenditures on all revenue bond projects and determine if there will be an overall deficit. Staff are intentionally holding on defining scope for the Automated Metering Infrastructure (AMI) Project until overall revenue bond expenses are better defined for the remainder of the revenue bond funded CIP.

## CEQA

District staff prepared and filed a Class 1 and Class 2 Categorical Notice of Exemption with the County because the work only rehabilitates existing facilities without an increase in capacity. State CEQA Guideline Section 15301 provides exemption for the operation, repair, maintenance, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. State CEQA Guideline Section 15302 provides exemption for replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced.

and will have substantially the same purpose and capacity as the structure replaced. The 30-day public comment period expired with no comments.

## **PARTNER AGENCY DISCUSSION**

District staff has been in close coordination with partner agencies, SMWD and MNWD. Both Districts have confirmed their agreement with the construction, ESDC/CM, and inspection contract decisions. SMWD will bring them to its board for approval on August 3<sup>rd</sup>.

## **RECOMMENDATION**

### **Recommended Action:**

Staff recommends that the Board of Directors authorize the General Manager to 1) enter into a contract with Layfield USA Corp in the amount of \$23,608,825 for the construction of the R-6 Reservoir Floating Cover and Liner Replacement Project, 2) enter into a contract with Hilts Consulting Group, Inc. in the amount of \$499,088 for Engineering Services During Construction and Construction Management Services, and 3) enter into a contract with Go2CQA in the amount of \$372,100 for Inspection Services during construction. Staff further recommends that the Board authorize the General Manager to fund the project costs from the District's Bond Covenant Reserves in accordance with the District's adopted Cash Reserve Policy.





**Hilts Consulting Group, Inc.**

5590 Via de Campo  
Yorba Linda, CA 92887  
(909) 590-5200

April 7, 2022  
(via email)

El Toro Water District  
24251 Los Alisos Blvd.  
Lake Forest, CA 92630  
Attn: Ms. Hannah Ford

**El Toro Water District  
El Toro R-6 Reservoir (R-6) Floating Cover and Liner Project  
Engineering Services During Construction (ESDC) -- DRAFT**

Ms. Ford,

The El Toro Water District (ETWD) owns and operates the R-6 Reservoir, also known as the Prothero Reservoir, located in Lake Forest, California. R-6 Reservoir was originally constructed in 1967 and was created in a natural depression and a 90-foot high man-made earthen fill dam. The reservoir had a maximum depth of 59 feet with a surface area of 20 acres. In 1984 ETWD constructed a flexible geomembrane floating cover to protect water quality. To meet daily peak demands and provide a means of seasonal and emergency storage in 2001 ETWD expanded the reservoir by increasing the earthen dam height which increased the reservoir storage capacity. As a result of the reservoir expansion in 2002 ETWD installed a flexible geomembrane liner with leakage collection and monitoring system in addition to a replacement flexible geomembrane floating cover. Both the liner and floating cover have been in service for the past 20 years and are at or nearing the end of their useful life.

The current reservoir has a storage capacity of 275 million gallons, a horizontal surface area of 23.65 acres, and a maximum water depth of approximately 65 feet. The reservoir has 3:1 interior side slopes along the upper portions, an intermediate bench around reservoir interior, and 5:1 interior side slopes in the lower portions. The reservoir composite geomembrane liner is on an asphalt lining over compacted clay earthen liner. Hydraulic structures inside the reservoir include two inlet structures in reservoir floor, inlet valve vault in reservoir floor, drain vault in reservoir floor, liner leakage and gravity drain valve isolation vault in reservoir floor, three outlet valve structures in reservoir side slope, and overflow structure in reservoir side slope.

The floating cover is approximately 20 years old and is at the end of its material life. Hilts Consulting Group, Inc. (HCG) was retained by ETWD for the El Toro R-6 Reservoir Floating Cover Replacement Project design phase. The original project scope involved the replacement of the existing floating cover and other site improvements associated with the floating cover. During the floating cover preliminary design, issues were raised regarding the viability of the existing 20 year old reinforced polypropylene geomembrane liner and the remaining life of the existing geomembrane liner. As a result, replacement of the geomembrane liner was added to the design scope of work.

The project design is nearing completion and the project will be advertised for public bidding in the upcoming months. After the bid period, the project will enter into the construction phase.



**Hilts Consulting Group, Inc.**

5590 Via de Campo  
Yorba Linda, CA 92887  
(909) 590-5200

HCG had previously submitted our project team and qualifications to ETWD for the design phase and bid phase, and therefore did not repeat this information in this proposal. The design phase is nearing completion and ETWD will advertise the project in the upcoming months to request bids from qualified contractors for the construction phase.

## **SCOPE OF WORK**

Hilts Consulting Group, Inc. is pleased to submit our proposal to the El Toro Water District (ETWD) for professional engineering services for the construction phase for the R-6 Reservoir Floating Cover and Liner Project. The HCG Team will be led by Project Manager, Douglas Hilts, who will be ETWD's single point of contact and lead all aspects of the project. HCG will coordinate with their subconsultants regarding site storm water piping, valve replacement work, and electrical engineering. HCG will be the lead engineer and responsible for the geomembrane liner and floating covers portion of work.

This proposal is based on the assumption that ETWD will engage the services of another engineering firm to provide full-time inspection services. HCG's role will be to provide engineering services during construction, conduct site observations during construction, provide technical assistance, provide Owner's representative services to ETWD, and interface with the ETWD retained Inspector.

HCG proposes to perform the following professional engineering services as outlined in the tasks and activities listed below.

### **Task 1 - Project Management / Coordination**

- Provide project management and coordinate construction issues with ETWD during the construction phase. Assumed 12 month total duration from NTP to project closeout.
- Provide project management and coordination with HCG's subconsultants during construction phase.
- Monitor internal schedule and budget.
- Prepare monthly invoices and progress status updates.
- Attend preconstruction meeting with ETWD, construction Contractor, and ETWD retained Inspector.
- Participate in up to (5) in person meetings with ETWD.
- Participate in up to (12) conference calls with ETWD.

### **Task 2 – Office Engineering Support Services**

- Prepare conformed drawings and specifications to incorporate revisions and addendums during the bid period.
- Review Contractor's floating cover and liner geomembrane material manufacturer's QA/QC plan.

- Review Contractor's floating cover and liner fabricator's QA/QC plan.
- Review Contractor's floating cover and liner installer's QA/QC plan.
- Review up to (55) Contractor submittals and shop drawings for conformance with engineering design drawings and specifications.
- Prepare written technical responses for up to (20) Contractor's Requests for Information (RFI).
- Provide technical interpretation of engineering design drawings and specifications, as needed.
- Provide up to (4) engineering design drawings and specification revisions, as needed.
- Update engineering design drawings pertaining after the completion of construction to reflect record as-built conditions. Information to be provided to HCG from the Contractor's as-built redline markup drawings. HCG to provide pdf record drawings as deliverable to ETWD.
- Prepare draft floating cover O&M manual for R-6 Reservoir addressing site-specific issues and features. The draft O&M manual will be submitted to ETWD for review and comments. HCG will incorporate or address all review comments and issue a final R-6 Reservoir #2 O&M manual to ETWD which may be submitted to CA DDW.
- Review Contractor's Final Construction Quality Assurance report submittal at the end of construction.
- Review technical engineering closeout submittals.

### Task 3 – Field Engineering Support Service

- Perform site observation visits during construction for conformance with design intent. Site observation site visits are not inspection site visits. Proposal assumes the following:
  - HCG will conduct one site visit per week for up to one month during the site work performed outside the reservoir perimeter curb and prior to the start of geomembrane floating cover and liner work inside the reservoir.
  - HCG will conduct up to two site visits per week for up to ten months during the geomembrane liner and floating cover work inside the reservoir.
  - IEC will perform up to six site visits during construction.
  - MPA will perform up to four site visits during construction.
- Provide up to 40 hours of technical support services to ETWD for reservoir disinfection and startup.
- Provide technical support to ETWD retained Inspector for development of Contractor punch lists.
- Participate in Contractor's on-site training to ETWD staff.

#### Task 4 – Owner Representative Services

- Conduct weekly on-site construction progress coordination meetings with ETWD, Contractor, and ETWD retained Inspector during the on-site construction period. HCG will prepare agendas, conduct meetings, and issue meeting minutes.
- Coordinate and process Contractor submittals, shop drawings, and RFI's. HCG will receive and log all incoming submissions, distribute to appropriate reviewers, consolidate and coordinate all review comments, and return responses to Contractor. Review of submittals log and RFI log will be a regular agenda item to be reviewed at weekly construction meetings.
- Review Contractor progress pay applications and advise ETWD.
- Review Contractor's initial construction schedule and monthly updates and advise ETWD.
- Review Contractor change orders and advise ETWD.
- Coordination project inspection with ETWD retained Inspector.
- Provide interaction with ETWD retained Inspector for compliance with the design drawings and specifications.
- Review project closeout documents.

#### Optional Services

Listed below are optional services which ETWD may consider. Each item is exclusive to one another.

- Conduct a single one-day visit to the geomembrane material manufacturer's facilities. HCG will provide a written letter report documenting the manufacturing plant visit observations.
- Conduct a single one-day visit to the geomembrane panel shop fabrication facilities. HCG will provide a written letter report documenting the shop visit observations.

#### Assumptions & Exclusions:

This proposal is based on the following assumptions:

- Preparation and certification of project environmental documents performed by others.
- Environmental engineering services and environmental monitoring not included.
- Geotechnical engineering not included.
- Construction inspection services not included. ETWD to retain inspection services under separate consulting agreement. Site visits conducted by design engineers shall be limited to observations to verify conformance with design drawings.

- Deputy inspection services, field testing, and laboratory testing services are not included.
- Permitting and plan check coordination and fees are not included.
- Deliverables include pdf electronic files. Hard copies, vellums, and Mylars are not included.
- Geomembrane material and seam 3<sup>rd</sup> party destructive testing is not included. Destructive testing to be performed by Contractor's qualified 3<sup>rd</sup> party laboratory. HCG to review 3<sup>rd</sup> party laboratory destruct test results as part of Contractor's Final Construction Quality Assurance report.

### **PROFESSIONAL FEES**

Proposal professional fees for the scope of work defined above are proposed on a time and materials basis with a cost breakdown as listed below.

<b>Fee Proposal Detail and Hours</b>		
Task Description	Hours	Fee
Task 1 - Project Management / Coordination	294 hrs.	\$62,652
Task 2 - Office Engineering Support Services	640 hrs.	\$118,856
Task 3 - Field engineering Support Services	906 hrs.	\$178,532
Task 4 - Owner Representative Services	628 hrs.	\$122,460
Reimbursibles		\$16,588
Totals	2468 hrs.	\$499,088
<b>Optional Scope Items - Fee Proposal Detail and Hours</b>		
Task Description	Hours	Fee
CSPE Manufacturing Plant visit (1 day)	48 hrs.	\$9,360
Geomembrane Panel Fabricator Plant Visit (1 day)	48 hrs.	\$9,360
Reimbursibles		\$2,000
Totals	96 hrs.	\$20,720

A more detailed breakdown of hours and fees is provided in the attached task hours and fee matrix.

Task budgets included in the Professional Fees are approximated based on an assumed level of effort, and it is assumed that unused budget may be moved between tasks and subtasks.

At the direction of the El Toro Water District, additional services may be performed and shall be based on the hourly rates in ETWD Consulting Agreement #118, Task Order #1, Work Order # 31-047.

HCG appreciates the opportunity to submit our proposal and looks forward to continuing collaboration with the El Toro Water District on the R-6 Reservoir Floating Cover and Liner Project. If you have any questions regarding this proposal, please call me at (951) 265-4034.

Very truly yours,

***Hilts Consulting Group, Inc.***

---

Douglas Hilts, P.E., S.E.  
President

Attachments:

Rate Schedules  
Task Hours & Fee Matrix



**HILTS CONSULTING GROUP, INC.**

**RATES SCHEDULE  
FOR  
PROFESSIONAL ENGINEERING SERVICES**

**Professional Services:**

<b><u>Classification / Title</u></b>	<b><u>Hourly Billing Rate</u></b>
Principal	\$210
Senior Engineer	\$195
Project Draftsperson	\$125
Clerical	\$55

**Reimbursable Expenses**

Reproduction	Cost
Outside Consultant Services	Cost plus 10%
Automobile Transportation	\$0.55 / mile
Delivery / Courier/ Express Mail	Cost
Travel / Subsistence	Cost

**Notes:**

1. Hourly billing rates and reimbursable expenses effective through 2023 calendar year.
2. Hourly billing rates after 2023 calendar year shall be increased for inflation.
3. Automobile transportation reimbursable expenses after 2023 calendar years shall be adjusted per IRS regulations for vehicular expenses.





## 2021 HOURLY CHARGE RATE & EXPENSE REIMBURSEMENT SCHEDULE

### ENGINEERING

Engineering Intern/Technician.....	\$ 90
Engineering Coordinator.....	\$ 105
CADD Designer I/Engineer I.....	\$ 140
CADD Designer II/Engineer II.....	\$ 155
CADD Designer III/Engineer III.....	\$ 165
Project Designer.....	\$ 170
Senior Designer/Project Engineer.....	\$ 180
SCADA Specialist.....	\$ 185
Senior Project Engineer.....	\$ 195
Project Manager.....	\$ 230
Senior Project Manager.....	\$ 240
Principal.....	\$ 270

### SURVEYING

Survey Assistant I.....	\$ 130
Project Surveyor.....	\$ 150
Principal Surveyor.....	\$ 180
Field – 1 Person*.....	\$ 180
Field – 2 Person Crew*.....	\$ 270

### \*CONSTRUCTION

Assistant Labor Compliance Coordinator.....	\$ 120
Senior Labor Compliance Coordinator.....	\$ 145
Assistant CM Coordinator.....	\$ 120
CM Coordinator.....	\$ 130
Senior Construction Inspector.....	\$ 160
Resident Engineer.....	\$ 170
Construction Manager.....	\$ 205
Senior Construction Manager.....	\$ 215

### ENVIRONMENTAL

Intern/Technician.....	\$ 85
Technical Editor.....	\$ 115
Env Specialist I/Project Coordinator I.....	\$ 130
Graphic Artist.....	\$ 125
Lead Technical Editor.....	\$ 135
Env Specialist II/Project Coordinator II.....	\$ 150
Env Specialist III/Project Coordinator III.....	\$ 160
Project Manager.....	\$ 220
Senior Project Manager.....	\$ 240
Principal.....	\$ 255

### PROGRAM MANAGEMENT

Assistant Program Manager.....	\$ 160
Program Manager.....	\$ 175
Senior Program Engineer.....	\$ 185
Senior Program Manager.....	\$ 195
Principal.....	\$ 270

### FLOW MONITORING

Field Technician I.....	\$ 85
Field Technician II.....	\$ 105
Field Technician III.....	\$ 115
Field Supervisor.....	\$ 135
Field Operations Manager.....	\$ 165
Project/Data Manager.....	\$ 185

### ADMINISTRATIVE

Word Processor/Administrative Support.....	\$ 105
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Subconsultants will be billed at cost plus 10% unless specified otherwise in the agreement.

All base rates will escalate by 3% per annum.

\* Field personnel rates are inclusive of vehicle, mileage, phone, computer, survey equipment, etc. Inspection rates shown are for prevailing wage projects. Inspection rates for overtime are \$30 dollars an hour more than the listed rate.

### Reimbursable Costs

Reproduction, special photography, postage, delivery services, express mail, printing, travel, parking, and any other specialty services performed by subcontractor will be billed at cost plus 15%.

Mileage will be billed at the current IRS allowed rate.

09/21/2020



**MPA MORAES /PHAM & ASSOCIATES**  
**CONSULTING ELECTRICAL ENGINEERS**

**FEE SCHEDULE  
FOR  
PROFESSIONAL ENGINEERING SERVICES**

**Professional Services:**

<u>Classification / Title</u>	<u>Hourly Billing Rate</u>
Principal	\$218.00
Engineer	\$164.00
CAD	\$109.00

**Reimbursable Expenses**

Reproductions	Cost plus 10%
Outside Consultant Services	Cost plus 10%
Automobile Transportation	\$0.55 / mile
Delivery / Courier/ Express Mail	Cost plus 10%
Travel / Subsistence	Cost

Notes:

1. Rates effective for project duration.

El Toro Water District												
R-6 Reservoir Floating Cover & Liner Replacement												
Professional Engineering Services During Construction												
Fee Proposal Detail and Hours												
		Hilts Consulting Group (Project Management, Floating Cover,			Infrastructure Engineering Corporation (Civil Site Drainage, Mechanical)			Moraes/Pham (Electrical)				
	Scope of Work Tasks/Subtasks	Principal Engineer	Senior Engineer	Drafter	Principal Engineer	Senior Designer	Project Admin	Principal Engineer	Engineer	Drafter	Subtotal Hours	Subtotal Fees
Task Description		\$210	\$195	\$125	\$240	\$180	\$100	\$218	\$164	\$109		
Task 1 - Project Management / Coordination												
	Project Management	156 hrs.			8 hrs.		8 hrs.	10 hrs.			182. hrs.	\$37,660
	Preconstruction meeting	12 hrs.			4 hrs.	4 hrs.		4 hrs.			24. hrs.	\$5,072
	Coordination in-person meetings	30 hrs.			8 hrs.						38. hrs.	\$8,220
	Coordination conference calls	10 hrs.			40 hrs.						50. hrs.	\$11,700
Task 2 - Office Engineering Support Services												
	Conformed bid documents		10 hrs.	12 hrs.	4 hrs.	16 hrs.		4 hrs.		4 hrs.	50. hrs.	\$8,598
	Submittals & Shop drawings		120 hrs.		8 hrs.	40 hrs.		12 hrs.			180. hrs.	\$35,136
	RFI's		80 hrs.		4 hrs.	8 hrs.		8 hrs.			100. hrs.	\$19,744
	Drawing/specs revisions		40 hrs.	40 hrs.	2 hrs.	10 hrs.		4 hrs.		4 hrs.	100. hrs.	\$16,388
	Technical interpretations		40 hrs.		2 hrs.	6 hrs.					48. hrs.	\$9,360
	Record Drawings		12 hrs.	24 hrs.	1 hrs.	8 hrs.		4 hrs.		4 hrs.	53. hrs.	\$8,328
	Closeout submittals		48 hrs.		1 hrs.	6 hrs.		4 hrs.			59. hrs.	\$11,552
	O&M Manual		50 hrs.								50. hrs.	\$9,750
Task 3 - Field engineering Support Services												
	Site visits		728 hrs.		30 hrs.	30 hrs.		24 hrs.			812. hrs.	\$159,792
	Startup support		40 hrs.					4 hrs.			44. hrs.	\$8,672
	Punchlists		8 hrs.		4 hrs.	8 hrs.		2 hrs.			22. hrs.	\$4,396
	ETWD training		16 hrs.		4 hrs.	4 hrs.		4 hrs.			28. hrs.	\$5,672
Task 4 - Owner Representative Services												
	Weekly construction meetings		312 hrs.								312. hrs.	\$60,840
	Log, track & coordinate submittals & RFIs		80 hrs.								80. hrs.	\$15,600
	Review progress payments		48 hrs.								48. hrs.	\$9,360
	Review construction schedules		24 hrs.								24. hrs.	\$4,680
	Review change orders		60 hrs.								60. hrs.	\$11,700
	Coordination with full-time inspector		80 hrs.								80. hrs.	\$15,600
	Project closeout		24 hrs.								24. hrs.	\$4,680
Subtotals (Hours by Classifications)		208 hrs.	1820 hrs.	76 hrs.	120 hrs.	140 hrs.	8 hrs.	84 hrs.	0 hrs.	12 hrs.	2468 hrs.	
Subtotals (Hours by Subconsultants)			2104 hrs.			268 hrs.			96 hrs.		2468 hrs.	
Subtotals (Fees by Classifications)		\$43,680	\$354,900	\$9,500	\$28,800	\$25,200	\$800	\$18,312	\$0	\$1,308		\$482,500
	Reimbursibles		\$16,588			\$0			\$0			\$16,588
Subtotals (Fees by Consultant)			\$424,668			\$54,800			\$19,620			\$499,088
	PROPOSAL TOTAL						\$499,088					

El Toro Water District												
R-6 Reservoir Floating Cover & Liner Replacement												
Professional Engineering Services During Construction												
Optional Scope Items - Fee Proposal Detail and Hours												
Scope of Work Tasks/Subtasks	Hilts Consulting Group (Project Management, Floating Cover,			Infrastructure Engineering Corporation (Civil Site Drainage, Mechanical)			Moraes/Pham (Electrical)			Subtotal Hours	Subtotal Fees	
	Principal Engineer	Senior Engineer	Drafter	Principal Engineer	Senior Designer	Project Admin	Principal Engineer	Engineer	Drafter			
<b>Task Description</b>	<b>\$210</b>	<b>\$195</b>	<b>\$125</b>	<b>\$240</b>	<b>\$180</b>	<b>\$100</b>	<b>\$218</b>	<b>\$164</b>	<b>\$109</b>			
<b>Optional Services:</b>												
CSPE Manufacturing Plant visit (1 day)		48 hrs.								48. hrs.	\$9,360	
Geomembrane Panel Fabricator Plant Visit (1 day)		48 hrs.								48. hrs.	\$9,360	
Subtotals (Hours by Classifications)	0 hrs.	96 hrs.	0 hrs.	0 hrs.	0 hrs.	0 hrs.	0 hrs.	0 hrs.	0 hrs.	96. hrs.		
Subtotals (Hours by Subconsultants)		96 hrs.			0 hrs.			0 hrs.		96. hrs.		
Subtotals (Fees by Classifications)	\$0	\$18,720	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$18,720	
Reimbursibles		\$2,000			\$0			\$0			\$2,000	
Subtotals (Fees by Consultant)		\$20,720			\$0			\$0			\$20,720	
<b>PROPOSAL TOTAL</b>											<b>\$20,720</b>	

Inspection Services Proposal for:  
**R-6 Reservoir Floating Cover &  
Liner Replacement Project**  
El Toro Water District (ETWD)



Prepared for: Hannah Ford, ETWD

Prepared by: Shannon Goodrich, **GO2CQA**

(760) 814-7767

[sgoodrich@go2cqa.com](mailto:sgoodrich@go2cqa.com)

[www.go2cqa.com](http://www.go2cqa.com)

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## Company Qualifications and Experience

### Maerkle Reservoir Floating Cover Replacement Project

Client:

**Carlsbad Municipal Water District**  
Carlsbad, CA

Reference Contact:

**Emily Hasegawa**  
**(760) 268-4763**

Completion Date:

**2020**

Construction Cost:

**\$6,000,000**



#### Project Highlights

200 million gallon potable water distribution reservoir and largest reservoir in CMWD's distribution system. Floating cover consists of 900,000 sf 45-mil, scrim reinforced CSPE weight tensioned floating cover with four submersible pumps as the primary rainwater removal system. Floating cover was installed over an existing hydraulic asphalt lining. Project included replacement of outlet valves, chemical injection system improvements, circulation mixers, replacement of inlet butterfly valve, and replacement of three slide gates all located within the reservoir and below the floating cover.

**GO2CQA** was the project lead CQA and involved throughout the entire project during construction.

**GO2CQA** performed all field third-party inspection, testing, and documentation to ensure that all materials and workmanship met or exceeded the technical specifications. All CSPE geomembrane liner seam trials welds were visually inspected, tested and documented for the records. All subgrade surfaces to received geomembrane were visually inspected for a clean surface and approved daily. Deployment activities were monitored by **GO2CQA** to ensure proper means and methods are achieved and no geomembrane was damaged during operations. **GO2CQA** provided daily inspection reports that capture all field installation activities to ensure compliance. Worked with installation staff to ensure compliance with the plans.



## Company Qualifications and Experience

### Morro Reservoir Rehabilitation Project

Client:

**Rainbow Municipal  
Water District**  
Fallbrook, CA

Reference Contact:

**Doug Hilts**  
**(951) 265-4034**

Completion Date:

**2012**

Construction Cost:

**\$8,250,000**



#### Project Highlights

Morro Reservoir is a 150 million gallon potable water storage reservoir which is part of Rainbow Water District's distribution system. The geomembrane liner is a 60-mil reinforced CSPE liner with a 275-mil composite drainage course and under-drain leak collection system. The floating cover consists of 550,000 sf of 45-mil reinforced CSPE geomembrane material. The floating cover is weight tensioned with four submersible pumps as the primary rainwater removal system. Project also included modifications to the existing inlet/outlet pipe, new submerged emergency valve inside reservoir, extension of inlet pipes to enhance reservoir circulation, replacement of control valves outside reservoir, site drainage improvements, rinse water system, and site paving.

**GO2CQA** was the lead CQA officer during all cover and liner installations. All liner means and methods for deployment and welder were monitored and approved by the CQA prior to production. All field activities were documented and reported for compliance with the technical specifications. All field QC testing by the contractor were monitored and documented to prove compliance with permit conditions and the technical specifications. All field documentation was compiled into a final construction report for State approval.

## Company Qualifications and Experience

### Lamb Weston Tension Floating Cover and Lining Project CM/CQA

Client:

**Lamb Weston**  
Hermiston, OR

Reference Contact:

**Robert Pharmed**  
**(208) 863-9624**

Completion Date:

**2019**

Construction Cost:

**\$8,000,000**



#### Project Highlights

Provide full time Construction Management and CQA Inspection (CM&I) services on a new anaerobic digester an 80-million-gallon wastewater treatment process. The anaerobic digester processes over 3-million-gallon day of raw-effluent “potato waste” processed and treated thermally with temperature and mixing control to create useable biogas. **GO2CQA** performed field engineering and CQA inspection services direct to the owner. Responsibilities included all CQA Inspection for heavy civil and mechanical construction to ensure compliance to the approved plan and specs. Geomembrane material MQA evaluation and approvals before liner installation, approval for lining subgrade and subsurface to be lined. QA/QC inspection for soils placement and compaction, concrete reinforcing steel placement and concrete placement, 12”, 24”, 32” SST piping, valves and vaults. Over 2.5 million SF of geomembrane liner for the base-liner and tension floating cover system.



## Company Qualifications and Experience

### San Elijo E.Q. Basins New Tension Floating Cover Replacement

Client:

**San Elijo Water District**  
Carlsbad, CA

Reference Contact:

**Doug Hilts**  
**(951) 265-4034**

Completion Date:

**2018**

Construction Cost:

**\$4,000,000**



#### Project Highlights

Provide full time Construction Management and CQA Inspection (CM&I) services on two (2) Flow EQ Basins for the San Elijo Reclamation Facility. Scope work as designed included interior reservoir floor repairs to the asphaltic paving crack repairs, new reservoir inlet piping and outlet pipes and valves, new yard piping, rinse lines. Liner and cover consist of 500,000 sf XR5 reinforced geomembrane for the floors and slopes and new tension floating cover system. The tension floating was designed by Doug Hilts (HCG) and constructed by CLSI/Raven. **GO2CQA** provided full-time field CQA inspection on all aspects of construction. All work completed and approved on schedule and budget.

## Company Qualifications and Experience

### Surf Park Reinforced Liner System

Client:

**Kelly Slater Wave Company**  
Solana Beach, CA

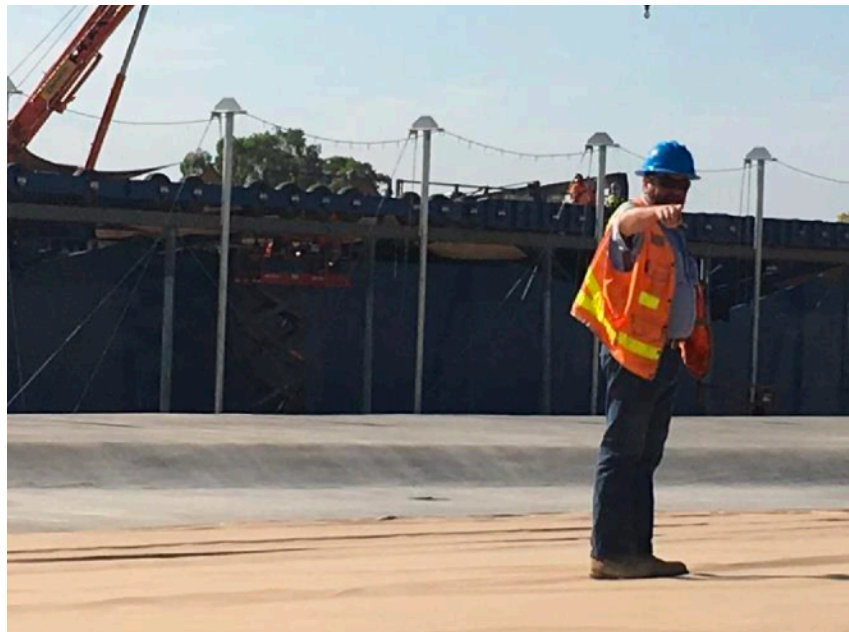
Reference Contact:

**Kyle Nauman**  
(508) 863-2018

**Douglas Hilts**  
(909) 590-5200

Completion Date:  
**2018**

Construction Cost:  
**\$5,000,000**



### Project Highlights

Approximately 80 million gallon 1.8 million SF CSPE 60 mil reinforced geomembrane liner as manufactured by Burke Industries. Scope completes with under-drain and liner venting system, concrete mechanical attachment systems for both above and below water attachments. Complete weighted ballast systems and floor keyways for liner ballast. **GO2CQA** provided full-time field inspection to visually inspect all field activities and document compliance. Designed by Doug Hilts (HCG) and constructed by Layfield USA Corp. Project completed on schedule and budget. A project set the scale for large man-made surf parks, first of its kinds. The Team of HCG/Layfield and **GO2CQA**, performed above expectations and the customer 100% satisfied.

## Company Qualifications and Experience

### Lane County

Client:

**Lane County Public Works**

Lane County, OR

Reference Contact:

**Richard Thiel**

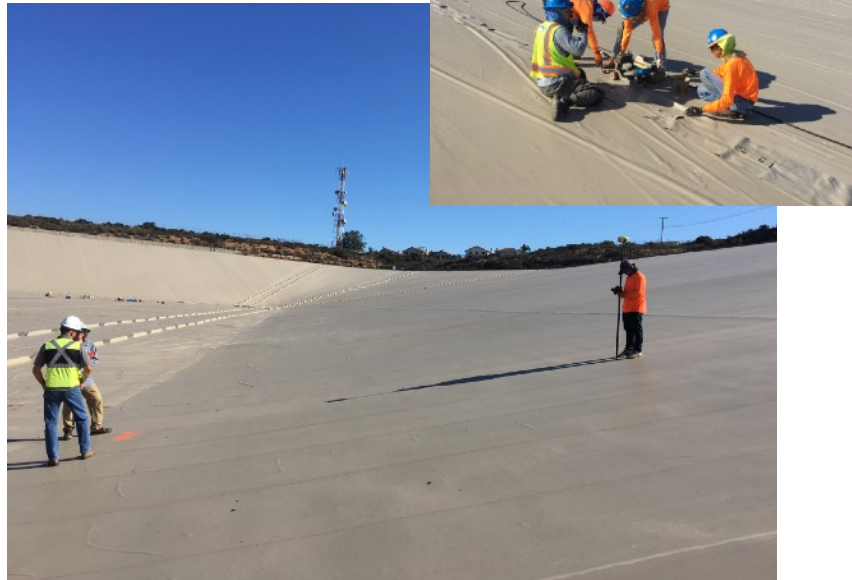
**(530) 701-1222**

Completion Date:

**2021**

Construction Cost:

**\$5,000,000**



### Project Highlights

Lane County contracted with Thiel Engineering and **GO2CQA** for the design and field CM and CQA services for their leachate reservoirs in Lane County, Oregon. The scope of work consisted of construction administration services, field engineering services and post service service for the new 150 MGD leachate storage ponds completed lined with a CSPE 50-mil, reinforced geomembrane as manufactured by Burke Industries, base-liner system and tension floating cover system. **GO2CQA** performed full time field inspection on the 50-mil CSPE installation and was responsible for all field documentation services, reporting services and field liaison between owner and contractors to ensure a successful constructed project to meet and exceed project requirements. **GO2CQA** monitored and approved the contractors welding techniques, means and methods and final testing and evaluation. All project field documentation was compiled into a final construction report for the engineer of records and owner.

## Company Qualifications and Experience

### Lake Forest Park

Client:

**City of Seattle**

Lake Forest Park, WA

Reference Contact:

**Shaunie Vail**

**(206) 940-4579**

Completion Date:

**2022**

Construction Cost:

**\$8,000,000**



### Project Highlights

**GO2CQA** is under contract with the City of Seattle to provide field CQA resident engineering and Construction management Services during several potable water reservoir rehabilitation construction projects. The LFP floating covers are designed by HCG Doug Hiltz and constructed by Layfield USA. In total the baseliner is over 1 million SF while the floating cover system is approximately 1 million SF. **GO2CQA** was invited back for Phase 2 to work with SPU on the West reservoir which is under construction.



## Individual Qualifications and Experience (Inspector)

As proposed, Mr. Shannon Goodrich has over 30 years of in-depth knowledge and expertise on floating covers and liner system design, construction management and construction quality assurance (CQA) testing, inspection and documentation. Mr. Goodrich's experience in reservoir work regarding heavy civil, mechanical, electrical and geomembrane manufacturing and installations, base-liner and tension floating cover systems encompasses well over the required fifteen (15) tension floating covers. In total, Shannon has over 300 million SF of tangible geomembrane liner installation and QA/QC testing and documentation services. **GO2CQA** field team will consist of Shannon Goodrich and Monitor Mr. James "Tony" Chartres. Mr. Chartres has over 27 years' experience with geomembrane tension floating covers and lining systems and holds a degreed civil engineer. Together, Mr. Goodrich and Mr. Chartres have worked as a team for 18 years providing similar scope of work CM/CQA services and certifying CQA services on geomembrane liner systems. **GO2CQA** is the industry leader in CQA for floating tension covers. All CQA staff inspectors or resident engineers have formal educations including civil engineering. All **GO2CQA** staff have additional certifications with TRI, GRI, FGI and NICET for CQA field inspection practices. In addition, Mr. Goodrich and Mr. Chartres are qualified CQA instructors and are involved with CQA testing and training programs throughout the USA.

### **GO2CQA** expertise includes:

- Technical Plan and Project Document understanding and interpretation.
- Document control and project leadership
- CMWD Standard Drawings
- AWWA Design and Installation Manuals
- Environmental monitoring and reporting
- Labor Laws
- Utility company coordination
- Experience working with HCG design drawings and technical specifications, and administrating HCG project documents.
- 45-mil reinforced CSPE Burke Industries Manufacturing and MQA Evaluation
- Design and construction features such as: rainwater removal sump assembly, doublers, SST brackets, PVC pump assembly, pump housing foam floats, hatch assembly, Rainwater Collection Troughs (RCT) detailing, radial slope RCT, weights and ballast systems, cover NIZ systems, field seams types and test strengths, outlet structure rehab, inlet structure rehab, overflow structure rehab, structural mechanical batten bar anchor systems, chafer strip lining and other unique to tension cover details.
- Shop fabrication expertise including panel layout, factory seam testing, factory welds without cut edges, factory welds with no cut edge, pre-welds, destructive testing, seam encapsulation. Shop fabrication for access hatches, weights and ballast systems and details.

## The GO2CQA team has completed over fifteen (15) tension floating covers including:

- **JR Simplot Food Group** - Three (3) Tension Floating Gas Cover CM/CQA Services
- **Con Agra Food Group** - Two (2) Tension Floating Covers.
- **San Elijo E.Q. Basin** - Two (2) Tension Floating Cover systems, as designed by HCG and constructed by CLSI.
- **Lamb Weston** - Two (2) Tension Floating Cover Systems.
- **Kelly Slater Wave Company** - CSPE Liner System, as designed by HCG.
- **Three Valley** - Tension Floating Cover Systems, as designed by HCG.
- **Highland Reservoir** - Tension Floating Cover system, as designed by HCG.
- **RMWD Potable Water Storage Reservoirs** - Tension Floating Cover Systems, as designed by HCG and constructed by Layfield USA Corp.
- **Cal Poly** - Tension Floating Cover, as designed by MBI and constructed by Raven.
- **Simplot Food Groups** - Two (2) Tension Floating Biogas Systems, as designed by Pharmer Engineering and constructed by Layfield USA Corp.

**GO2CQA** has recently collaborated with HCG Doug Hilts on a unique and challenging tension floating cover rehabilitation design and construction project for Lake Forest Park Seattle. Here, the team of HCG and Layfield, delivered a completed package for Design Build Services. The project consists of a 160 million gallon potable water storage reservoir, divided in half by a 28 foot structural wall. **GO2CQA** was contracted by SPU to provide full time construction management and CQA services. We delivered the project complete, on-time and budget, with zero issues or claims. We have the proven record to work together, under one-roof to deliver the project.



## Project Approach and Scope

The **GO2CQA** team will enforce all environmental conditions including Gnatcatcher and Raptor breeding grounds monitoring which must be considered during construction. Care will be given to avoid interrupting the grounds and their breeding habits. All areas of concern will be clearly identified and delineated to notify all. The contractor is responsible for all permit conditions including permits, haul routes, archeological coordination, labor laws, safety orders, and utility company coordination. We have a complete understanding of the following:

**The Ringwall Perimeter Curb** appears to be in good condition with little structural improvements needed. Alongside the engineer and contractor, we will identify all Top of Slope attachment removals and replacements. We will inspect every anchor bolt to determine replacement of existing galleg nuts and damaged studs with new 3/8" SST concrete adhesive anchors, set 4 1/2" min. embed with a 2" tread projection.

**Asphalt Removal and Replacement** will be performed per plan. The contractor will submit to the engineer all material and means/methods for AC repairs or new sections. All AC paving will be performed in order with CMWD dwgs., including replacement in kind and resurfacing conditions per ETWD standards.

**The Floating Cover** is envisioned to be a weight-tensioned geomembrane floating cover constructed with 45-mil scrim-reinforced Chlorosulfonated Polyethylene (CSPE) (formerly known as Hypalon®) geomembrane; submersible pumps as the rainwater removal system located in the bottom of slope tension troughs; adequate number and strategically located access hatches with venting capabilities; and vacuum/air vents at inlet/outlet and overflow structures. The floating cover will be attached to the existing perimeter anchor curb located at the top of slope.

**The Existing Reservoir Geometry** is a regular shape with uniform geometry. The reservoir corners are all interior angles less than 180 degrees, no re-entrant corners. Rainwater collection troughs will be located on the reservoir floor inboard and parallel to the bottom of slope. Radial troughs at each corner will have a specific layout based on the geometry of each corner.

**Site Specific Rainfall Criteria** will be established and used to provide pump sizing and number of pumps to be located throughout the floating cover. The number, size, and location of rainwater removal pumps will be evaluated to provide a reliable and redundant rainwater removal system, thereby simplifying the operations and maintenance. Submersible pumps are anticipated in the bottom of slope troughs and will be the primary rainwater removal system. Suction hose in radial trough(s) may be connected to portable pump(s) and serve as a secondary rainwater removal system. The existing pump discharge system should be evaluated for adequate capacity for the design level storm flows and rainwater removal rates to satisfy the AWWA Guidelines.

**Pre-Installation:** Only approved and certified welding technicians will be allowed to produce welded seams. These GRI certifications will be reviewed and filed for the project. A pre-installation meeting will be conducted by **GO2CQA** to review the following activities before production. Establish means and methods! Once established they should not change unless approved by **GO2CQA**. All pre-welds shall be performed and witnessed by **GO2CQA** in the field and tested together by the contractor QC using a calibrated tensiometer. All results are evaluated and inspected for compliance.

**Trail welds:** Each certified master welder shall pre-qualify by making welded seams and testing the for both Peel and Shear seam strengths. Once a passing result is witnessed and documented the means and methods shall not change i.e., welder operator, machines #, weather, material type. These combinations shall not change. If these elements change, such as weather, a new trial weld is mandatory. All test results are documented, and samples saved for achieve.

**Deployment:** CSPE liner panels shall be deployed on an approved subgrade surface. **GO2CQA** will inspect all subgrade surfaces to receive liner. Deployment means and methods shall be identified upfront and shall prove that the procedures do not damage the geomembrane liner panels. Panels shall be deployed, pulled into position, and allowed to rest/relax for some time before welding. Field inspection for panel overlaps and seam zone cleanness will be performed on each panel.

**Production Welds and QC Testing:** Each welded seam will be inspected and tested before placed into service. Each welded seam will be hand-probed for compliance to ensure a fully boned fusion weld, followed by a pressure air lance test to ensure seam integrity. Additional testing in the form of a destructive seam test shall be performed at the specified length of 500 linear foot per welder operator. **GO2CQA** will document all seam records and determine test locations and frequency of testing to ensure seam integrity. Each sample is tested first in the field then shipped a TRI Labs for Third-Party evaluations.

**CQA Procedures:** **GO2CQA** has worked closely with the design engineer Doug Hilts, and all floating cover installation contractors, and have developed a strong working relationship. Our internal CQA program consist of a proven tracking system to ensure that all field testing is being performed with passing QC test results. **GO2CQA** has developed an internal CQA data base which we use daily to tract, record, and document all installation practices and QC test results. The **GO2CQA** field CQA program has been tested on many challenging liner projects, and proven successful on each one.



## Independent Analysis of Estimated Hours

Task 1: Construction Administration		
Staff Name	Job Title	Hours
Shannon Goodrich	CQA Resident Inspector	60
Alden Osborne	Administration/Accounting	80
	<b>TOTAL ADMIN</b>	<b>140</b>

Task 2: Construction Inspection		
Staff Name	Job Title	Hours
Shannon Goodrich	CQA Resident Engineer	2,000
James Chartres	CQA Inspector	640
	<b>TOTAL INSPECTION</b>	<b>2,640</b>

Task 3: Post Construction		
Staff Name	Job Title	Hours
Shannon Goodrich	CQA Final Document Review	40
	<b>TOTAL POST CONSTRUCTION</b>	<b>40</b>

	<b>PROJECT TOTAL HOURS</b>	<b>2,820</b>
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## **Independent Total “No-to-Exceed” Fee:**

**\$372,100.00**

The **GO2CQA** Cost Proposal reflects prevailing wage rates.  
(See separate **GO2CQA** Cost Proposal for details)

## **Required Insurance**

**GO2CQA** shall provide ETWD with professional liability insurance coverage as stated \$2 million dollars, and general liability and property damage at \$2 million dollars. All insurance costs are included in **GO2CQA** pricing.

## **Professional Services Contract**

**GO2CQA** takes no exceptions to the ETWD standard contract language and shall execute the contract as written.

## **Appendix A: CQA Inspector Resumés**

- Shannon Goodrich, **GO2CQA** Lead Inspector (pgs 16-20)
- Tony Chartres, **GO2CQA** Inspector (pgs 21-26)

## Summary of Qualifications

Mr. Goodrich has proven experience in Construction Quality Assurance (CQA) inspection, and documentation / reporting on geomembrane liner systems for environmental containment and collection. Mr. Goodrich has more than 30 years of tangible and proven expertise in solid waste management landfill systems, municipal water and wastewater facility construction inspection including Title 27 containment facilities and structures.

Shannon has dedicated his career to environmental containment systems and is active in industry sectors including oil/gas, farm manure management, food waste management and processing through Anaerobic Digesters, algae ponds, biogas floating geomembrane covers and many others.

Shannon specializes in large water treatment and potable water storage reservoirs for both new and old reservoir rehabilitation, where his extensive background and knowledge in reinforced and non-reinforced geomembranes products is invaluable. He has performed CQA on some of the largest municipal water-storage reservoirs in the State of California, where he administers a detailed QA/QC inspection program to ensure contractor quality and workmanship.

His vast experience in construction of water and wastewater engineered projects, including Title 27 projects, equips him with the skills to solve complex problems and provide creative and sound solutions while driving quality workmanship.

### **Tension Floating Covers - Potable and Non-Potable Water Reservoirs**

Shannon provided third party CQA inspection where he enforced the project technical specification and design drawings. Performed visual inspections on the geomembrane installation documenting all activities including material placement, seaming, quality control testing and repairs. Prepared daily inspection field reports for the engineers and owners documenting all construction activities in writing and photo documentation.



### **Education**

1988 - B.S. Environmental Science & Biology  
Plymouth University

1995 - Present  
Professional Construction Management & Project Management Association

### **Registration**

Soils Mechanic Laboratory,  
Electrical Leak Survey

### **Work History**

#### **GO2CQA**

2010 current CEO

#### **Layfield USA**

2009 to 2010 Tech Eng.

#### **DUDEK Engineering**

1994 to 2009 CM&I

#### **PRA Group/Enviro Solutions**

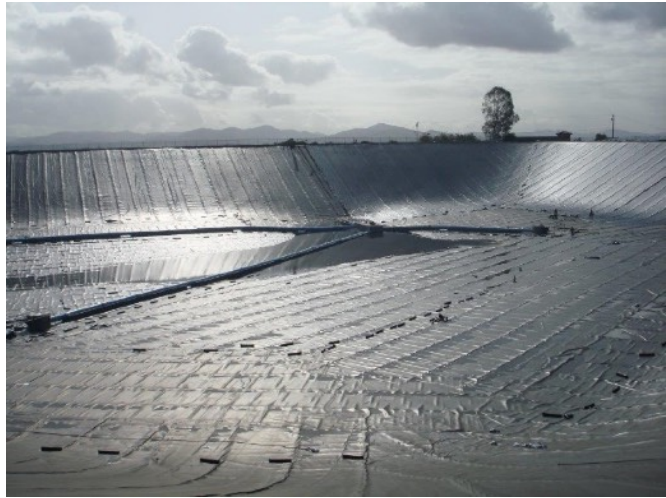
1991 to 1994

#### **STS Consultants**

1989 to 1991

**Rainbow Municipal Water District  
Floating Cover System**

Shannon Goodrich provided full-time Construction Quality Assurance (CQA) Field Inspection Services during the Potable Water Storage Reservoir. Shannon provided full time field inspection directly for the Owner to observe and document the construction. Work by the Contractor included the removal of in-place cover, draining and cleaning the reservoir, up-grading the floor mechanical distribution piping, new triple off-set valves, Subgrade and earthworks repair, new leak detection system, and complete baseliner and floating tension cover systems. Cover and liner material used is CSPE 45 and 60 mil with a geocomposite underlayment for venting beneath the baseliner. Total SF installed was 2.3 -million SF. Construction Value \$150,000.00

**Lower Franklin LADWP**

Shannon Goodrich provided CQA inspection and documentation services. During construction full-time Construction Quality Assurance (CQA) Field Engineering Services during the Potable Water Storage Reservoir. Work included the removal of in-place cover, draining and cleaning the reservoir, up-grading the floor mechanical distribution piping, new floor valves, and a perimeter concrete curb for the new liner system. Subgrade and earthworks repair, new leak detection system, and complete baseliner and floating tension cover systems. Cover and liner material used is CSPE 45 and 60 mil with a geocomposite underlayment for venting beneath the baseliner. Total SF is 3.8 million SF. Construction Value \$85,000.00



**Lake Seattle, Washington - Forest Park Potable Water Storage Reservoir**

Shannon Goodrich provided full-time Construction Quality Assurance (CQA) Field Resident Engineering and CQA Inspection Services during the Potable Water Storage Reservoir rehabilitation. Shannon provided full time field inspection directly for the Owner (SPU) to observe and document the construction. Work by the Contractor included the removal of in-place floating cover, draining, and cleaning the reservoir, up-grading the floor mechanical distribution piping, upgraded electrical systems, and a new baseliner and floating tension cover systems. Cover and liner material used is CSPE 50 base and 60 mil floating cover. Total SF installed was 2-million SF. Construction Value \$8,000,000.00

**Solid Waste, Tulare County, Visalia Landfill Cells 2 and 3**

Mr. Goodrich was contracted by the Engineer of Record and the CQA Engineer EBA to manage all construction activities related to the Counties Cell 3 expansion. During design, Shannon assisted EBA with material selections and technical specification writing. At the time of construction, Shannon managed all field activities as the lead CQA monitor. Work included submittal reviews, material inventory, material tracking, conformance sampling, Resident Engineering Inspections, payment quantity authorizations, and final acceptance. In total, over 1.5 million SF of **60 mil HDPE** (2) sided textured HDPE geomembrane was installed and tested. One (1) small 5mm hole was detected in the entire system, most likely caused by a workman's clamp. Shannon compiled all field documentation into the final certification report that was approved by the CQA Officer and submitted to the State. Value \$45,000.00

**Double-Lined Evaporation Ponds CDM Smith/JR Simplot Food Groups – Caldwell, ID**

Mr. Goodrich and Mr. Chartres provided full time construction inspection on all soils and geomembrane flexible liner system for four (4) large evaporation ponds, each measuring 300,000 SF for a total area of about 1.2 million SF. Design included a double composite liner system with a GCL liner, secondary **60-mil HDPE**, 220 mil drainage net double side composite, and a primary **60-mil HDPE** liner, equipped with leak detection and monitoring LCRS system. Scope of work included reporting directly to CDM Smith CM and on-site RE on material quality and installation workmanship. Provided full time observation, testing and reporting on material manufactured, delivered and installed. Reported and documented all QA/QC testing and reporting to ensure compliance to the approved plans and specifications. Value \$65,000.00

**Solid Waste, Tulare County, Visalia Landfill Cells 4 and 5**

Mr. Goodrich was invited back for the next expansion; again, contracted by the Engineer of Record and the CQA Engineer EBA to manage all phase construction activities related to Tulare Counties Cell 4 and 5



expansion. Total square footage is 3 million that includes four (4) layers of geosynthetics. Scope included full time Resident Engineering Inspections, payment quantity authorizations, and final acceptance. In total, over 2.5 million SF of GCL and 2.6 Million SF of **60 mil (2) sided textured HDPE** geomembrane was installed and tested. Shannon compiled all field documentation into the final certification report that was approved by the CQA Officer and submitted to the State. Value \$250,000.00

#### **High-Rate Up-flow Anaerobic Sludge Blanket System, Oregon**

Mr. Goodrich was the lead CQA engineer and field engineer, contracted by Pharmer Engineering, during construction of the high-rate Up-flow Anaerobic Sludge Blanket (UASB) system that is owned and operated by the city. The system, which was installed in 1991, is dedicated to treating potato processing wastewater generated by local growers. The system was designed to off-load the City's main treatment plant by approximately 12,000 pounds per day of biochemical oxygen demand. Following treatment, the flow goes to a sulfide oxidation tank to oxidize reduced sulfur compounds prior to discharge to the City sewer system. Shannon was the on-site field engineer and Construction Manager (CM) for the Owner and Engineer of Record, he was responsible for overall construction workmanship, quality assurance, progress scheduling, budget and start-up operations. Value \$120,000.00

#### **Solids Anaerobic Digester, ConAgra Foods, Delhi, Louisiana**

Mr. Goodrich was the on-site construction manager and CQA lead inspector hired by Pharmer Engineering for a solids anaerobic digester to serve a new sweet potato facility. ConAgra wanted an anaerobic system that would accept over 115,000 dry pounds of waste potato solids per day, as well as up to 2 million gallons per day of process wastewater. The system was designed to produce methane gas with an energy value of over 700 million BTUs per day. The biogas is dried with a glycol chiller system, compressed, and sent to the production plant for utilization in the boilers. Mr. Goodrich was the project manager for the entire project, including preliminary process design, detailed design, and assistance during construction. The plant is scheduled for start-up on August 15, 2010. During construction Mr. Goodrich was the on-site Owners representative responsible for the project construction workmanship, quality assurance/quality control, scheduling, field inspections for compliance and preparation of the final CQA report that was submitted and accepted by the State. Value \$150,000.00

#### **Solids Digester, J.R. Simplot Co.**

Mr. Goodrich was the lead CQA monitor and construction manager for a solids digester for the company's French-fry plant. The longterm viability of the one and only cattle feeding operation in the area concerned the Simplot Co. since all the waste potatoes went to this feed operation. The Simplot Co. wanted a way to digest about 125,000 dry pounds of potatoes per day and produce biogas. Under Shannon's leadership, a 28-million-gallon digester plus a 12million-gallon solids storage digester was designed and permitted. The system will produce 920,000 standard cubic feet of methane gas, having an energy value of 920 million BTUs per day. The biogas is dried and compressed and utilized in the plant boiler system to reduce natural gas usage. During construction, Shannon managed all field activities to ensure the highest quality workmanship was incorporated into the system. Final CQA Report was compiled and submitted for ultimate approval. Value \$50,000.00

**Heap Leach Pad Barrick Gold, Elko, NV**

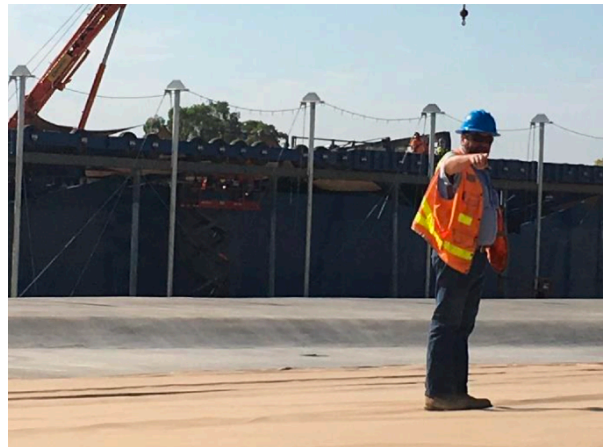
Mr. Goodrich was the project CM and lead CQA for the 88-ac new tailing pad and tailings closure located in Elko NV. Under contract with TGI, Shannon was hired to manage the complex construction project including all heavy civil, mechanical, electrical and all geosynthetics. Work included mass excavation to remove over 100 million cubic yards of soil, rough and fine grading, mechanical piping and the installation of five (5) layers of geosynthetics. Material used was a **60-mil HDPE (2) sided textured**, geocomposite drainage fabric, GCL and non-woven geotextiles. All material placed was surveyed for holes and zero leaks were detected. Value \$60,000.00.

**Hecla Grum Site Mine Closure, Stanley Idaho**

Mr. Goodrich was the site RE and CQA during all closure activities. Working side-by-side with Helca Engineers, Mr. Goodrich provided field guidance to ensure all construction activities met or exceeded project, State and Federal requirements. Work included the closure of a 100-ac tailing cell that has been in operations since the 1920's. The closure included mass excavation and grading for over 100 million tons of select on-site soil materials, an **80 mil HDPE** smooth geomembrane, 12 oz. geotextile, 12" aggregate layer and a select fill earthen cap. Value \$100,000.00

**Kelly Slater's Surf Ranch, Lemoore CA**

Shannon was contracted by KS Wave Co to assist in the final design review through final construction inspection which included: geomembrane material selections, subsurface venting systems, liner floor ballast systems, structural mechanical attachment systems, water treatment package and liner protection systems. In total, over 1 million SF of 5-ply CSPE reinforced geomembrane was custom manufactured and fabricated for installation. Since the original construction of the Surf Ranch, Shannon has been invited back continuously for technical consultations including retrofits, replacements, and improvements to the KS Wave Co. R&D facility. Value \$100,000.00



## Summary of Qualifications

Years of Construction Quality Assurance (CQA) Client Service Representation for inspection and analytical support in the Geotechnical, Geosynthetic and Environmental Engineering and Construction disciplines. Experience in various projects including radioactive/hazardous/non-hazardous solid and liquid waste/non-waste containment for both low permeability clay and geosynthetic liner installations.

### Field construction oversight with inspections, sampling and testing including:

- Subgrade evaluation
- Engineered fills
- Laboratory testing programs
- Measure and payment
- Monitoring and daily reporting
- Training new inspectors
- Technical data review and approval
- Environmentally sensitive projects including US Federal Superfund Sites
- Working with government regulating agencies
- Final certification reporting
- Proposals
- Geotechnical design for retaining walls, landslide repairs, and building foundations
- Vertical excavation stability with data reduction
- Slope stability inspection and analysis
- Hazardous environmental gas monitoring
- Health and Safety Officer for landfill surface emissions surveys
- Geotechnical explorations at potentially explosive sites



### Education

1997 - Univ of New Brunswick  
B.S. Civil Engineering

1996 - Univ of New Brunswick  
Technology Management and  
Entrepreneurship Diploma

### Registration

2000 - EIT Washington State

### Work History

2019 to 2021 - Independent,  
Business Development

2018 to 2019 - CQA Engineer,  
**GO2CQA** (CA)

2017 - Independent,  
Pishon Gold Mine (YT)

2016 - Independent,  
Pishon Jade Mine (BC) and  
Pishon Gold Mine (YT)

2014 to 2015 - CQA Specialist,  
CQA Solutions (OH)

2009 - CQA Engineer,  
Dudek & Associates (CA)



## Overview

Provided third party CQA enforcing the technical specification and design drawings. Performed visual inspections on the geomembrane installation documenting all activities including material placement, seaming, quality control testing and repairs. Prepared daily inspection field reports for the engineers and owners documenting all construction activities in writing and photo documentation.

## Tension Floating Cover and Liner Systems

### SOORO Foods

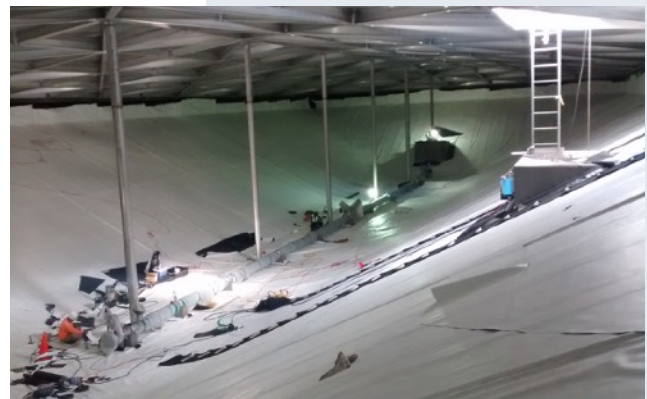
Consultant for tension floating cover installation. Marechal Cândido Rondon/PR, Brasil

Assisted and supervised with the GO2CQA GENETICA design and installation for an HDPE floating cover for local Brazilian company biogas to energy project.

### Pace Reservoir

Replacement Project - Thousand Oaks, CA

Provided CQA services during installations and final report preparation for a covered potable drinking water reservoir in LA County for the Water District. Work included rehabilitation of the subsurface basin including permeable asphaltic patch and repair, sub-basin floor piping for better distribution, under-drain collection system, new basin geomembranes and define sump floating cover systems. Material used was a CSPE 3-ply reinforced sheeting.



### Glanbia Foods

New Wastewater Treatment Facility - Gooding, ID

QA Manager/Independent Consultant. The largest barrel cheese producing plant in the world. The first ever plant built by a cheese processor in the state of Idaho. The \$13 million wastewater pre-treatment plant was designed to handle future plant expansions at the Gooding facility. The project was constructed under adverse winter and design conditions. Several blow outs due to extreme winds design flaws lead to significant delays and damage. Monitored daily QA/QC testing and inspection, submittal reviews, material invoicing, and QA audits. Authored design information and CQA documentation into a final as-built certification report.

## Work History (cont)

2006 to 2009 - Engineer,  
Thiel Engineering (CA)

2002 to 2005 - Engineering  
Consultant, Mathis Support  
Services Inc (WA)

2000 to 2002 - Staff Geo-  
technical Engineer, AMEC  
Earth & Environmental, Inc

1999 to 2000 - Staff Engineer,  
SCS Engineers (WA)

1997 to 1999 - CQA Engineer,  
Dudek & Associates, Inc (CA)

1997 - QC Engineer,  
Geomembrane Tech., Inc (NB)

1996 - Undergrad Teaching  
Assistant (Soil Mech.),  
Univ of New Brunswick (NB)

**The Southwest Cheese Company - New Wastewater Treatment Facility - Clovis, NM**

QA Manager/Independent Consultant. A new \$190 million joint venture cheese plant between Glanbia Foods, Select Milk Producers (SMP), and Dairy Farmers of America (DFA). The facility is thought to be North America's largest cheddar plant. The double lined HDPE composite system consisting of 40 and 60-mil liners with a leak detection system. The project was constructed under adverse winter conditions. Several large blow outs due to extreme winds lead to significant delays and damage. Monitored daily QA/QC testing and inspection, submittal reviews, material invoicing, and QA audits. Authored design information and CQA documentation into a final as-built certification report.

**JR Simplot, AE Staley and McCain's Foods - Various US and Canada Locations**

QC Engineer. Prefabricated, installed and repaired ADI patented anaerobic digesters, and provided QC for these installations using XR-5 and HDPE geosynthetic materials.

## Landfills

**Waste Management of Washington Inc**

Graham Road Recycling and Disposal Facility, Cell 5A Construction - Medical Lake, WA

CQA Manager. Provided independent QA/QC oversight and testing for an expansion 5-acre lined cell with a 2-foot clay liner. Reporting directly to the Design Engineer of Record and CQA Certifying Engineer. Provided daily inspection, documentation, soils testing and confirmation of construction activities that included: subgrade preparation, embankment fills, drainage layers, leachate piping, geosynthetics, sump construction, operations layer, and drainage ditches. Prepared final draft certification report.

**Lane County, Short Mountain**

Phase V Liner, Phase I/II Final Closure, Wetlands Construction, Camas Swale Temporary Bridge and Haul Road - Eugene, OR

CQA Manager. Prior to construction, assisted in the development of the plans and specifications. Provided independent QA oversight for a new 17- acre double lined cell with 2-foot clay liner located in a high groundwater zone, while simultaneously completing a 20-acre geomembrane closure. With weather as a limiting factor the schedule had to be compressed to facilitate a challenging deadline. Reported directly to the Design and CQA Certifying Engineer. Oversaw up to three QA monitors directly under his supervision. Provided daily inspection, documentation, and confirmation of construction activities that included: groundwater issues, under drain piping, subgrade preparation, embankment fills, vegetative cover, drainage layers, leachate piping, geosynthetics, sump construction, operations layer, gas collection piping, drainage ditches and infrastructure, temporary bridge abutments, and peripheral activities conforming to the requirements of the contract documents. Prepared final draft certification report. Phase 4A landfill gas extraction system upgrades including repairs to five (5) LFG extraction wells including total re-drill and well development, ten (10) new LFG extraction wells and collection and conveyance systems to the power station. Well field collection and conveyance system included: horizontal 12" HDPE header main and well laterals using 4" HDPE thermally butt welded and air pressure tested for integrity.

**Lane County, Short Mountain - Landfill Phase I/II Closure - Eugene, OR**

CQA Manager. Provided independent QA oversight for a 20-acre landfill closure of a publicly owned landfill. Reported directly to the Design Engineer and CQA Certifying Engineer. Provided daily inspection, documentation, and confirmation of construction activities that included: subgrade preparation, embankment fills, geosynthetics (20-acres of Agru super-grip drain liner), drainage ditches and infrastructure, and peripheral activities conforming to the requirements of the contract documents. Documented weekly meetings and prepared final draft certification report.

**Weyerhaeuser Company - Landfill Expansion Cell 3 - Castle Rock, WA**

CQA Manager. Provided independent CQA oversight for a 12-acre expansion of a privately owned landfill. Reported directly to Design Engineer and Corporate CQA Officer. Provided daily inspection, documentation, and confirmation of construction activities that included: subgrade preparation, excavations, HGCS layer, drainage conduit, embankment fills, geosynthetics, drainage and operations layers, tarping, and peripheral activities conforming to the requirements of the contract documents. Organized and maintained a field lab performing soil moisture and modified proctors. Performed field and laboratory materials sampling, conformance, performance testing and verification. Conducted weekly progress meetings and minutes. Coordinated CQA staffs. Reviewed contract documents, contractor submittals and laboratory test results while maintaining project records. Compiled and authored first draft of the as-built certification report.

**Sunrise Landfill - Republic/Silver State - Las Vegas, NV**

Health and Safety Officer. The Bureau of Land Management leased 720 acres to the county for a landfill since 1962. The site was closed to municipal dumping in 1993 but was capped improperly. Methane gas leaks and a flood in September 1998 sent tons of waste into Southern Nevada's drinking water supply, brought a federal order to clean up the site through the EPA. Supervised a 150-acre surface emissions survey for a closed landfill. Used Trimble GPS for quarterly gas emissions survey locations on a 100-foot grid. Equipment used included FID, CGI, and PID. Oversaw explorations in potentially explosive zones and collected electromagnetic data to delineate waste boundaries.

**Ponds and Lagoons****Earthrise Nutritionals - Evaporation Pond 8 - Calipatria, CA**

Full time construction inspection on all geomembrane flexible liner system for a large evaporation pond system separated by three separation berms placed below free board for a total area of about 600,000 SF. Design included a double liner composite liner system with a secondary 60-mil low density RPE, 220 mil drainage net double side composite, and a primary 60-mil low density RPE liner, equipped with leak detection and monitoring LCRS system. Scope of work included reporting directly to the Engineer and the Contractor. Provided full time observation, testing and reporting on material manufactured, delivered and installed. Reported and



documented all QA/QC testing and reporting to ensure compliance to the approved plans and specifications. Assembled final construction report.

**Calpet Gas** - Field Waste Evaporation Ponds - La Barge, WY

QA Monitor. Completed field CQA monitoring of Pond 7, which is a double-lined 12-acre evaporation pond. Monitored textured 60-mil HDPE geomembrane deployment, seaming, repairs, and quantities for pay applications. Provided reports and photos for final certification report.

**The Trump Organization** - Ocean Trails Golf Course: Lake 9 - Rancho Palos Verdes, CA

QA Manager/Independent Consultant. Situated on a bluff on the Palos Verdes Peninsula, Lake 9 was designed for class 3 liquid hazardous containment to prevent water seepage into the bluff and to prevent additional landslides. The site was closely monitored by the city due to previous failures. Responsible for submittal review and distribution, daily documentation and inspections, coordination of contractors and special inspections, conducted/recorded weekly progress meetings, organized project binder and performed geosynthetic conformance testing.

**Roadway Express** - Brine Waste Disposal Facility - Bloomington, CA

QA Manager/Independent Consultant. Provided independent oversight and inspection for the construction of two evaporation ponds at the new express freight transfer station serving the greater Inland Empire. The double lined composite geosynthetic system with leak detection sumps for the brine ponds receive wastewater discharges (1,916,250 gallons per year) from the new truck wash facility. The ponds were constructed in accordance with California Code of Regulations Title 27, and Resolution No. 93-62. Reporting daily to the Construction Manager for the earthwork berm and geosynthetic composite liner construction including inspections, field/lab sampling and testing, materials received, and documentation of activities. Reviewed contract documents, contractor submittals and test results. Implemented QA/QC plan and engineering reviews. Evaluated and approved cut slopes, and engineered fill characteristics. Confirmation of earthworks and geosynthetics conforming to the contract documents. Prepared final as-built construction certification report.

**El Dorado Natural Gas Turbine Power Generating Facility**

Evaporation Pond Liners - Boulder City, NV

CQA Engineer. Oversight for three double-lined HDPE composite evaporation ponds, consisting of 60-mil HDPE liner composite systems. Monitored daily QA/QC testing and inspection, submittal reviews, material invoicing, and QA audits. Authored design information and CQA documentation into a final as-built certification report submitted to state and federal agencies.

## Superfund Sites

### **DOE Hanford Superfund Site** - ERDF Landfill Expansion Cells 5 & 6 - Hanford, WA

QC Manager/Independent Consultant. The Environmental Restoration Disposal Facility is a large scale RCRA compliant and CERCLA authorized hazardous and radioactive waste landfill. Principal waste contaminants are fission products and heavy metals, authorized by the EPA to receive only wastes from onsite CERCLA cleanup activities. This expansion provides 2.8 million tons of additional disposal capacity. Provided independent QC services for the contractor and DOE prime contractor (Bechtel Hanford Inc.). Responsible for the contractor and sub contractor QC program and enforced the project specifications. Provided relevant project information and documentation and held a key role in communications to the prime contractor.

### **Tulalip Landfill Superfund Site** - Interim Remedial Action - Marysville, WA

Staff Engineer. Approximately four million tons of commercial and industrial waste were deposited in the 147-acre landfill during operative years. Contaminants included numerous heavy metals, various strains of pathogens, PCB's, and VOC's. Contaminated leachate was seeping out into the nearby wetlands, the site was added to the National Priorities List 1995. The landfill was capped in accordance with the Washington State Minimum Functional Standards (MFS) for landfill closure and included a gas collection system. On-site oversight for more than one year during closure activities. The composite LLDPE cap and closure plan was implemented and included inspection, sampling, testing, and documentation of all earthworks and geosynthetic construction activity. Provided daily coordination with construction contractor, responsible parties, design engineer, and EPA.

## Mines

### **Carlota Copper Company** - Heap Leach Pad and Ancillary Facility: Phase 1 - Miami, AZ

CQA Co-Lead. Provided independent QA/QC oversight and testing for a new 150-acre leach pad for geosynthetics. The project included GCL, geomembrane and two foot of protective cover over a large irregular topography. Reported directly to the CQA Certifying Engineer. Provided daily inspection, documentation, materials management, and confirmation of construction activities that included: subgrade preparation, geosynthetic, piping and other small side projects. QA/QC Representative. Provided QA/QC oversight for new and replacement liners for 2.5 million ft<sup>2</sup> of 60-mil HDPE, geotextile, and GCL. Daily construction, QC test monitoring, installed quantities, submittal reviews, and material invoicing. All project documentation and design information were co-authored into a final as-built construction certification report.

### **Phelps Dodge Copper Mines** - Liner Installation - Morenci, AZ and Chino, NM

QA/QC Representative. Provided QA/QC oversight for new and replacement liners for 2.5 million ft<sup>2</sup> of 60-mil HDPE, geotextile, and GCL. Daily construction, QC test monitoring, installed quantities, submittal reviews, and material invoicing. All project documentation and design information were co-authored into a final as-built construction certification report.





PROPOSAL

# INSPECTION SERVICES FOR R-6 RESERVOIR FLOATING COVER AND LINER REPLACEMENT PROJECT

**EL TORO WATER DISTRICT**

JUNE 16, 2022

27372 Calle Arroyo / San Juan Capistrano, CA 92675 / 949.450.2525

**DUDEK**

# Cover Letter

June 16, 2022

Hannah Ford, P.E.  
Engineering Manager  
El Toro Water District  
24251 Los Alisos Boulevard  
Lake Forest, California 92630

**Subject: R-6 Reservoir Floating Cover and Liner Replacement Project Inspection Services**

Dear Ms. Ford,

Dudek appreciates the opportunity to present our proposal for the above referenced project. Successful construction inspection services for El Toro Water District's (District's) R-6 Reservoir Floating Cover and Liner Replacement project requires the following elements:

- A proactive management team that can anticipate potential problems and ensure the District gets a quality, trouble-free product at the end of the project. Our inspector will document the project with daily reports and photos to ensure nothing is missed. All information will be made available daily online for the District.
- Strong enforcement of plans, specifications, and quality assurance inspection. The project will be constructed, inspected, and tested per the District's standards, no exceptions.
- An inspector that will maintain regular communication and schedule coordination between the District, contractor, and design engineer.

Our potential inspectors for this project are **Marius Jaskula, PE/CCM and Garrett White, QSP/NASSCO**. Both have successfully managed and inspected several similar floating cover and reservoir projects. We will evaluate and assign the inspector once we confirm a start date for the contractor.

Dudek is a California-based environmental and engineering consulting firm with offices nationwide staffed by more than 700 planners, scientists, civil engineers, contractors, and technical experts. We help our clients address challenges related to infrastructure, planning, and the environment to drive project progress and create lasting results.

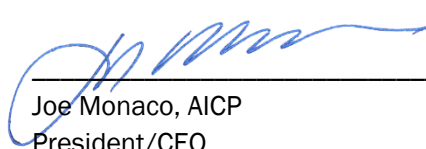
We are excited about the opportunity to provide these services and the District can be confident in its selection of Dudek. Should you have any questions or require additional information during the proposal evaluation process, please contact George Litzinger at 619.980.7048 or [glitzinger@dudek.com](mailto:glitzinger@dudek.com).

Sincerely,



---

George Litzinger, PE  
Project Principal



---

Joe Monaco, AICP  
President/CEO

*\*Mr. Monaco is authorized to execute legally binding agreements as a representative of Dudek.*

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# 1 Executive Summary

## In-Depth, Project-Specific Knowledge and Experience

Dudek has over 38 years of construction management and inspection experience on public works projects and has completed several reservoir construction projects for multiple agencies throughout Southern California. Our proposed inspectors have provided inspection services for several floating cover and liner reservoir projects.

### Personnel

Our proposed inspectors provided construction management and inspection on a cover and lining project for South Coast Water District as well as two floating liner reservoir cover projects for the Rainbow Municipal Water District that are very similar to this project. They understand the construction methods, quality assurance and quality control measures, and testing required to successfully construct a floating cover membrane system.

### Statement of Unique Qualifications

Dudek's team was formed specifically to meet the District's needs and offers the District an opportunity to benefit from highly specialized expertise and longstanding experience with the local area, the District, and staff of local regulatory agencies.

With over 700 professionals, Dudek also has the in-house resources, expertise, and capabilities to provide construction management and professional services efficiently and effectively. Our unique firm qualifications are supported by the following:

- Unparalleled understanding of the District's facilities, the construction market, and area contractors
- Reputation in the industry of getting the job done
- Understanding and experience on reservoir and floating cover and liner projects
- Excellent communication skills from staff whose goal is to keep the District informed throughout the project
- Significant cost and time savings because of an easily accessible construction manager and experienced and efficient project team
- The Dudek team's "issues/resolution" approach, along with our hands-on experienced team and significantly available resources, will bring this project to successful completion.



## 2 Project Approach and Detailed Scope of Work

Dudek's approach to the El Toro Water District's R-6 Reservoir Floating Cover and Liner Replacement Project is to draw upon qualified, experienced staff that has worked on similar projects (same design engineer), and apply that experience to this project. This will provide an efficient team with no "learning curve." Our goal will be to develop a complete understanding of the goals and needs of the District and then implement them in an effective and efficient manner to deliver a high-quality project that is built per the plans and specifications. The inspector will be onsite full time during the project and will be responsible for field inspection/coordination with the contractor and material testing.

### Management Approach

Dudek provides a "hands-on" team with construction management and inspection experience that has the ability to work together seamlessly and coordinate effectively to deliver an efficient project. Roles within the team are clearly understood, along with the tasks and assignments for which each team member is responsible. The coordination and functioning of the Dudek team falls under the direction and guidance of the District's PM. We will form a close day-to-day working relationship with District's Project Manager (PM) and staff and will provide timely and straightforward communication to keep the District informed of progress.

A strict procedure of reporting activities and communication for field personnel will be implemented by the full-time inspector who will be onsite full time during the course of the project, including during any off-hour construction activities. He will also be available as needed at any time throughout the project and will be available via cell phone at all times. All field personnel, including materials testing, will be required to provide reports to the District at the end of each day for review and electronic posting.

### Coordination and General Project Management

The field inspector will maintain ongoing interaction with the District, contractor, and design engineer through progress meetings and project updates conducted at regular intervals after the start of construction. He will be available for weekly progress meetings at the site with the District and contractor attending.

### Scope of Work

#### Task 1 Construction Administration

As discussed in the Request for Proposals (RFP), the inspector will assist the District's PM with the contract compliance, quality assurance, inspection, verifying quantities for payment, project coordination and change orders, RFIs, monitoring of project schedules/updates, and submittal review and processing.

Dudek will review and monitor the contractor's progress, workforce, and equipment to ensure they are adhering to their schedule throughout the course of the work. We will stay in regular contact with the District's construction PM to discuss and provide updates on the project.

We will make it a point of emphasis at the preconstruction meeting that the contractor must keep accurate and up to date as-builts on site. We will review and verify these monthly as a prerequisite for each month's progress payment. Dudek will keep a separate set of as-builts as a check for the contractor's as-builts.

Our approach has always been that early coordination and planning is the key to project success. For example, we will coordinate shutdowns, utility work, etc., well in advance to ensure there are no last-minute calls to inform or schedule the District crews. We believe our job is to fill gaps and make sure that construction management and District responsibilities are identified and scheduled well in advance, ensuring project progress is not affected.

**Meetings.** The preconstruction meeting will be the key to a good start for this project and due to the importance of this meeting and the ones that will follow, it is critical that accurate minutes are distributed shortly after the meeting. The contractor's updated 2-week look-ahead schedule will also be distributed. We will work with the District to itemize the agenda for meetings that includes the schedule, submittals/RFIs, SWPPP, traffic control, permitting agency coordination, shutdowns, liner and pipe deliveries, etc. The main point of the weekly progress meetings will be to discuss and resolve all project matters and assess responsibilities for response to respective participants. Items will remain for discussion on the agenda/minutes until the issue is resolved. Dudek will assist with coordination of the meetings with the District, and other agencies throughout the course of the project.

## Task 2 Construction Services/Inspection and Coordination

Dudek will be responsible for the overall quality assurance of the project, will work with the District's departments and permit agencies for permit compliance. Our approach to quality assurance ensures that the final product quality meets the requirements of the design drawings and specifications, while at the same time meeting the District's expectations. The inspector will be on site daily during working hours and whenever work is performed outside of normal working hours. The inspector will be the key point of contact for the contractor's superintendent during the course of the work. The inspector will not direct the contractor's work but will facilitate the contractor's efforts to complete the work by anticipating issues that might affect the progress.

**Quality Assurance Inspection Services.** The inspector will coordinate material deliveries, inspect materials as they arrive on site, and verify that all materials and equipment meet contract requirements and are properly stored. We will inspect the site daily, including traffic control; site the SWPPP; coordinate the geotechnical and field and laboratory material testing; and will be responsible for the overall quality assurance of the project. We will also be responsible for witness random sampling/testing performed by the contractor.

We will prepare daily reports at the end of each work shift documenting manpower, material sampling/testing, equipment, and summary of work activities. We will be responsible for obtaining and reviewing the laboratory reports prior to making them available to the District electronically. We will be responsible to provide all on-site CSPE geomembrane liner/cover inspection related to the delivery and handling, fabrication, seaming, patching, testing and other related verification of installation of the new CSPE geomembrane. We will also observe and document daily pre-weld testing conducted by the contractor.

**Photo Documentation.** We will review the contractor's preconstruction videos and photos, and prepare a separate, more complete set of our own. The inspector will take date-stamped photos on a daily basis and catalog them each daily report. At the end of the project, all photos will be cataloged, placed on a DVD, and provided to the District.

**Requests For Information.** Dudek will review RFIs and make recommendations, if needed, on all contractor RFIs. We will then forward RFIs to the design engineer or District for a final response. It is our goal to answer all RFIs in a timely manner to avoid giving the contractor any excuse for delays. RFIs will be logged regularly on an Excel spreadsheet, which will include columns for the reviewer, when the RFI was returned, the specification section and plan sheet related, and if the RFI issue resulted in a change order. RFI status will be discussed at every weekly progress meeting.

### Task 3 Construction Schedule

We plan to be ahead of the contractor by tracking progress, fabrication schedule and two-week look ahead schedules to ensure compliance with the approved baseline schedule. We will make sure the contractor is following and updating his schedule regularly. We will notify the District and contractor if actual work progress falls behind schedule.

### Task 4 Construction Change Orders

The goal of the Dudek team is to avoid claims and all unnecessary change orders, and to address change issues immediately in the District's best interest.

Dudek will have no authority to issue changes or modifications to the contract documents without District approval. Changes will be initiated by the District or requested by the contractor. We will assist the District to track, document, provide cost estimates for added costs or credits with the contractor, and evaluate schedule impacts of changes in addition to advising the District of equitable costs and time adjustments for proposed or authorized changes. The inspector will track and document all directed extra work on a daily time-and-materials basis, as well as any contractor-disputed work items on a daily basis. We will keep up-to-date, accurate, and separately numbered records of all changes and claims.

We will immediately respond to and notify the District of any claims or potential changes. Once we have reviewed and discussed the claim with the District, one of the following actions will be taken on the claim: rejected; tracked as disputed work; or incorporated in change order, depending on the circumstance. Dudek will support the District with any means possible to resolve/defend claims, including serving as an expert witness.

**Schedule of Values.** We will review the schedule of values submittal for all lump sum bid item components of the work to ensure the value of each line item is proportionate to the value and quantity of work, and not front-end loaded. The contractor will submit an updated schedule of values with each monthly pay request. Dudek will calculate percentage completed for each line item in the schedule of values based on an accurate quantity of work completed.

### Task 5 Contractor Payment

The Dudek team realizes the importance of an accurate, timely review and submission of the contractor progress payment each month. Our inspector will field-verify billable quantities, provide a recommendation on updating the schedule of values, and verify that the contractor's as-builts are up to date at the end of each month. The inspector will keep a monthly summary of field measurements (unit price bid items) and work performance measurement 'earned value' analysis (lump sum bid items) to be used as a check for the contractor's payment request. The inspector will review the contractor's as-builts on a monthly basis as a condition of progress payment review.

### Task 6 Project Completion and Close-Out

We will prepare a detailed punch list based on a joint walkthrough with District staff. This punch list will be compiled into a single list and transmitted to the contractor. We will make it clear to the contractor that (1) the project is not complete until the punch list is complete, and (2) punch-list work is contract work to be completed within the specified contract time. We will verify the contractor has successfully completed every item on the punch list and spare parts for turnover to the District. Once all of the closeout documents and change orders are executed, we can assist the District in generating the final pay request. We will review and certify the contractor's as-built drawings and crosscheck against our set of as-built drawings. The final, clean set of record drawings will be submitted to the District's project manager.

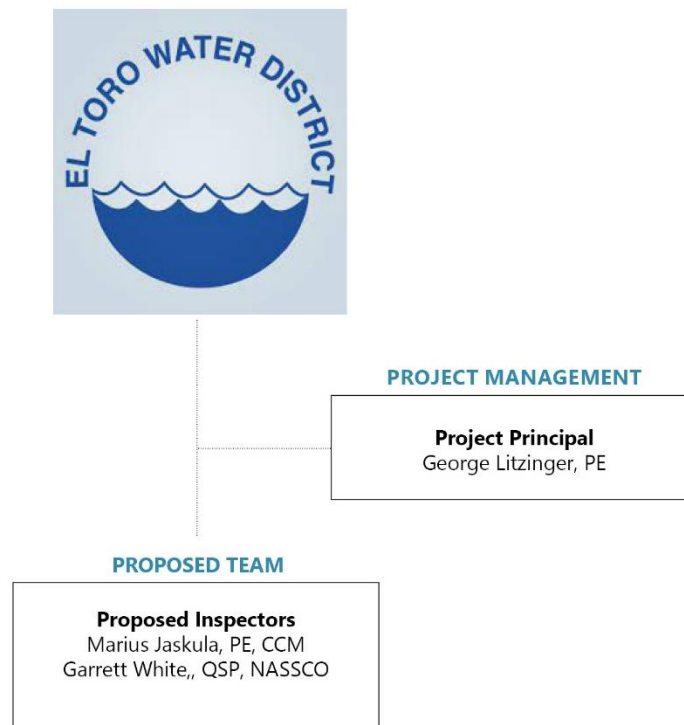


### 3 Qualifications of Potential Inspectors

Throughout the project, the Dudek team will serve as the District's advocate and extension of staff, combining detailed technical knowledge with a commitment to meeting the District's expectations. Our key personnel are experienced in inspecting challenging projects. Focusing on continuous communication among all parties to keep District departments current on progress status until matters are closed has enabled the Dudek team to successfully complete similar construction projects.

**Figure 1** illustrates our team's organizational structure and team communication for the project. Full resumes for all staff are available in **Appendix A**.

*Figure 1. Organizational Chart*



*\*Resumes including education, licenses, and detailed project experience are included in Appendix A.*

## 4 Similar Projects and References

**Table 1. Reservoir Project Experience Within Last 10 years**

Projects	Comments	Similar Project Issues					
		Geomembrane Liner	Floating Covers	Mechanical /Pumps /Piping	I&C and SCADA	Construction Management	Inspection
South Coast Water District Bradt Reservoir Floating Cover	Replaced existing failing geomembrane floating cover including access hatches, vents, and a rainwater pump removal system.	◆	◆	◆	◆	◆	◆
City of San Clemente Cordillera and Recycled Water Reservoirs	Modified the existing above ground Cordillera Reservoir and constructed a new steel tank 1 MG recycled water reservoir.			◆	◆	◆	◆
Triunfo Sanitation District Conifer Tank Replacement Project	Constructed a new buried 2.1 MG pre-stressed DYK potable reservoir.			◆	◆	◆	
Rainbow MWD North and Northside Reservoir	Rehabilitation of two 8 MG and 23 MG potable reservoirs. Both reservoirs were constructed with new concrete anchor curbs, piping, inlet and outlet structures, geomembrane liners, and geomembrane floating covers with vents, hatches, rainwater removal pumps, and associated appurtenances.	◆	◆	◆	◆	◆	◆
Rainbow MWD Morro Reservoir	Rehabilitation of the 151 MG Morro reservoir constructed with new concrete anchor curbs, piping, inlet and outlet structures, geomembrane liner, and geomembrane floating covers with vents, hatches, rainwater removal pumps, and associated appurtenances.	◆	◆	◆	◆		◆
Rainbow MWD Beck Reservoirs	Rehabilitation of the 204 MG Beck reservoir with new concrete anchor curbs, piping, inlet and outlet structures, geomembrane liner, and geomembrane floating covers with vents, hatches, rainwater removal pumps, and associated appurtenances.	◆	◆	◆	◆		◆
Disney Paradise Pier Lagoon	Modifications to the geomembrane liner in this reservoir. The Paradise Pier Lagoon was modified to allow for penetrations of the lagoon bottom for footings and pipelines while maintaining the leak-proof integrity of the lagoon geomembrane bottom liner.	◆		◆			◆

## Bradt Reservoir Floating Cover Project

**Client:** South Coast Water District

**Client Reference:** Marissa Potter, 949.499.4555

**Key Staff:** Marius Jaskula, PE, CCM - Construction Manager / Garrett White, QSP, NASSCO - Inspector

Dudek provided construction management and inspection services for the South Coast Water District's \$2.3 million project to replace the existing failing geomembrane floating cover. Project consisted of replacing the 6.3-acre cover with a new weight tensioned chlorosulfonated polyethylene (CSPE) geomembrane cover including access hatches, vents, and a rainwater pump removal system. Supporting site work included Hypalon liner repairs, replacement of inlet and outlet slide gates, replacement of drain and outlet valves, electrical work, SCADA modifications, chemical system modifications, and drain piping installation.



## North and Northside Reservoirs Rehabilitation Project

**Client:** Rainbow Municipal Water District

**Reference:** Doug Hilts (Design Engineer), 909.590.5200

**Key Staff:** Marius Jaskula, PE, CCM

Marius Jaskula was the resident engineer for a \$5.0 Million Rainbow Municipal Water District project to rehabilitate two potable water reservoirs – 8 MG (1.5 acres) and 23 MG (3.1 acres). Both reservoirs were constructed with new concrete anchor curbs, piping, inlet and outlet structures, geomembrane liners, and geomembrane floating covers with vents, hatches, rainwater removal pumps and associated appurtenances. The project site work included 18 inch and 24 inch PVC C-905 and CML&C steel piping, valves and vaults, CIPP relining for drainage and potable pipelines. Surface improvements include concrete sidewalk, paving, fencing and concrete pads for booster pumps. Electrical work included pump control panels and controls for SCADA connectivity. Project issues included adjacent community residences and extensive coordination with District operations staff during construction and start-up.



## Morro Reservoir Rehabilitation Project

**Client:** Rainbow Municipal Water District

**Reference:** Doug Hilts (Design Engineer), 909.590.5200

**Key Staff:** Garrett White, QSP, NASSCO

Garrett White was an inspector for a Rainbow Municipal Water District project to install floating cover for 151 MG Morro reservoir that also included the construction of new inlet/outlet piping and other rehabilitation work on Morro Reservoir. A new floating cover was constructed with new concrete anchor curbs, piping, inlet and outlet structures, geomembrane liners, and geomembrane floating covers with vents, hatches, rainwater removal pumps and associated appurtenances. Mr. White observed daily trial pre-welding tests and conducted random field seam sampling and witnessed geomembrane tests performed by the contractor.

## Beck Reservoir Rehabilitation Project

**Client:** Rainbow Municipal Water District

**Reference:** Doug Hilts (Design Engineer), 909.590.5200

**Key Staff:** Garrett White, QSP, NASSCO

Garrett White was an inspector for a Rainbow Municipal Water District project to install floating cover for 204 MG Beck reservoir that also included the construction of new inlet/outlet piping and other rehabilitation work on Beck Reservoir. A new floating cover was constructed with new concrete anchor curbs, piping, inlet and outlet structures, geomembrane liners, and geomembrane floating covers with vents, hatches, rainwater removal pumps and associated appurtenances.

## Disney's California Adventure, World of Color, Paradise Pier Lagoon

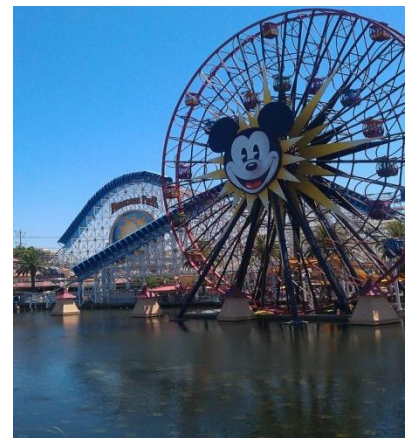
**Client:** Walt Disney Imagineering, California

**Client Reference:** Jim Hanson, 714.781.7614

**Key Staff:** Garrett White, QSP, NASSCO

Garrett White was an inspector at the California Adventure's new nighttime water show "The World of Color" for modifications made to geomembrane liner in this reservoir.

The Paradise Pier Lagoon was modified to allow for penetrations of the lagoon bottom for footings and pipelines while maintaining the leak-proof integrity of the lagoon geomembrane bottom liner. The lake bottom at Paradise Bay was penetrated in dozens of locations to allow for the new stages and pipelines to be installed.





## 5 Acceptance of Standard Contract

Dudek will provide ETWD the requested insurance as outlined in the sample contract. Dudek requests no exceptions to the Standard Contract but does respectfully request a clarification noted below.

Dudek requests clarification regarding section 1.8 of Consulting Agreement #130 R-6 Reservoir Floating Cover and Liner Project:

**1.8 District's General Conditions Control.** It is the intention of the parties that DISTRICT's General Conditions for construction contracts will be used as the General Conditions for the Project and that all Project documents will be generally consistent with these General Conditions as well as with all amendments thereof and supplements thereto.

*If the terms cited in section 1.8 were not part of the Request for Proposal package, Dudek respectfully requests to review said terms.*

## 6 Cost Proposal

Per the District's Request for Proposal, Dudek has provided our proposed fees and schedule of hourly rates in a separate file marked, "Proposed Fee – R-6 Reservoir Floating Cover and Line Replacement Project Inspection Services Proposal".

# Appendix A

Resumes

# George Litzinger, PE

## PRINCIPAL/CONSTRUCTION MANAGEMENT DIVISION MANAGER

George Litzinger has more than 35 years' experience, leadership, and supervision in engineering and construction. As the Construction Management Division Manager, he is responsible for all Dudek's construction projects and programs covering both large and small projects up to \$100 million. His duties typically include management of construction staff and providing support in contract administration, management and cost control, scheduling, contract bidding/award, constructability reviews, field engineering, project coordination, claims management, and estimating.

Mr. Litzinger has managed a variety of projects for both the private and public sectors including water/sewage treatment plants, reservoirs, pump stations, pipelines, parks and golf courses, small dams, subdivisions, streets and roads, drainage projects, fire stations and a variety of public buildings.

## Project Experience

### Water/Wastewater

**Railroad Canyon WRF Yard Piping Modifications Project, Elsinore Valley Municipal Water District, Lake Elsinore, California.** Mr. Litzinger was the project manager on this project that involved construction and modification of the Railroad Canyon Water Reclamation Facility's (RRCWRF) aeration basins. The RRCWRF is a wastewater reclamation facility designed to treat 1.3 mgd average daily flow. The basins were modified with new piping, pumps, electrical, and baffles to retain the sewage for the purpose of creating an "Anoxic Zone" to denitrify the sewage prior to reuse.

**Recycled Water Pipeline CM and Inspection, San Elijo Joint Powers Authority.** Mr. Litzinger was project principal overseeing the construction management and inspection of this recycled water pipeline within the City of Solana Beach. The project was part of a larger Sewer, Water, Arterial, Paving (SWAP) Project, which had a tight schedule requiring completion of all construction in less than six (6) months and involved various stakeholders: City of Del Mar, San Diego Fairgrounds, SEJPA, City of Solana Beach, and Santa Fe Irrigation District.

**Goleta Sanitary District (District) WWTP Expansion.** Mr. Litzinger and the Dudek CM Team provided construction management and inspection services for a \$30 million upgrade to the District's wastewater treatment plant that services the cities of Goleta and Santa Barbara. Dudek also provided closeout phase services on this project.

**Avenue 48 Wastewater Treatment Plant Expansion, City of Coachella.** Dudek provided construction management and inspection of this 18-month, \$30-million treatment plant expansion, which was funded by the State of California's Revolving Fund Program. Mr. Litzinger and his construction management team performed a constructability review for this project as well as managed the bid process on behalf of the City. Dudek's

### Education

United States  
International University,  
San Diego  
BS, Civil Engineering,  
1985

### Certifications

Professional Civil  
Engineer CA No. 47544

California Contractor  
Engineering Class "A"  
License No. 731744

Landscape License C-27

### Professional Affiliations

Construction  
Management Association  
of America

American Society of Civil  
Engineers

Building Industry  
Association

Construction Industry  
Federation

construction QA (CQA) experts coordinated every aspect of the construction process with the contractor and provided inspection of all civil, structural, mechanical, and electrical/instrumentation work.

**CM for Potable Water Storage Reservoir(s) at Calipatria State Prison, California Department of Corrections and Rehabilitation, Calipatria, California.** Mr. Litzinger was the project principal on this project, providing construction management services for the construction of various potable water storage reservoirs at the Calipatria State Prison. The project also included additional storage facilities on site that were cathodically protected and tied into existing prison facilities.

**Water Recycling Demonstration Project, City of Anaheim, Anaheim, California.** Mr. Litzinger was the project principal for Dudek on this project. Dudek provided construction management, inspection, and initial operation services on this project. The project consisted of constructing a new state of the art 50,000 gpd treatment facility within a 2,000 SF building constructed adjacent to City Hall. The facility incorporated several treatment methods: membrane bioreactor, ozone, and UV disinfection to treat raw sewage into Title 22 recycled water for toilet and irrigation use throughout the city. The project also included the construction of a new lift station and force main.

**On-Call Construction Management Services, Ramona Municipal Water District.** Over a 6-year period, Mr. Litzinger provided construction management services for over \$30 million worth of Ramona Municipal Water District Capital Improvement Projects. These projects upgraded and expanded the District's water system and increased capacity to higher elevations. Projects included: *San Vicente Storage Reservoir, Mt. Woodson Reservoir, San Vicente Treatment Plant, Dye Road Booster Pump Station, Dye Road Pipelines.*

**Olivenhain Pipelines Phase II (\$25 Million), San Diego County Water Authority.** Mr. Litzinger was the project manager for the San Diego County Water Authority's Olivenhain Pipelines Phase II project. This pipeline project included 11,288 feet of 78-inch buried welded-steel pipe and 11,500 feet of 48-inch buried welded-steel pipe.

**Imperial Water Treatment Plant Expansion, City of Imperial.** Mr. Litzinger was project manager for the City of Imperial's \$15 million water treatment plant upgrade and expansion. The project doubled the City's treatment capacity to 7 mgd and was constructed by a design build construction team. The project was one of the first of its kind using an Engineer, Procure, Construct (EPC) contract with a guaranteed maximum price. The project was completed on time, within budget, and free of litigation.

**Poway and Olive Street Pump Stations, Ramona Municipal Water District.** Mr. Litzinger was responsible for construction management services for the Poway Pump Station and Olive Street Pump Station for the Ramona Municipal Water District. Construction management and inspection were provided for all aspects of construction, including grading, concrete, masonry, electrical, and instrumentation work. The Olive Street Pump Station is a new station that provides system pressure throughout the Ramona community. The station contains two new 40 hp and two new 20 hp vertical-turbine pumps. The Poway Pump Station is a high-pressure water booster station. This station included the installation of two new 900 hp vertical-turbine pumps into a building that was retrofitted to accept the new pumps. The pump station transfers water up a 400-foot grade to an open reservoir that serves the town of Ramona.

**Rancho Cielo Recycled Water Distribution System, San Diego, California.** Mr. Litzinger worked as a project engineer for the design of a large water reclamation distribution system. The design consisted of a 70-acre-foot reservoir, three 1,000 gpm pump stations and 75,000 feet of 10-inch distribution pipe. His tasks on this project involved the preparation of detailed drawings for the pump station and pressure-reducing stations and the design, layout, sizing, and alignment of the distribution lines. He also prepared the hydrological calculations for two open reservoir spillways and the required calculations for the project's irrigation demands.

# Marius Jaskula, PE, CCM

## CONSTRUCTION INSPECTOR

Marius Jaskula has over 25 years' experience in construction management, contract administration, and quality assurance on civil public works infrastructure projects. Projects have included sewer; water and storm water pump/lift stations; reservoirs; sewer and water treatment facilities; Caltrans structures; roadway construction; large earthwork projects; and water, sewer and drainage pipeline projects with tunneling. Positions held have been the following: Construction Manager for U.S. Government (Navy), Construction Manager/Resident Engineer for a municipality and engineering consulting firms, and a Quality Control Manager and Superintendent for a general contractor.

## Dudek Project Experience

### **Bradt Reservoir Floating Cover Project, South Coast Water District, California.**

Construction Manager for \$2.3 million district project to replace the existing failing geomembrane floating cover. Project consists of replacing the 6.3-acre cover with a new wiegth tentioned chlorosulfonated polyethelyne (CSPE) geomembrane cover including access hatches, vents and a rainwater pump removal system. Supporting site work includes Hypalon liner repairs, replacement of inlet and outlet slide gates, replacement of drain and outlet valves, electrical work, SCADA modifcaitons, chemical system modifications and drain piping installation.

**North and Northside Reservoirs Rehabilitation Project, Rainbow, California.** Resident Engineer for a \$5.0 Million Rainbow Municipal Water District project to rehabilitate two potable water reservoirs – 8 MG (1.5 acres) and 23 MG (3.1 acres). Both reservoirs were constructed with new concrete anchor curbs, piping, inlet and outlet structures, geomembrane liners, and geomembrane floating covers with vents, hatches, rainwater removal pumps and associated appurtenances. The project site work included 18-inch and 24-inch PVC C-905 and CML&C steel piping, valves and vaults, CIPP relining for drainage and potable pipelines. Surface improvements include concrete sidewalk, paving, fencing and concrete pads for booster pumps. Electrical work included pump control panels and controls for SCADA connectivity. Project issues included adjacent community residences and extensive coordination with District operations staff during construction and start up.

**Twin Oaks Reservoir Tank No. 2, Phase 3, San Marcos, California.** Construction manager for the third phase of a \$21 Million Vallecitos Water District multiple award-winning projects to construct a 40 MG pre-stressed concrete reservoir. The reservoir is the largest in the world of its type. Project consisted of backfilling of the 40-foot high, 432-foot diameter tank with 120,000 CY of earthwork. 48-inch RCP drainage and 24-inch steel overflow header piping was installed on site. The top of the tank was earth covered and the entire site was landscaped. Final components included electrical improvements, instrumentation and controls, and paved access roadways. Project was completed with net change orders of 0% of the contract value.

**4S II Reservoir, San Diego, California.** Construction Manager for a \$4.1 Million Olivenhain Municipal Water District project to construct a new 4.0 MG potable water Reservoir. The steel reservoir was constructed with an aluminum dome roof with a diameter of 156 feet and a height of 34 feet. The project also included a communication

### **Education**

University of Illinois at Chicago  
BS, Civil Engineering,  
1997

### **Certifications**

Professional Engineer,  
State of California, Civil  
#C61060

CMCI Certified  
Construction Manager, ID  
#A1588

U.S.A.C.E. Construction  
Quality Management  
Certification



building, inlet/outlet piping, valve vaults with electronically controlled valving and extensive site work. Project was completed on time and without claims.

**OC-44 Pipeline Rehabilitation Project, Mesa Water District, California.** Mr. Jaskula was Construction Manager and Resident Engineer for this project to repair an old failing section of pipeline that had a history of failures and emergency repairs. The project included slip lining approximately 2,000 LF of 30-inch ductile iron pipe inside the existing 42-inch pipeline where it crosses the San Diego Creek and Bonita Creek. Welded steel pipe connections and transition fittings were provided at each connection point to the exiting pipeline. The project is located in a sensitive habitat requiring coordination with regulatory agencies, as well as the County of Orange, City of Newport Beach, Caltrans, and several local businesses.

**V1: West Vista Way Sewer Project, City of Vista, California.** Mr. Jaskula was Construction Manager and Resident Engineer for this project, which involved deep open trenching for the replacement and upsizing of sewer mains from 8-inch up to 15-inch along with a micro-tunneled section across Emerald Drive.

**Wells 32 and 33 Equipping, City of Corona, Department of Water and Power, California.** Construction Manager and Resident Engineer for \$1.3 million City project to develop and equip recently constructed groundwater wells. Well 33 anticipates a sustainable yield of up to 1,500 gpm with moderate levels of nitrates and perchlorates which will be treated at the Ion Exchange Treatment Plant (see below project). Well 33 to be placed in service with a 200-hp deep vertical turbine well pump driven by a variable frequency drive. Wells equipping consists well heads for both wells, associated mechanical piping and equipment, valves, flow meters, and a reinforced concrete masonry wellhouse. Project site improvements include miscellaneous yard piping, connections to water supply and transmission mains, sewer and water services, grading, drainage, asphalt concrete pavement, concrete flatwork, steel fences and gates. Plant electrical, and instrumentation system entails the installation of City-furnished motor control center, switchgear, emergency generator and SCADA equipment.

**Ion Exchange Treatment Plant Project, City of Corona, Department of Water and Power, California.** Construction Manager and Resident Engineer for \$7.5 million City project to construct a new resin treatment ion exchange water treatment plant. Plant design flows initially set at 1600 GPM with the ability to expand to 6000 GPM as local water supplies are developed. The 9300 SF treatment plant building footprint incorporates a chemical room and process room, thirty-foot high masonry walls with architectural features and a steel truss roofing system. Ion exchange treatment process consists of seven steel vessels loaded with resin for nitrate and perchlorate removal, process piping, filters, valves, flow meters, compressed air scouring system and associated mechanical equipment. Chemical treatment includes salt delivery and storage system, briner, chemical storage including containment walls, drain and delivery systems, chemical storage tanks, metering pumps, piping, and transfer pumps. Project site improvements include miscellaneous yard piping, connections to water supply and transmission mains, backwash water discharge and regenerate discharge drain piping, grading, drainage, asphalt concrete pavement, concrete flatwork, tubular steel fences and gates. Plant electrical, and instrumentation system entailed the installation of City-furnished motor control center, switchgear, and SCADA equipment.

**Home Plant Lift Station and Forcemain Replacement Project, City of Carlsbad, California.** Construction Manager and Resident Engineer for \$2.8 million city project to replace the failing existing station and increase emergency storage capacity. The HLPS consists of a submersible lift station with a PVC lined wet well, three 25HP submersible pumps, bubbler level control, odor control bed, new emergency generator, emergency storage structure, influent sewer piping and manholes, flow meter and valve/camlock vaults, new controls and electrical panel located in the new control building, new site fencing, new and restored landscaping, recycled irrigation and asphalt paving. The station is fed by an 18-inch influent sewer and pumps into a 8-inch force main which

ultimately outlets into the Vista/Carlsbad interceptor sewer. Forcemain improvements included 1,900 LF of 8-inch HDPE open cut piping and 400 LF of 8-inch HDPE HDD tunneling.

**Terramar Lift Station and Forcemain Replacement Project, City of Carlsbad, California.** Construction Manager and Resident Engineer for \$0.9 million city project to replace the failing existing station. Project involved replacing the existing lift station with a 30-foot deep pre-cast 6-foot diameter wet well with two submersible pumps and new valve vault. Location of PS and vault was in the road and behind the sidewalk of a major thoroughfare through the City. Forcemain improvements included the installation of a new 400 LF 6-inch PVC open cut piping and 200 LF of 8-inch CIPP lining of existing gravity sewer under the NCTD tracks. Pump motor controls, SDG&E service panel and mobile emergency generator were installed in a block enclosure with steel canopy cover. The existing lift station was taken out of service and continuously bypassed for approximately 3 months until the new lift station and force main were put in service.

**Recycled Water System Expansion, City of San Clemente, California.** Resident Engineer for \$8.2 million multi-phase project to install 10 miles of recycled water pipelines (6-inch to 20-inch PVC and DI), HOA service conversion connections, Bella Collina Towne & Golf Course metering station and new pressure reducing station. The project also included a new 200,000 gallon DN tank. He managed all aspects of construction and providing daily inspection services. The project required coordination with multiple agencies (City of San Clemente, South Coast Water Districts, 10+ HOA's and Caltrans). The project also involved the expansion of the City's Water Reclamation Plant from 2,200,000 gallons per day to 5,000,000 per day and new effluent pump station.

**Unit Z Pump Station, San Diego, California.** Construction Manager for a \$3.2 Million Olivenhain Water District project to construct a new potable water pump station. The pump station is equipped with three 200 HP vertical pumps with 3675 GPM capacity each. Electrical components include pump control and SCADA systems. An 1100 SF pump station masonry building and extensive site work with 24-inch CML welded steel suction and discharge piping. Project issues included adjacent community residences and extensive coordination with District operations staff during construction and start up. Project was completed on time and without claims.

**Connamera Pump Station, San Diego, California.** Construction Manager for a \$2.2 Million Olivenhain Municipal Water District project to construct a new potable water pump station. The pump station is equipped with two 250 HP vertical pumps with 4250 GPM capacity each. Electrical components include pump control and SCADA systems. A 1000 SF pump station masonry building and extensive site work with 18-inch CML welded steel suction and discharge piping. Project issues included adjacent community residences and extensive coordination with District operations staff during construction and start up. Project was completed on time and without claims.

**Cypress Street Reservoir and Water Treatment, Lomita, California.** Resident Engineer for the final phases of construction, and the startup and testing of a \$9.0 million project to construct a new 5.0 MG post-tensioned concrete reservoir, pump station, emergency generator, 1500 GPM well pump/piping, and a MIOX treatment facility to treat the well water to remove iron, manganese and color. Project site work included extensive piping, a pump station building, an oxidant treatment building, filter vessel, aqueous ammonia systems and wash water tank. Electrical work included pump/equipment control panels and various controls for SCADA and plant operation. Project issues: adjacent community residences and extensive coordination during start up and testing.

# Garrett White, QSP

## CONSTRUCTION INSPECTOR

Garrett White has over 25 years' experience in the construction industry, with an emphasis in the construction of water, wastewater, and storm drain facilities for public agencies. He has been involved with the construction of large- and small-diameter pipelines, treatment plants, pump stations for potable and non-potable distribution systems, and horizontal directional drilling (HDD) with an emphasis in trenchless technologies. For the past 15 years, Mr. White has been responsible for providing field inspection services and construction management for various cities and water districts on capital improvement and developer projects. As a field engineer, he is responsible for project coordination, issuing field orders, verifying adherence to submitted schedules, quality control and assurance, maintaining adherence to water pollutions prevention practices, project documentation, and review of as-built records.

## Project Experience

### **Bradt Reservoir Floating Cover Project, South Coast Water District, California.**

Inspector for \$2.3 million district project to replace the existing failing geomembrane floating cover. Project consisted of replacing the 6.3 acre cover with a new weight-tensioned chlorosulfonated polyethylene (CSPE) geomembrane cover including access hatches, vents and a rainwater pump removal system. Supporting site work includes Hypalon liner repairs, replacement of inlet and outlet slide gates, replacement of drain and outlet valves, electrical work, SCADA modifications, chemical system modifications and drain piping installation.

### **Disney's California Adventure, World of Color, Paradise Pier Lagoon, Anaheim, California.**

Mr. White provided inspection services for Walt Disney Imagineering at the California Adventure's new nighttime water show "The World of Color". The Paradise Pier Lagoon was modified to allow for penetrations of the lagoon bottom for footings and pipelines while maintaining the leak-proof integrity of the lagoon bottom liner. Mr. White's scope of work included inspection of the work in progress, the preparation of bentonite clay liner, placement of the clay liner, and compaction to 95%. The clay preparation consisted of mixing clay with SS-13 (soil sealer), WA-13 (wetting agent), and water in a giant pugmill. After the clay was in place, concrete joint waterstop strips were installed and concrete was placed as an armor-coat. The concrete had additives such as Fibermesh, Pozzoloth, and Xypex. Daily reports were prepared to document the process. Mr. White served as the liaison between the contractor and the WDI staff.

### **Construction Management and Inspection Services, Rainbow Municipal Water District, Rainbow, California.**

Mr. White provided construction inspection services for multiple developer and capital improvement projects in Rainbow Municipal Water District's service area. Projects include:

#### **Education**

*Palomar College Courses*  
*Public Works Inspection I*  
*Water Distribution I*  
*Water Treatment I*

#### **Certifications**

*ACI Concrete Field-Testing Technician Grade I*  
*ACI Concrete Repair Basics*  
*Qualified SWPPP Practitioner (QSP) #23394*  
*OSHA 10-Hour Confined Space Safety and Training Certification*

#### **NASSCO Certifications:**

*NASSCO-Certified Trainer*  
*Cured-in-Place Pipe (ITCP) Inspection Certification Program*  
*Pipeline Assessment Certification Program (PACP)*  
*Manhole Assessment and Certification Program (MACP)*



- *Water Tank Maintenance Program:* Improvements to 12 aboveground potable water tanks ranging in size from 0.4 to 6 million gallons. Each tank required varying degrees of improvements, including lead abatement, structural rehabilitation, and interior and exterior recoating.
- *Morrow Reservoir Floating Cover:* Mr. White was the inspector for a Rainbow Municipal Water District project to install floating cover for 151 MG Morro reservoir that also included the construction of new inlet/outlet piping and other rehabilitation work on Morro Reservoir. A new floating cover was constructed with new concrete anchor curbs, piping, inlet and outlet structures, geomembrane liners, and geomembrane floating covers with vents, hatches, rainwater removal pumps and associated appurtenances. Mr. White observed daily trial pre-welding tests and conducted random field seam sampling and witnessed geomembrane tests performed by the contractor.
- *Beck Reservoir Rehabilitation Project:* Mr. White was the inspector for a Rainbow Municipal Water District project to install floating cover for 204 MG Beck reservoir that also included the construction of new inlet/outlet piping and other rehabilitation work on Beck Reservoir. A new floating cover was constructed with new concrete anchor curbs, piping, inlet and outlet structures, geomembrane liners, and geomembrane floating covers with vents, hatches, rainwater removal pumps and associated appurtenances.
- *Malabar Ranch Private Development:* Installation of over 5,000 linear feet of 8-inch ductile iron pipe for potable water distribution. Mr. White was responsible for adherence to contract documents and specifications, including daily documentation and photographs.
- *Emergency Generator Project:* Responsible for coordinating the installation of liquid-propane-fueled backup generators for chlorination injection systems at multiple sites. Responsibilities included documentation of existing conditions, site survey, and as-built design of the chlorination facilities and the pressure regulating stations.

**Conifer Tank Replacement Project, Triunfo Sanitation District, California.** Mr. White provided inspection services on the District's \$5 million reservoir and pipeline replacement project. The project consisted of the following elements:

- Two 20-inch diameter CML&C 1,100-foot long pipelines under the Oak Canyon Reservoir access road;
- 1,500 feet of concrete and geoweb-contained gravel access road;
- A valve vault with a 16-inch motor controlled valve;
- Two pressure reducing valve vaults for 10-inch and 12-inch diameter pipe;
- A 12-inch diameter PVC, 1,200-foot long pipeline in Kanan Road.
- Coordination with cultural and biological monitors throughout the clearing and grading phase of the project.

The project is nearby an upscale community in Westlake Village in Ventura County. Consequently, Mr. White coordinated daily with the District's in-house public relations representative for project updates. The District received very few complaints due to the proactive public relations program for the project. As part of the project, sound walls were constructed along the access road leading to the reservoir site.

**Recycled Water Expansion Projects 18201C & D, City of San Clemente, California.** Mr. White was the inspector on these projects for the City of San Clemente. The City expanded its recycled water system by constructing multiple projects in three concurrent phases – Water Reclamation Plant Expansion and Pump Station (Project 1), Cordillera and Recycled Water Reservoirs and Pipeline Schedule III & IV (Project 2), and Pipeline Schedule I & II (Project 3). The treatment and effluent pumping system are being expanded, almost 10 miles of recycled water transmission

mains (6-inch to 20-inch PVC and ductile iron) are being constructed, and an existing reservoir converted and new small reservoir constructed.

**Olivenhain Trunk Sewer Improvements Phase 1 and MH 1-7 Rehabilitation, City of Encinitas, California.** Mr. White was Construction Inspector for this project that involved the installation of 2,600 LF of new 15-inch PVC sewer trunk main with 13 new lined manholes; abandonment of 10-inch sewer main on Lone Jack Road and Camino Del Mar; and sewer easement and CIPP manhole rehabilitation of 14 existing manholes on Manchester Ave. The project included a 24-inch jack and bore creek crossing and manhole and sewer abandonment in environmentally sensitive areas in Escondido Creek as well as repaving of approximately 50,000 sq. ft. of Lone Jack Road.

**V1: West Vista Way Sewer Phase 1, City of Vista, California.** Mr. White provided full-time construction and storm water inspections, coordination of geotechnical inspections and adherence to the contract documents for the City of Vista for the 18-month duration of this project. The work generally consisted of installation of 4,250 LF of deep cut sewer, micro tunnel boring, bypass pumping, and pavement restoration. The new sewer pipe ranged from 8 inches to 15 inches in diameter and was installed at an average depth of 27 feet below surface level. This project also consisted of bypassing existing sewer flows, in excess of 3.1 MGD, from several multi-family housing units, restaurants, and commercial businesses, while performing positive locate of 15 deep cut sewer laterals, and installation of over 21 new concrete manhole lined and coated and tested. All work was performed while maintaining service to all affected customers. The final portion of the project consisted of over 80,000 sq. ft. of pavement restoration. As the full time QSP, Mr. White was also responsible for weekly storm water inspection reporting and issuing corrective actions. Construction value: \$6.4 million.

**Vista Hacienda Trunk Sewer Rehabilitation – Design Build, City of Vista, California.** Mr. White served as the on-site Inspector of Record for the design build (DB) project that consisted of engineering, design services, inspection, and CIPP lining of 4,562 LF of the City of Vista's 36-inch ductile iron Hacienda Drive Trunk Sewer. Mr. White inspected and reviewed all CCTV and laser profile inspection performed on the trunk sewer, including pre-construction inspection per NASSCO MACP, followed up with recommendation for rehabilitation including onsite inspections during preparation and rehabilitation of 13 manholes along the alignment. Mr. White provided on-site inspection while flow from the trunk sewer was bypassed to a parallel 27-inch VCP sewer. Mr. White then assisted the engineering team in condition assessment.

**Coast Highway Pump Station Rehabilitation, City of Encinitas, California.** The project included installation of 1,200 LF of two 4-inch DR 11 HDPE carrier pipes within a single 14-inch DR 11 HDPE casing pipe using horizontal directional drilling construction methods. Work was performed within the environmentally sensitive San Elijo Lagoon Conservancy and within the NCTD ROW. The project also included slip lining of the existing wet well, rehabilitation of electrical systems, and removal of the existing force main on the Coast Highway 101 Bridge. Mr. White served as the onsite QSP for this project. Construction value: \$1.3 million

**Home Plant Lift Station and Force Main Replacement, City of Carlsbad, California.** Mr. White provided inspection services for this project. The purpose of the Home Plant Lift Station (HPLS) and Force Main (FM) Replacement project is to reduce several operation and maintenance issues with the existing system. The existing HPLS is an 800 GPM wet/dry well type lift station with 3 VFD controlled 20 HP pumps (2 duty & 1 standby). The station is fed by an 18-inch influent sewer and pumps into a 10-inch force main which ultimately outlets into the Vista/Carlsbad interceptor sewer. The new HPLS consists of a submersible lift station with a PVC lined wet well, bubbler level control, odor control bed, new emergency generator, emergency storage structure, influent sewer piping and manholes, flow meter and valve/camlock vaults, new controls and electrical panel located in the control building, new site fencing, new and restored landscaping, recycled irrigation, asphalt paving and 1,900 LF of 8-inch HDPE force main.



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## STAFF REPORT

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To: Board of Directors

Meeting Date: July 25, 2022

From: Hannah Ford, Engineering Manager

Subject: Filter Building and Clearwell Demolition Project

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### BACKGROUND

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 the 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 hired Richard Brady and Associates (Brady) to complete a preliminary design report and alternatives analysis in 2019 and develop the final design in 2021.

## BID EVALUATION

The District publicly published the invitation to bid on PlanetBids on Tuesday, June 21. Seven contractors attended the mandatory pre-bid meeting. Following the pre-bid meeting and a subsequent deadline for written questions, the District issued two addenda to the original bid documents. Staff opened five bids on Thursday, July 14, with the breakdown shown in Table 1 and Figure 1.

**Table 1 – Bid Comparison to Engineer's Estimate**

Description	Engineer's Estimate	Legion Contractors, Inc.	Vicon Enterprise	Resource Environ Inc.	T.E. Roberts, Inc.	AD Improv, Inc.
Mobilization and Demobilization	\$66,894	\$44,000	\$44,500	\$30,000	\$23,950	\$45,000
Erosion Control	\$6,875	\$26,000	\$10,000	\$5,000	\$23,950	\$210,000
Removal and Disposal of Hazardous Materials	\$68,750	\$45,000	\$25,530	\$15,000	\$203,198	\$64,564
Miscellaneous Utilities and Yard Piping Work	\$309,375	\$196,000	\$110,000	\$100,000	\$110,145	\$105,200
Existing Filter Plant Demolition	\$815,375	\$438,000	\$644,470	\$374,500	\$1,109,256	\$465,636
Existing Clear Well Demolition	\$137,500	\$132,000	\$55,500	\$160,500	\$114,005	\$326,600
<b>Total</b>	<b>\$1,404,769</b>	<b>\$881,000</b>	<b>\$890,000</b>	<b>\$685,000</b>	<b>\$1,584,504</b>	<b>\$1,217,000</b>
Difference from Engineer's Estimate		(\$523,769)	(\$514,769)	(\$719,769)	\$179,735	(\$187,769)
Subcontractors		<ul style="list-style-type: none"> <li>• 0.5% for hazardous materials</li> </ul>	<ul style="list-style-type: none"> <li>• 35% for demo</li> <li>• 2% for asbestos</li> <li>• 10% for asphalt</li> <li>• 1% for survey</li> <li>• 2.5% for electrical</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• 40% for demo</li> <li>• 3% for asbestos</li> </ul>	<ul style="list-style-type: none"> <li>• 40% for demo</li> </ul>

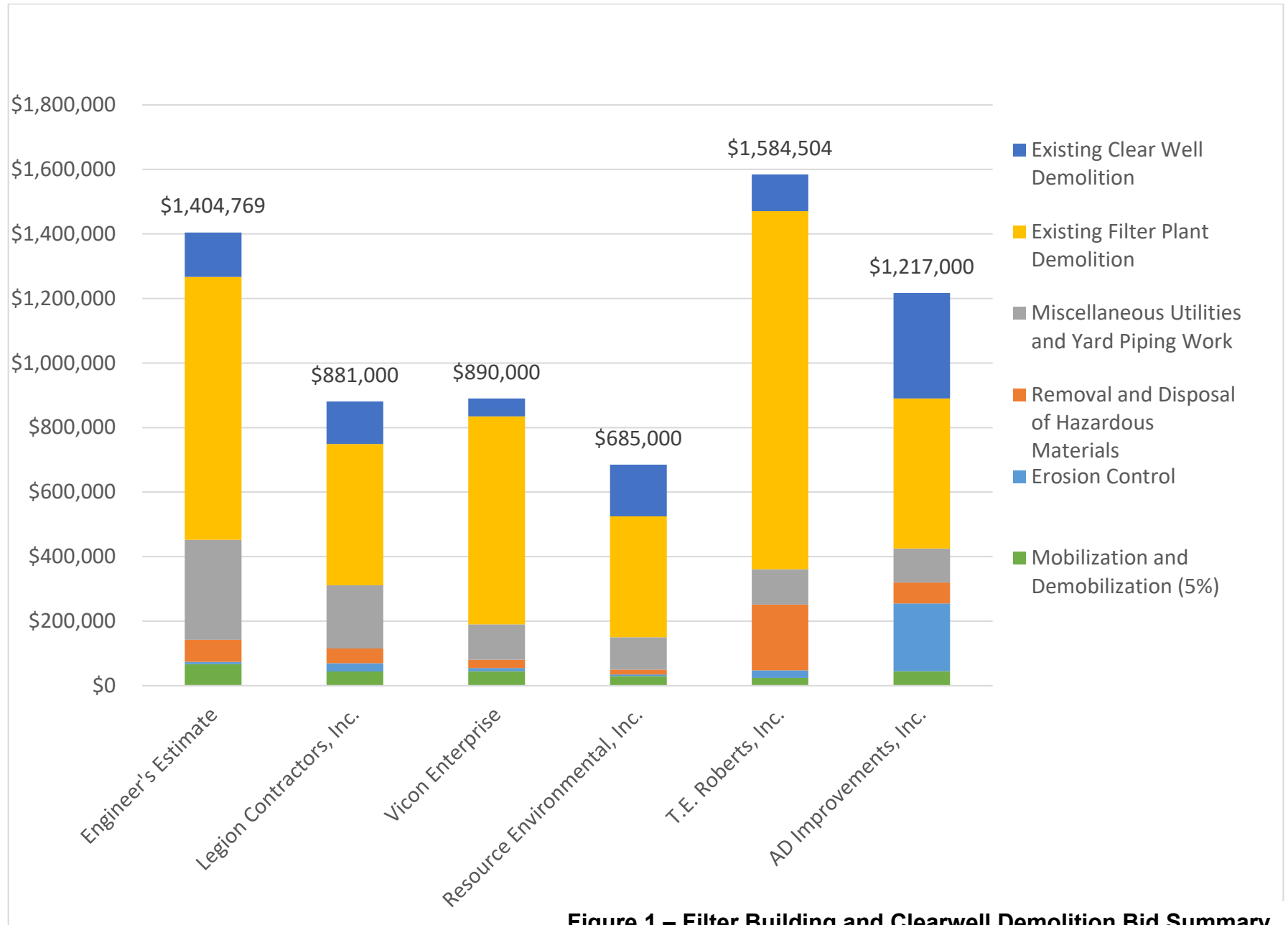


Figure 1 – Filter Building and Clearwell Demolition Bid Summary

The spread between the low and high bids is approximately 131 percent. The low bidder is the only firm that required no subconsultants, which likely explains their ability to reduce costs. The higher bidders had to use subcontractors for demolition.

The apparent low bid was submitted by Resource Environmental, Inc. Staff performed a detailed evaluation of the bids and did not find any errors or other discrepancies. Although the District has never worked with Resource Environmental, Inc., they specialize in demolition, and the District has received positive references from both the design consultant and Orange County Sanitation District, who have worked with the contractor successfully on similar projects.

### **ENGINEERING DURING CONSTRUCTION SERVICES (ESDC) AND INSPECTION**

District staff recommends hiring the designer, Brady, to perform ESDC and its subconsultant, Group Delta, to conduct the geotechnical inspection. Attachment A contains the proposal from Brady, which amounts to \$124,429. Table 2 summarizes tasks, associated hours, and fee. Attachment A contains the scope of work associated with these services

**Table 2 –ESDC and Inspection Tasks and Proposed Fee**

<b>Task</b>	<b>Hours</b>	<b>Fee</b>
Project Management and Meetings	101	\$20,689
ESDC	224	\$48,833
Geotechnical Inspection	-	\$54,907
<b>Total</b>	<b>345</b>	<b>\$124,429</b>

### **BUDGET ANALYSIS**

Table 3 summarizes total project costs. The low bidder for the demolition contract requires less than the original engineer's estimate.

**Table 3 – Summary of Costs**

<b>Organization</b>	<b>Description</b>	<b>Total Cost</b>	<b>ETWD Cost</b>
Brady	Alternatives Analysis	\$123,811.64	\$102,581
ABS	RFP Support	\$14,200	\$7,100
Brady	Design	\$413,779	\$213,928
Dudek	CEQA	\$25,011.01	\$15,007
Resource Environmental, Inc.	Demolition Construction Contract	\$685,000	\$685,000
	Construction Contingency	\$70,000	\$70,000
Brady	ESDC	\$70,000	\$70,000
<b>Total</b>		<b>\$1,401,801</b>	<b>\$1,163,616</b>



The project remains an important and necessary investment to improve the District's daily operations and mitigates the current precarious state of the Filter Building Site. To reduce cost, in house staff will perform the construction management and welded steel inspection. District staff are also developing a revenue bond tracking mechanism to report progress on the revenue bond amount collected for the Filter Building Site Reuse Project compared to actual. Using this tool, staff will monitor expenditures on all revenue bond projects and determine if there will be an overall deficit.

## **CEQA**

District staff prepared and filed a Class 2 and Class 32 Categorical Notice of Exemption with the County because the work only rehabilitates existing facilities without an increase in capacity. State CEQA Guideline Section 15302 provides exemption for replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced. State CEQA Guideline Section 15332 provides exemption for in-fill development. This Project is consistent with the applicable general plan designation and policies as well as zoning designation requires as part of the Class 32 exemption. The District hired Dudek to develop supporting technical studies, conduct tribal consultation, and documentation for this Notice of Exemption. After filing, the 30-day public comment period expired with no comments.

## **RECOMMENDATION**

### **Recommended Action:**

Staff recommends that the Board of Directors authorize the General Manager to 1) enter into a contract with Resource Environmental, Inc. in the amount of \$685,000 for the construction of the Filter Building and Clearwell Demolition Project and 2) enter into a contract with Richard Brady and Associates, Inc. in the amount of \$124,429 for Engineering Services during Construction. Staff further recommends that the Board authorize the General Manager to fund the project costs from District's Bond Covenant Reserves in accordance with the District's adopted Cash Reserve Policy.





# El Toro Water District

*"A District of Distinction"*

Serving the Public – Respecting the Environment

## Board of Directors

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President

Kay Havens  
Vice President

Mike Gaskins  
Director

Mark L. Monin  
Director

Jose F. Vergara  
Director

## General Manager

Dennis P. Cafferty

Consulting Contract # 119

Task Order # 2

Work Order 37-112

## TASK ORDER NO. 2

### FILTER PLANT SITE USE PLAN

This Task Order is issued by EL TORO WATER DISTRICT ("DISTRICT") and accepted by Richard Brady & Associates, Inc. ("CONSULTANT") pursuant to the mutual promises, covenants and conditions contained in the Consulting Agreement between the above-named parties dated the \_\_\_\_\_ day of \_\_\_\_\_, 2022 in connection with the Filter Plant Site Use Project. The terms and conditions of said Consulting Agreement are incorporated herein by reference.

### **1.0 BACKGROUND.**

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. The Filter Plant has experienced significant deterioration and decay over the past few decades.

The Municipal Water District of Orange County (MWD OC) 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 main objective of Task Order 2 is to provide Engineering Services during the demolition contract to interpret the bid documents developed by the CONSULTANT to demolish the existing Filter Plant and clear well. The DISTRICT will perform the duties of the Construction Manager for the contract.

### **2.0 PURPOSE.**

The purpose of this Task Order 2 is to establish scope, time and payment provisions for Engineering Services During Construction of the demolition of the abandoned filter plant building and the abandoned clear well as detailed in the following Scope of Services.

### **3.0 SCOPE OF SERVICES.**

#### **Task 1 Project Management and Meetings**

The Scope of Work includes attendance at meetings, review of submittals, RFI's, and clarification during the performance of the demolition contract. Site visits by the CONSULTANT and the Geotechnical Engineer shall be conducted under Task 2 and 3, respectively, to assist in addressing field issues.

##### **A. Project Meetings**

##### **1. Pre-construction Meeting**

DISTRICT shall arrange and conduct a pre-construction meeting with the CONSULTANT and Contractor at the start of the project. The purpose will be to introduce project participants, establish lines of communications, review the accepted scope of the contract and discuss all other related information pertaining to the contract.

##### **2. Monthly Progress Meetings**

DISTRICT will conduct periodic coordination and consultation design meetings with CONSULTANT and Contractor during the course of the project on a monthly basis. DISTRICT 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 has budgeted the following for the full duration of the construction contract schedule:

- a. 3 in-person meetings.
- b. 3 video-conference calls meetings.

##### **3. Prepare Invoices**

The CONSULTANT shall prepare monthly invoices and submit to DISTRICT.

#### **Task 1 Assumptions**

- 1) Up to 6 monthly meetings during the demolition phase, as needed

#### **Task 1 Deliverables**

- 1) Participation in meetings
- 2) Monthly Invoices

## **Task 2          Engineering Services During Construction for Demolition Contract**

### **A. Prepare Conformed Drawings**

The CONSULTANT shall prepare a conformed set of drawings and specifications for use during the demolition construction contract. The conformed plans and specifications will include the changes made during the bid periods including all addenda.

### **B. Site Visits**

CONSULTANT shall visit the site up to three times during the demolition contract to attend meetings and assist in addressing field issues.

### **C. Geotechnical Services**

### **D. Submittals / RFI's / Requests for Clarification**

The CONSULTANT shall review and respond to:

- 20 Contractor submittals (including resubmittals)
- 20 requests for information/clarification
- 2 change order requests

### **E. Final Inspection / Contract Punch List**

The CONSULTANT shall participate in the final inspection and preparation of a punch list.

### **F. Record Drawings**

The CONSULTANT shall meet with DISTRICT and prepare record drawings based upon information supplied by the Contractor.

### **Task 2 Assumptions**

- 1) All deliverables will be electronic, distributed to the DISTRICT designated Project Manager.
- 2) Fee is based upon providing up to:
  - 20 Contractor submittals (including resubmittals)
  - 20 requests for information
  - 2 contract change order requests

### **Task 2 Deliverables**

- 1) Conformed drawings and specifications (electronic file, PDF)
- 2) Pre-construction documentation (electronic file, PDF)

- 3) RFI's and RFC (electronic file, PDF)
- 4) Submittal responses (electronic file, PDF)
- 5) Record drawings (electronic file, PDF, and AutoCAD)

### **Task 3            Geotechnical Inspection Services**

The CONSULTANT shall retain Group Delta for the purpose of the geotechnical field services to provide sufficient testing and observation to develop professional opinions as to whether or not the geotechnical aspects of demolition and earthwork construction are conducted in general accordance with the geotechnical requirements of the City of Mission Viejo, the geotechnical recommendations provided in the referenced report (Group Delta, 2022) and the demolition contract. Group Delta field personnel shall be on-site full time during remedial grading, backfill placement within the abandoned structures to be buried, and compaction of subgrade soils for the future building construction.

The scope of geotechnical testing and observation services is as follows:

- Test and observe remedial grading, fill and backfill placement, and the compaction of subgrade.
- Perform laboratory tests on samples of the soil and pavement materials in order to support geotechnical conclusions. Laboratory testing may include: Maximum Density, Expansion Index, Sieve Analysis and Atterberg limits on soils. Laboratory testing shall also be performed on samples of proposed import soils to confirm they meet the requirements specified in the project geotechnical report (Group Delta, 2022).
- Field personnel shall prepare daily field reports summarizing the day's activity with regard to earthwork construction. These daily reports shall also serve to document the time spent in the field by our personnel.
- Provide recommendations during earthwork construction when requested, respond to RFI's, and submit field reports to the project management team. The geotechnical project manager shall attend project team meetings when requested, coordinate with field personnel, and review billing. Provide an As-Graded Geotechnical Report summarizing the geotechnical services provided for this project upon completion, including type and location of backfill to support the design and construction of the future buildings.

#### **4.0    TIME OF PERFORMANCE.**

The CONSULTANT shall commence work immediately following authorization to proceed. The CONSULTANT has reviewed the project with DISTRICT and agrees to work with DISTRICT during the performance of the demolition contract period. Record drawings shall be prepared and submitted for DISTRICT review within 30 calendar days following receipt from the Contractor.

The CONSULTANT and DISTRICT mutually agree that they will work toward meeting the schedule. Should the Scope of Work be changed and/or should problems arise during the course of the work effort that could affect the schedule, it is understood that the CONSULTANT will develop a revised schedule, if required, to address scope changes or problems subject to the provisions of the Consulting Agreement.

This Task Order may be terminated by either party at any time upon thirty (30) days prior written notice to the other party. The date for termination of this Task Order shall be in accordance with, and shall not be sooner than, nor later than, the date for expiration or termination of the term of the Consulting Agreement.

## **5.0 PAYMENT.**

The estimated hours and budget to provide the Scope of Services herein defined is presented in Exhibit "A". A budget estimate of \$124,429 is hereby established for the CONSULTANT's services unless amended by scope of services or schedule changes agreed to in writing by both DISTRICT and CONSULTANT. In no event shall the payment for services under this Task Order, as billed pursuant to the CONSULTANT's Fee Schedule, exceed the amount of \$124,429.

## **6.0 PROJECT TEAM.**

CONSULTANT Team: The key members of the CONSULTANT Team are as follows:

Robert J. (Jud) Warren, PE, BCEE – Project Manager  
Debbie De Bow, PE – Project Engineer  
Garrett Murawsky, PE – Project Engineer  
Karl Kuebitz, PE – Structural Engineer  
Christopher Dull, PE – Principal In Charge  
Richard Brady, PE, BCEE – QA/QC  
Kristen Chang, PE – Geotechnical  
George Murdoch – Operations

If any of these individuals becomes unavailable to act in these capacities, the CONSULTANT may designate other individuals who shall be the replacement upon the written approval of the DISTRICT. In the event that these designated individuals are no longer capable of performing the services required, as determined in DISTRICT's discretion, and/or DISTRICT does not approve of the individual designated by the CONSULTANT to replace the then designated Project Manager, DISTRICT may, in its discretion, terminate this Agreement.

**EFFECTIVE DATE.**

This Task Order No. 2 is effective as of the \_\_\_\_\_ day of \_\_\_\_\_, 2022.

IN WITNESS WHEREOF, duly authorized representatives of the District and CONSULTANT have executed this Task Order No. 2, evidencing its issuance by District and acceptance by CONSULTANT.

**EL TORO WATER DISTRICT**

**RICHARD BRADY & ASSOCIATES, INC.**

By \_\_\_\_\_  
DENNIS P. CAFFERTY  
General Manager

By \_\_\_\_\_  
RICHARD BRADY  
Chief Executive Officer

EXHIBIT A  
Fee Summary

**RICHARD BRADY & ASSOCIATES**  
**Cost Proposal for El Toro Water District**

RFP Number: NA

Program Manager: Jud Warren

Project Title: Filter Plant ESDC - Task Order No. 2

Start Date: 9/1/2022

Proposal Date: 7/13/2022

End Date: 1/31/2023

Labor Category	Code	Labor Rate	Labor Hours	Cost
Senior Program Manager / Senior Principal	P7	\$ 315.00	64.0	\$20,160
Managing Engineer / Principal Engineer I	P5	\$ 233.00	9.0	\$2,097
Project Engineer	P3	\$ 175.00	231.0	\$40,425
Admin Assistant, Project Coordinator	A2	\$ 98.00	21.0	\$2,058
Senior Field Engineer	CM3	\$ 196.00	20.0	\$3,920
<b>Total Labor Cost</b>			<b>345.0</b>	<b>\$68,660</b>
<b>Estimated Travel Costs</b>				
Travel				\$863
<b>Total Travel Cost</b>				<b>\$863</b>
<b>Estimated ODCs (Subcontractors, Materials, Supplies, Reproduction, etc.)</b>				
[Enter Material, Supply or Subcontracted Service]	Group Delta			\$48,871
	<b>Subtotal ODCs</b>			<b>\$48,871</b>
	<b>G&amp;A on ODCs (excl Travel)</b>	<b>7.00%</b>		<b>\$3,421</b>
	<b>Total ODC Costs</b>			<b>\$52,292</b>
	<b>Profit on ODCs (excl Travel)</b>	<b>5.00%</b>		<b>\$2,615</b>
<b>Total ODC Cost</b>				<b>\$54,907</b>
<b>Total Estimated Project Cost</b>				<b>\$124,429</b>

EXHIBIT A  
WORK ELEMENT SUMMARY

*Fee Summary*

LABOR HOURS			LABOR HOURS BY WORK ELEMENT			TOTAL
			1	2	3	
Labor Category	Code	Bill Rate	Task 1 - Project Management and Meetings	Task 2 - Engineering Services During Construction for Demolition Contract	Task 3 - Geotechnical Inspection Services	
Senior Program Manager / Senior Principal	P7	\$ 315.00	30.0	34.0	-	64.0
Managing Engineer / Principal Engineer I	P5	\$ 233.00	-	9.0	-	9.0
Project Engineer	P3	\$ 175.00	50.0	181.0	-	231.0
Admin Assistant, Project Coordinator	A2	\$ 98.00	21.0	-	-	21.0
Senior Field Engineer	CM3	\$ 196.00	-	20.0	-	20.0
			101.0	244.0	-	345.0
Total Labor Costs			\$ 20,258	\$ 48,402	\$ -	\$ 68,660

ODCs & Travel	Vendor/Subk	ODCS/TRAVEL BY WORK ELEMENT			TOTAL
Travel		\$ 431	\$ 431	\$ -	\$ 863
Total Travel Cost		\$ 431	\$ 431	\$ -	\$ 863
[Enter Material, Supply or Subcontracted Service] Group D		\$ -	\$ -	\$ 48,871	\$ 48,871
Subtotal ODCs		\$ -	\$ -	\$ 48,871	\$ 48,871
G&A on ODCs (excl Travel)	7.00%	\$ -	\$ -	\$ 3,421	\$ 3,421
Total ODC Costs		\$ -	\$ -	\$ 52,292	\$ 52,292
Profit on ODCs (excl Travel)	5.00%	\$ -	\$ -	\$ 2,615	\$ 2,615
Total ODCs		\$ -	\$ -	\$ 54,907	\$ 54,907
Total ODCS & Travel		\$ 431	\$ 431	\$ 54,907	\$ 55,769
Total Cost		\$ 20,689	\$ 48,833	\$ 54,907	\$ 124,429



EXHIBIT A  
WORK ELEMENT DETAIL SUMMARY

Fee Summary

LABOR HOURS	LABOR HOURS BY WBS								
	1.01	2.01	2.02	2.03	2.04	2.05	2.06	3.01	
Labor Category	Project Meetings	Prepare Conformed Drawings	Site Visits	Geotechnical Services	Submittals / RFI's / Request for Clarification	Final Inspection / Contract Punch List	Record Drawings	Geotechnical Inspection Services	TOTAL
Senior Program Manager / Senior Principal	30.0	-	-	-	30.0	-	4.0	-	64.0
Managing Engineer / Principal Engineer I	-	-	9.0	-	-	-	-	-	9.0
Project Engineer	50.0	8.0	9.0	-	136.0	4.0	24.0	-	231.0
Admin Assistant, Project Coordinator	21.0	-	-	-	-	-	-	-	21.0
Senior Field Engineer	-	-	-	-	16.0	4.0	-	-	20.0
	101.0	8.0	18.0	-	182.0	8.0	28.0	-	345.0
	\$ 20,258	\$ 1,400	\$ 3,672	\$ -	\$ 36,386	\$ 1,484	\$ 5,460	\$ -	\$ 68,660

ODCs & Travel	ODCS/TRAVEL BY WBS								TOTAL
Travel	\$ 431	\$ -	\$ 259	\$ -	\$ -	\$ 173	\$ -	\$ -	\$ 863
Total Travel Cost	\$ 431	\$ -	\$ 259	\$ -	\$ -	\$ 173	\$ -	\$ -	\$ 863
[Enter Material, Supply or Subcontracted Service]	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,871	\$ 48,871
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,871	\$ 48,871
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,421	\$ 3,421
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 52,292	\$ 52,292
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,615	\$ 2,615
Total ODCs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 54,907	\$ 54,907
	\$ 431	\$ -	\$ 259	\$ -	\$ -	\$ 173	\$ -	\$ 54,907	\$ 55,769
	\$ 20,689	\$ 1,400	\$ 3,931	\$ -	\$ 36,386	\$ 1,657	\$ 5,460	\$ 54,907	\$ 124,429



## **STAFF REPORT**

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**To: Board of Directors**

**Meeting Date: July 25, 2022**

**From: Hannah Ford, Engineering Manager**

**Subject: Joint Transmission Main (JTM) Pump Station Project  
Motor Control Center Package Pre-Purchase Contract**

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### **BACKGROUND**

As described in the January 2022 Special Board Meeting, the District is planning to construct a 2 cubic feet per second (cfs) pump station to lift the hydraulic grade line (HGL) in the JTM to the District's Gravity Zone. Expediting construction of the JTM Pump Station is necessary to allow the District to experience enhanced water supply reliability when the R-6 Reservoir is out of service from October 2022 to July 2023.

Due to market conditions, material shortages have been extending lead times and delaying construction schedules. In April, the District pre-purchased the motor and pump for the JTM Pump Station. District staff learned that lead times for the Motor Control Center (MCC) required for this project would delay construction, likely beyond the R-6 Reservoir outage. To avoid delays, staff will provide the contractor with spare parts that are currently available in the District's inventory. The contractor will install the spare parts and complete the work (February 2022 anticipated). Afterward, District staff will replace the spares with a new MCC, purchased as part of this proposed pre-purchase package.

### **PRE-PURCHASE PACKAGE**

District staff solicited proposals from three vendors, as summarized in Table 1. Attachment A contains all three proposals. The main difference between the two lowest cost vendors is the MCC manufacturer: Allen-Bradley or Siemens. All of the District's existing MCCs are Allen-Bradley. Staff stocks spare Allen-Bradley parts and maintains knowledge and training on this system. Although the Siemens option appears less expensive, its total cost would be higher because it would require purchasing approximately \$18,000 of spare parts and spending \$1,000 on commissioning (which District staff can self-perform on Allen-Bradley equipment).

**Table 1 – MCC Prepurchase Package Comparison**

<b>Vendor</b>	<b>Manufacturer</b>	<b>Cost</b>	<b>Lead Time</b>	<b>Anticipated Delivery</b>
One Source	Allen-Bradley	\$95,762	6-10 weeks submittals 28-35 weeks construction	3/20/2023 – 6/5/2023
Western Switches and Controls	Siemens	\$72,510 <sup>1</sup>	6-7 weeks submittals 15.7 weeks construction	12/24/2022 – 12/31/2022
Trimax	Allen-Bradley	\$138,300	12-14 weeks submittals 30-35 weeks delivery	5/15/2023 – 7/3/2023

<sup>1</sup>Actual cost including spare parts and commissioning would be \$91,510.

The expedited delivery from Western Switches and Controls/Siemens is less of an advantage considering that spares will already be installed and its delivery timeframe would still be too late to avoid the need to install spares without construction delays. Because the ultimate cost to install Siemens equipment is similar to the Allen-Bradley proposal from One Source, District staff recommend purchasing the Allen-Bradley MCC from One Source to alleviate the need to train on new equipment.

## **RECOMMENDATION**

### **Recommended Action:**

Staff recommends that the Board of Directors authorize the General Manager to issue a purchase order contract to One Source in the amount of \$95,762 for the purchase of a MCC to meet the design requirements of the JTM Pump Station Project. Staff further recommends that the Board authorize the General Manager to fund the project costs from District's Bond Covenant Reserves in accordance with the District's adopted Cash Reserve Policy.



**Date:** 6-18-2022

**To:** El Toro Water District

**Project:** JTM

Thank you for the opportunity to provide our Rockwell Automation /Allen-Bradley Low Voltage Motor Control Center Proposal. We welcome a chance to discuss it with you in greater detail.

**Lead-time**

Submittals 6-10 weeks

Construction 28 – 35 Weeks

Total Cost \$88,874.00

The above cost includes Freight.

The above cost does NOT include tax.

This Proposal is valid for 30 days.

No other services provided beyond what is specifically called out in this proposal.

No Seismic Study or calcs included in this proposal.

OneSource Distributors Terms & Conditions are a part of this proposal and can be found at: <https://www.1sourcedist.com/about/terms>



**CENTERLINE® Motor Control Centers  
IntelliCENTER® | ArcShield™**





**By:**

*Sales Representative*

*Phone:*

*Email:*

*Travis Tiner*

*310 963 5808*

*ttiner@1sourcedist.com*

# Rockwell Automation

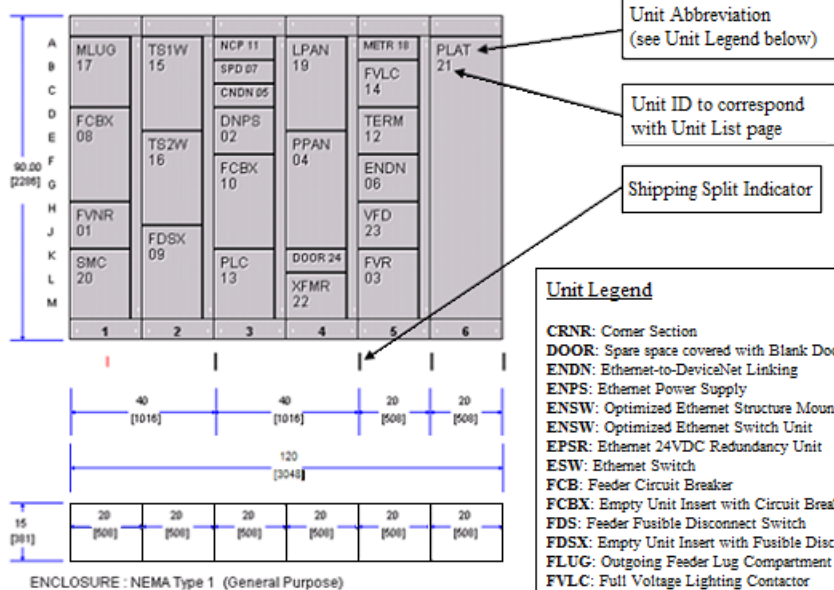
## Centerline 2100 Motor Control Center

### Front Elevation **Explanation**

Project Name: JTM El Toro Water  
 Project Item:  
 Project ID #: 5287987/2 \_REV 03

Salesperson: Felipe Rodarte  
 Created By: Felipe Rodarte  
 Date/Time: 06/16/22 - 14:18

#### Understanding Rockwell Automation Layouts



#### Unit Legend

CRNR: Corner Section  
 DOOR: Spare space covered with Blank Door  
 ENDN: Ethernet-to-DeviceNet Linking  
 ENPS: Ethernet Power Supply  
 ENSW: Optimized Ethernet Structure Mounted Switch  
 ENSW: Optimized Ethernet Switch Unit  
 EPSR: Ethernet 24VDC Redundancy Unit  
 ESW: Ethernet Switch  
 FCB: Feeder Circuit Breaker  
 FCBX: Empty Unit Insert with Circuit Breaker  
 FDS: Feeder Fusible Disconnect Switch  
 FDSX: Empty Unit Insert with Fusible Disconnect  
 FLUG: Outgoing Feeder Lug Compartment  
 FVLC: Full Voltage Lighting Contactor  
 FVNR: Full Voltage Non-Reversing Starter  
 FVR: Full Voltage Reversing Starter  
 INSR: Empty Unit Insert  
 LPAN: Frame-Mounted Lighting Panel  
 MCB: Main Circuit Breaker  
 METR: Metering Compartment  
 MFDS: Main Fusible Disconnect Switch  
 MLUG: Incoming Main Lug Compartment  
 NCP: Neutral Connection Plate  
 PLAT: Full Section Blank Mounting Plate  
 PLC: Programmable I/O Chassis  
 PPAN: Power Panel  
 SMC: Soft Starter Motor Controller  
 SPD: Surge Protective Device  
 TERM: NEMA Type "C" Terminal Board  
 TS1W: Two-Speed 1-Winding Starter  
 TS2W: Two-Speed 2-Winding Starter  
 VFD: Variable Frequency Drive  
 XFMR: Control & Lighting Transformer

#### Section Code Legend

6 = 600A vertical bus in section  
 8 = PowerFlex 755 Floor Mounted Drive Section  
 9 = 9" wireway section  
 C = Corner section  
 H = Horizontal neutral bus  
 I = Incoming line section  
 NB = Neutral connection plate in bottom of section  
 NT = Neutral connection plate in top of section  
 P = Pull box mounted on top of section  
 S = Ethernet switch  
 T = 5" PowerFlex 755 Floor Mounted Drive Transition Section  
 V = 9" wireway has vertical neutral bus

Space Factor (SF) is 13.0" (330mm) of vertical height

**Rockwell Automation**  
**Centerline 2100 Motor Control Center**  
**Unit List**

Project Name: JTM El Toro Water  
Project Item: JTM El Toro Water  
Project ID #: 5287987/2\_REV 03

Salesperson: Felipe Rodarte  
Created By: Felipe Rodarte  
Date/Time: 06/16/22 - 14:18

ID	QTY	Catalog Number / Unit Description
1	1	2193MT-AKB-41TGM-112A-201 / Main Circuit Breaker - 125A Frame Rating - Top Mounted with 125A Trip
2	1	2193MB-AKB-41TGM-112A-201 / Main Circuit Breaker - 125A Frame Rating - Bottom Mounted with 125A Trip
3	1	2163UB-065HKB-3F-5LRR-5TLR-14DA2R1-14DFLPJ-14GER-14HBA6-14RLX-46TGM-79U-112A-751HS / PowerFlex 753 AC Drive w/CB - 40 HP with Circuit Breaker Thermal Magnetic (125A Trip)
4	1	2197-QKBH-31TGM-79U-112A / Control & Lighting Transformer w/CB - 15.0 kVA with Circuit Breaker Thermal Magnetic (20A Trip)
5	1	2100-NK35-79U-112A / Empty Unit Insert - 3.5 Space Factor
6	1	2100-BK05-112A / Blank Unit Door - 0.5 Space Factor
7	1	2193LE-AKB327-40WT-00A07-31A20-111-112A / Lighting Panel Unit with Main Circuit Breaker - 100A - 27 Total Circuits
8	1	2100-EKC2X2D-112A / Full Sect Blank Mtg Plate w/ or w/o Disc with Fuse Clip Class



# Rockwell Automation

## Centerline 2100 Motor Control Center

### MCC Details

Project Name: JTM El Toro Water  
Project Item: JTM El Toro Water  
Project ID #: 5287987/2\_REV 03

Salesperson: Felipe Rodarte  
Created By: Felipe Rodarte  
Date/Time: 06/16/22 - 14:19

The details of the proposed motor control center are as follows:

Category	Description
Total Section(s)	4
Total Shipping Block(s)	4
Section Depth	Front Mounted, 20" Deep
Section Height	90" High
Enclosure	3R.
Finish	Mild Steel Powder Coat White
Designed For Use With	Power System Type: Wye, 3-phase, 3-wire with solidly grounded neutral
Arc Resistant MCC	Yes, ArcShield Arc Resistant MCC
MCC Connection Type	Main Circuit Breaker
Incoming Cable Entry	Top, Section 1
Incoming Cable Entry	Top, Section 2
Main Bus Rating	600A
Main Bus Material	Copper / Tin Plated
Main Bus Bracing	65kA (rms symmetrical)
Horizontal Ground Bus	1/4" X 1", Bottom, Unplated Copper
Vertical Ground Bus	Plug-in Copper
Stab Opening Protection	Automatic Shutters
Master Nameplate	Yes

# Rockwell Automation

## Centerline 2100 Motor Control Center

### Basic Structure Information

Project Name: JTM El Toro Water  
Project Item: JTM El Toro Water  
Project ID #: 5287987/2\_REV 03

Salesperson: Felipe Rodarte  
Created By: Felipe Rodarte  
Date/Time: 06/16/22 - 14:19

### Motor Control Center Details

This MCC(s) was developed using an available fault current of 50,001 to 65,000 A.  
MCC configuration & pricing subject to change, if actual Available Fault Current differs.

### Motor Control Center Details

**Power System Type:** Wye, 3-phase, 3-wire with solidly grounded neutral  
**Voltage:** 480 Volts / 60 Hertz  
**Available Fault Current:** 50,001 to 65,000 A  
**Master Nameplate:** 4 Line(s)  
**Unit Nameplate Type:** Phenolic - White letters on black  
**Wiring Type:** B-T Control and Power Terminal Blocks  
**Wiring Diagram Location:** Central location  
**Arc Resistant MCC:** Yes  
**Device Limited:** Motor Control Center short circuit protection provided by Rockwell Automation.  
**IntelliCENTER Network:** None

### Incoming Line Details

**MCC Connection Type:** Main Circuit Breaker  
**Incoming Line Cable Entry:** Top Mounted

### Bus Details

**Main Bus Rating:** 600A  
**Main Bus Material:** Copper / Tin Plated  
**Main Bus Bracing:** 65kA (rms symmetrical)  
**Insulated Bus:** None Selected

**Horizontal Ground Bus Size:** 1/4" X 1"

**Horizontal Ground Bus Plating:** Unplated Copper  
**Horizontal Ground Bus Location:** Bottom  
**Vertical Ground Bus Type:** Plug-in Copper  
**Incoming Ground Lug Size:** #6 AWG - 250 kcmil (2 Supplied as Standard)  
**Incoming Ground Cable Size:** None Selected

### Enclosure Details

**Enclosure Type:** 1G - with Gasketed Doors. Bottom Plates I  
**Section Depth:** Front Mounted, 20" Deep  
**Section Height:** 90" High

**Provided in integral NEMA 3R Enclosure**

**Approximate Overall Dimensions:** 91.00W x 43.50D x 105.00H

**Stab Opening Protection:** Automatic Shutters  
**Isolation Barriers:** Yes  
**Wireway Tie Bar:** Yes

**Total Shipping Block(s):** 4  
**Total Section(s):** 4  
**Total Unit(s):** 8

### Section Modifications (Qty/Mods)

Section Number	Section Width (inches)	Options/Modifications
1	20"	N/A
2	20"	N/A
3	20"	N/A
4	25"	N/A
NEMA 3R Wrap	Adds approx. 3" on each end (6" total)	Light Fixture, Sw & Receptacle
Air Conditioner	Adds approx.. 15"	

# Rockwell Automation

## Centerline 2100 Motor Control Center

### Unit Description

Project Name: JTM El Toro Water  
Project Item: JTM El Toro Water  
Project ID #: 5287987/2\_REV 03

Salesperson: Felipe Rodarte  
Created By: Felipe Rodarte  
Date/Time: 06/16/22 - 14:19

### General Information

Line Voltage / Frequency: 480 Volts / 60 Hertz  
Power System Configuration: Wye, 3-phase, 3-wire with solidly grounded neutral  
Class I Wiring Type: B-T Control and Power Terminal Blocks  
NEMA Enclosure Type: 1G - with Gasketed Doors. Bottom Plates Included  
Available Fault Current: 50,001 to 65,000 A  
Unit Nameplate Type: Phenolic - White letters on black  
Delivery Program: ENG

### Unit Information

Description	Unit Features
-------------	---------------

<p><b>Unit Loc: 01A</b>      <b>Del Prog: ENG</b>  <b>Unit ID: 3</b>  VFD - PowerFlex 753 AC Drive w/CB</p> <p><u><b>Rating</b></u>  40 HP  (Heavy Duty)</p>	<p><b>Catalog Number: 2163UB-065HKB-3F-5LRR-5TLR-14DA2R1-14DFLPJ-14GER-14HBA6-14RLX-46TGM-79U-112A-751HS</b>  Total Space Factor = 4  Wiring: NEMA Type B wiring  Output Current Rating: 52A  Circuit Breaker: Thermal Magnetic, 100kA at 480V (G6C Frame) (125A Trip)  Human Interface Module: LCD full numeric keypad - Door Mounted  Control: Transformer with Secondary Fuse, Standard Capacity, Primary Fusing, 120V/60Hz  Control Wiring: #16 AWG MTW(TEW) Cu</p> <p><u><b>Features Included</b></u>  Selector Switch: HAND-OFF-AUTO (-3F)  Pilot Light(s): RUN-AT SPEED Type: LED Push To Test, Color(s): Red, Red (-5LRR)  Pilot Light(s): FAULT Type: LED Push To Test, Color(s): Red (-5TLR)  Drive 120VAC w/ I/O (-14DA2R1)  Drive I/P fuses - Bussmann (-14DFLPJ)  Dualport Ethernet (for VFD) (-14GER)  Drive Line Reactor (-14RLX)  Unit Grd Stab Unplated Cu (-79U)  Arc Resistant Unit Design (-112A)  Heat Shrink Type Markers (-751HS)</p> <p><u><b>Engineered Spec(s)/Modification(s)</b></u>  (1) Engineered Modification and/or Custom Diagram  (1) 3% 55 amp reactor (40 HP),1321-3R55-B  (60) NEMA/EEMAC Open Construction Terminal Blocks,1492-CA1,2,3?  (1) Door mounted Speed Pot  (7) Bulletin 700-HA Tube Base Relay, DPDT, 2-pole, 2 Form C, Single AgNi Contact,700-HA32?  (1) Hobbs Elapsed Time Meter, 2.08"w x 1.02"h, 6 digit, 99999.9, non-reset (Option - 85T),20001U-17  (3) Rockwell Automation Bulletin 700-HR Dial Timing Relay, DPDT, 2 Form C, Multi-range, On-delay, Off-delay, One-shot, Repeat Cycle,700-HR52T?  (1) FLYGT, Model MiniCAS II, Supervision Relay, Socket Included  (1) Bulletin 800T/H, Contact block, addition to standard number of contacts,800T-XA  (1) Bulletin 800H, Push Button, Flush or Extended Head, Momentary Contact, Non-Illuminated (Standard Start or Stop Push Button),800H-*R*D*  (1) Bulletin 800H, Pilot Light, Push-to-Test, Transformer Type, LED,800H-PRTH16?  (8) 750 watt extra capacity to Standard Control Transformer Fusing/Fuse Block Included</p>
<p><b>Unit Loc: 01J</b>      <b>Del Prog: FT2</b>  <b>Unit ID: 2</b>  MCB - Main Circuit Breaker</p> <p><u><b>Rating</b></u>  125A</p> <p>Kirk-Key w/ Gen Breaker</p>	<p><b>Catalog Number: 2193MB-AKB-41TGM-112A-201</b>  Total Space Factor = 2  Circuit Breaker: Thermal Magnetic, 65kA at 480V (125) with Frame Rating of 125A (G6C Frame), Bottom Mounted, 125A Trip  Lugs Supplied: Std Mech/Lug Pads, 1/0 AWG Size Wire, 1 Cables per Phase</p> <p><u><b>Features Included</b></u>  Arc Resistant Unit Design (-112A)  Provision For Key Interlock (-201)</p> <p><u><b>Engineered Spec(s)/Modification(s)</b></u>  (1) Engineered Modification and/or Custom Diagram  (1) Key Interlock - Frame G-N or Fusible Disconnect (-201 option not included) , Superior key interlock #S105810Y, Type B-4003-1 (bolt flush when withdrawn) or Kirk key interlock #KFL000010  (1) 0.5 Space Factor Adder  (1) Warning - Key Interlock not included. Use CMOD 2321 (G-N Frame, or fusible disconnect) or 2805 (R Frame), if required.</p>

<p><b>Unit Loc: 02A</b>      <b>Del Prog: FT2</b>  <b>Unit ID: 1</b>  MCB - Main Circuit Breaker</p> <p><u><b>Rating</b></u>  125A</p> <p><u><b>Wiring Diagram</b></u>  10003867657</p> <p>Kirk Key w/ Main Breaker</p>	<p><b>Catalog Number: 2193MT-AKB-41TGM-112A-201</b>  Total Space Factor = 2.5  Circuit Breaker: Thermal Magnetic, 65kA at 480V (125) with Frame Rating of 125A (G6C Frame), Top Mounted, 125A Trip  Lugs Supplied: Std Mech/Lug Pads, 1/0 AWG Size Wire, 1 Cables per Phase</p> <p><u><b>Features Included</b></u>  Arc Resistant Unit Design (-112A)  Provision For Key Interlock (-201)</p> <p><u><b>Engineered Spec(s)/Modification(s)</b></u>  (1) Engineered Modification and/or Custom Diagram  (1) Key Interlock - Frame G-N or Fusible Disconnect (-201 option not included) , Superior key interlock #S105810Y, Type B-4003-1 (bolt flush when withdrawn) or Kirk key interlock #KFL000010  (1) 1.0 Space Factor Adder  (1) Warning - Key Interlock not included. Use CMOD 2321 (G-N Frame, or fusible disconnect) or 2805 (R Frame), if required.</p>
<p><b>Unit Loc: 02F</b>      <b>Del Prog: PEII</b>  <b>Unit ID: 5</b>  INSR - Empty Unit Insert</p> <p>Empty Space for Cam Locks, and mechanically interlocked with 02A Generator Breaker.</p> <p>Cam Lock Receptacles and Installation provided by others.</p>	<p><b>Catalog Number: 2100-NK35-79U-112A</b>  Total Space Factor = 3.5  Without disconnecting means.  Disconnect Type = No Disconnect Means</p> <p><u><b>Features Included</b></u>  Unit Grd Stab Unplated Cu (-79U)  Arc Resistant Unit Design (-112A)</p> <p><u><b>Engineered Spec(s)/Modification(s)</b></u>  Mechanical Interlock with 02A Generator Breaker</p> <p>Mtg Plate with brackets.</p>
<p><b>Unit Loc: 03A</b>      <b>Del Prog: PEII</b>  <b>Unit ID: 6</b>  DOOR - Blank Unit Door</p>	<p><b>Catalog Number: 2100-BK05-112A</b>  Total Space Factor = 0.5</p> <p><u><b>Features Included</b></u>  Arc Resistant Unit Design (-112A)</p>
<p><b>Unit Loc: 03B</b>      <b>Del Prog: FT1</b>  <b>Unit ID: 7</b>  LPAN - Lighting Panel Unit</p> <p><u><b>Wiring Diagram</b></u>  10004859326</p>	<p><b>Catalog Number: 2193LE-AKB327-40WT-00A07-31A20-111-112A</b>  Total Space Factor = 2.5  Panel Type &amp; Rating: Three Phase, 4-Wire, 120/208V, 100A, 27 total circuits  Bolt-On Branch Breakers: None</p> <p><u><b>Features Included</b></u>  7 filler plates (-00A07)  (20) 20A 1-P CB (-31A20)  Arc Resistant Unit Design (-112A)</p> <p><u><b>Engineered Spec(s)/Modification(s)</b></u>  (5) Power Interwiring - 150A, Max Wire Size: #1 AWG (Max 1 per phase)  (1) Engineered Modification and/or Custom Diagram</p>

<p><b>Unit Loc: 03G</b>      <b>Del Prog: ENG</b>  <b>Unit ID: 4</b>  XFMR - Control &amp; Lighting Transformer  w/CB</p> <p><u><b>Wiring Diagram</b></u>  10004993158</p>	<p><b>Catalog Number: 2197-QKBH-31TGM-79U-112A</b>  Total Space Factor = 3  Secondary Wiring Fusing &amp; Rating: 3-Phase, 120/208V, 3 Fuse, 15.0 kVA  Circuit Breaker: Thermal Magnetic, 65kA at 480V (G6C Frame) (20A Trip)</p> <p><u><b>Features Included</b></u>  Unit Grd Stab Unplated Cu (-79U)  Arc Resistant Unit Design (-112A)</p> <p><u><b>Engineered Spec(s)/Modification(s)</b></u>  (5) Power Interwiring - 150A, Max Wire Size: #1 AWG (Max 1 per phase)  (1) Engineered Modification and/or Custom Diagram</p>
<p><b>Unit Loc: 04A</b>      <b>Del Prog: PEII</b>  <b>Unit ID: 8</b>  PLAT - Full Sect Blank Mtg Plate w/ or w/o  Disc</p> <p><u><b>Rating</b></u>  0A</p> <p><u><b>Wiring Diagram</b></u>  10003085242</p>	<p><b>Catalog Number: 2100-EKC2X2D-112A</b>  Total Space Factor = 6  Disconnect Type = No Disconnect Means  Required Section Width 25" Wide  Working Depth 8.5" Deep</p> <p><u><b>Features Included</b></u>  Arc Resistant Unit Design (-112A)  Empty Section with Back Panel for customer supplied PLC</p>

# Rockwell Automation

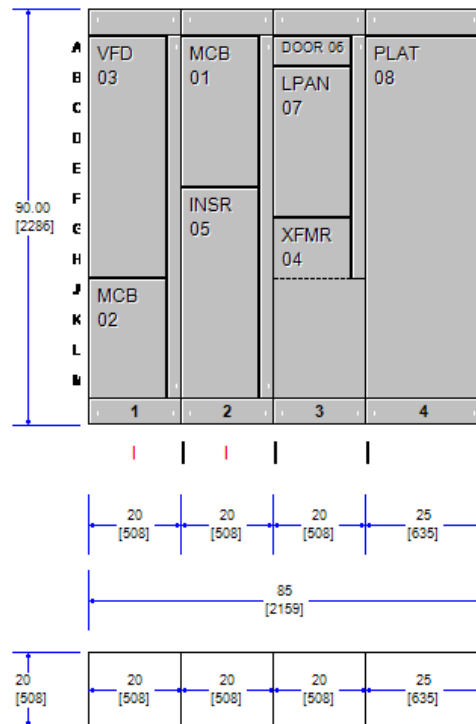
## Centerline 2100 Motor Control Center

### Front Elevation

Project Name: JTM El Toro Water  
Project Item: JTM El Toro Water  
Project ID #: 5287987/2\_REV 03

Salesperson: Felipe Rodarte  
Created By: Felipe Rodarte  
Date/Time: 06/16/22 - 14:19

Rockwell Automation/Allen-Bradley  
PowerControl Builder Lineup



NOTE: Dimensions are subject to change after design review.

**Internal NEMA Type 1G shown** (General Purpose with Gasketed Doors and Bottom Closing Plates)

Overall NEMA 3R Dimension with Air Conditioning : **Approximate Overall Dimensions: 91.00W x 43.50D x 105.00H**

Estimated Heat Loss: 1840 watts

BTU/hr Required: 6280

Air Conditioning Tons: 0.53

Estimated Weight: 2000 lb (907 kg)



**WESTERN  
SWITCHES &  
CONTROLS, INC.**

## Proposal

**To: MR. JOSH PEREZ**

**EL TORO WATER DISTRICT**

**From: Brian Guenette**

**WESTERN SWITCHES & CONTROLS  
750 CHALLENGER ST  
BREA, CA 92821-2924  
USA**

Tel. No.: 714-482-4100  
Cell: 562-448-8382

**Job Name:** SF22447518 JTM Pump Station  
**Quote Name:** SF22447518 JTM Pump Station  
**Quote #:** misajs000\_06152200\_00\_00\_M00  
**Bid Date:** 06/22/2022

Siemens Industry, Inc. (Company) & WSC agrees to sell to Purchaser and Purchaser agrees to purchase from the Company the goods described below. Written quotations are valid for 30 calendar days from price approval date unless otherwise stated in the quotation. Quotations are subject to change by Siemens Industry, Inc. at any time upon written notice to Purchaser. Quoted Lead times refer to the manufacturing cycles, in working days, at time of quotations and are subject to change.

**Quote Notes:**

**GENERATOR PLUGS ARE NOT PART OF PROPOSAL.**

Line #:	Qty	Description
20000	1	<b>MCC--MCC</b> MCC, TIASTAR, MCC Depth: 20 (Front Only), System Voltage: 480 3Ø3W AC, 60 Hz, Available Fault Current: 65,000, NEMA Type: 3R/1 - Outdoor, Horizontal Bus Amperage: 600, Horizontal Bus Plating: TIN, Horizontal Bus Material: COPPER (ONLY), Wiring Class: I (Std. Unit Diagrams Only), Wiring Type: Bd (Unit control tb). Quoted Lead Time : 110 Working Days 1 - SECTION 1 - Encl. 20IN D Front Only 20IN W 1 - 3R Outdoor 1 - Ethernet Topology STAR 1 - 600A Tin Plated H. Bus Copper 1 - 65,000A Bus Bracing 1 - 300A Tin Plated V. Bus insulated and isolated 1 - 300A Unplated Horizontal Ground Bus Copper 1 - Ground Lug, (1) 6-300Kcmil 1 - Automatic Shutter 1 - Seismically Qualified 1 - Light Switch 1 - Master Nameplate 2 - 250AF 125AT HFD6 MCB. 1 - MCB, 225A Max, HFD HFD6 Trip Amperage 125 1 - Nameplate Stainless Screw 1 - Key Interlock On Circuit Breaker 1 - 42 X 16 SPACE. 1 - Prepared Space Height 42 1 - Nameplate Stainless Screw 1 - Height 42 Width 16 Depth 8.347 1 - SECTION 1 - Encl. 20IN Front Only 30IN W, No V. Bus 1 - 3R Outdoor





WESTERN  
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## Proposal

- 1 - 600A Tin Plated H. Bus Copper
- 1 - 65,000A Bus Bracing
- 1 - 300A Unplated Horizontal Ground Bus Copper
- 1 - Seismically Qualified
- 1 - Fluorescent Light
- 1 - 100A ATS.
  - 1 - Automatic Transfer Switch, Frame Amperage 100
  - 1 - Nameplate Stainless Screw
  - 1 - FACTORY OPTION, NON AUTO TRANSFER SWITCH
    - 1 - Factory Option
- 1 - 24 X 30 SPACE.
  - 1 - Prepared Space Height 24 Width 30
  - 1 - Nameplate Stainless Screw
  - 1 - Height 24 Width 30 Depth 8.347
- 1 - SECTION
  - 1 - Encl. 20IN D Front Only 20IN W
  - 1 - 3R Outdoor
  - 1 - 600A Tin Plated H. Bus Copper
  - 1 - 65,000A Bus Bracing
  - 1 - 300A Tin Plated V. Bus insulated and isolated
  - 1 - 300A Unplated Horizontal Ground Bus Copper
  - 1 - Automatic Shutter
  - 1 - Seismically Qualified
- 1 - 42 X 20 MTPNL.
  - 1 - Mounting Panel, Standard 15In Wide Height 42
  - 1 - Nameplate Stainless Screw
  - 1 - Height 42 Width 20 Depth 8.347
- 1 - SECTION
  - 1 - Encl. 20IN D Front Only 20IN W
  - 1 - 3R Outdoor
  - 1 - 600A Tin Plated H. Bus Copper
  - 1 - 65,000A Bus Bracing
  - 1 - 300A Tin Plated V. Bus insulated and isolated
  - 1 - 300A Unplated Horizontal Ground Bus Copper
  - 1 - Automatic Shutter
  - 1 - Seismically Qualified
  - 1 - Fluorescent Light
- 1 - 12 X 16 SPACE.
  - 1 - Prepared Space Height 12
  - 1 - Nameplate Stainless Screw
  - 1 - Height 12 Width 16 Depth 8.347
- 1 - 208Y/120 3Ø 4W WYE AC PANELBOARD.
  - 1 - Panelboard Unit
  - 1 - Panel Board Epm Price
  - 1 - Nameplate Stainless Screw
  - 1 - Height 36 Width 16 Depth 8.347
- 1 - 125AF 25AT 3VA51-HEAS HFCB.
  - 1 - High Density FCB, 3VA51-HEAS Trip Amperage 25
  - 1 - Nameplate Stainless Screw
  - 1 - Height 6 Width 16 Depth 8.347
- 1 - 15 KVA 3 480 V 208Y/120 Unit Fed Transformer.
  - 1 - 15KVA XFMR, 3Ø, Secondary Voltage 208Y/120
  - 1 - Nameplate Stainless Screw



**WESTERN  
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## **Proposal**

- 1 - Height 18 Width 20 Depth 8.347
- 1 - SECTION
  - 1 - Encl. 20IN D Front Only 20IN W No V. Bus
  - 1 - 3R Outdoor
  - 1 - 600A Tin Plated H. Bus Copper
  - 1 - 65,000A Bus Bracing
  - 1 - 300A Unplated Horizontal Ground Bus Copper
  - 1 - Seismically Qualified
  - 1 - Light Switch
  - 1 - 15A GFCI Outlet, Inside N3R Enclosure
- 1 - VFD, CB, 40HP, G120, , 60A, .
  - 1 - VFD, CB, G120, PM240-2, HO, 60A 40 HP
  - 1 - Control Unit CU230P-2 PN Communication EtherNet/IP
  - 1 - Simocode Pro V
  - 1 - Software for configuration is not included, and should be entered as a separate line item
  - 1 - SIMOCODE Communication EtherNet/IP
  - 1 - Basic Checks Network Connectivity Check Device Configuration Check
  - 1 - CPT 250VA 1 Sec. 2 Pri. Fuses Std. Cap.
  - 1 - Nameplate Stainless Screw
  - 1 - Pull-Apart Control Terminals
  - 1 - 18IN Extra Unit Space
  - 1 - Output Isolation Contactor
  - 1 - Manual Bypass Contactor
  - 1 - INNOVA Contactor Type
  - 1 - 3 Percent Impedance Input Reactor
  - 1 - Output Reactor
  - 1 - Intelligent Operator Panel
  - 1 - Operator Panel On VFD Unit Door
  - 1 - EtherNet/IP Communication Wiring
  - 1 - Current Limiting CB
  - 1 - Height 72 Width 20 Depth 12.781
  - 1 - Elapsed Time Meter, E
    - 1 - Elapsed Time Meter in Device Panel
  - 5 - RELAY, 3RH, 2NO 2NC, R322
    - 1 - Relay, 3RH, 4 Pole (2NO/2NC)
  - 2 - TIMER, 3RP, 0.05S-100H(2 SPDT), TM32
    - 1 - Timing Relay, 3RP, On Delay, DPDT
  - 1 - Selector Switch, VFD OFF BYPASS, VFD
    - 1 - 3 Position Selector Switch, 30mm
    - 1 - Legend = VFD OFF BYPASS
  - 1 - Pilot Light, GREEN, ON, OTG
    - 1 - Pilot Light, 30mm Green
    - 1 - Legend = ON
    - 1 - Push To Test Adder
    - 1 - Led Bulb
  - 1 - Pilot Light, AMBER, SPECIAL, BKA
    - 1 - Pilot Light, 30mm Amber
    - 1 - Legend = Custom Engraving : HAND
    - 1 - Push To Test Adder
    - 1 - Led Bulb
  - 1 - Pilot Light, GREEN, SPECIAL, BKG
    - 1 - Pilot Light, 30mm Green



## Proposal

- 1 - Legend = Custom Engraving : AUTO
- 1 - Push To Test Adder
- 1 - Led Bulb
- 1 - Pilot Light, GREEN, SPECIAL, BKG
  - 1 - Pilot Light, 30mm Green
  - 1 - Legend = Custom Engraving : PUMP FAIL
  - 1 - Push To Test Adder
  - 1 - Led Bulb
- 1 - Pilot Light, RED, SPECIAL, BKR
  - 1 - Pilot Light, 30mm Red
  - 1 - Legend = Custom Engraving : HIGH TEMP
  - 1 - Push To Test Adder
  - 1 - Led Bulb
- 1 - Pilot Light, RED, SPECIAL, BKR
  - 1 - Pilot Light, 30mm Red
  - 1 - Legend = Custom Engraving : SEAL FAIL
  - 1 - Push To Test Adder
  - 1 - Led Bulb
- 1 - Pilot Light, GREEN, SPECIAL, BKG
  - 1 - Pilot Light, 30mm Green
  - 1 - Legend = Custom Engraving : PUMP CALL
  - 1 - Push To Test Adder
  - 1 - Led Bulb
- 1 - Pilot Light, GREEN, SPECIAL, BKG
  - 1 - Pilot Light, 30mm Green
  - 1 - Legend = Custom Engraving : BYPASS ON
  - 1 - Push To Test Adder
  - 1 - Led Bulb
- 1 - Selector Switch, HAND OFF AUTO, POC, H
  - 1 - 3 Position Selector Switch, 30mm
  - 1 - Legend = HAND OFF AUTO
  - 6 - Extra Contact, SPDT
- 1 - Speed Potentiometer, SP3
  - 1 - Speed Potentiometer

20010

1

### MCC:A--PANELBOARD P1

Quoted Lead Time : 25 Working Days

- 1 - SECTION
  - P1C30QR150CTST, System Voltage: 208Y/120 3Ø 4W Wye AC, IR @ 10,000 AIC, Top Feed, Surface Mount, Bus Rating: 225A, Bus Material: Copper, Plating: Tin, NEMA 1 INDOOR.
- 1 - INTERIOR W/ 150A /3P-QR2 MAIN BREAKER
  - 1 - Subfeed/Feedthru Provision
  - 1 - Mechanical Lug - QR
  - 1 - Gnd Conn-Shipped w/ Interior
  - 1 - Std Al/Cu Gnd Connector
  - 1 - 250A 100% Neutral 30Cir AL
  - 1 - No Enclosure
  - 1 - No Front
  - 1 - Certification - UL
  - 1 - RP1 3 Phase Main Kit QR
  - 1 - Catalog #: QR23B150
- 10 - BL/BQD PROVISION
- 20 - 20A /1P-BL
  - 1 - Catalog #: B120



**WESTERN  
SWITCHES &  
CONTROLS, INC.**

## Proposal

<b>Grand Total:</b>	<b>Price</b>	<b>\$67,295.00</b>
	<b>Handling Fee</b>	<b>\$0.00</b>
	<b>Total Invoice Price</b>	<b>\$67,295.00</b>

**Terms: Upon receipt of PO 25%**  
**Upon approval of drawings 25%**  
**Upon delivery 50%**

### Global Notes:

### Important Update:

As a result of the global Covid-19 Virus outbreak, temporary delays in delivery, labor or services from Siemens and its sub-suppliers or subcontractors may occur. Among other factors, Siemens' delivery is subject to the correct and punctual supply from sub-suppliers or subcontractors, and Siemens reserves the right to make partial deliveries or modify its labor or services. While Siemens shall make every commercially reasonable effort to meet the delivery or service or completion date mentioned above, such date is subject to change and buyer shall not be entitled to any damages resulting from such delays.

### Cancellation Schedule:

In the event that Buyer cancels the purchase order, or portions of the purchase order in writing, the following charges, as a percentage of the total purchase order price for the order, or application portions thereof, will apply:

After receipt of order or before approval drawings are completed	15%
After approval drawing completion, but before release to manufacturing	30%
Before start of fabrication, but after major component purchase	60%
After start of fabrication, but before start of assembly	80%
After assembly has started	100%

**Price Policy:** Standard quote is valid for 30 days from price approval date.

**Hold for Release Pricing:** Unless Siemens & WSC has agreed with the customer in writing, in advance to fixed pricing for an extended release date, any orders entered into COMPAS that have not been released by the customer within 90 days shall be subject to a price increase reflecting the current pricing at time of release. If Buyer refuses to accept price increase Siemens shall reserve the right to cancel the order.

**Payment:** Per Siemens distributor's terms.

**Shipping:** Shipment of goods will be made after receipt of all the following at Company's production facility:  
(a) Purchase Order / Electronic PO, (b) Technical Information, and if required (c) Drawing Approval.

**Freight:** Freight allowed on all orders over \$1,000 and shipped within the contiguous United States, provided Seller selects the Route Option: BESTRT -Best Route.

**Delivery:** FOB Shipping Point, unless stated otherwise.

**Small Order Handling:** Purchase orders below \$400 will incur a \$25 Small Order Handling (SOH) Fee.

**Warranty:** Warranty shall be in effect for a period of (1) year from initial operation of the goods but not more than eighteen (18) months from Siemens, shipment of the goods, unless stated otherwise.

**Other:** This proposal is subject to credit approval and US government regulation. It is also based on the Company's interpretation of the plans and specifications and is subject to correction for errors in such plans or specifications. This document and any other documents specifically referred to as being a part hereof constitute the entire agreement on the subject matter and it shall not be modified except in writing signed by both parties.  
THIS PROPOSAL IS BASED UPON SIEMENS STANDARD TERMS AND CONDITIONS OF SALE ATTACHED HERETO AND INCLUDED HEREIN. Company hereby objects to any additional or different terms set forth in Purchaser's request for proposal, specifications, purchase order, or any other document of Purchaser. Acceptance of additional or different terms must be specifically assented to in writing by Company.

Federal Projects (This applies to Federal and Federally Funded Projects only):  
WESTERN SWITCHES & CONTROLS~750 CHALLENGER ST.~BREA, CA 92821~714-482-4100



WESTERN  
SWITCHES &  
CONTROLS, INC.

## Proposal

Siemens represents that it is providing "commercial items" and services for sale within the definition of FAR 2.101. In keeping with its commercial market participation, Siemens is categorically exempt from any Cost & Pricing Data requirements. Siemens utilizes a commercial accounting system under International Financial Reporting Standards (IFRS); and is technically unable to comply with Federal Cost Accounting Standards & Certification and any FAR 31 requirements. Siemens Industry, Inc. is a Foreign Owned, Controlled, or Influenced ("FOCI") firm, under the definition contained in the National Industrial Security Program Operational Manual ("NISPOM") and cannot obtain a security clearance, or perform work requiring its compliance with the FAR 52.204-2 "Security Requirements." Siemens does not anticipate receiving or having any access to any USG Controlled Unclassified Information (CUI) or Covered Defense Information (CDI) in the performance of this contract. However, in the event that any CUI/CDI will be required by Siemens in the performance of this contract, contractor/customer agrees to formally notify Siemens of its intent to transmit or provide CUI/CDI prior to the transmittal of any such information. In that event, Siemens will provide a plan in order to compliantly address the requirements of FAR 52.204-21, DFARS 252.204-7008, 252.204-009 and/or 252.204-7012. Siemens shall not be held responsible for determining, or providing, its compliance with any federal requirements including, but not limited to any Buy America/Buy American requirements, unless the contractor/customer has provided the SPECIFIC federal flow-down provisions to Siemens, and received Siemens affirmation of compliance with the same prior to issuance of any Purchase Order or Contract.

To the extent a contract arising from this Request for Quotation (RFQ) flows down the vaccination requirements of Executive Order 14042 or includes any FARs (Federal Acquisition Regulations), including, but not limited to FAR 52.223-99, Ensuring Adequate COVID-19 Safety Protocols for Federal Contractors, or includes a Defense Priority Ratings (DPR), these flow downs must be specifically identified in the RFQ and in the body of the purchase order issued to Siemens. The identification of these requirements is critical so Siemens may appropriately align its resources for compliant performance. Failure to clearly identify these flow downs prior to quotation submittal and/or purchase order execution may affect the price, delay the schedule, lead to additional reviews, and/or require cancellation of the order.

### A few items to note:

- Quote calls out Automatic Transfer Switch, but you will see as a factory option we have clarified it will be a "Non Auto Transfer Switch", this is due to limitations in our configuration tool which only has "ATS" built in, not "MTS".
- We do not have pricing for the generator receptacles and therefore they have not been included, there is enough room to have one installed in the mounting panel however they are not in our scope at this time



**WESTERN  
SWITCHES &  
CONTROLS, INC.**

## **Proposal**

### **SIEMENS STANDARD TERMS AND CONDITIONS OF SALE FOR PRODUCTS**

**Version2.0/Restricted**

**Date: 12/09/2020**

**1. APPLICABLE TERMS.** This Agreement governs the sale of equipment, components, parts, and materials provided by Siemens ("Products"). Any applicable addenda, these terms, Siemens proposal, price quote, purchase order, or acknowledgement issued by Siemens form the parties' final agreement ("Agreement"). In the event of a conflict between these documents, precedence shall apply in accordance with the order listed in the previous sentence. Siemens' proposal, offer or acceptance is conditioned on Buyer's acceptance of this Agreement. Any additional or conflicting terms in Buyer's request for proposal, specifications, purchase order or any other written or oral communication are not binding on Siemens unless separately signed by Siemens. Siemens' failure to object to Buyer's additional or conflicting terms does not operate as a waiver of any terms contained in this Agreement.

**2. PRICING & PAYMENT.** Prices and payment terms are: (i) as stated in Siemens' proposal, or if none are stated; (ii) Siemens' standard prices in effect when Siemens receives Buyer's purchase order; or if neither (i) or (ii) apply, then Siemens' standard prices in effect when the Products ship.

(a) *Payment.* Unless stated in Siemens' proposal, all payments are due net thirty (30) days from the invoice date in United States Dollars. Discounts, if any, are only applicable for payments made by cash, check, ACH or wire.

(b) *Credit Approval.* All orders are subject to credit approval by Siemens. Siemens may modify, suspend or withdraw the credit amount or payment terms at any time. If there is doubt as to Buyer's financial condition, Siemens may withhold manufacturing or shipment, require cash payments, or require other satisfactory security. Siemens may recover shipped Products from the carrier pending such assurances.

(c) *Installment Shipment.* Where Products are delivered in shipments or only part of a shipment fails to comply with this Agreement, the Buyer may only reject the non-compliant portion. Buyer will separately pay for each shipment. If Siemens holds or stores Products for Buyer, it shall do so at Buyer's sole risk and expense.

(d) *Taxes, Shipping, Packing, Handling.* Unless stated in writing by Siemens, Siemens' prices exclude charges for freight, unloading, storage, insurance, taxes, tariffs charged on the importation of goods into the United States, excises, fees, duties or other government charges related to the Products. Buyer will pay these amounts or reimburse Siemens. If Buyer claims a tax or other exemption or direct payment permit, Buyer will provide a valid exemption certificate or permit and indemnify, defend and hold Siemens harmless from any taxes, costs and penalties arising from same. Siemens' prices include the costs of its standard domestic packing only. Any packing deviation, including U.S. Government sealed packing, will be charged to Buyer. Increases, changes (including in application), adjustments or surcharges which may be incurred are for Buyer's account.

(e) *Late Payments.* Late payments shall bear interest at an annual percentage rate of twelve percent (12%) or the highest rate allowed by law, whichever is lower.

(f) *Disputed Invoice.* If Buyer disputes all or any portion of an invoice, it must first deliver written notice to Siemens of the disputed amount and the basis for the dispute within twenty-one (21) days of receiving the invoice. Failure of Buyer to timely notify Siemens of any dispute constitutes a waiver of Buyer's claim. If Buyer only disputes a portion of the invoice, Buyer must pay the undisputed portion in accordance with Article 2(a). Upon resolution of the dispute, Buyer must pay the invoice or the remainder of the invoice, plus any accrued interest on the late payment.

(g) *Suspension/Termination Right.* Siemens may suspend work if an undisputed invoice is more than thirty (30) days past due. Siemens may terminate this Agreement if an undisputed invoice is more than sixty (60) days past due. Unless prohibited by law, Siemens may also terminate this Agreement immediately in the event of a material adverse change in Buyer's financial condition including, but not limited to, bankruptcy, insolvency, liquidation or similar financial condition.

**3. DELIVERY; TITLE; RISK OF LOSS.** Products will be delivered F.O.B. Siemens point of shipment with title and risk of loss or damage passing to Buyer at that point. Buyer is responsible for all transportation, insurance and related expenses. The related expenses shall include any taxes, duties or documentation fees. Siemens may make partial shipments. Any shipping, delivery and installation dates are estimated dates only. Siemens is not liable for any loss or expense incurred by Buyer or Buyer's customers if Siemens fails to meet its delivery schedule.

**4. DEFERMENT AND CANCELLATION.** Buyer has no right to defer shipment but may cancel this Agreement on thirty (30) days written notice if Siemens has not already performed. If Buyer cancels this Agreement, it shall pay all cancellation charges including, without limitation: (i) the full price for any finished Product; (ii) for partially completed product, the portion of the price determined to be due by Siemens based on its percentage of completion of the Product; (iii) reasonable overhead and profit; and (iv) any payments due subcontractors and/or suppliers for any materials, components or products ordered which cannot be cancelled, refunded, or redirected for other beneficial use.

**5. TRANSPORTATION AND STORAGE.** (a) When Products are ready for shipment, Siemens will: (i) inform Buyer, and Buyer will then promptly give shipping instructions to Siemens; (ii) determine the method of transportation and shipment routing; and (iii) ship the Products with freight prepaid by normal transportation. If Buyer fails to provide timely shipping instructions, Siemens will ship the Products by normal transportation means to Buyer or to a storage location selected by Siemens. Buyer will pay or reimburse any excess transportation

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charges for special or expedited transportation.

(b) If Products are placed into storage, delivery occurs and risk of loss transfers to Buyer when the Products are placed on the carrier for shipment to the storage location. If the Products are to be stored in the facility where manufactured, delivery occurs and risk of loss transfers to Buyer when placed in the storage location.

Buyer will pay all Siemens' storage expenses, including but not limited to, preparation for and placement into storage, handling, freight, storage, inspection, preservation, maintenance, taxes and insurance, upon receipt of an invoice(s) from Siemens. When conditions permit and upon payment to Siemens of all amounts due, Buyer must arrange, at its expense, to remove the Products from storage. Buyer bears the risk of loss, damage or destruction to Products in storage.

**6. FORCE MAJEURE / DELAYS.** If Siemens' performance is delayed by any cause beyond its reasonable control (regardless of whether the cause was foreseeable), including without limitation acts of God, strikes, labor shortage or disturbance, fire, accident, war or civil disturbance, delays of carriers, cyber-attacks, terrorist attacks, failure of normal sources of supply, or acts or inaction of government, Siemens' time of performance will be extended by a period equal to the length of the delay plus any consequences of the delay. Siemens will notify Buyer within a reasonable time after becoming aware of any such delay.

**7. BUYER'S REQUIREMENTS.** Siemens' performance is contingent upon Buyer timely fulfilling all of its obligations under this Agreement. These obligations include the Buyer supplying all documents and approvals needed for Siemens to perform, including but not limited to technical information and data, drawing and document approvals, and necessary commercial documentation. Siemens may request a change order for an equitable adjustment in prices and times for performance, as well as for any additional costs or any delay resulting from the failure of Buyer or Buyer's contractors, successors or assigns to meet these obligations.

**8. INDEMNITY.** Siemens and Buyer (each as an "Indemnitor") shall indemnify the other ("Indemnitee") from and against all third party claims alleging bodily injury, death or damage to a third party's tangible property, but only to the extent caused by the Indemnitor's negligent acts or omissions. If the injury or damage is caused by the parties' joint or contributory negligence, the loss and/or expenses shall be borne by each party in proportion to its degree of fault. No part of the Product(s) or Buyer's site is considered third party property.

Indemnitee shall provide the Indemnitor with prompt written notice of any third party claims covered by this Article. Indemnitor has the unrestricted right to select and hire counsel and the exclusive right to conduct the legal defense and/or settle the claim on the Indemnitee's behalf. The Indemnitee shall not make any admission(s) which might be prejudicial to the Indemnitor and shall not enter into a settlement without the express permission of the Indemnitor.

**9. WARRANTIES.** (a) Warranties. Siemens warrants that: (i) each Product is free from defects in material and workmanship; (ii) each Product materially conforms to Siemens' specifications that are attached to, or expressly incorporated into this Agreement; and (iii) at the time of delivery, Siemens has title to each Product free and clear of liens and encumbrances (collectively, the "Warranties"). The Warranties do not apply to software furnished by Siemens. The sole and exclusive warranties for any software are set forth in the applicable Software License/Warranty Addendum.

(b) Conditions to the Warranties. The Warranties are conditioned on: (i) no repairs, modifications or alterations being made to the Product other than by Siemens or its authorized representatives; (ii) Buyer handling, using, storing, installing, operating and maintaining the Product in compliance with any parameters or instructions in any specifications attached to, or incorporated into this Agreement; (iii) compliance with all generally accepted industry standards; (iv) Buyer discontinuing use of the Product after it has, or should have had, knowledge of any defect; (v) Buyer providing prompt written notice of any warranty claims within the warranty period described below; (vi) at Siemens' discretion, Buyer either removing and shipping the Product or non-conforming part thereof to Siemens, at Buyer's expense, or granting Siemens reasonable access to the Products to assess the warranty claims; (vii) Product not having been subjected to accident (including force majeure), alteration, abuse or misuse; and (viii) Buyer not being in default of any payment obligation.

(c) Exclusions from Warranty Coverage. The Warranties do not apply to any equipment not provided by Siemens under this Agreement.

Any Product that is described as being experimental, developmental, prototype, or pilot is specifically excluded from the Warranties and is provided to Buyer "as is" with no warranties of any kind. Normal wear and tear is excluded, including any expendable items that comprise part of the Product (such as fuses, light bulbs and lamps). Siemens does not warrant or guarantee that any Product will be secure from cyber threats, hacking or similar malicious activity. Products that are networked, connected to the internet, or otherwise connected to computers or other devices must be appropriately protected by Buyer and/or end user against unauthorized access.

(d) Warranty Period. Buyer must provide written notice of any claims for breach of Warranties by the earlier of twelve (12) months from initial operation of the Product or eighteen (18) months from shipment. Additionally, absent written notice within the warranty period, any use or possession of the Product after expiration of the warranty period is conclusive evidence that the Warranties have been satisfied.

(e) Remedies. Buyer's sole and exclusive remedies for breach of the Warranties are limited, at Siemens' discretion, to repair or replacement of the Product, or its non-conforming parts, within a reasonable time period, or refund of all or part of the purchase price. The warranty on repaired or replaced parts is limited to the remainder of the original warranty period. Unless Siemens agrees otherwise in writing, Buyer will be responsible for any costs associated with: (i) gaining access to the Product; (ii) removal, disassembly, replacement, installation, or reinstallation of any equipment, materials or structures to permit Siemens to perform its warranty obligations; (iii) transportation to and from the Siemens factory or repair facility; and (iv) damage to equipment components or parts resulting in whole or in part from non-compliance by the Buyer

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with Article 9(b) or from their deteriorated condition. All exchanged Products replaced under this Warranty will become the property of Siemens.

(f) Transferability. The Warranties are only transferable during the warranty period and only to the Product's initial end-user.

(g) THE WARRANTIES IN THIS ARTICLE 9 ARE SIEMENS' SOLE AND EXCLUSIVE WARRANTIES AND ARE SUBJECT TO THE LIMITS OF LIABILITY IN ARTICLE 10 BELOW. SIEMENS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, COURSE OF DEALING AND USAGE OF TRADE.

**10. LIMITATION OF LIABILITY.** NOTWITHSTANDING ANYTHING IN THIS AGREEMENT TO THE CONTRARY, SIEMENS IS NOT LIABLE, WHETHER BASED IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, INDEMNITY OR ANY OTHER LEGAL OR EQUITABLE THEORY, FOR: LOSS OF USE, REVENUE, SAVINGS, PROFIT, INTEREST, GOODWILL OR OPPORTUNITY, COSTS OF CAPITAL, COSTS OF REPLACEMENT OR SUBSTITUTE USE OR PERFORMANCE, LOSS OF INFORMATION AND DATA, LOSS OF POWER, VOLTAGE IRREGULARITIES OR FREQUENCY FLUCTUATION, CLAIMS ARISING FROM BUYER'S THIRD PARTY CONTRACTS, OR FOR ANY TYPE OF INDIRECT, SPECIAL, LIQUIDATED, PUNITIVE, EXEMPLARY, COLLATERAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR ANY OTHER LOSS OR COST OF A SIMILAR TYPE.

SIEMENS' MAXIMUM LIABILITY UNDER THIS AGREEMENT IS THE ACTUAL PURCHASE PRICE RECEIVED BY SIEMENS FOR THE PRODUCT THAT GAVE RISE TO THE CLAIM.

BUYER AGREES THAT THE EXCLUSIONS AND LIMITATIONS IN THIS ARTICLE 10 WILL PREVAIL OVER ANY CONFLICTING TERMS AND CONDITIONS IN THIS AGREEMENT AND MUST BE GIVEN FULL FORCE AND EFFECT, WHETHER OR NOT ANY OR ALL SUCH REMEDIES ARE DETERMINED TO HAVE FAILED OF THEIR ESSENTIAL PURPOSE. THESE LIMITATIONS OF LIABILITY ARE EFFECTIVE EVEN IF SIEMENS HAS BEEN ADVISED BY BUYER OF THE POSSIBILITY OF SUCH DAMAGES. THE WAIVERS AND DISCLAIMERS OF LIABILITY, RELEASES FROM LIABILITY AND LIMITATIONS ON LIABILITY EXPRESSED IN THIS ARTICLE 10 EXTEND TO SIEMENS' AFFILIATES, PARTNERS, PRINCIPALS, SHAREHOLDERS, DIRECTORS, OFFICERS, EMPLOYEES, SUPPLIERS, AGENTS, AND SUCCESSORS AND ASSIGNS.

**11. PATENT AND COPYRIGHT INFRINGEMENT.** Siemens will, at its option and expense, defend or settle any suit or proceeding brought against Buyer based on an allegation that any Product or use thereof for its intended purpose constitutes an infringement of any Patent Cooperation Treaty country member's patent or misappropriation of a third party's trade secret or copyright in the country where the Product is delivered by Siemens. Buyer will promptly give Siemens written notice of the suit or proceeding and the authority, information, and assistance needed to defend the claims. Siemens shall have the full and exclusive authority to defend and settle such claim(s) and will pay the damages and costs awarded in any suit or proceeding so defended. Buyer shall not make any admission(s) which might be prejudicial to Siemens and shall not enter into a settlement without Siemens' consent. Siemens is not responsible for any settlement made without its prior written consent. If the Product, or any part thereof, as a result of any suit or proceeding so defended is held to constitute infringement or its use by Buyer is enjoined, Siemens will, at its option and expense, either: (i) procure for Buyer the right to continue using said Product; (ii) replace it with substantially equivalent non-infringing Product; or (iii) modify the Product so it is non-infringing.

Siemens will have no duty or obligation under this Article 11 if the Product is: (i) supplied according to Buyer's design or instructions and compliance therewith has caused Siemens to deviate from its normal course of performance; (ii) modified by Buyer or its contractors after delivery; or (iii) combined by Buyer or its contractors with devices, methods, systems or processes not furnished hereunder and by reason of said design, instruction, modification, or combination a suit is brought against Buyer. In addition, if by reason of such design, instruction, modification or combination, a suit or proceeding is brought against Siemens, Buyer must protect Siemens in the same manner and to the same extent that Siemens has agreed to protect Buyer under this Article 11.

THIS ARTICLE 11 IS AN EXCLUSIVE STATEMENT OF SIEMENS' DUTIES AND BUYER'S REMEDIES RELATING TO PATENTS, TRADE SECRETS AND COPYRIGHTS, AND DIRECT OR CONTRIBUTORY INFRINGEMENT THEREOF.

**12. CONFIDENTIALITY.** (a) Both during and after the term of this Agreement, the parties will treat as confidential all information obtained from the disclosing party and all information compiled or generated by the disclosing party under this Agreement for the receiving party, including but not limited to business information, manufacturing information, technical data, drawings, flow charts, program listings, software code, and other software, plans and projections. Neither party may disclose or refer to the work to be performed under this Agreement in any manner that identifies the other party without advance written permission. However, Siemens has the right to share confidential information with its affiliates and subcontractors, provided those recipients are subject to the same confidentiality obligations set forth herein.

(b) Nothing in this Agreement requires a party to treat as confidential any information which: (i) is or becomes generally known to the public, without the fault of the receiving party; (ii) is disclosed to the receiving party, without obligation of confidentiality, by a third party having the right to make such disclosure; (iii) was previously known to the receiving party, without obligation of confidentiality, which fact can be demonstrated by means of documents which are in the possession of the receiving party upon the date of this Agreement; (iv) was independently developed by receiving party or its representatives, as evidenced by written records, without the use of discloser's confidential information; or (v) is required to be disclosed by law, except to the extent eligible for special treatment under an appropriate protective order, provided that the party required to disclose by law will promptly advise the originating party of any requirement to make such disclosure to





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allow the originating party the opportunity to obtain a protective order and assist the originating party in so doing.

(c) It is Siemens' policy not to unlawfully or improperly receive or use confidential information, including trade secrets, belonging to others. This policy precludes Siemens from obtaining, directly or indirectly from any employee, contractor, or other individual rendering services to Siemens confidential information of a prior employer, client or any other person which such employee, contractor, or individual is under an obligation not to disclose. Buyer agrees to abide by this policy.

**13. COMPLIANCE WITH LAWS.** The parties agree to comply with all applicable laws and regulations, including but not limited to those relating to the manufacture, purchase, resale, exportation, transfer, assignment or use of the Products.

**14. CHANGES IN WORK.** No change will be made to the scope of work unless Buyer and Siemens agree in writing to the change and any resulting price, schedule or other contractual modifications. If any change to any law, rule, regulation, order, code, standard or requirement impacts Siemens' obligations or performance under this Agreement, Siemens may request a change order for an equitable adjustment in the price and time of performance.

**15. NON-WAIVER.** Any waiver by a party of strict compliance with this Agreement must be in writing, and any failure by the parties to require strict compliance in one instance will not waive its right to insist on strict compliance thereafter.

**16. MODIFICATION OF TERMS.** This Agreement may only be modified by a written instrument signed by authorized representatives of both parties.

**17. ASSIGNMENT.** Neither party may assign all or part of this Agreement, or any rights or obligations under this Agreement, without the prior written consent of the other; but either party may assign its rights and obligations, without recourse or consent, to any parent, wholly owned subsidiary, or affiliate or affiliate's successor organization (whether as a result of reorganization, restructuring or sale of substantially all of a party's assets). However, Buyer shall not assign this Agreement to: a competitor of Siemens; an entity in litigation with Siemens; or an entity lacking the financial capability to satisfy Buyer's obligations. Any assignee expressly assumes the performance of any obligation assigned. Siemens may grant a security interest in this Agreement and/or assign proceeds of this Agreement without Buyer's consent.

**18. APPLICABLE LAW AND JURISDICTION.** This Agreement is governed by and construed in accordance with the laws of the State of Delaware, without regard to its conflict of laws principles. The application of the United Nations Convention on Contracts for the International Sale of Goods is excluded. **BOTH SIEMENS AND BUYER KNOWINGLY, VOLUNTARILY AND IRREVOCABLY WAIVE ALL RIGHTS TO A JURY TRIAL IN ANY ACTION OR PROCEEDING RELATED IN ANY WAY TO THIS AGREEMENT.** Each party agrees that claims and disputes arising out of this Agreement must be decided exclusively in a federal or state court of competent jurisdiction located in a state in which either Buyer or Siemens maintains its principal place of business. Each party submits to the personal jurisdiction of such courts for the purpose of litigating any claims or disputes.

**19. SEVERABILITY.** If any provision of this Agreement is held invalid, illegal or unenforceable, the remaining provisions will not in any way be affected or impaired. A court may modify the invalid, illegal or unenforceable provision to reflect, as closely as possible, the parties' original intent.

**20. EXPORT / IMPORT COMPLIANCE.** Buyer acknowledges that Siemens is required to comply with applicable export / import laws and regulations relating to the sale, export, import, transfer, assignment, disposal and use of the Products, including any export / import license requirements. Buyer agrees that Products will not at any time directly or indirectly be used, exported, imported, sold, transferred, assigned or otherwise disposed of in a manner which will result in non-compliance with any export / import laws and regulations. Siemens' continuing performance hereunder is conditioned on compliance with such export / import laws and regulations at all times.

**21. PRODUCT RETURNS.** Prior to the return of any Product to Siemens, Buyer must identify the Product or portion thereof and obtain written authorization and shipping instructions from Siemens. Siemens has the right, in its sole discretion, to permit or reject any such return. Siemens' authorization to return any Product to Siemens does not relieve Buyer of its obligation to pay for such Product. Upon receipt, inspection, and acceptance of the Product by Siemens, Siemens will issue a credit memo to Buyer, less applicable re-stocking fees. Siemens reserves the right to reject any hazardous material.

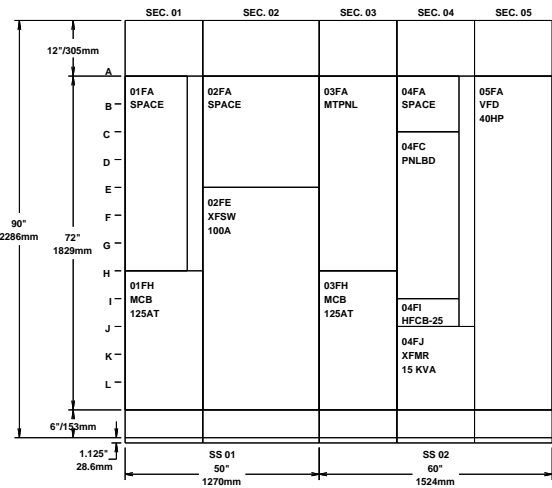
**22. NUCLEAR.** Unless expressly authorized in writing by Siemens, the Products must not be used in or in connection with a nuclear facility or application. If Buyer uses any Product in connection with any nuclear facility or activity, it does so at its own risk and Buyer will indemnify, defend and hold Siemens harmless, and waives and will require its insurers to waive all right of recovery against Siemens for any damage, loss, destruction, injury or death resulting from a "nuclear incident," as defined in the Atomic Energy Act of 1954, as amended, whether or not due to Siemens' negligence. Siemens' consent to Buyer's use of the Product in connection with any nuclear facility or application will be subject to additional terms and conditions that Siemens deems necessary to protect its interests.

**23. SURVIVAL.** The articles titled "Patent and Copyright Infringement," "Limitation of Liability," "Confidentiality," "Delivery; Title; Risk of Loss," "Export / Import Compliance," and "Nuclear" survive termination, expiration or cancellation of this Agreement.

Sincerely,  
*Brian Guenette*

Brian Guenette

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[illegible]

JCS			
<b>SF22447518 JTM Pump Station</b>			
P.O.		CUST.	
-		<b>WESTERN SWITCHES &amp; CONTROLS INC</b>	
CONTR.		CONSULT	
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TIE		BY	ENG. LOC.
-		<b>misajs</b>	<b>MCC</b>
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NO.	REVISIONS	DRAWN BY:	DATE

UNIT SCHEDULE

UNIT NO			UNIT DESCRIPTION				MOTOR DATA					CIRCUIT BREAKER/DISCONNECT SWITCH							OVERLOAD		WIRING DIAGRAM	CONTROL CIRCUIT				TOT AUX		PILOT DEVICES	UNIT OPTIONS	N	UNIT NOTES	FACTORY USE ONLY	
CUST	SII	L/R	TYPE	SUB	HT	SZ	HP/	KW	FLA	SF	RPM	FRAME or	DS	TRIP or	CLIP	RNG or	FUSE	TYPE	RNG/HTR	TY		FU	VOLT	CPT	NO	NC	NOTES					NOTES	PUCX
-	01FH	-	MCB	-	30	-	-	-	-	-	-	HFD6	250	125	-	-	-	-	-	-	-	-	-	-	-	-	-	E41	-	-	-	FMNM	
-	01FA	-	SPACE	-	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FNNL	
-	02FE	-	XFSW	-	48	100	-	ASCO.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FNNL	
-	02FA	-	SPACE	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FNNL	
-	03FH	-	MCB	-	30	-	-	-	-	-	-	HFD6	250	125	-	-	-	-	-	-	-	-	-	-	-	-	-	E41	-	-	-	FMNM	
-	03FA	-	MTPNL	15W	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FNNL	
-	04FA	-	SPACE	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FNNL	
-	04FC	-	PNLBD	-	36	-	-	P1 208Y/120 3Ø 4W WYE AC	-	-	-	30 CIRCUITS MCB COPPER.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FNNL
-	04FI	-	HFCB	-	6	-	-	3VA51-H	125	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	H2	-	-	UMNM
-	04FJ	-	XFMR	-	18	15	-	PRI 480 V SEC208Y/120V 3Ø 4W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FNNL
-	05FA	-	VFD	G120H	72	60	40 HP	52.0	-	-	-	CED6	125	80	-	-	-	3UF70	10-100	-	UT	2/1	120	250	-	-	BKA BKG BKR	C05 CM8 CM9	-	V4	-	-	FMNM
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	E H POC	CU4 OLC OV4	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	OTG SP3 VFD	PM3 PS2 R322	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	TM32 V11 V22	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	V32 V33 V41	-	-	-	-	
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JOB				
SF22447518 JTM Pump Station				
P.O.		CUST.		
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Norcross, Georgia		SHEET 2 OF 5		1

NAMEPLATE SCHEDULE

TYPE	UNIT NUMBER	DESCRIPTION	ENGRAVING1	ENGRAVING2	ENGRAVING3	ENGRAVING4	LEAVE BLANK
MASTER		MCC					No
Unit	01FH	250AF 125AT HFD6 MCB.					No
Unit	01FA	(1), 42 X 16 SPACE.					No
Unit	02FE	100A ATS.					No
Unit	02FA	(1), 24 X 30 SPACE.					No
Unit	03FH	250AF 125AT HFD6 MCB.					No
Unit	03FA	(1), 42 X 20 MTPNL.					No
Unit	04FA	(1), 12 X 16 SPACE.					No
Unit	04FC	(1), 208Y/120 3Ø 4W WYE AC PANELBOARD.					No
Unit	04FI	(1), 125AF 25AT 3VA51-HEAS HFCB.					No
Unit	04FJ	(1), 15 KVA 3 480 V 208Y/120 Unit Fed Transformer.					No
Unit	05FA	(1), VFD, CB, 40HP, G120, 60A, .					No

JOB				
SF22447518 JTM Pump Station				
P.O.		CUST.		
-		WESTERN SWITCHES & CONTROLS INC		
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TIE		BY	ENG. LOC.	DESIGNATION
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		APP.	INFO. LOC.	REV.
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Norcross, Georgia		SHEET 3 OF 5		1

ABBREVIATIONS
CM8 - COMMUNICATION WIRING.
CM9 - ETHERNET/IP COMMUNICATIONS.
CU4 - CONTROL UNIT CU230P-2 PN.
C05 - INNOVA CONTACTOR TYPE.
E41 - KEY INTERLOCK ON UNIT DOOR.
OLC - 3UF70 PRO V OVERLOAD RELAY HAS CURRENT CT.
OV4 - SIMOCODE WITH ETHERNET/IP COMMUNICATIONS.
PM3 - POWER MODULE PM240-2.
PS2 - BASIC CHECKS, NETWORK CONNECTIVITY CHECK, DEVICE CONFIGURATION CHECK.
R322 - 3RH RELAY WITH 2NO AND 2NC CONTACTS.
TM32 - 3RP SOLID STATE 2PDT ON DELAY TIMER (.05S-100H).
V11 - MANUAL BYPASS CONTACTOR.
V22 - OUTPUT ISOLATION CONTACTOR.
V32 - OUTPUT REACTOR.
V33 - 3 PERCENT IMPEDANCE INPUT REACTOR.
V41 - KEYPAD ON DOOR.
V45 - INTELLIGENT OPERATOR PANEL.
BKR - PUSH TO TEST PILOT LIGHT WITH RED LENS AND SPECIAL LEGEND.
BKG - PUSH TO TEST PILOT LIGHT WITH GREEN LENS AND SPECIAL LEGEND.
BKA - PUSH TO TEST PILOT LIGHT WITH AMBER LENS AND SPECIAL LEGEND.
OTG - PUSH TO TEST PILOT LIGHT WITH GREEN LENS AND ON LEGEND.
H - SELECTOR SWITCH 3 POSITION WITH HAND OFF AUTO LEGEND.
VFD - SELECTOR SWITCH 3 POSITION WITH VFD OFF BYPASS LEGEND.
E - ELAPSED TIME METER.
SP3 - SPEED POTENTIOMETER.
POC - EXTRA NO & NC PILOT DEVICE CONTACT BLOCK.
UT - UNIT TRANSFORMER PROVIDES CONTROL POWER; X/Y SHOWS PRIMARY/SECONDARY FUSES.
3UF70 - 3UF70 SIMOCODE OVERLOAD RELAY (SEE UNIT OPTIONS FOR FEATURES).

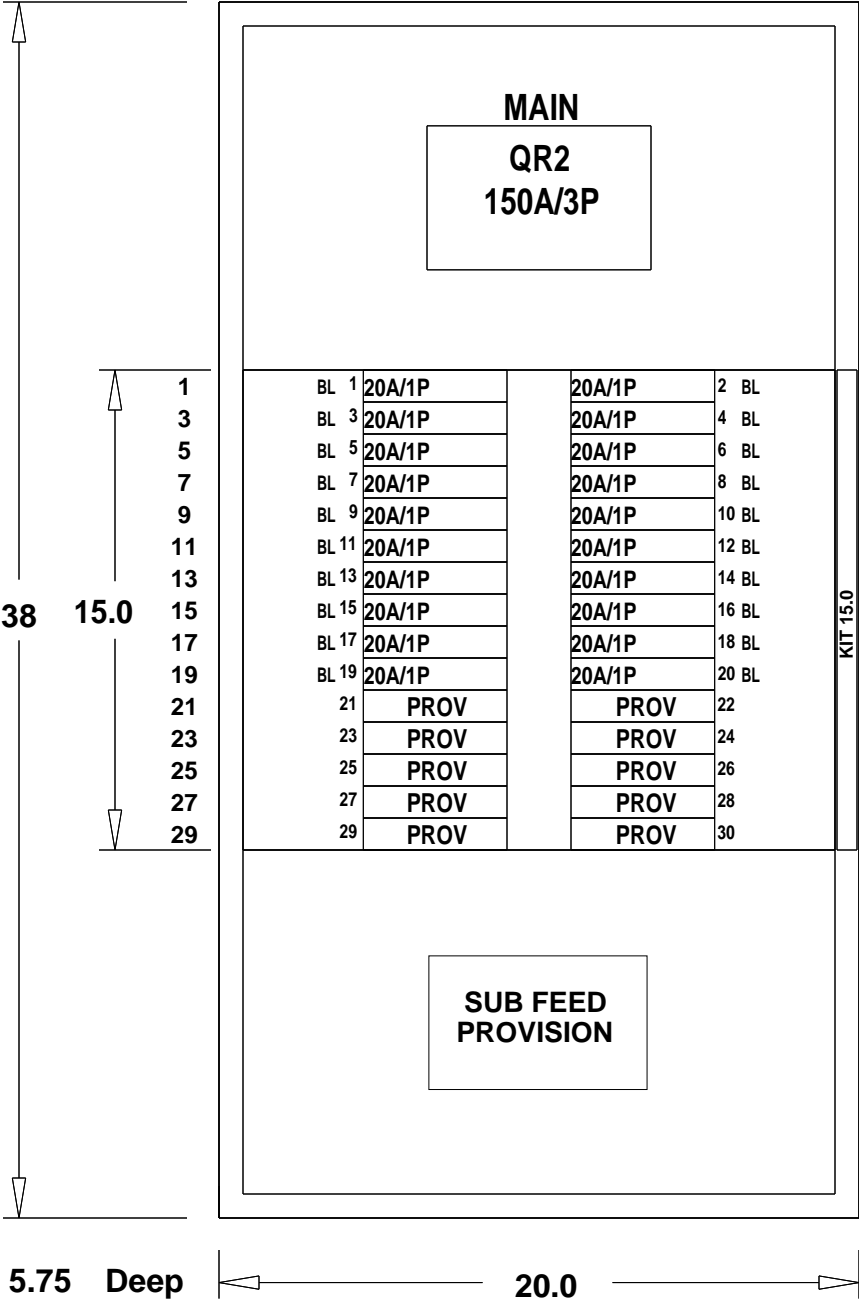
NOTES
E4 - THIS MCC HAS STAR ETHERNET TOPOLOGY.
P6 - THIS MCC IS PROVIDED WITH A BOTTOM MOUNTED GROUND BUS. BOTTOM CONDUIT SPACE IS RESTRICTED; SEE DRAWING D79641 FIGURE 1.
*2 - CONDUIT SPACE MAY BE RESTRICTED BY TRANSFORMERS IN SECTIONS WHERE INDICATED.
H2 - HIGH DENSITY UNITS WILL ALWAYS BE SUPPLIED WITH STATIONARY CONTROL AND POWER TERMINAL BLOCKS, REGARDLESS OF MCC SPECIFICATIONS.
V4 - CONTROL WIRES AT THE VFD CONTROL UNIT TERMINALS WILL BE 18 GAUGE.

JOB				
SF22447518 JTM Pump Station				
P.O. -		CUST. WESTERN SWITCHES & CONTROLS INC		
CONTR -		CONSULT -		
TIE -		BY misajs	ENG. LOC. -	DESIGNATION MCC
S.O. -		DATE 6-22-2022		
Siemens Industry, Inc.		DWG. NO. misajs000_06152200_00_00_M00-20000-4		
Norcross, Georgia		APP.	INFO. LOC. -	REV.
		APP.	DWG. FILE	SHEET 4 OF 5
		1		

SECTION	:1 OF 1
PANEL TYPE	:P1
CATALOG NUMBER	:P1C30QR150CTST
ENCLOSURE	:1 Indoor
SYSTEM VOLTAGE	:208Y/120 3Ø 4W Wye AC
IR RATING	:10 K AIC
MAIN BUS	:225 A
BUS MATERIAL	:Tin Plated Copper
FEED	:Top
MOUNTING	:Surface
SE LABEL	:No
SERIES RATED	:No
CONDUIT AREA	:N/A
*INDICATES POSITIONING NUMBERS TO HELP WITH THE MANUAL PLACEMENT OF BREAKERS ON THE MECHANICAL VIEW	

PANELBOARD COMPONENTS

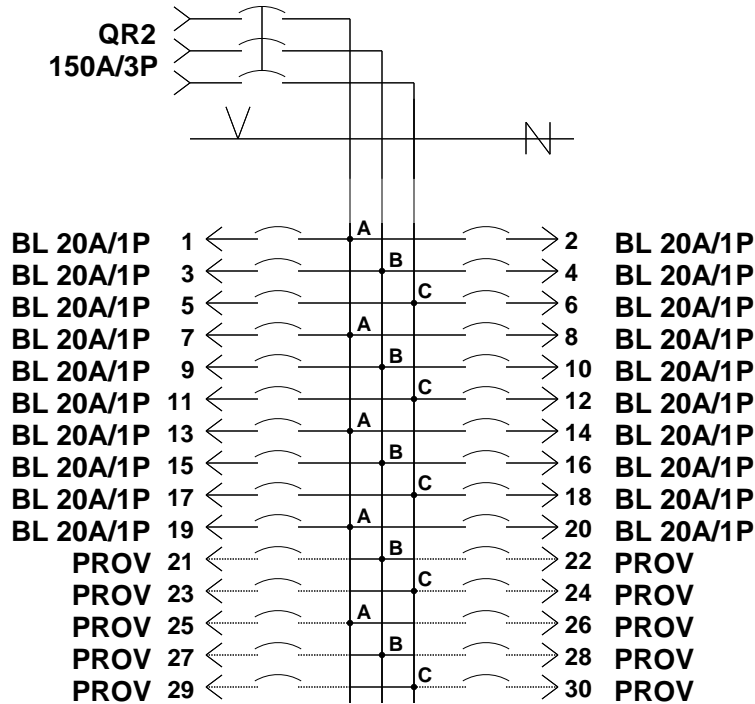
- Main :  
1 - 150A /3P-QR2 MAIN BREAKER  
1-Mechanical Lug - QR
- Branches :  
10 - BL/BQD PROVISION  
20 - 20A /1P-BL
- Options :  
1-Subfeed/Feedthru Provision  
1-Gnd Conn-Shipped w/ Interior  
1-Std Al/Cu Gnd Connector  
1-250A 100% Neutral 30Cir AL  
1-No Enclosure  
1-No Front  
1-Certification - UL  
1-RP1 3 Phase Main Kit QR



				JOB SF22447518 JTM Pump Station				
				P.O. =		CUST. WESTERN SWITCHES & CONTROLS INC		
				CONTR =		CONSLT =		
				TIE =		BY misajs	ENG. LOC. =	DESIGNATION A
				S.O. =		DATE 6-15-2022		
1	0	misajs061522	6-15-2022	Siemens Industry, Inc.  Norcross, Georgia				
NO.	REVISIONS	DRAWN BY	DATE					
				APP.	MFG. LOC.	REV.		
				APP.	DWG. FILE	SHEET 1 OF 5	1	

SECTION	:1 OF 1
PANEL TYPE	:P1
CATALOG NUMBER	:P1C30QR150CTST
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MAIN BUS	:225 A
BUS MATERIAL	:Tin Plated Copper
FEED	:Top
MOUNTING	:Surface
SE LABEL	:No
SERIES RATED	:No
CONDUIT AREA	:N/A
*INDICATES POSITIONING NUMBERS TO HELP WITH THE MANUAL PLACEMENT OF BREAKERS ON THE MECHANICAL VIEW	

(1)#3-300KCMIL CU/AL/PH AND N



ABBREVIATIONS

JOB <b>SF22447518 JTM Pump Station</b>			
P.O. =		CUST. <b>WESTERN SWITCHES &amp; CONTROLS INC</b>	
CONTR =		CONSULT =	
TIE =		BY <b>misajs</b>	ENG. LOC. =
S.O. =		DATE <b>6-15-2022</b>	DESIGNATION <b>A</b>
DWG. NO. <b>misajs000_06152200_00_00_M00-20010-2</b>			
Siemens Industry, Inc.			
Norcross, Georgia		APP. =	REV. 1
		DWG. FILE	SHEET <b>2</b> OF <b>5</b>

# CIRCUIT SCHEDULE

CIRCUIT NUMBER	UNIQUE ID NO.	TRIP AMPS (A)	POLES	DEVICE TYPE	INTERRUPT RATING (AIC)	METER ACC	CT RATING	LOAD LUG SIZE PER PHASE	CIRCUIT IDENTIFICATION
1	8	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
3	10	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
5	12	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
7	14	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
9	16	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
11	18	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
13	20	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
15	22	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
17	24	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
19	26	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
21	28	-	1	B-PROV	-	-	-	-	-
23	30	-	1	B-PROV	-	-	-	-	-
25	32	-	1	B-PROV	-	-	-	-	-
27	34	-	1	B-PROV	-	-	-	-	-
29	36	-	1	B-PROV	-	-	-	-	-
2	9	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
4	11	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
6	13	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
8	15	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
10	17	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
12	19	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
14	21	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
16	23	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
18	25	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
20	27	20	1	BL	10,000	N/A	N/A	(1)#14-#10 CU / #12-#10 AL	-
22	29	-	1	B-PROV	-	-	-	-	-
24	31	-	1	B-PROV	-	-	-	-	-
26	33	-	1	B-PROV	-	-	-	-	-
28	35	-	1	B-PROV	-	-	-	-	-
30	37	-	1	B-PROV	-	-	-	-	-

<b>JOB</b>			
<b>SF22447518 JTM Pump Station</b>			
P.O. -		CUST. <b>WESTERN SWITCHES &amp; CONTROLS INC</b>	
CONTR -		CONS -	
TIE -		BY <b>misajs</b>	ENG. LOC. -
S.O. -		DATE <b>6-15-2022</b>	DESIGNATION <b>A</b>
DWG. NO.		misajs000_06152200_00_00_M00-20010-3	
<b>Siemens Industry, Inc.</b>		APP.	MFG. LOC.
		APP.	DWG. FILE
Norcross, Georgia		SHEET <b>3</b> OF <b>5</b>	
		<b>1</b>	



## SALES QUOTATION

To: El Toro Water District  
Attn: Josh Perez  
RE: El Toro Water District  
JTM Pump Station MCC

Quote Date: 7/15/2022  
Quote No.: 22G104Q02

Thank you for your continued interest in Trimax products, services, and solutions. We are pleased to quote the following scope of work pertaining to the above-referenced project.

### BACKGROUND

El Toro Water District has reached out to Trimax to provide a weather wrapped MCC for their JTM Pump Station. This MCC will be for supply only and does not include any programming services.

### SCOPE OF WORK

Trimax will provide a three section Allen Bradley Centerline 2100 MCC as requested for this project. This MCC will include disconnect breakers, VFD section, transformer, distribution breakers, and PLC section. Once the MCC is built by the manufacturer, Trimax will build and install a NEMA 3R weather wrap around the MCC.

As an optional adder to this project, Trimax will also provide and assemble the PLC section of the MCC. This section will be provisioned with redundant power supplies, a CompactLogix PLC with I/O cards, 7" PanelView OIT, and uninterruptible power supply.

It is understood that this MCC will be for supply only. No PLC or SCADA programming is involved within this scope of work. Once the MCC is built, it will be shipped to the customer to be installed by others.

## SCOPE OF SERVICES

Item	Qty	Description
1	1	<b>Allen Bradley Centerline 2100 MCC to Include:</b> <ul style="list-style-type: none"> <li>Freestanding 90" High 3-Section Lineup</li> <li>NEMA 3R Weather Wrap Enclosure</li> <li>Section 1: 20" Wide <ul style="list-style-type: none"> <li>125A Main Breaker</li> <li>100A Generator Breaker</li> <li>Kirk-Key Interlocks as Required</li> <li>Generator Cam Lock Connectors as Required</li> <li>40HP Powerflex 40 VFD</li> </ul> </li> <li>Section 2: 20" Wide <ul style="list-style-type: none"> <li>Control and Lighting Transformer with Circuit Breaker</li> <li>Lighting Circuit Breaker Panel (100A) <ul style="list-style-type: none"> <li>Distribution Breakers as Required</li> </ul> </li> </ul> </li> <li>Section 3: 30" Wide <ul style="list-style-type: none"> <li>Empty Back Panel</li> </ul> </li> <li>Enclosure Fan and Louvers</li> <li>Nameplates, Din Rails, Fuses, Relays, Terminal Blocks, Ground Bus Bar, Wires, and Labels as Required</li> </ul>
2	Lot	<b>Professional Services</b> <ul style="list-style-type: none"> <li>Project Management</li> <li>Engineering – engineered shop drawings, equipment schematics, engineered submittals, technical data, as-built documentation, and project records</li> <li>Manufacturing Services – fabrication, manufacturing, assembly, equipment wiring, and factory testing</li> <li>O&amp;M Manuals</li> </ul>
		<b>TOTAL (including applicable sales tax):</b>
		<b>\$138,300.00</b>

**OPTIONAL ADDER: PLC**

Item	Qty	Description
1	1	<b>Section 3: Populated Backpan to Include:</b> <ul style="list-style-type: none"> <li>○ Dual Power Supplies</li> <li>○ Allen Bradley CompactLogix PLC <ul style="list-style-type: none"> <li>▪ Power Supply</li> <li>▪ CompactLogix CPU</li> <li>▪ 16 Channel Digital Input Card</li> <li>▪ 16 Channel Digital Output Card</li> <li>▪ 8 Channel Analog Input Card</li> <li>▪ 4 Channel Analog Output Card</li> </ul> </li> <li>○ 7" PanelView 700 Plus OIT</li> <li>○ Uninterruptible Power Supply</li> <li>○ Panel Light and Switch</li> <li>○ Panel Fan and Filtered Louvers</li> <li>○ Duplex Receptacle</li> <li>● Nameplates, Din Rails, Fuses, Relays, Terminal Blocks, Ground Bus Bar, Wires, and Labels as Required</li> </ul>
2	Lot	<b>Professional Services</b> <ul style="list-style-type: none"> <li>● Engineering – engineered shop drawings, equipment schematics, engineered submittals, technical data, as-built documentation, and project records</li> <li>● Manufacturing Services – fabrication, manufacturing, assembly, equipment wiring, and factory testing</li> <li>● O&amp;M Manuals</li> </ul>
		<b>TOTAL (including applicable sales tax):</b>
		<b>\$43,900.00</b>

**CLARIFICATIONS**

- Unless otherwise indicated by the Scope of Work above, quote is to **furnish only** and does not include any trade labor, trade work, construction work, site improvement, contractor services, or any trade installation services. Any trade labor and/or related trade work shall be performed by others/contractor.
- Factory calibration of instruments takes precedence over field calibration.
- Trimax is not responsible for calibrating equipment or instrumentation provided by district or other vendors, even if mentioned in the specifications or addenda referenced above.
- All instruments are provided loose and are not installed in a cabinet or on piping unless otherwise specified.
- Trimax is not responsible to verify the correctness of installation of all instruments, verify that the proper type, size and number of control wires with their conduits are provided and verify that proper electric power circuits provided for all components and systems.

- Unless otherwise indicated by the Scope of Work above, the following is **not** included within this quotation:
  - Software Licenses
  - Conduit, field wire, tubing, or basic trade installation materials (brackets, screws, bolts, j-box, stanchions, pull-box, etc.)
  - Instrumentation mounting components, brackets, stanchions, sunshields, etc.
  - Local control stations and/or field mounted disconnects.
  - Instrumentation, devices, components, or equipment not specifically identified in the above quotation
  - Antenna tower and/or mast
  - Stilling wells
  - Spare Parts
  - Demolition and salvage
  - Seismic calculations
  - Raceway systems drawings
  - Fiber optic patch panels, cable, splicing or terminations.
  - Networking infrastructure or architecture modifications to existing facilities.
  - Any 3rd party testing, harmonic testing/analysis, protective device coordination study, short-circuit analysis, or Arc-Flash Risk Assessment (AFRA) services.
  - Electrical interconnection diagrams for equipment not furnished by Trimax.
  - ISA process control loop diagrams.
  - Signal loop diagrams for equipment not furnished by Trimax.
  - SCADA Programming
  - Networking/Communications/Telemetry
  - PLC Programming
  - OIT Programming

## PROVISIONS

- Quote is firm for 30 days unless otherwise stated.
- Submittals: to be provided approximately **12-14** weeks after receipt of purchase order or written notice of intent; however, generation of submittal(s) will be contingent on supply-chain availability and variability for material components which may impact material item selections affecting submittal lead-times, therefore lead-times are subject to change without notice.
- Delivery: to be scheduled approximately **30-35** weeks minimum after submittal approval; however, delivery schedule(s) will be contingent on supply-chain availability and variability for material components, therefore, lead-times are subject to change without notice.
- Addendums Acknowledged: **0**
- Unless otherwise stated above, price does not include any sales tax, use tax, or applicable fees; please apply any taxes and/or fees as appropriate. Please note that all invoices will include sales tax where applicable.
- Trimax price is FOB factory, full freight allowed.
- Trimax warranties against defect in design workmanship and materials for a period of one year from date of installation, and does not exceed 18 months from the date of shipment from the factory.

- Trimax carries liability insurance, with full worker's compensation coverage.
- Terms are net 30 days on approved credit accounts.
- Interest will be applied to all past due invoices.
- All merchandise sold is subject to lien laws.
- Final retention to be paid within 10 days after the project notice of completion.

Please feel free to contact us at (714) 255-8590 to discuss any questions or comments you may have regarding this quotation.

Sincerely,

TRIMAX, A TESCO CONTROLS COMPANY



Caleb Ernst

Technical Sales Estimator



## STAFF REPORT

**To: Board of Directors**

**Meeting Date: July 25, 2022**

**From: Hannah Ford, Engineering Manager**

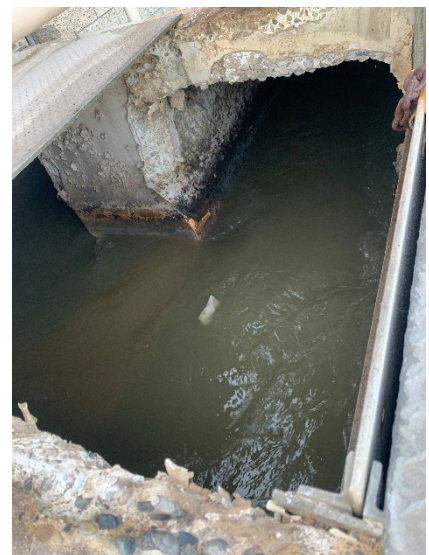
**Subject: Headworks Rehabilitation Study**

### HISTORY OF WRP HEADWORKS

The WRP did not include any preliminary treatment (i.e., screening and grit removal) until the Phase I Modification in 1979, when Laguna Hills Sanitation, Inc., installed several fine screens. The 1981 Phase III WRP Modification added a coarse screen and aerated grit chamber upstream of the fine screens. In the late nineties, the District modified portions of the WRP Fine Screen Facility to accommodate the WRP Reconstruction Project. In 2007, the District replaced the coarse screen with a new Vulcan climber screen and recoated the channels around the Coarse Screen Facility. In 2012, the District added a dedicated blower for the aerated grit chamber. In 2014, the District replaced the manual bar rack in the Headworks bypass channel with a dimminutor.

### PURPOSE OF STUDY

The Headworks at the WRP has suffered from significant deterioration over the years. In fact, the District has a current construction project with SS Mechanical, Inc. for \$346,000 to recoat the walls of the grit chamber due to corrosion exposing aggregate in the concrete, as shown in Figure 1. Most of the Headworks equipment is aging and requires replacement. However, staff have raised concerns regarding replacing the existing equipment in kind for several reasons, as described below:



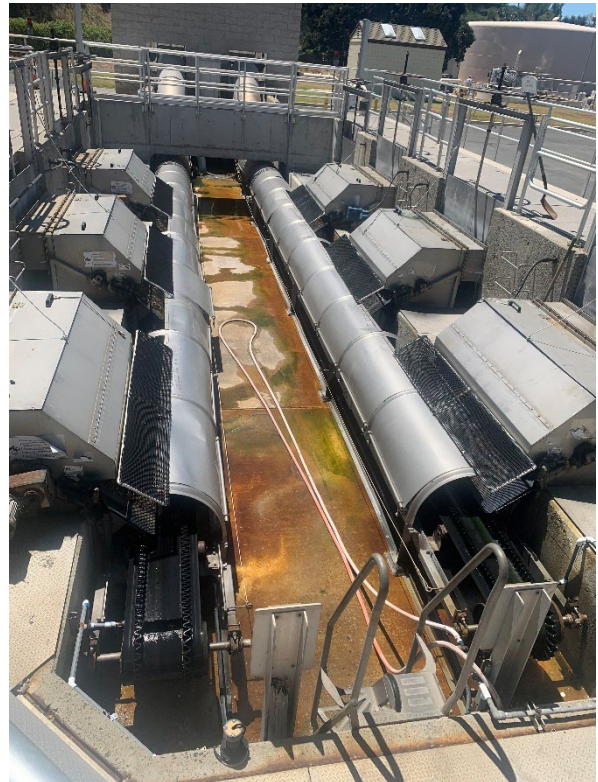
**Figure 1 – Grit Tank  
Inlet Channel**



1. **Coarse Screenings:** There is a climber screen in the main channel and a bypass channel with a dimminutor inside, as shown in Figure 2. Once per day, when the Northline Lift Station is pumped down, the climber screen cannot handle all the slug of organic-laden flow due to rapid screen blinding, so staff opens the bypass to handle the excess flow. The dimminutor is on its last leg and requires replacement, but the climber screen was recently rehabilitated. However, staff would prefer a multi-rake bar screen in place of the dimminutor and solutions for an additional bypass channel that would be available at all times.
2. **Grit Chamber:** In addition to the need to recoat, a recent energy efficiency analysis identified that the grit blower's efficiency should be improved. Staff also cites frequent issues with the air lift pumps that they have to pull out to maintain every year. The District would like to evaluate options for improvement maintainability and energy efficiency of the grit removal system.
3. **Fine Screenings:** Equipment is aging and requires replacement. However, this process area requires the most maintenance because the block bearings do not last long, rollers constantly require replacement, and the belt conveyors are messy. The facility also suffers from several safety issues such as: (1) tread plate worn so thin that it no longer supports the weight of the operators, (2) broken motor guards, and (3) slippery surfaces from poor hydraulic containment, as shown in Figure 3. District staff is interested in evaluating an alternative technology type that offers a cleaner setup with less maintenance issues, such as internally fed drum screens and screw conveyors.



**Figure 2 – Bypass Channel Dimminutor**



**Figure 3 – Fine Screens**

Due to all of these issues, the District would like to expand upon the existing Water and Sewer Master Plan Update contract with Carollo Engineers, Inc. (Carollo) to include an evaluation of the issues at the WRP Headworks and recommend a cost-effective, long term solution.

## PROPOSAL EVALUTION

WRP and Engineering staff met with the proposed Project Manager from Carollo to conduct a site visit and explain the current issues the WRP faces with respect to its Headworks. Engineering staff subsequently shared extensive background documents and conducted several phone conversations to develop a scope and fee that would both fit into the capital budget and allow additional, available funds to implement recommendations. After negotiations, Carollo submitted the scope of work and fee for the Headworks Rehabilitation Study (Study) included as Attachment A. Table 2 summarizes the high-level tasks along with associated hours and cost.

**Table 1- Headworks Rehabilitation Study Proposed Fee**

<b>Task Description</b>	<b>Hours</b>	<b>Cost</b>
Project Management and Meetings	176	\$50,112
Site Visit and Document Review	32	\$8,328
Alternative Evaluation and Conceptual Design	236	\$59,308
Construction Cost Estimate and Site Plan	78	\$15,108
<b>Total</b>	<b>522</b>	<b>\$132,848</b>

The proposed staff for this effort possesses unique knowledge with respect to Headworks design with over one billion gallons per day of aggregate capacity of headworks designs and over \$450 million in total construction value of headworks facilities.

## IMPLICATIONS TO ONGOING GRIT CHAMBER REHABILITATION PROJECT

The Grit Chamber Rehabilitation Project has experienced significant delays from both the contractor and the slide gate vendor. In fact, only 2% of the \$346,000 contract has been spent. Because the Study may change the scope of work required for the Grit Chamber Rehabilitation Project, District staff recommend suspending the construction contract with SS Mechanical until the Study is complete at the end of November 2022.

## COST AND FUNDING

Fiscal year 2022/23 includes \$230,000 to conduct a Fine Screen Facility Rehabilitation Study. The original intent behind the Fine Screen Facility Rehabilitation Study was to respond to staff's concerns regarding the Fine Screen Facility and evaluate whether the process could be eliminated entirely (supported by process modeling) or replaced. Most WRPs do not have fine screens unless they are necessary to protect downstream Membrane Bioreactors (MBRs). Instead, WRPs typically include primary clarification or allow the aeration basins to handle the additional biological oxygen demand (BOD) from non-clarified influent to the aeration basins. Eliminating the Fine Screen Facility entirely is appealing but would increase the BOD to the Aeration Basins and potentially create excessive settling in the Equalization (EQ) Tank. During the development of the scope and fee for this Study, Carollo recommended keeping the Fine Screen Facility and focusing the effort on technology evaluation because the cost to operate the Aeration Basin blowers with a higher air flow rate to treat the elevated BOD would likely not pencil out. Although the Aeration Basins appear to have extra capacity, they typically operate at half of the design



flow. The BOD concentration that the WRP currently experiences is 50% higher than the original design BOD due to increased conservation; therefore, the Aeration Basins likely would not have adequate capacity to handle design flow and the elevated BOD concentrations. Adding primary clarification would be expensive and increase the solids trucked to South Orange County Wastewater Authority (SOCWA). The Fine Screen Facility likely provides a beneficial level of BOD removal and protects the downstream EQ Tank. Reducing the process modeling required to evaluate the need for fine screens resulted in an overall fee reduction that also allowed for inclusion of the coarse screen and grit tank areas in the Study. Remaining available funds will be allocated to implementation of the Study recommendations.

The 5-year Capital Improvement Plan (CIP) includes \$515,000 for a Headworks Bar Screen Retrofit, and over \$340,000 remains in the Grit Chamber Rehabilitation Project budget. These items along with the remainder budgeted for the Fine Screen Facility Rehabilitation Study may become repurposed to implement recommendations of this Study. Table 2 summarizes the budgeted costs for the Study as well as the remaining available for implementation. If additional funds are required for implementation, the District will evaluate the 5-year CIP and re-prioritize accordingly.

<b>Table 2- Headworks Rehabilitation Study and Implementation Budget</b>	
<b>Project</b>	<b>Cost</b>
<b>Study Budget</b>	
Headworks Rehabilitation Study	\$132,848
<b>Budgeted</b>	<b>\$230,000</b>
Remainder Available for Implementation	\$97,152
<b>Implementation Budget</b>	
Remainder Available for Implementation	\$97,152
Grit Chamber Rehabilitation	\$340,120
Headworks Bar Screen Retrofit	\$515,000
<b>Total Available for Implementation</b>	<b>\$952,272</b>

## **RECOMMENDATION**

### **Recommended Action:**

Staff recommends that the Board of Directors authorize the General Manager to amend the Water and Sewer Master Plan Update contract with Carollo Engineers, Inc. in the amount of \$132,848 for a Headworks Rehabilitation Study. Staff further recommends that the Board authorize the General Manager to fund the project costs from the District's Capital Reserves in accordance with the District's adopted Capital Reserve Policy.



# El Toro Water District

*"A District of Distinction"*

Serving the Public – Respecting the Environment

## Board of Directors

Kathryn Freshley  
President

Kay Havens  
Vice President

Jose F. Vergara  
Director

Mark L. Monin  
Director

Mike Gaskins  
Director

**General Manager**  
Dennis P. Cafferty

**Consulting Contract #126**

**Task Order # 3**

**Work Order 31-049**

## **TASK ORDER NO. 3**

### **HEADWORKS REHABILITATION CONCEPTUAL DESIGN STUDY**

This Task Order is issued by El Toro Water District ("DISTRICT") and accepted by ENGINEER (referred to herein as "CAROLLO") pursuant to the mutual promises, covenants and conditions contained in the Consulting Agreement between the above-named parties dated the \_\_\_\_\_ day of \_\_\_\_\_, 2022 in connection with the Headworks Rehabilitation Conceptual Design Study (Study). The terms and conditions of said Consulting Agreement are incorporated herein by reference.

#### **1.0 BACKGROUND.**

The DISTRICT provides domestic water, recycled water and sanitary sewer collection, treatment and disposal services to a population of nearly 50,000 in a service area that includes portions of the Cities of Aliso Viejo, Lake Forest, Laguna Hills, Mission Viejo, and all of the City of Laguna Woods. The DISTRICT owns and operates a 13.8-mgd peak wet weather capacity WRP that currently treats an average influent flow of 3.6 mgd. The WRP was originally constructed by Rossmoor Sanitation Company then later improved by Laguna Hills Sanitation, Inc., prior to DISTRICT ownership, as described below.

In 1963, Rossmoor Sanitation Company constructed the WRP with aeration, secondary clarification, solids thickening, and sludge drying beds. The Effluent Pump Station lifted secondary effluent to the Effluent Holding Pond (also known as Rossmoor Dam No. 1), which held secondary effluent for either processing through the Chlorine Contact Tank for golf course consumption or spraying vacant land.

The WRP did not include any preliminary treatment (i.e., screening and grit removal) until the Phase I Modification in 1979, when Laguna Hills Sanitation, Inc., installed several fine screens. The 1980 Phase II WRP Modification converted the sludge drying beds into an Aeration Pond and the aeration/clarification system into the Waste Activated Clarifier (WAC) surrounding a secondary clarifier (i.e., Secondary Clarifier No. 1). Phase II also added three additional secondary clarifiers for a total of four. The 1981 Phase III WRP Modification installed Dissolved Air Flootation (DAF) No. 1 along with a Sludge Storage Tank. Phase III also added a coarse screen and aerated grit chamber upstream of the fine screens. In 1985, Laguna Hills Sanitation, Inc., converted the existing thickener to DAF No. 2. In parallel with these WRP modifications, Aliso Water Management Agency constructed the Ocean Outfall Pump Station and Effluent Transmission Main, which conveys secondary effluent to the ocean outfall for disposal.

In 1995, the DISTRICT reconstructed the WRP by converting the Aeration Pond to an Equalization Basin downstream of the Headworks and constructing three Aeration Basins. Additional projects included reconstruction of the Fine Screen Facility and Secondary Clarifier No. 2 to support these modifications.

In 2015, the DISTRICT added the Tertiary Treatment Plant (TTP) at the WRP to filter and chlorinate secondary effluent prior to distribution for non-potable reuse. Several other minor improvement projects took place between the aforementioned projects, such as:

- In 2012, the DISTRICT added a dedicated blower for the WAC and an additional dedicated blower for the aerated grit chamber.
- In 2014, the DISTRICT replaced the manual bar rack in the Headworks bypass channel with a FloMinutor.

Note that the WRP does not currently and has never previously included primary clarification.

The Headworks at the WRP has suffered from significant deterioration over the years. In fact, the DISTRICT has a current construction project to recoat the walls of the grit chamber due to corrosion exposing aggregate in the concrete. Most of the Headworks equipment is aging and requires replacement. However, staff have raised concern of replacing the existing equipment in kind for several reasons, as described below:

1. **Coarse Screenings:** There is a climber screen in the main channel and a bypass channel with a dimminutor inside. Once per day, when the Northline Lift Station is pumped down, the climber screen cannot handle all the slug of organic-laden flow due to rapid screen blinding, so staff opens the bypass to handle the excess flow. The dimminutor is on its last leg and requires replacement, but the climber screen was recently rehabilitated. However, staff would prefer a multi-rake bar screen in place of the dimminutor and solutions for an additional bypass channel that would be available at all times.
2. **Grit Chamber:** In addition to the need to recoat, a recent energy efficiency analysis identified that the grit blower's efficiency should be improved. Staff also cites frequent issues with the air lift pumps that they have to pull out to maintain every year. The DISTRICT would like to evaluate options for improvement maintainability and energy efficiency of the grit removal system, including different grit technology types.
3. **Fine Screenings:** Equipment is aging and requires replacement. However, this process area requires the most maintenance because the block bearings don't last long, rollers constantly require replacement, and the belt conveyors are messy. DISTRICT staff is interested in evaluating a complete removal of the fine screen system. If fine screens are required, staff would prefer an alternative technology type that offers a cleaner setup with less maintenance issues, such as internally fed drum screens and screw conveyors.
4. **Composite Sampling:** The pumps to the composite sampler often do not have adequate suction lift because water level is not deep enough.
5. **Influent Flow Metering:** There are two Parshall flumes at the Headworks, one in the bypass channel and one downstream of the Grit Tank. The bypass channel Parshall flume is

accurate, but the one downstream of the Grit Tank, typically used for compliance reporting, is prone to inaccuracy. Staff relies more heavily on downstream magnetic flow meters to understand flow patterns but would prefer a solution to improve the compliance flow meter's accuracy.

As a side note, the DISTRICT ordered two Wash Presses from JWC Environmental, one for the coarse screens and one for the fine screens, to wash and compact screenings prior to disposal. The equipment is scheduled to arrive at the end of 2023. Any modification to the Headworks should re-use this equipment to the greatest extent possible.

The DISTRICT would like Carollo's professional services to evaluate the issues at the WRP Headworks and recommend a cost-effective, long term solution.

## **PURPOSE.**

The purpose of this Task Order is to establish scope, time and payment provisions for Engineering Services relative the Headworks Rehabilitation Conceptual Design Study as detailed in the following Scope of Services. Note that all submittals shall be electronic.

### **3.0 SCOPE OF SERVICES.**

#### **Task 1 Project Management and Meetings**

##### **Subtask 1a Project Management**

CAROLLO shall communicate and coordinate as needed with DISTRICT staff to provide updates, follow up on action items, and manage the project on budget and on schedule. CAROLLO shall prepare and submit a concise monthly status report with the monthly invoice statement that includes the following:

- DISTRICT's standard form that includes a summary of expenditures by task showing total budget, billing to date, current billing, and remaining amount.
- A summary of work progress/items complete for all work tasks;
- An estimate of actual percent complete based on progress compared to percent complete based on budget expended; and
- An updated work plan providing schedule overview and technical task progression.

##### ***Deliverables:***

- 1. Monthly status report***
- 2. Monthly invoice***
- 3. Decision log***
- 4. Action items log***

## Subtask 1b Meetings

CAROLLO shall coordinate and lead the following meetings for this project:

- **Project Kick-Off Meeting:** CAROLLO shall arrange and conduct a project kick-off meeting 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 the WRP and its Headworks. During this meeting, Carollo will provide an updated project schedule with milestones and review upcoming planned activities.
- **Site Visit and Staff Interview:** CAROLLO shall prepare for and conduct a detailed interview with DISTRICT WRP staff following a site visit (described under Task 2) on the same day. The purpose of the interview is to document any known or suspected deficiencies or potential improvements desired by staff at the Headworks. The staff's areas of concerns will fundamentally drive and shape the subsequent engineering work developing potential solutions.
- **Identification of Alternatives Working Session:** CAROLLO shall present preliminary findings and potential alternatives to achieve the DISTRICT's goals for an initial review with DISTRICT. During this working session, the attendees will collaboratively select the alternatives that should be evaluated in detail. Up to two alternatives for each of the following systems will be evaluated in detail following this working session:
  - **Coarse screening and screenings handling.**
  - **Fine screening and screenings handling.**
- **Conceptual Design Presentation Workshop:** CAROLLO shall present the results of the detailed evaluations and configuration of the recommended conceptual design for the Headworks that incorporate the results of Subtasks 3a, 3b, and 3c. Where multiple technologies or alternatives are viable and cost-effective, CAROLLO shall collaboratively evaluate with DISTRICT staff to determine final recommended solution.

For all workshops and meetings, CAROLLO shall prepare and submit a meeting agenda to DISTRICT staff at least one business day in advance of the meeting and shall document and submit meeting minutes, highlighting action items and decisions, to DISTRICT staff within one week of the meeting. At each meeting, CAROLLO shall present and discuss an updated project schedule, project milestones, and planned activities. All meetings except the staff interview and identification of alternatives working session will take place via Microsoft Teams.

### *Deliverables:*

1. *Meeting agenda*
2. *Meeting minutes and decision log*

## Task 2 Site Visit and Document Review

CAROLLO shall conduct a site visit, develop a data request, and review requested data. CAROLLO shall research and review all available existing reports and as-built information provided by the DISTRICT.

*Deliverables:*

1. *Data request log*
2. *Clarification questions for DISTRICT (if any)*

## **Task 3          Alternative Evaluation and Conceptual Design**

Develop and analyze alternatives for the coarse screening and fine screening systems and provide a recommended conceptual design. For grit removal, evaluate rehabilitation options that would improve maintenance and energy efficiency of the existing system.

Alternative development and evaluations for this Task Order shall be based on a headworks peak hour flow rate of 13.8 mgd, peak dry weather flow of 6.8 mgd, and a minimum flow of 1.2 mgd. Flow rate data review, projections, and peaking factor determinations are not included in this scope of work. Hydraulic calculations and analyses shall be based on the following downstream and upstream hydraulic controls:

- Downstream control point: Maximum water surface elevation of 299.50 in the existing equalization basin at the design peak hour flow rate per the 1995 WRP Reconstruction Project Hydraulic Profile.
- Upstream control point: Maximum allowable water surface elevation in the coarse screens common inlet channel is 306.60 based on maintaining a d/D ratio of 0.82 for the existing 24" gravity sewer pipe per the 1995 WRP Reconstruction Project Hydraulic Profile.

### **Subtask 3a      Coarse Screening and Screenings Handling**

Evaluate suitable alternatives for replacing the existing coarse screen (Vulcan Mensch Screen, Model FT36SB "Severe Duty" with  $\frac{3}{4}$ " spacing) and diminutor and for adding a screen bypass channel/pipe. Also evaluate alternatives for equipping new coarse screens with screenings washer compactors, including the use of the Wash Press being procured by the DISTRICT to reduce screenings handling and hauling cost. Develop a conceptual design for rehabilitation of the two existing screen channels plus a new passive bypass channel/pipe to provide a reliable coarse screen system even during times of high flow and load (i.e., during a pump down from Northline). Considerations shall include existing plant hydraulics, equipment reliability, O&M requirements, space constraints, and constructability. Provide a process flow diagram and conceptual plan and section views for the recommended system configuration.

*Deliverables:*

1. *Process flow diagrams and conceptual plan/section views for coarse screening and associated screenings handling system.*
2. *Findings to be presented in meetings and documented in meeting minutes under Task 1.*

## **Subtask 3b Rehabilitation of Grit Removal**

Consider the condition and performance of the existing grit removal system and evaluate potential rehabilitation measures that would improve maintainability and energy efficiency of the existing grit removal system. Evaluating options for replacing the existing grit classifier is not included. Potential improvements shall include grit aeration blower replacement. Provide a process flow diagram and conceptual plan and section views for the recommended system configuration.

*Deliverables:*

1. *Process flow diagram and conceptual plan/section views for grit removal system.*
2. *Findings to be presented meetings and documented in meeting minutes under Task 1*

## **Subtask 3c Fine Screening and Screenings Handling**

Evaluate suitable alternatives for replacing existing fine screens (Hycor Rotostrainer Model RSC-2572 with 0.06" wedge wire) and screenings conveyors, including redundancy consideration. Also evaluate ways to incorporate the Wash Press being procured by the DISTRICT to reduce screenings handling and hauling cost. Develop a conceptual design to continue effectively functioning as a primary clarification process. Considerations shall include existing plant hydraulics, equipment reliability, O&M requirements, space constraints, and constructability. Provide a process flow diagram and conceptual plan and section views for the recommended system configuration.

*Deliverables:*

1. *Process flow diagrams and conceptual plan and section views for fine screening and associated screenings handling system.*
2. *Findings to be presented in meetings and documented in meeting minutes under Task 1*

## **Task 4 Construction Cost Estimate and Conceptual Site Plan**

CAROLLO shall prepare an AACE Class 4 construction cost estimate for the headworks rehabilitation project. Carollo shall also develop a conceptual site plan that shows the major, recommended improvements.



***Deliverables:***

- 1. Construction Cost Estimate***
- 2. Conceptual Site Plan in PDF and AutoCAD format***

## **ASSUMPTIONS AND EXCLUSIONS**

This scope of work is assumed to exclude the following:

1. Surveying, potholing, or other third-party services
2. Development of a plant hydraulic profile
3. Laboratory costs
4. Engineering services related to odor control, electrical, instrumentation, and control systems
5. Materials testing or similar condition assessment of existing equipment and infrastructure
6. Evaluation for composite sampling or influent metering improvements
7. Written deliverables not specifically mentioned, including summary report or technical memorandum.

It is assumed that DISTRICT review time for deliverables will be 2-weeks. It is further assumed that the DISTRICT will provide available CAD files for existing facilities; where CAD files are not available, it may be acceptable to use scanned images of existing as-built drawings as background for the drawings that CAROLLO will develop.

## **4.0 TIME OF PERFORMANCE.**

CAROLLO shall commence work immediately following authorization to proceed. CAROLLO has reviewed the project with the DISTRICT and agrees that 17 weeks is a reasonable time frame within which to accomplish the work.

CAROLLO and the DISTRICT mutually agree that they will work toward meeting the schedule. Should the Scope of Work be changed and/or should problems arise during the course of the work effort that could affect the schedule, it is understood that both CAROLLO and the DISTRICT will develop a revised schedule, if required, to address scope changes or problems subject to the provisions of the Consulting Agreement.

This Task Order may be terminated by either party at any time upon thirty (30) days prior written notice to the other party. The date for termination of this Task Order shall be in accordance with, and shall not be sooner than, nor later than, the date for expiration or termination of the term of the Consulting Agreement.

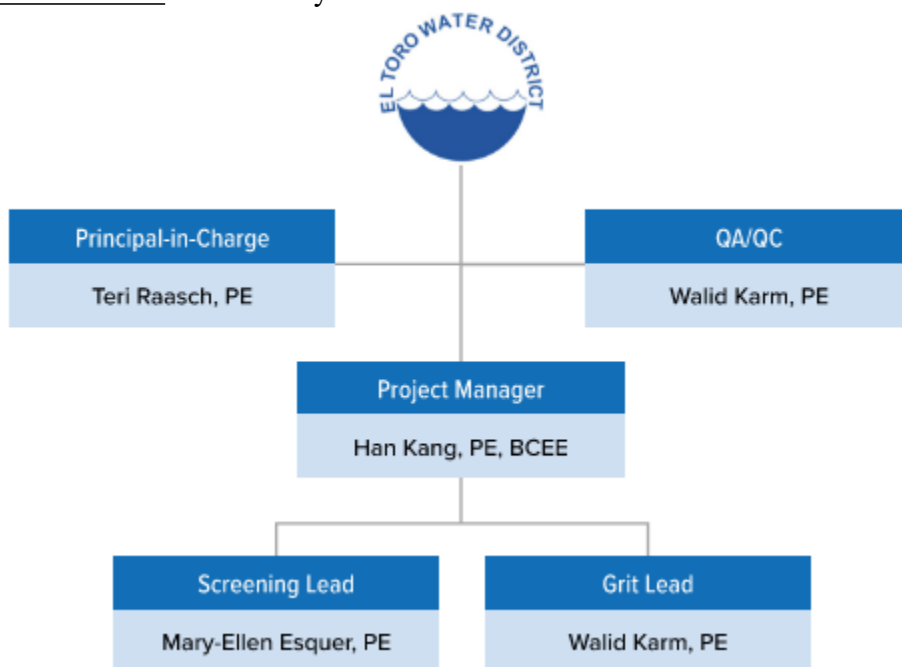


## 5.0 PAYMENT.

The estimated hours and budget to provide the Scope of Services herein defined is presented in Attachment “A”. A budget estimate of ONE HUNDRED THIRTY-TWO THOUSAND AND EIGHT HUNDRED FORTY-EIGHT DOLLARS (\$132,848.00) is hereby established for CAROLLO’s services unless amended by scope of services or schedule changes agreed to in writing by both the DISTRICT and CAROLLO. In no event shall the payment for services under this Task Order, as billed pursuant to CAROLLO's Fee Schedule, exceed the amount of \$ 132,848.00.

## 6.0 PROJECT TEAM.

CAROLLO Team: The key members of the CAROLLO Team are shown in Figure 2.



**Figure 2 – Headworks Rehabilitation Conceptual Design Study Project Team**

If any of these individuals becomes unavailable to act in these capacities, CAROLLO may designate other individuals who shall be the replacement upon the written approval of the DISTRICT. In the event that these designated individuals are no longer capable of performing the services required, as determined in the DISTRICT's discretion, and/or the DISTRICT does not approve of the individual designated by CAROLLO to replace the then designated Project Manager, the DISTRICT may, in its discretion, terminate this Agreement.

# El Toro Water District

## Headworks Rehabilitation Conceptual Design Study Task Order No. 3

### EFFECTIVE DATE.

This Task Order No. 3 is effective as of the \_\_\_\_\_ day of \_\_\_\_\_, 2022.

IN WITNESS WHEREOF, duly authorized representatives of DISTRICT and CAROLLO have executed this Task Order No. 3, evidencing its issuance by DISTRICT and acceptance by ENGINEER.

### EL TORO WATER DISTRICT

### CAROLLO ENGINEERS, INC.

By \_\_\_\_\_  
DENNIS P. CAFFERTY  
General Manager

By \_\_\_\_\_  
HAN KANG  
Project Manager

\_\_\_\_\_  
TERI RAASCH  
Principal-in-Charge

Task Description			Client Services Manager	Project Manager, Study Lead, Quality Control	Professional	Staff Engineer	Senior CAD Technician	CAD Technician	Support Staff	TOTAL HOURS	CAROLLO SUBTOTAL COST	SUB- CONSULTANT COST	OTHER ODC's	TOTAL COST
Personnel Hourly Rate			\$ 248	\$ 315	\$ 248	\$ 151	\$ 212	\$ 153	\$ 136					
Task 1 – Project Management and Meetings														
	1a	Project Management	2	14						16	\$ 4,906		\$ 208	\$ 5,114
	1b	Meetings	20	98	8	32			2	160	\$ 42,918		\$ 2,080	\$ 44,998
Task 1 – Project Management and Meetings Subtotal			22	112	8	32	0	0	2	176	\$ 47,824	\$ -	\$ 2,288	\$ 50,112
Task 2 – Site Visit and Document Review														
	2	Site Visit and Document Review	2	14	6	10				32	\$ 7,904		\$ 416	\$ 8,320
Task 2 – Site Visit and Document Review Subtotal			2	14	6	10	0	0	0	32	\$ 7,904	\$ -	\$ 416	\$ 8,320
Task 3 – Alternative Evaluation and Conceptual Design														
	3a	Coarse Screening and Screenings Handling		48	8	32			8	96	\$ 23,024		\$ 1,248	\$ 24,272
	3b	Rehabilitation of Grit Removal		20	4	12			8	44	\$ 10,192		\$ 572	\$ 10,764
	3c	Fine Screening and Screenings Handling		48	8	32			8	96	\$ 23,024		\$ 1,248	\$ 24,272
Task 3 – Alternative Evaluation and Conceptual Design Subtotal			0	116	20	76	0	0	24	236	\$ 56,240	\$ -	\$ 3,068	\$ 59,308
Task 4 – Construction Cost Estimate and Conceptual Site Plan														
	4	Conceptual Site Plan		6	4	14	4	22		50	\$ 9,210		\$ 650	\$ 9,860
	4	Construction Cost Estimate		4		24				28	\$ 4,884		\$ 364	\$ 5,248
Task 4 – Construction Cost Estimate and Conceptual Site Plan Subtotal			0	10	4	38	4	22	0	78	\$ 14,094	\$ -	\$ 1,014	\$ 15,108
TOTAL HOURS			24	252	38	156	4	22	26	522	\$ 126,062	--	--	--
TOTAL COST			\$ 5,952	\$ 79,380	\$ 9,424	\$ 23,556	\$ 848	\$ 3,366	\$ 3,536	-	\$ 126,062	\$ -	\$ 6,786	\$ 132,848



## STAFF REPORT

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**To: Board of Directors**

**Meeting Date: July 25, 2022**

**From: Hannah Ford, Engineering Manager**

**Subject: Capital Project Status Report**

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### **I. Main Office HVAC Replacement and Improvement Project**

District staff has received comments from the City of Lake Forest Building Division and plans to address said comments in a future revision. Staff has also created a set of bid documents and invited contractors to bid via Planet Bids. Staff will host the Mandatory Pre-bid meeting on July 25<sup>th</sup> at the Main Administrative Office. Staff plans to award the lowest bidder in August 2022. Construction will require staff to relocate from the Administration Office, potentially for up to two months. Staff's current estimate for total project cost is \$301,470, approximately \$61,000 higher than budgeted.

### **II. Asset Management Program**

The District is in the process of implementing a formal Asset Management Program. To further this effort, the District hired an intern to develop its asset inventory. So far, intern assistance has allowed staff to make significant progress such that the water pump stations, sewer lift stations, reservoirs, and pressure regulations station assets will be inventoried by the end of the summer.

In parallel, the Engineering Team developed a Request for Proposals (RFP) to hire a consultant that will use this asset inventory to develop an Asset Management Plan that focuses on water pump stations, reservoirs, and sewer lift stations. Staff decided to focus on the Pump Station Department for three main reasons:

- (1) to capitalize on in-house knowledge in advance of upcoming Pump Station Foreman retirement,
- (2) because pump station assets comprise a significant portion of the District's investments and would benefit from more formal information tracking, and
- (3) to learn through action with an Asset Management Plan that will be implemented on a use case as opposed to a broader Strategic Asset Management Plan that takes a bird's eye view of all of the District's assets.

The consultant will conduct a condition assessment, categorize risk, and develop dashboards that will ultimately influence budgeting as part of the District's capital improvement program. Methods employed as part of the Pump Station Asset Management Plan will be applicable to all other asset classes the District holds (i.e., WRP, fleet, electrical, collections, operations, IT). The next phase of the program will involve developing an Asset Management Plan for the remaining asset classes, likely starting with the WRP.

Staff invited five consultants to propose the Pump Station Asset Management RFP in July. Proposals are due in September for potential award in that month.

### III. R-6 Reservoir Floating Cover and Liner Replacement Project

In June, District staff started testing the system operating without the R-6 Reservoir, using interties with Irvine Ranch Water District (IRWD) and Moulton Niguel Water District (MNWD) to manage variations in flow. The testing continues through July due to delays in part replacement with the final set of interties flowing all together planned to start on July 25<sup>th</sup>. Staff conducted a meeting with Santa Margarita Water District to develop a plan for reservoir drain down, which will start in the beginning of August.

Table 1 summarizes the total budget, timeframe, and percent complete for the current design contract with HGC. Because budget expended through June is 77% with schedule at 100% completion, efforts will likely remain below total anticipated expenditure.

**Table 1 – R-6 Floating Cover and Liner Design Contract Schedule and Budget Status**

Design Contract	Total	Percent Complete
<b>Budget</b>	\$671,236	77%
<b>Schedule</b>	May 28, 2021 – July 8, 2022	100%

### IV. Joint Transmission Main (JTM) Pump Station Project

District issued the invitation to bid on July 7<sup>th</sup> and conducted a mandatory prebid meeting on July 14<sup>th</sup>. Of the seven contractors invited, six attended the mandatory prebid meetings. Award is anticipated at the Special Board Meeting in August.

Staff published the draft California Environmental Quality Act (CEQA) Mitigated Negative Declaration for public review from Tuesday, May 17<sup>th</sup> to Monday, June 6<sup>th</sup>, and the 30-day period expired with no public comment. The Board adopted a resolution approving the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Plan last month. The Gabrieleno tribe continued to provide comments via e-mail to District staff following adoption of that resolution. District staff has offered to allow one week of tribal monitoring during pipeline trench activities but does not plan to formally amend the Mitigated Negative Declaration with additional mitigation measures. The Gabrieleno tribe has not yet responded to the offer for monitoring.

Table 2 summarizes summarizes the total budget, timeframe, and percent complete for Black & Veatch's design contract. Given the urgency of this pump station and simplified design, the design team expedited schedule by one month. Invoiced work currently only represents efforts through mid-June.

**Table 2 – JTM Pump Station Design Contract Schedule and Budget Status**

Design Contract	Total	Percent Complete
<b>Budget</b>	\$177,845	94%
<b>Schedule</b>	January 7, 2022 – August 26, 2022	99%

## V. R-2 Reservoir Interior Recoating Project

The contractor, Associated Tank Constructors (ATC), continues to sand blast and paint the interior of the Rerservoir R-2. ATC has now painted the roof section, shell walls, and started blasting the floor. ATC is moving toward painting the floor as well as the exterior where the ring gutter was removed; ATC will also perform necessary structural repairs that have been identified to date. Those structrual repairs have been inspected by the Distict's third-party inspector CSI. To date the structural repairs total to approximately \$38,000. Such repairs include replacement of seismic bracing rods at the roof girders, replacement of the center vent, and replacement of the ladder. The center vent and seismic bracing rods items contained corrosion beyond repair, and the ladder failed to comply with OSHA requirements. The District's budgeted contingency for this project allows for a total of \$110,000, which is the currently identified repairs remain below. Additional repairs may arise as the contractor blasts the reservoir floor. CSI continues to evaluate structural elements of the reservoir while the contractor continues work efforts.

The Urban and Multibenefit Drought Grant from DWR will cover \$617,668 of project costs. Currently, the grant agreement is under development and on track for execution by early next month. The District will be able to receive the funding in September.



Table 3 summarizes the total budget, timeframe, and percent complete for ATC's construction contract. The project is scheduled for completion by August 2022.

**Table 3 – R-2 Reservoir Interior Recoating Project Schedule and Budget Status**

Design Contract	Total	Percent Complete
<b>Budget</b>	\$611,000	61%
<b>Schedule</b>	April 11, 2022 – August 18, 2022	81%

## VI. Water and Sewer Master Plan Update

Carollo Engineers, Inc (Carollo) conducted several check-ins and developed a draft technical memorandum (TM) on Aliso Creek Lift Station to evaluate its energy efficiency issues and ability to handle additional flow from The Village at Laguna Hills development. The hydraulic model will be calibrated and ready for District use in August. Following, Carollo will develop several simulations related to emergency planning, JTM Pump Station operation, increased non-potable reuse, and direct potable reuse.

Table 4 summarizes the total budget, timeframe, and percent complete for this project. The project progress remains on track with schedule and budget expenditure.

**Table 4 – Water and Sewer Master Plan Update Schedule and Budget Status**

Design Contract	Total	Percent Complete
<b>Budget</b>	\$349,951	35%
<b>Schedule</b>	March 23, 2022 – January 1, 2023	41%

## VII. Ocean Outfall Pump Station (OOPS) Generator Replacement Project

The contractor, Filanc construction, has been working toward finalizing this project. Filanc received and installed the new generator this month. Filanc will commission the generator this week with the manufacturer’s representative scheduled to be on site on July 27<sup>th</sup> and 28<sup>th</sup>. The project is expected to be completed by early August 2022.



Table 5 summarizes the total budget, timeframe, and percent complete for Filanc’s construction contract. Original construction completion was scheduled for November 2021, but material delays have extended schedule to August 2022, which explains higher schedule than budget expenditure. With the upcoming project completion, these values will match. The budget increased via change order due to pandemic-related material shortages, schedule delays, and additional safety design features requested by District staff after bidding.

**Table 5 – OOPS Generator Replacement Construction Schedule and Budget Status**

Construction Contract	Total	Percent Complete
<b>Budget</b>	\$407,854 <sup>1</sup>	43%
<b>Schedule</b>	April 19, 2021 – August 5, 2022	95%

<sup>1</sup>Original contract value of \$384,532 plus Change Order 1 for \$23,322 added in February 2022. Because planned contingency for this project is \$30,000, total project cost remains under board approved cost of \$414,523.

## VIII. Tertiary System Optimization

Staff ordered and received the ammonia analyzer. WRP operations and electrical staff will install the analyzer in the Mixed Liquor Splitter Box. Staff will conduct a progress meeting to discuss initial recommendations that may reduce chemical consumption and costs following the consultant, Trussell Technologies, Inc, review of the provided data.

## IX. Caltrans I-5 Widening Utility Relocations

District staff met with Caltrans representatives early July to determine the exact start date of the next phase of the project, Phase B, which will be mid-August. Staff is working with the District’s contractor, Paulus Engineering (Paulus), to finalize a Phase B construction schedule.

Table 6 summarizes the total budget, timeframe, and percent complete for Paulus' construction contract. The ETWD project is split into three segments: Phase A, B, and C. Phase A work was completed between September and October of 2020. Phase B is scheduled from mid-August through approximately October of this year. Phase C will take place thereafter.

**Table 6 – Caltrans I-5 Widening Utility Relocations Construction Schedule and Budget Status**

Construction Contract	Total	Percent Complete
<b>Budget (Phase B)</b>	\$109,829 <sup>1</sup>	0%
<b>Budget (Total Project)</b>	\$627,365 <sup>2</sup>	73%
<b>Schedule (Phase B)</b>	August 27 2022 – October 3 2022	0%

<sup>1</sup>Caltrans will be reimbursing the District for Phase B per utility agreement 12-UT-1450 and 12-UT-1451.

<sup>2</sup>Original contract value of \$769,777 plus deductive Change Order 1 for \$142,412 finalized in November 2020.

## **X. Effluent Pump Station Rehabilitation Project**

This Project is still in the submittal review phase. District staff have worked with the contractor, Filanc, to release the pumps for production. Currently only check valves have arrived to the site; however, the Contractor is currently waiting for additional equipment to arrive to start performing construction activities.

Table 7 summarizes the total budget, timeframe, and percent complete for Filanc's construction contract. The end date reflects the anticipated schedule extension. This schedule extension is due to increased pump manufacturer production times.

**Table 7 – Effluent Pump Station Construction Schedule and Budget Status**

Construction Contract	Total	Percent Complete
<b>Budget</b>	\$387,000 <sup>1</sup>	2%
<b>Schedule</b>	March 23, 2022 – February 15, 2022	30%

<sup>1</sup>Original contract value, does not include deduct of \$20,000 as part of anticipated Change Order 1.

## **XI. WRP Main Electrical Power Breakers Replacement Project**

Schneider Electric USA Inc. further delayed shipping the breakers until the end of August or September, citing global supply chain shortages as the cause. Staff will install the breakers once they arrive on site; the anticipated project end date has been adjusted to October 2022 accordingly.

Table 8 summarizes the total budget, timeframe, and percent complete for this project. The District has not yet received the invoice for the new equipment fabrication, which explains higher schedule than budget expenditure.

**Table 8 – WRP Main Electrical Power Breaker Schedule and Budget Status**

Construction Contract	Total	Percent Complete
<b>Budget</b>	\$134,491	11%
<b>Schedule</b>	April 29, 2021 – October 29, 2022	82%



## **XII. Wash Press System at Headworks**

District staff ordered the new Wash Press equipment in December but negotiations to revise the ancillary materials (i.e., 304 stainless steel control panel enclosures and wash down duty motors) delayed production. Staff expects the project to be completed by October.

Table 9 summarizes the total budget, timeframe, and percent complete for this project's construction. The District has not yet received an invoice, so the budget remains at zero percent this month.

**Table 9 –Wash Press System at Headworks Construction Schedule and Budget Status**

<b>Construction Contract</b>	<b>Total</b>	<b>Percent Complete</b>
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<b>Budget</b>	\$103,063	0%
<b>Schedule</b>	December 23, 2021 – October 15, 2022	72%

## **XIII. Energy Efficiency Analysis**

District staff continues to work on developing the recommended energy efficiency projects for the WRP and pump stations. Table 10 summarizes the projects staff are developing. Southern California Regional Energy Network (SoCalREN) has indicated that incentives are available for some of these projects, so staff is working to determine the amount and feasibility of collecting those incentives. Staff is also working with Southern California Edison to re-test pump stations that have been rehabilitated since the last test.

**Table 10 – Energy Efficiency Progress Summary**

Facility	Recommended Project	Projected Savings (kWh/yr)	Budgetary Cost	Projected Payback (years) <sup>(1)</sup>	Status
<b>WRP</b>					
ABAC based Aeration Control	Introduce ammonia-based aeration control (ABAC) in aeration basins.	334,000	\$84,000	1.7	Moving forward with design and implementation this year.
Aerated Grit Chamber Optimization	Optimize blower for aerated grit chamber.	54,000	\$65,000	5.6	Included as part of Headworks Rehabilitation Study
Odor Control System Optimization	Install H <sub>2</sub> S analyzers for trimming and VFDs on blowers.	29,000	\$31,000	5.0	Including study in FY 22/23 CIP budget to firm up cost, feasibility, and understand process implications of these modifications.
WAC Rehabilitation	Eliminate waste activated clarifier (WAC) sludge blower. Replace with polymer addition.	147,000	\$112,000	4.9	
RAS Pump Optimization	Flow pace and trim based on sludge blanket monitoring.	113,000	\$156,000	6.4	
Aeration Distribution Optimization	Automate valves on droplegs to zones of aeration basins.	94,000	\$254,000	12.5	
Large Bubble Mixing in Equalization Basin	Replace mixing pumps with large bubble diffusers.	235,000	\$880,000	17.3	
<b>Water Pump Stations</b>					
P-1	Rehabilitate due to degraded efficiency.	98,000	\$107,000	6.4	Included in FY 23/24 CIP budget.
P-4	Potentially rehabilitate due to degraded efficiency based on February 2018 test data	99,000	\$20,000	1.4	Scheduling new SCE test because pumps were rehabilitated since February 2018.
Cherry	Rehabilitate due to degraded efficiency.	12,000	\$29,000	12.1	Included in FY 24/25 CIP budget.
Shenandoah	Rehabilitate due to degraded efficiency.	33,000	\$43,000	6.8	Included in FY 24/25 CIP budget.
Spartan	Rehabilitate due to degraded efficiency.	59,000	\$29,000	3.5	Will issue purchase order for pump rehabilitation this month.

Facility	Recommended Project	Projected Savings (kWh/yr)	Budgetary Cost	Projected Payback (years) <sup>(1)</sup>	Status
Towers	Potentially rehabilitate due to degraded efficiency based on November 2015 test data.	1,488	\$12,000	5.4	Investigate whether pump station was rehabilitated since November 2015.
<b>Sewer Lift Stations</b>					
Aliso Creek – Pump 1	Tested in April 2021, and pump and motor were replaced thereafter in December 2021.	37,276	\$30,000	7.3	Schedule new SCE test because pumps were rehabilitated since April 2021.
Aliso Creek – Pump 2	Pump and motor were replaced in September 2020 and SCE testing conducted in April 2021. Evaluate deficiencies to understand causation of rapid efficiency decline in one of the duty pumps.	87,000	\$36,000	3.1	Conducted site visit with consultant for the Master Plan, Carollo, to evaluate and recommend solutions.
Northline – Pump 3	Pump and motor were replaced in January 2020 and SCE testing conducted in April 2021. Evaluate deficiencies to understand causation of rapid efficiency decline in one of the duty pumps.	24,000	\$18,000	4.5	Operations staff indicate that Northline Pump 3 is under frequent strain because it serves to regularly pump down the wet well, at which time it is subject to poor suction conditions.
Westline	Potentially rehabilitate due to degraded efficiency based on September 2015 test data.	42,065	19,500	3.1	Schedule new SCE test because pumps were rehabilitated since September 2015.
Freeway	Potentially rehabilitate due to degraded efficiency based on October 2015 test data.	75,457	19,500	1.7	Investigate whether pump station was rehabilitated since October 2015.
Veeh – Pumps 3 and 4	Potentially rehabilitate due to degraded efficiency based on September 2015 test data.	33,828	11,000	2.1	Investigate whether pump station was rehabilitated since September 2015.

<sup>(1)</sup>Does not include potential rebate from SCE.

**F.Y. 2022/23 CAPITAL IMPROVEMENT PROGRAM BUDGET ITEMS > \$50,000**  
**BOARD APPROVAL SCHEDULE**

Category	Project Description	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Revenue Bond / CIP Budget	Board Approved Cost
<b>2022/23 Capital Projects</b>															
	4920 Siphon	E	E	E	E	BP								\$170,000	-
	La Paz Abandonment	ET	ET	ET	ET	ET	ET	ET	BP					\$100,000	-
	WRP Optimization Study			B	A	E	E	E	E	E	E	E	BP		
	Headworks Rehabilitation Study	A	E	E	E	E	BP							\$430,000	-
	Headworks Bar Screen Retrofit								E	E	B	A	C	\$515,000	-
	Asset Management		B	A	E	E	E	E	E	E	E	BP		\$100,000	-
<b>2022/23 Capital Equipment</b>															
	P-4 Pump Replacement					A	O						R	\$59,000	-
	P-1 and R-5 Fence Alarm Replacement			B	A	C								\$69,000	-
	Reservoir Mixer Improvements				E	E	A	C	C	C				\$77,000	-
	Headworks Bar Screen PLC Panel Replacement											E	A	\$60,000	-
	Boom Truck (Diesel - Regulatory Compliance)	Deferred to FY 2023/24												\$315,000	-
	IT Master Plan						RFP	A	E	E	E	E	BP	\$80,000	-
<b>Revenue Bond Projects</b>															
	R-6 Reservoir Floating Cover	A	C	C	C	C	C	C	C	C	C	C	C	\$9,776,400	\$671,236
	Filter Plant Site Use Plan Investigation and Design	A / E	C / E	C / E	C / E	C							B	\$2,917,000	\$475,633
	AMR / AMI Implementation	To be determined based on costs incurred by ongoing revenue bond projects												\$6,761,900	-
	South Orange County Turnout Project			E	E	E	E	E	E	E	E	E	E	\$3,000,000	
	JTM Pump Station	B	A	C	C	C	C	C	C	C	C	C		\$2,400,000	\$177,845
<b>Previous Fiscal Year Carryover</b>															
	R-2 Reservoir Interior Recoating	C	C											\$605,000	\$806,000
	Wash Press System at Headworks		R	C	C									\$200,000	\$103,063
	Effluent Pump Station Rehabilitation	C	C	C	C	C	C	C	C	C				\$150,000	\$425,000
	WRP Main Electrical Power Breaker Upgrades	C												\$140,000	\$134,491
	DAF Unit #2 Rehabilitation Project	E	E	E	E	E	B	A	C	C	C	C	C	\$150,000	-
	Aliso Creek Emergency Generator Replacement Project	E	B	A	C	C	C	C	C	C				\$275,000	-
	Grit Chamber Rehab/Recoating	C	C	C										\$85,000	\$416,000
	OOPS Emergency Generator Replacement	C	C	C										\$220,000	\$414,523
	Main Office HVAC Replacement & Improvement Project	B	A	C	C	C	C	C						\$240,000	-
	Master Plan Update	ET	ET	ET	ET	ET	BP	ET						\$350,000	\$349,951
	Caltrans I-5 Widening Utility Relocations	C	C											\$0	\$627,365
<b>Total</b>														<b>\$29,326,300</b>	<b>\$4,601,107</b>

**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 known 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.

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**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 untended 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.

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**Evaporation:** The process that changes water (liquid) into water vapor (gas).

**Estuary:** Where fresh water meets salt water.

**Evapotranspiration:** 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.

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**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 is 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.

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**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.

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**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.

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**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

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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.

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**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 30<sup>th</sup> 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.