



**UNION SANITARY DISTRICT BOARD MEETING/  
UNION SANITARY DISTRICT FINANCING AUTHORITY  
AGENDA**

**Monday, September 13, 2021**

**Regular Meeting - 4:00 P.M.**

**Union Sanitary District  
Administration Building  
5072 Benson Road  
Union City, CA 94587**

**Directors**

Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**

Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

**CORONAVIRUS (COVID-19) ADVISORY NOTICE**

Consistent with Executive Order No. N-08-21 from the Executive Department of the State of California, and Alameda County Health Officer Order No. 21-01a, the Monday, September 13, 2021, Regular Board Meeting will not be physically open to the public and all Board Members will be teleconferencing into the meeting. **To maximize public safety while still maintaining transparency and public access, members of the public can observe the meeting by following the steps listed below, and may provide public comment by sending comments to the Board Clerk by email at [assistanttogm@unionsanitary.ca.gov](mailto:assistanttogm@unionsanitary.ca.gov) before or during the meeting or via voicemail by calling 510-477-7599 before 3:00 p.m. on the date of the meeting.** Comments will then be read into the record, with a maximum allowance of 3 minutes per individual comment, subject to the Board President's discretion. All comments should be a maximum of 500 words, which corresponds to approximately 3 minutes of speaking time. If a comment is received after the agenda item is heard but before the close of the meeting, the comment will still be included as a part of the record of the meeting but will not be read into the record.

Any member of the public who needs accommodations should email or call the Board Clerk, [assistanttogm@unionsanitary.ca.gov](mailto:assistanttogm@unionsanitary.ca.gov) or 510-477-7503, who will use their best efforts to provide reasonable accommodations to provide as much accessibility as possible while also maintaining public safety in accordance with the Union Sanitary District procedure for resolving reasonable accommodation requests.

To listen to this Regular Board Meeting:

Call: 1-888-788-0099 or 1-877-853-5247

Meeting ID: 886 6767 7526 #

Participant ID: #

Click the Zoom link below to watch and listen:

<https://us02web.zoom.us/j/88667677526>

	1.	Call to Order.
	2.	<del>Salute to the Flag.</del> (This item has been suspended due to the COVID-19 pandemic.)
	3.	Roll Call.
Motion	4.	Approve Minutes of the Union Sanitary District Board Meeting of August 23, 2021.
Information	5.	Fiscal Year 2021 4 <sup>th</sup> Quarter Managed Investment Portfolio Report <i>(to be reviewed by the Budget &amp; Finance Committee)</i> .
	6.	Written Communications.
	7.	Public Comment. Public Comment is limited to three minutes per individual, with a maximum of 30 minutes per subject. If the comment relates to an agenda item, the speaker should address the Board at the time the item is considered. Speaker cards will be available in the Boardroom and are requested to be completed prior to the start of the meeting.
Motion	8.	Review and Consider Approval of Publicly Available Pay Schedule for Unclassified Staff <i>(to be reviewed by the Personnel Committee)</i> .
Motion	9.	Approve the Additional Expenditure of \$35,451 for the FMC Water Truck <i>(to be reviewed by the Budget &amp; Finance Committee)</i> .
Motion	10.	Authorize the General Manager to Execute Amendment No. 3 to Task Order No. 2 with Brown and Caldwell for the Standby Power Generation System Upgrade Project <i>(to be reviewed by the Engineering and Information Technology Committee)</i> .
Motion	11.	Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Brown and Caldwell for the Cogeneration Replacement and Ventilation Study <i>(to be reviewed by the Engineering and Information Technology Committee)</i> .
Direction	12.	Receive Information and Provide Direction Regarding Revised and Updated Operational Excellence Balanced Scorecard <i>(to be reviewed by the Legal/Community Affairs Committee)</i> .
Information	13.	Annual Report to Union City Fiscal Year 2021 <i>(to be reviewed by the Legislative Committee)</i> .
Information	14.	Report on the East Bay Dischargers Authority Meeting of July 15, 2021.
Information	15.	COVID-19 Update.
Information	16.	Check Register.
Information	17.	Committee Meeting Reports. <i>(No Board action is taken at Committee meetings):</i> <ol style="list-style-type: none"> <li>Personnel Committee – Wednesday, September 8, 2021, at 10:00 a.m. <ul style="list-style-type: none"> <li>Director Kite and Director Toy</li> </ul> </li> </ol>

- b. Budget & Finance Committee – Wednesday, September 8, 2021, at 10:30 a.m.
  - Director Lathi and Director Toy
- c. Legislative Committee – Thursday, September 9, 2021, at 1:00 p.m.
  - Director Toy and Director Fernandez
- d. Engineering and Information Technology Committee – Friday, September 10, 2021, at 10:00 a.m.
  - Director Kite and Director Fernandez
- e. Legal/Community Affairs Committee – Friday, September 10, 2021, at 11:00 a.m.
  - Director Lathi and Director Handley

Information

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- 18. General Manager’s Report. *(Information on recent issues of interest to the Board).*
- 
- 19. Other Business:
    - a. Comments and questions. *Directors can share information relating to District business and are welcome to request information from staff.*
    - b. Scheduling matters for future consideration.
- 
- 20. Adjournment – The Board will adjourn to a Board Workshop to be held virtually on Wednesday, September 15, 2021, at 4:00 p.m.
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- 21. Adjournment – The Board will then adjourn to the next Regular Board Meeting to be held virtually on Monday, September 27, 2021, at 4:00 p.m.
- 

The facilities at the District Offices are wheelchair accessible. Any attendee requiring special accommodations at the meeting should contact the General Manager’s office at (510) 477-7503 at least 24 hours in advance of the meeting.



## PERSONNEL COMMITTEE MEETING

Committee Members: Director Kite and Director Toy

### Directors

Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

### AGENDA

**Wednesday, September 8, 2021**

**10:00 A.M.**

**Alvarado Conference Room**

**5072 Benson Road**

**Union City, CA 94587**

### Officers

Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

Consistent with Executive Orders No. N-25-20 and No. N-29-20 from the Executive Department of the State of California, the Alameda County May 18, 2020 Updated Shelter in Place Order, and Executive Order No. N-33-20, Stay-at-Home Order, this meeting will not be physically open to the public and all Board Members will be teleconferencing into the meeting via conference call.

To maximize public safety while still maintaining public access, members of the public can observe the meeting by calling 510-477-6190 to listen to the committee meeting, and may provide public comment by sending comments to the Board Clerk by email at [assistanttogm@unionsanitary.ca.gov](mailto:assistanttogm@unionsanitary.ca.gov) or via voicemail by calling 510-477-7599 up to one hour before the scheduled meeting start time.

1. Call to Order
2. Roll Call
3. Public Comment  
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4. Items to be reviewed for the Regular Board meeting of September 13, 2021:
  - Review and Consider Approval of Publicly Available Pay Schedule for Unclassified Staff
5. Adjournment

Items reviewed at committee meetings will be included in the agenda packet for the upcoming Board meeting.  
No action will be taken at committee meetings.

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**BUDGET & FINANCE COMMITTEE MEETING**  
Committee Members: Director Lathi and Director Toy

**AGENDA**

**Wednesday, September 8, 2021**  
**10:30 A.M.**

**Alvarado Conference Room**  
**5072 Benson Road**  
**Union City, CA 94587**

**Directors**

Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**

Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

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1. Call to Order

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2. Roll Call

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3. Public Comment

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4. Items to be reviewed for the Regular Board meeting of September 13, 2021:

- Fiscal Year 2021 4th Quarter Managed Investment Portfolio Report
  - Approve the Additional Expenditure of \$35,451 for the FMC Water Truck
- 

5. Adjournment

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Items reviewed at committee meetings will be included in the agenda packet for the upcoming Board meeting. No action will be taken at committee meetings.
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## LEGISLATIVE COMMITTEE MEETING

Committee Members: Director Toy and Director Fernandez

### Directors

Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

### AGENDA

**Thursday, September 9, 2021**

**1:00 P.M.**

**Alvarado Conference Room**

**5072 Benson Road**

**Union City, CA 94587**

### Officers

Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

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1. Call to Order

2. Roll Call

3. Public Comment

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4. Items to be reviewed for the Regular Board meeting of September 13, 2021:

- Annual Report to Union City Fiscal Year 2021

5. Adjournment

Items reviewed at committee meetings will be included in the agenda packet for the upcoming Board meeting. No action will be taken at committee meetings.
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**ENGINEERING AND INFORMATION TECHNOLOGY  
COMMITTEE MEETING**

Committee Members: Director Kite and Director Fernandez

**Directors**

Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**

Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

**AGENDA**

**Friday, September 10, 2021**

**10:00 A.M.**

**Alvarado Conference Room**

**5072 Benson Road**

**Union City, CA 94587**

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1. Call to Order

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2. Roll Call

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3. Public Comment

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4. Items to be reviewed for the Regular Board meeting of September 13, 2021:

- Authorize the General Manager to Execute Amendment No. 3 to Task Order No. 2 with Brown and Caldwell for the Standby Power Generation System Upgrade Project
  - Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Brown and Caldwell for the Cogeneration Replacement and Ventilation Study
- 

5. Adjournment

Items reviewed at committee meetings will be included in the agenda packet for the upcoming Board meeting. No action will be taken at committee meetings.
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## LEGAL/COMMUNITY AFFAIRS COMMITTEE MEETING

Committee Members: Director Lathi and Director Handley

### Directors

Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

### AGENDA

**Friday, September 10, 2021**

**11:00 A.M.**

**Alvarado Conference Room**

**5072 Benson Road**

**Union City, CA 94587**

### Officers

Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

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1. Call to Order

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2. Roll Call

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3. Public Comment

Public Comment is limited to three minutes per individual, with a maximum of 30 minutes per subject. If the comment relates to an agenda item, the speaker should address the Board at the time the item is considered. Speaker cards will be available and are requested to be completed prior to the start of the meeting.

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4. Items to be reviewed for the Regular Board meeting of September 13, 2021:

- Receive Information and Provide Direction Regarding Revised and Updated Operational Excellence Balanced Scorecard
- 

5. Adjournment

Items reviewed at committee meetings will be included in the agenda packet for the upcoming Board meeting. No action will be taken at committee meetings.
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The facilities at the District Offices are wheelchair accessible. Any attendee requiring special accommodations at the meeting should contact the General Manager's office at (510) 477-7503 at least 24 hours in advance of the meeting.



**MINUTES OF THE MEETING OF THE  
BOARD OF DIRECTORS OF  
UNION SANITARY DISTRICT/UNION SANITARY DISTRICT FINANCING  
AUTHORITY  
August 23, 2021**

**Consistent with Executive Orders No. N-08-21 from the Executive Department of the State of California, and Alameda County Health Officer Order No. 21-01a, the Monday, August 23, 2021, Regular Board Meeting was not physically open to the public and all Board Members teleconferenced into the meeting. To maximize public safety while still maintaining transparency and public access, members of the public were able to observe the Board Meeting and provide public comment by sending comments to the Board Clerk.**

**CALL TO ORDER**

President Kite called the meeting to order at 4:00 p.m. The regular meeting time was modified due to the COVID-19 emergency.

**SALUTE TO THE FLAG**

**ROLL CALL**

PRESENT: Pat Kite, President  
Anjali Lathi, Vice President  
Manny Fernandez, Secretary  
Jennifer Toy, Director  
Tom Handley, Director

STAFF: Paul Eldredge, General Manager/District Engineer  
Karen Murphy, District Counsel  
Mark Carlson, Business Services Manager/CFO  
Sami Ghossain, Technical Services Manager  
Armando Lopez, Treatment and Disposal Services Manager  
James Schofield, Collection Services Manager  
Robert Simonich, Fabrication, Maintenance, and Construction Manager  
Ric Pipkin, Enhanced Treatment and Site Upgrade Program Manager  
Jose Rodrigues, Collection Services Coach  
Shawn Nesgis, Collection Services Coach  
Jason Yeates, Organizational Performance Coordinator  
Regina McEvoy, Executive Assistant to the General Manager/Board Clerk

**APPROVE MINUTES OF THE UNION SANITARY DISTRICT BOARD MEETING OF  
AUGUST 9, 2021**

It was moved by Director Handley, seconded by Vice President Lathi, to Approve the Minutes of the Board Meeting of August 9, 2021. Motion carried with the following vote:

AYES: Fernandez, Handley, Kite, Lathi, Toy  
NOES: None  
ABSTAIN: None

ABSENT: None

### **JULY 2021 MONTHLY OPERATIONS REPORT**

This item was reviewed by the Budget & Finance and Legal/Community Affairs Committees. General Manager Eldredge provided an overview of the Odor Report and Work Group Reports, and Business Services Manager Carlson reviewed the financial reports included in the Board meeting packet.

### **FOURTH QUARTER FISCAL YEAR 2021 DISTRICT-WIDE BALANCED SCORECARD MEASURES**

This item was reviewed by the Legal/Community Affairs Committee. Organizational Performance Coordinator Yeates provided an overview of the Balanced Scorecard included in the Board meeting packet and responded to Board member questions.

### **WRITTEN COMMUNICATIONS**

There were no written communications.

### **PUBLIC COMMENT**

There was no public comment.

### **CONSIDER A RESOLUTION DETERMINING THE ENHANCED TREATMENT AND SITE UPGRADE PHASE 1A – CAMPUS BUILDING PROJECT CONSISTENT WITH THE APPROVED INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR THE ENHANCED TREATMENT AND SITE UPGRADE PHASE 1 PROGRAM AND APPROVING THE PROJECT**

This item was reviewed by the Engineering and Information Technology Committee. Enhanced Treatment and Site Upgrade (ETSU) Program Manager Pipkin stated the California Environmental Quality Act (CEQA) requires the District complete an environmental review process for the ETSU Phase 1 Program. Hazen and Sawyer (Hazen) and their environmental subconsultant, Scheidegger and Associates, conducted the environmental review and prepared an Initial Study/Mitigated Negative Declaration (IS/MND) for the ETSU Phase 1 Program. The IS/MND concluded that while several potential significant environmental impacts could result from the ETSU Program, mitigation measures will effectively address these potential impacts. The Board adopted the Mitigated Negative Declaration by resolution on May 10, 2021. Concurrent with development of the Construction Documents for the Phase 1A – Campus Building Project, Scheidegger and Associates prepared an environmental compliance assessment. The assessment found the environmental effects of the Project were within the scope of the adopted Program IS/MND and no further environmental documents would be required. The draft resolution includes approval of the Project, which is required prior to the filing of a CEQA Notice of Determination. Staff recommended the Board consider adopting a resolution that would determine the environmental impacts of the Phase 1A – Campus Building Project, as defined by the Construction Documents, are within the scope and consistent with the approved Initial Study/Mitigated Negative Declaration for the ETSU Phase 1 Program, and no further environmental review would be required for the Project and approve the Project allowing staff to file a CEQA Notice of Determination.

It was moved by Director Toy, seconded by Director Handley, to Adopt Resolution No. 2934 Determining the Enhanced Treatment and Site Upgrade Phase 1A – Campus Building Project Consistent with the Approved Initial Study/Mitigated Negative Declaration for the Enhanced Treatment and Site Upgrade Phase 1 Program and Approving the Project. Motion carried with the following vote:

AYES: Fernandez, Handley, Kite, Lathi, Toy

NOES: None

ABSTAIN: None

ABSENT: None

## **INFORMATION ITEMS:**

### **COVID-19 Update**

General Manager Eldredge provided an update regarding COVID-19 impacts on District operations and coordination efforts.

### **Check Register**

Staff responded to Boardmember questions regarding the check register.

### **COMMITTEE MEETING REPORTS:**

The Budget & Finance, Legal/Community Affairs, and Engineering and Information Technology Committees met.

### **GENERAL MANAGER'S REPORT:**

- General Manager Eldredge stated staff would reach out to the Board to schedule the General Manager Check-in Board Workshop.
- The two closed sessions for the General Manager's annual evaluation will be scheduled in September and October.
- Assemblymember Alex Lee will tour the treatment plant on Monday, September 13, 2021. General Manager Eldredge asked the Board to notify staff if they plan to attend.

### **OTHER BUSINESS:**

Vice President Lathi asked when staff planned to present information regarding a potential telecommute policy; General Manager Eldredge stated staff would present information at the first Board meeting in November.

### **ADJOURNMENT:**

The meeting was adjourned at 4:25 p.m. to the next Board Meeting to be held virtually on Monday, September 13, 2021, at 4:00 p.m.

SUBMITTED:

ATTEST:

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REGINA McEVOY  
BOARD CLERK

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MANNY FERNANDEZ  
SECRETARY

APPROVED:

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PAT KITE  
PRESIDENT

Adopted this 13<sup>th</sup> day of September 2021

**Directors**

Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**

Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

**SEPTEMBER 13, 2021  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 5**

**TITLE:** Fiscal Year 2021 Fourth Quarter Managed Investment Portfolio Report (*This is an Information Item*)

**SUBMITTED:** Paul R. Eldredge, General Manager/District Engineer  
Mark Carlson, Business Services Work Group Manager, CFO

**Recommendation**

Information only.

**Discussion**

The attached report from PFM shows the District's investment positions for the 4<sup>th</sup> Quarter of Fiscal Year 2021 (ending June 30, 2021)

This reporting format is intended to supplement the existing Monthly Operations Report provided by Staff for the months of April, May and June of 2021 and includes the following sections, which will be presented in detail:

- Market Update
- Investment Performance Review
- Portfolio Transactions and Holdings
- Disclosures
- Glossary

Representatives from PFM and Staff will be available to answer questions.

**Background**

In October of 2018, the Board authorized the General Manager to sign the Portfolio Management Services Contract with PFM Asset Management LLC (PFM) for investment management services. The strategy behind this decision was to maximize investment returns to

the extent practicable, while maintaining compliance with all policy, legal and regulatory requirements for government agency investments. The provision of comprehensive portfolio reporting and current economic analyses were both deliverables in the contract negotiated with PFM.

**Previous Board Action**

None

**Attachment:**

Investment Performance Review for the Quarter Ended June 30, 2021.



# UNION SANITARY DISTRICT

## **Investment Performance Review For the Quarter Ended June 30, 2021**

Client Management Team

Monique Spyke, Managing Director

PFM Asset Management LLC

44 Montgomery Street, 3rd Floor  
San Francisco, CA 94104  
415-982-5544

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

## Executive Summary

- Despite higher inflation expectations and concerns about tapering, the U.S. Treasury yield curve flattened over the month, with yields on long tenors continuing to retreat. The 10-year Treasury yield fell 13 bps (0.13%) to 1.47%. Short-term yields rose from near zero in response to the Fed's adjustment of two key technical rates – the IOER (interest on excess reserves) and RRP (reverse repurchase agreement rate).
- We maintained core allocations in most sectors while we opportunistically trimmed non-Treasury allocations in certain sectors and maturities and carefully managed risk as we considered inflationary pressures and Fed policy uncertainty.
  - PFM continues to prioritize the **safety** and **liquidity** of the District's portfolio above all else.
- While economic conditions appear to be improving, we remain vigilant in our conservative investment process. We will continue to monitor and evaluate market conditions for opportunities to add value; however, our current view is to exercise caution with regards to any non-government purchases until market conditions stabilize.

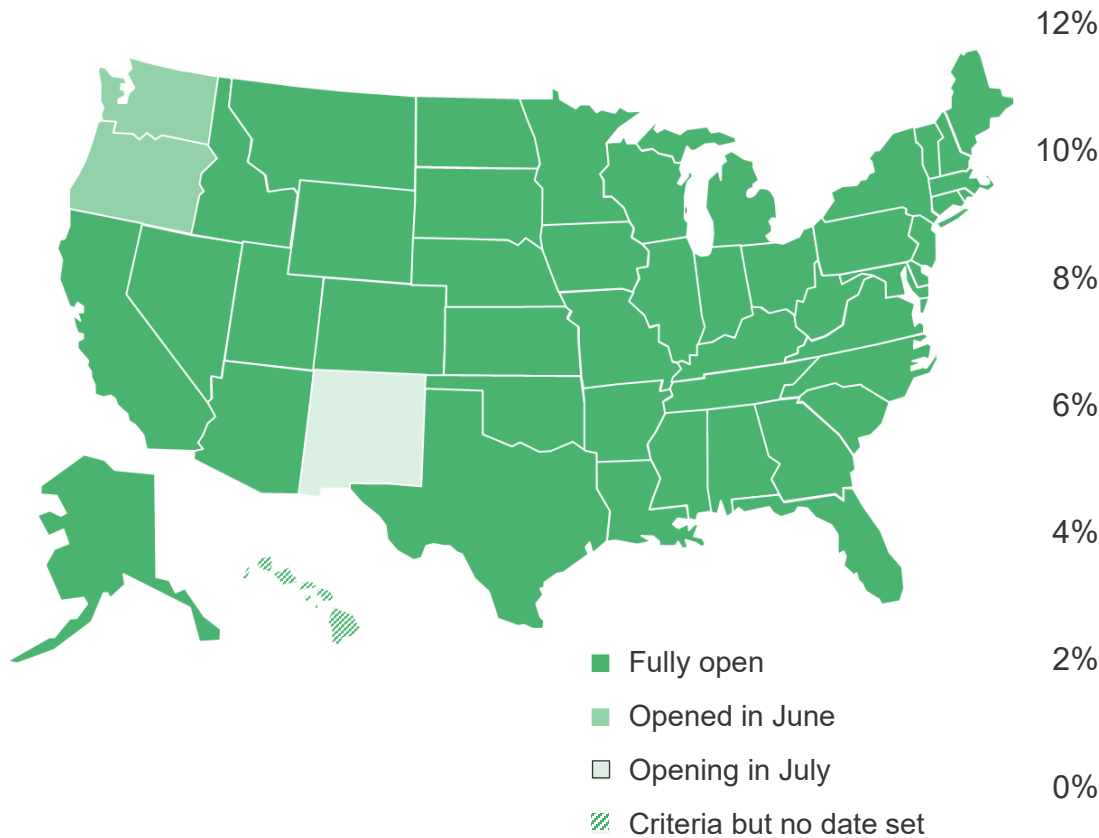


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## *Market Update*

## Reopening Economy Drives GDP Growth

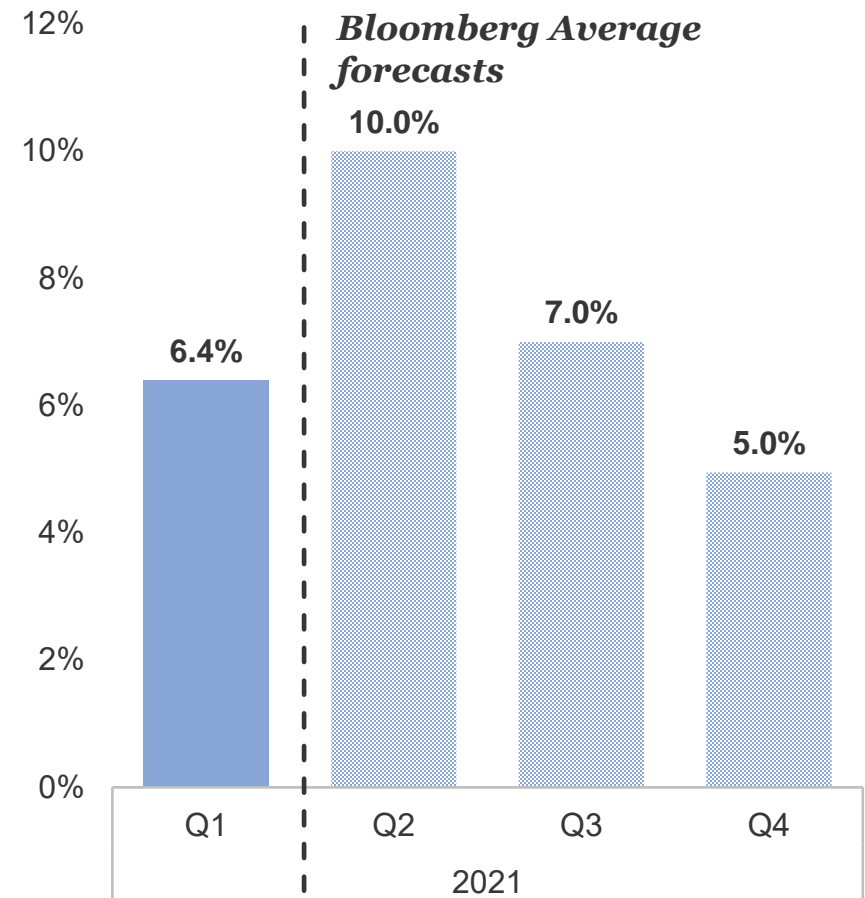
### Reopening Status of U.S. States



### U.S. GDP Forecasts

Annualized Rate

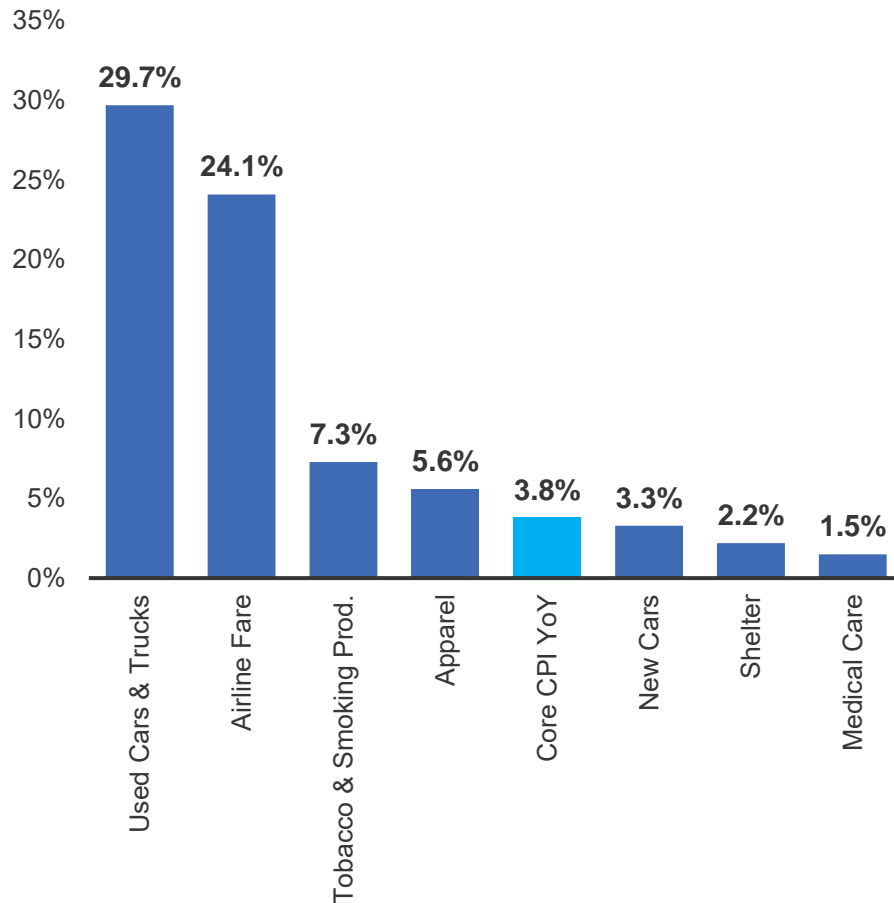
**Bloomberg Average forecasts**



Sources: New York Times (left) and Bloomberg (right), Bureau of Economic Analysis, as of June 30, 2021.

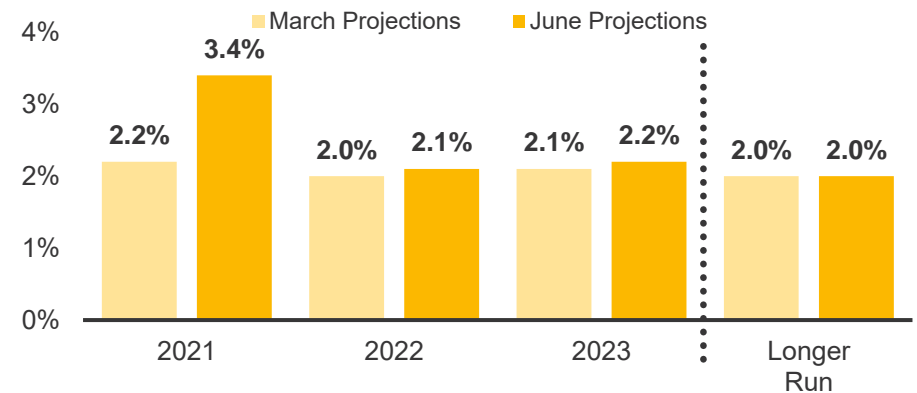
## Inflation Strengthens but Driven by a Few Key Sectors

YOY Price Change in Key Consumer Price Index Components

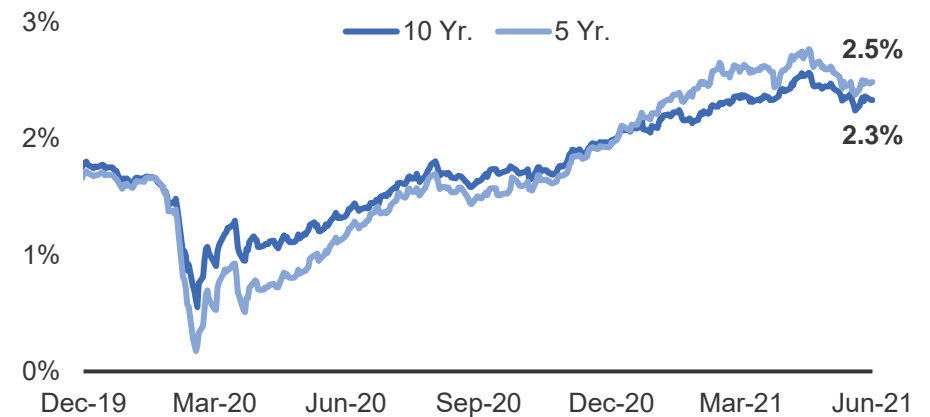


Federal Reserve Projections

Core PCE Inflation



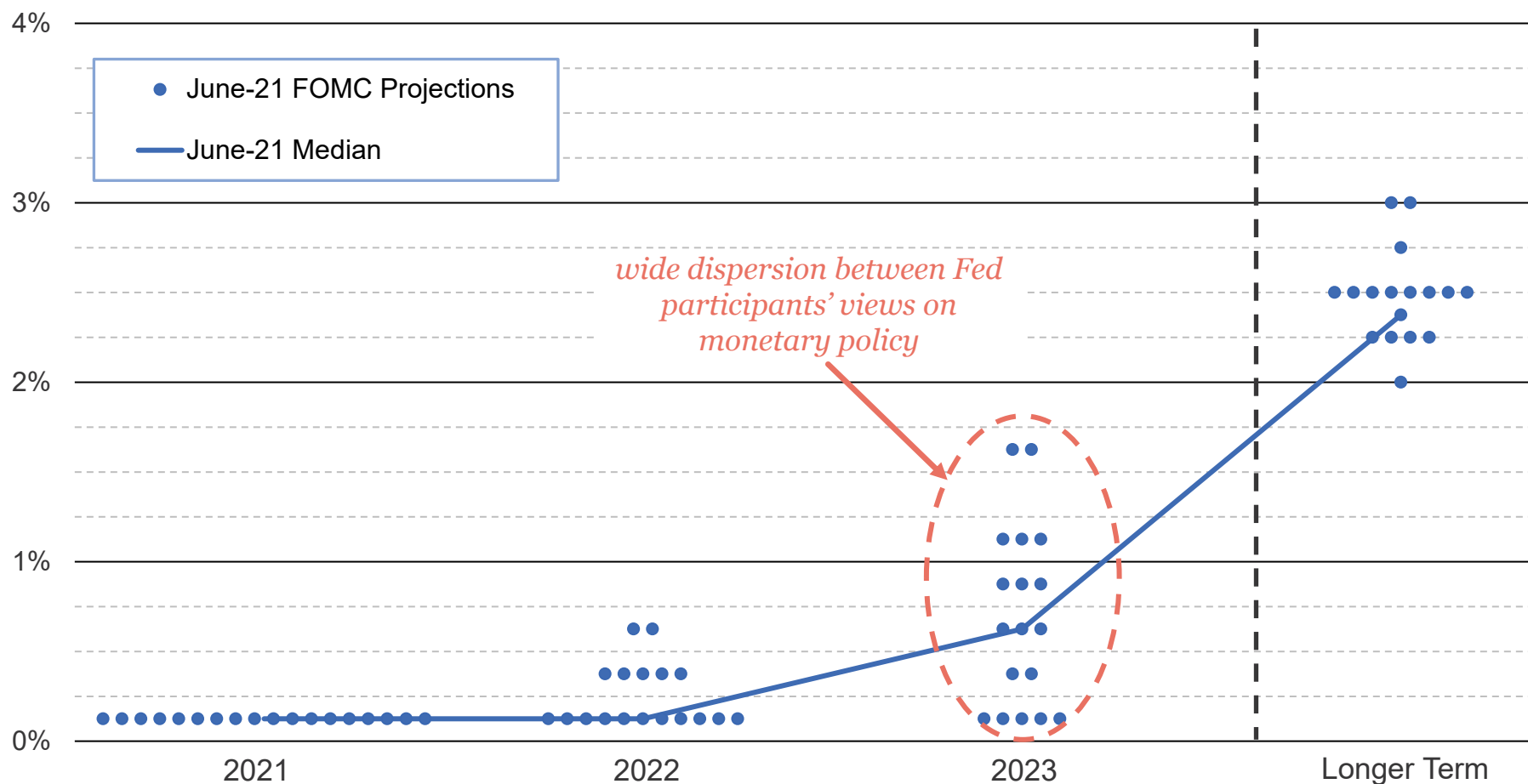
Breakeven Inflation Rates



Source: Bloomberg, as of June 30, 2021.

## Fed's "Dot Plot" Reflects Evolving Monetary Policy Views

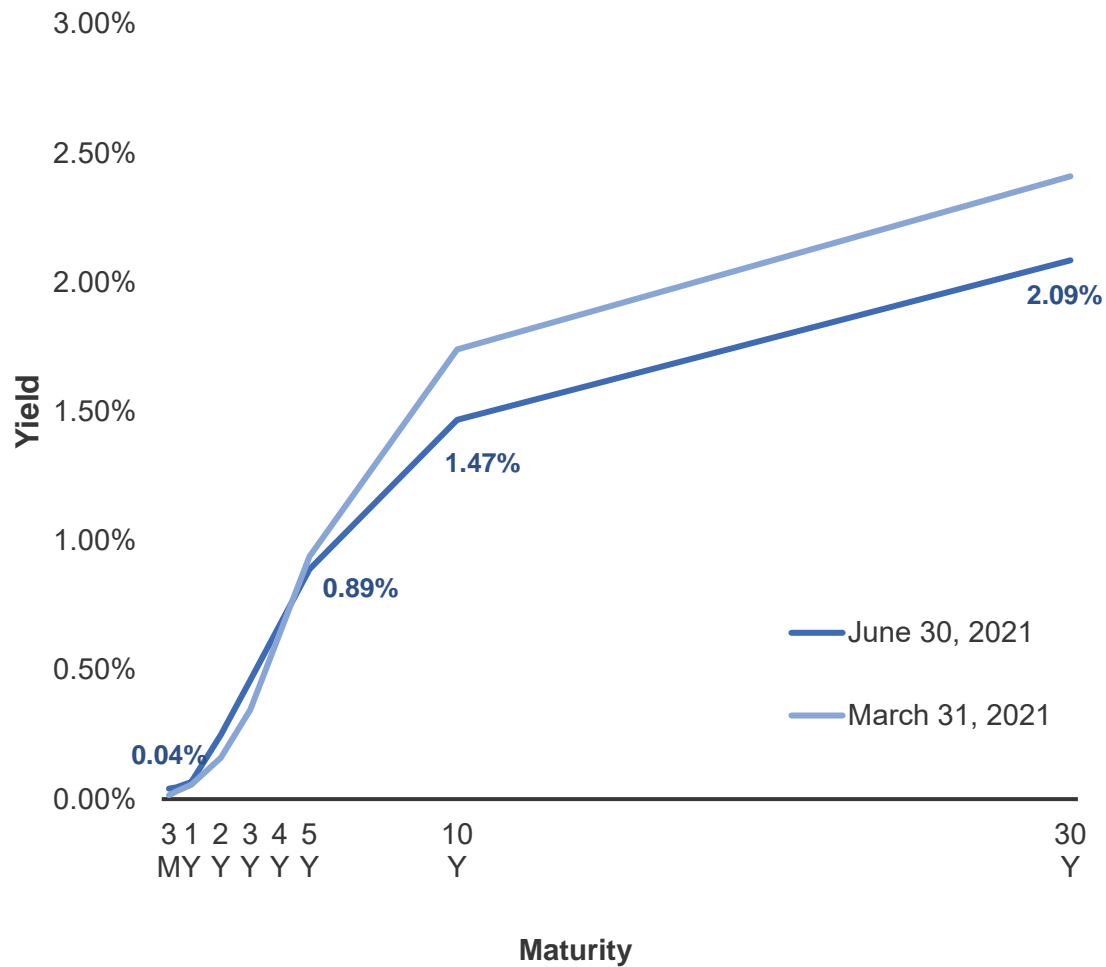
### Fed Participants' Assessments of "Appropriate" Monetary Policy



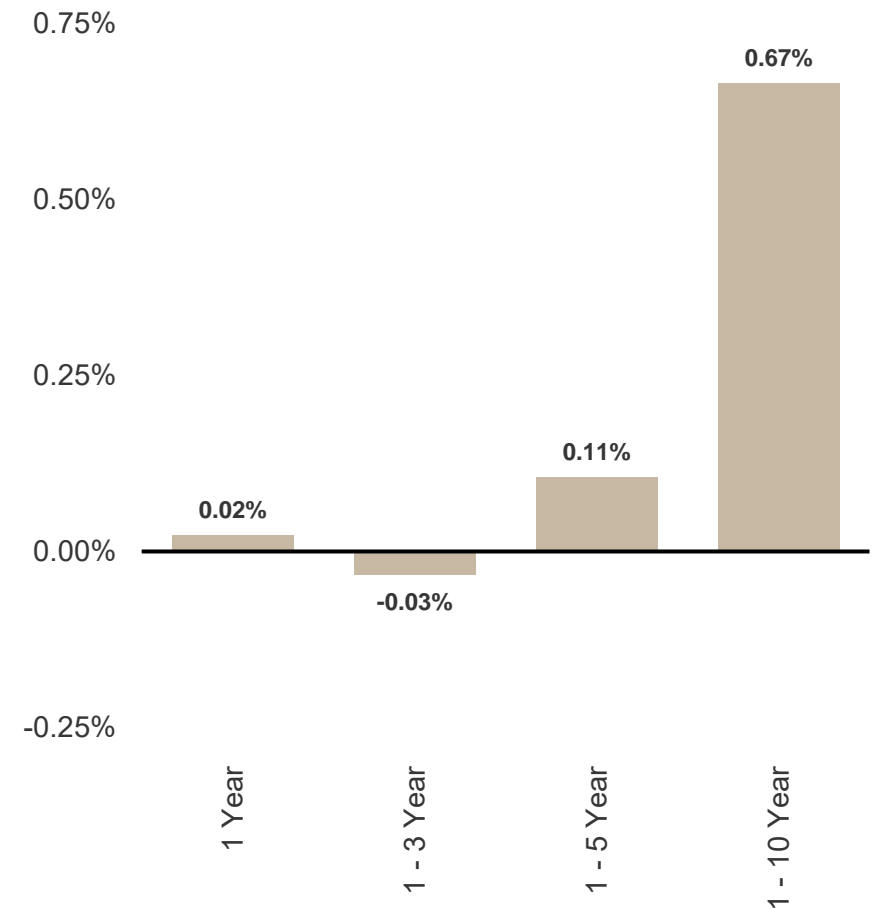
Source: Federal Reserve and Bloomberg. Individual dots represent each Fed members' judgement of the midpoint of the appropriate target range for the federal funds rate at each year end.

## Yield Curve Moves Have Differing Impacts on Performance

### U.S. Treasury Yield Curve



### 2021 U.S. Treasury Returns (2Q 2021)

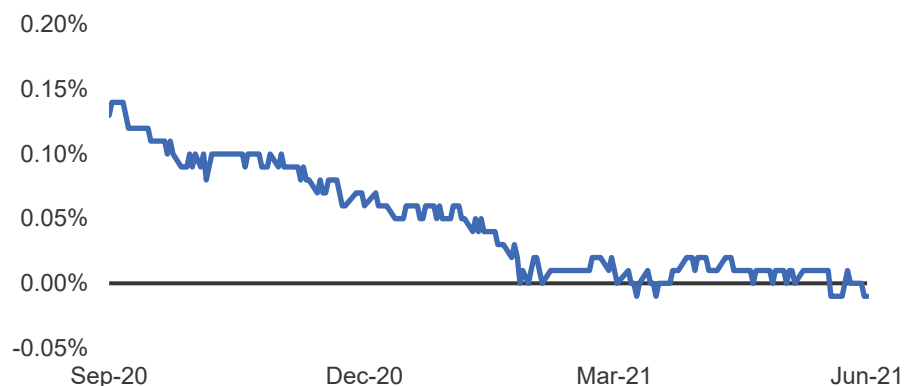


Source: Bloomberg, as of June 30, 2021.

## Spread Sectors Remain near Record Tight Levels (1-5 Year)

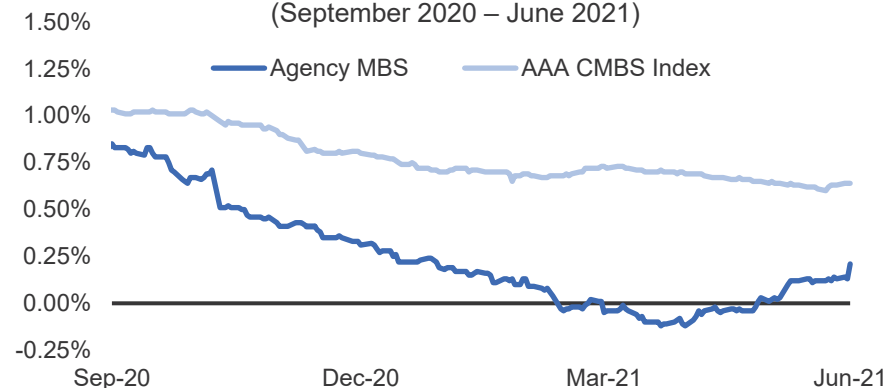
### Federal Agency Yield Spreads

(September 2020 – June 2021)



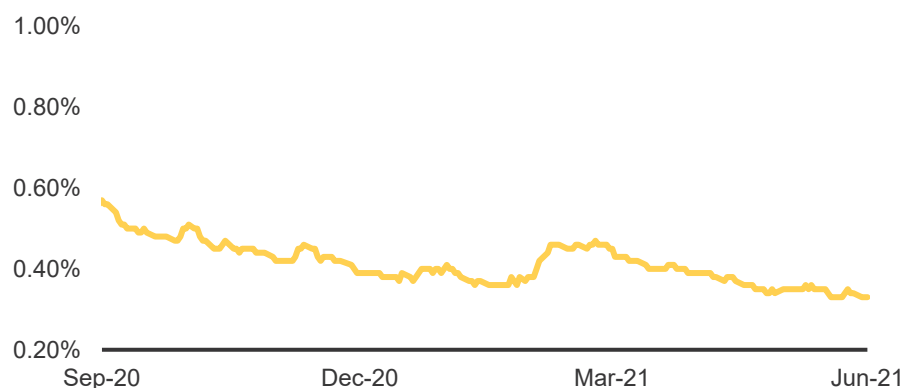
### Mortgage-Backed Securities (MBS) Yield Spreads

(September 2020 – June 2021)



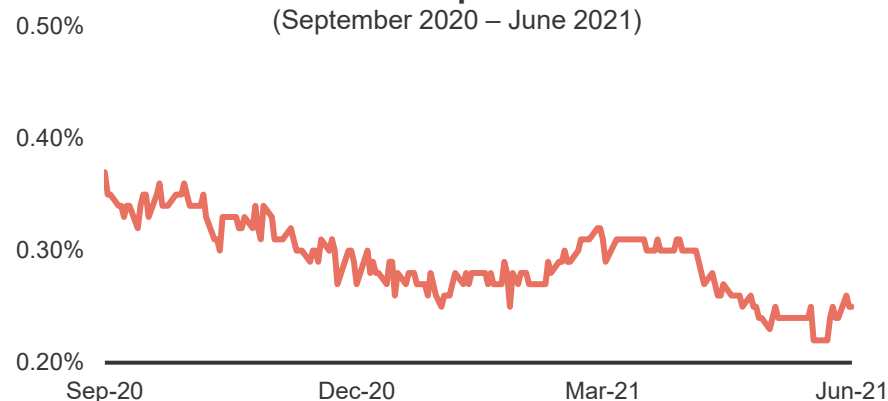
### Corporate Notes A-AAA Yield Spreads

(September 2020 – June 2021)

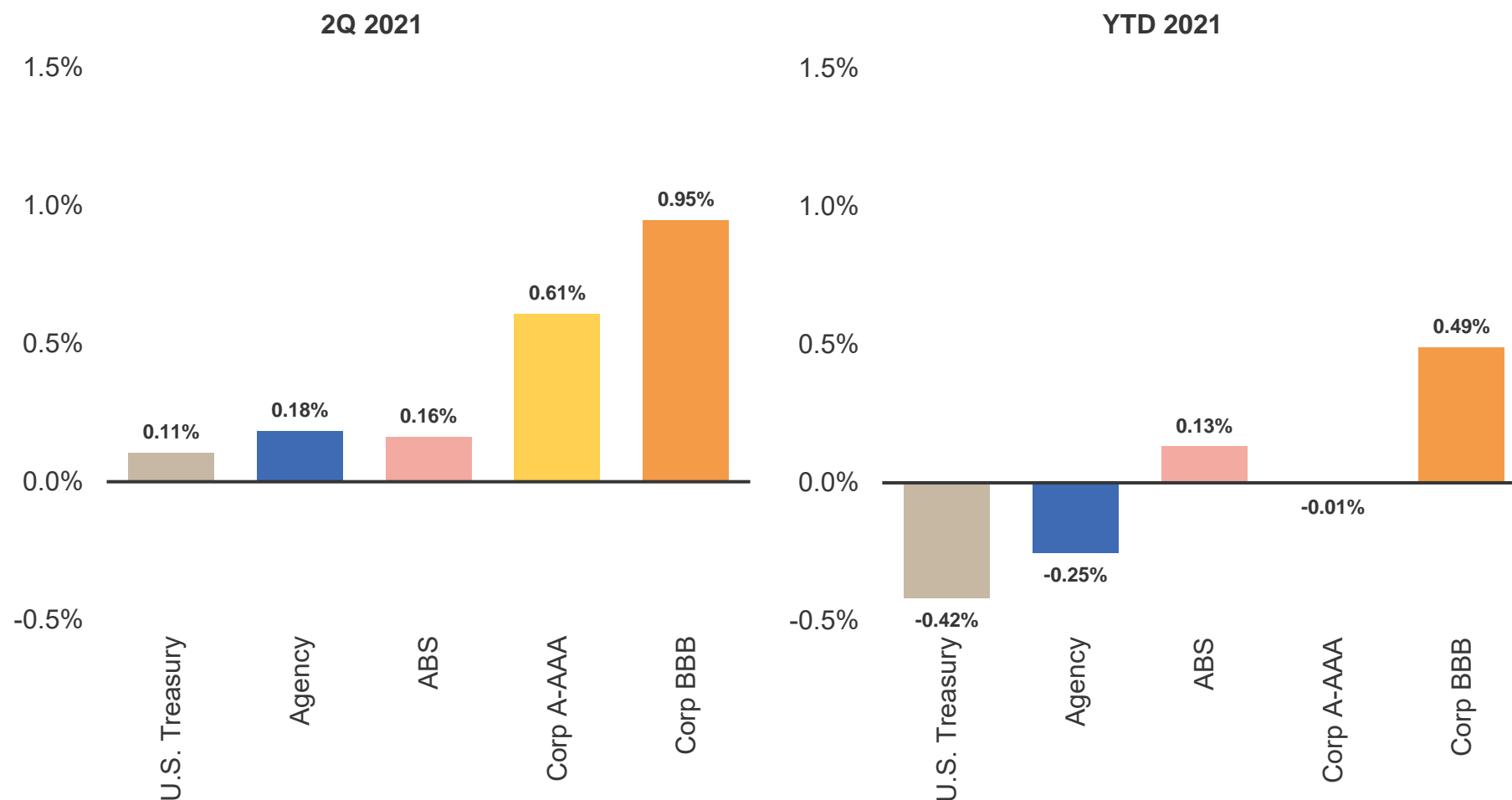


### Asset-Backed Securities (ABS) Yield Spreads

(September 2020 – June 2021)



Source: ICE BofAML 1-5 year Indices via Bloomberg, MarketAxess, and PFM as of June 30, 2021. Spreads on ABS and MBS are option-adjusted spreads of 0-5 year indices based on weighted average life; spreads on agencies are relative to comparable-maturity Treasuries. CMBS is Commercial Mortgage-Backed Securities.

**Strong Second Quarter Returns; Mixed Performance Year-to-Date****1-5 Year Indices**

Source: ICE BofAML Indices. ABS indices are 0-5 year based on weighted average life. As of June 30, 2021.

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# *Investment Performance Review*



## Sector Allocation & Compliance

- The portfolio is in compliance with the District's Investment Policy and California Government Code.

Security Type	Market Value	% of Portfolio	Permitted by Policy	In Compliance
U.S. Treasury	\$22,319,097	39.8%	100%	✓
Federal Agency	\$15,854,506	28.2%	100%	✓
Municipal Obligations	\$1,517,355	2.7%	100%	✓
Negotiable CDs	\$3,393,211	6.1%	30%	✓
Commercial Paper	\$3,169,223	5.7%	25%	✓
Corporate Notes	\$8,420,368	15.0%	30%	✓
Asset-Backed Securities	\$1,458,383	2.6%	20%	✓
<b>Securities Sub-Total</b>	<b>\$56,132,144</b>	<b>100.0%</b>		
Accrued Interest	\$168,906			
<b>Total Investments</b>	<b>\$56,301,050</b>	<b>100.0%</b>		

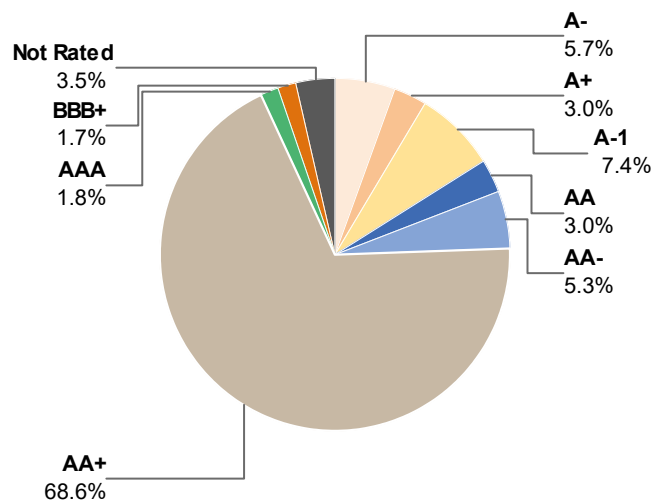
Market values, excluding accrued interest. Detail may not add to total due to rounding.

## Portfolio Statistics

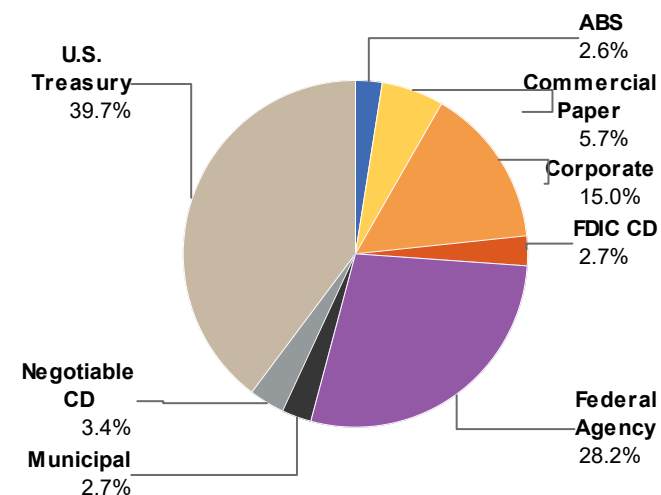
As of June 30, 2021

Par Value:	\$55,350,000
Total Market Value:	\$56,301,050
Security Market Value:	\$56,132,144
Accrued Interest:	\$168,906
Cash:	-
Amortized Cost:	\$55,379,291
Yield at Market:	0.43%
Yield at Cost:	1.36%
Effective Duration:	2.15 Years
Average Maturity:	2.32 Years
Average Credit: *	AA

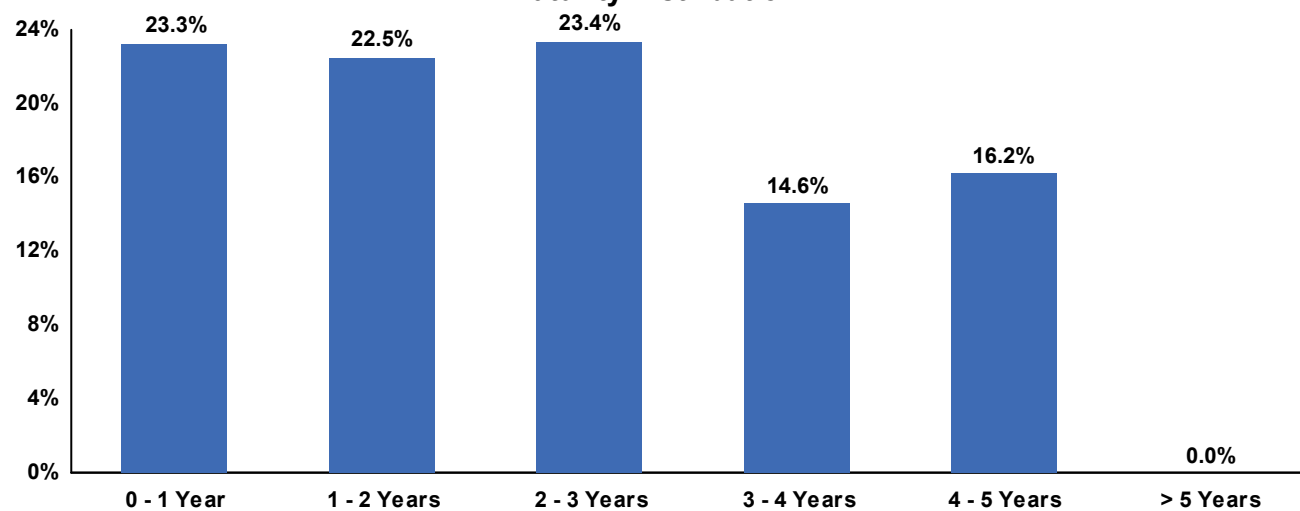
## Credit Quality (S&P Ratings)\*\*



## Sector Allocation



## Maturity Distribution

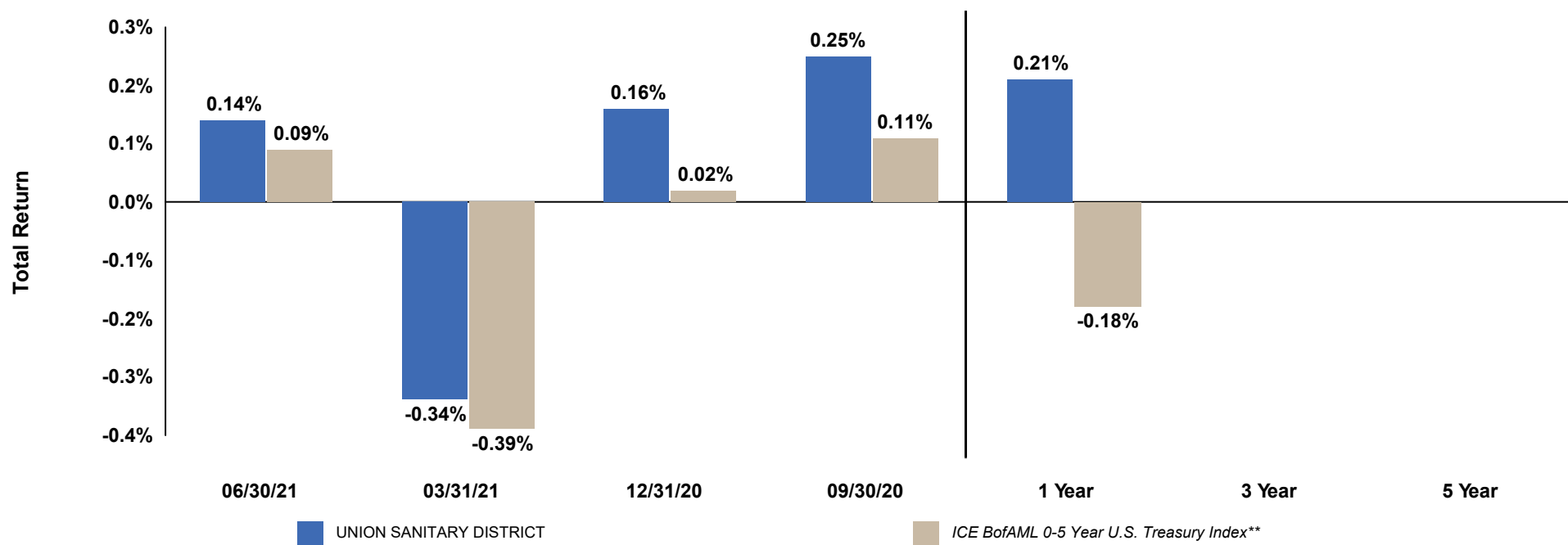


\* An average of each security's credit rating assigned a numeric value and adjusted for its relative weighting in the portfolio.

\*\*Securities held in the District's portfolio are in compliance with California Government Code and the District's Investment Policy.

## Portfolio Performance (Total Return)

Portfolio/Benchmark	Effective Duration	Quarter Ended				Annualized Return		
		06/30/21	03/31/21	12/31/20	09/30/20	1 Year	3 Year	5 Year
UNION SANITARY DISTRICT	2.15	0.14%	-0.34%	0.16%	0.25%	0.21%	-	-
Net of Fees*	-	0.12%	-0.36%	0.14%	0.23%	0.12%	-	-
ICE BofAML 0-5 Year U.S. Treasury Index**	2.13	0.09%	-0.39%	0.02%	0.11%	-0.18%	-	-
Difference (Gross)		0.05%	0.05%	0.14%	0.14%	0.39%	-	-
Difference (Net)		0.03%	0.03%	0.12%	0.12%	0.30%	-	-



Portfolio performance is gross of fees unless otherwise indicated.

\*Fees were calculated based on average assets during the period at the contractual rate.

\*\*Intercontinental Exchange Bank of America Merrill Lynch 0-5 Year U.S. Treasury Index.

**Portfolio Earnings***Quarter-Ended June 30, 2021*

	<b>Market Value Basis</b>	<b>Accrual (Amortized Cost) Basis</b>
<b>Beginning Value (03/31/2021)</b>	\$56,825,071.50	\$55,954,721.06
<b>Net Purchases/Sales</b>	(\$575,408.57)	(\$575,408.57)
<b>Change in Value</b>	(\$117,518.70)	(\$21.58)
<b>Ending Value (06/30/2021)</b>	\$56,132,144.23	\$55,379,290.91
<b>Interest Earned</b>	\$197,397.26	\$197,397.26
<b>Portfolio Earnings</b>	\$79,878.56	\$197,375.68

## Periodic Performance

Periodic Performance				
	Current Quarter	Q1 2021	Q4 2020	Since Inception 3/31/2019
Net Accrual Earnings	\$197,397	\$205,339	\$212,403	\$2,224,938
Change in Market Value	-\$117,519	-\$399,627	-\$120,207	\$3,151,436
<b>Total Dollar Return</b>	<b>\$79,879</b>	<b>-\$194,288</b>	<b>\$92,196</b>	<b>\$3,624,378</b>
Fees	\$12,194	\$12,183	\$12,435	\$114,151
Fees in Basis Points	0.02%	0.02%	0.02%	0.09%
<b>Net Dollar Return</b>	<b>\$67,685</b>	<b>-\$206,471</b>	<b>\$79,761</b>	<b>\$3,510,227</b>
<b>Net of Fees Return</b>	<b>0.12%</b>	<b>-0.36%</b>	<b>0.14%</b>	<b>2.84%</b>

## Sector/Issuer Distribution

As of June 30, 2021

Sector / Issuer	Market Value (\$)	% of Sector	% of Total Portfolio
<b>ABS</b>			
CARMAX AUTO OWNER TRUST	458,771	31.5%	0.8%
HONDA AUTO RECEIVABLES	459,072	31.5%	0.8%
HYUNDAI AUTO RECEIVABLES	119,968	8.2%	0.2%
TOYOTA MOTOR CORP	420,571	28.8%	0.7%
<b>Sector Total</b>	<b>1,458,383</b>	<b>100.0%</b>	<b>2.6%</b>
<b>Commercial Paper</b>			
ALBION CAP CORP/LLC	1,634,933	51.6%	2.9%
LMA AMERICAS LLC	534,654	16.9%	1.0%
MITSUBISHI UFJ FINANCIAL GROUP INC	999,636	31.5%	1.8%
<b>Sector Total</b>	<b>3,169,223</b>	<b>100.0%</b>	<b>5.6%</b>
<b>Corporate</b>			
AMAZON.COM INC	697,259	8.3%	1.2%
AMERICAN EXPRESS CO	1,014,245	12.0%	1.8%
AMERICAN HONDA FINANCE	426,957	5.1%	0.8%
APPLE INC	327,723	3.9%	0.6%
BANK OF AMERICA CO	537,074	6.4%	1.0%
BRISTOL-MYERS SQUIBB CO	199,445	2.4%	0.4%
CITIGROUP INC	279,620	3.3%	0.5%

## UNION SANITARY DISTRICT

## Portfolio Composition

Sector / Issuer	Market Value (\$)	% of Sector	% of Total Portfolio
EXXON MOBIL CORP	1,019,399	12.1%	1.8%
GOLDMAN SACHS GROUP INC	414,553	4.9%	0.7%
JP MORGAN CHASE & CO	655,706	7.8%	1.2%
MORGAN STANLEY	275,329	3.3%	0.5%
PACCAR FINANCIAL CORP	592,314	7.0%	1.1%
TOYOTA MOTOR CORP	443,969	5.3%	0.8%
TRUIST FIN CORP	537,912	6.4%	1.0%
WAL-MART STORES INC	998,864	11.9%	1.8%
<b>Sector Total</b>	<b>8,420,368</b>	<b>100.0%</b>	<b>15.0%</b>
<b>FDIC CD</b>			
AMERICAN EXPRESS CO	251,448	16.7%	0.4%
BELMONT SAVINGS BANK	251,689	16.7%	0.4%
BMW FINANCIAL SERVICES NA LLC	250,541	16.7%	0.4%
DISCOVER FINANCIAL SERVICES	249,714	16.6%	0.4%
STATE BANK OF INDIA	250,112	16.6%	0.4%
SYNCHRONY BANK	250,606	16.7%	0.4%
<b>Sector Total</b>	<b>1,504,109</b>	<b>100.0%</b>	<b>2.7%</b>
<b>Federal Agency</b>			
FANNIE MAE	7,800,073	49.2%	13.9%
FEDERAL FARM CREDIT BANKS	1,622,077	10.2%	2.9%
FEDERAL HOME LOAN BANKS	2,352,682	14.8%	4.2%
FREDDIE MAC	4,079,674	25.7%	7.3%

## UNION SANITARY DISTRICT

## Portfolio Composition

Sector / Issuer	Market Value (\$)	% of Sector	% of Total Portfolio
<b>Sector Total</b>	<b>15,854,506</b>	<b>100.0%</b>	<b>28.2%</b>
<b>Municipal</b>			
STATE OF CALIFORNIA	1,016,690	67.0%	1.8%
VICTOR VALLEY COMMUNITY COLLEGE DISTRICT	500,665	33.0%	0.9%
<b>Sector Total</b>	<b>1,517,355</b>	<b>100.0%</b>	<b>2.7%</b>
<b>Negotiable CD</b>			
CREDIT SUISSE GROUP RK	435,694	23.1%	0.8%
DNB ASA	441,223	23.4%	0.8%
SOCIETE GENERALE	575,141	30.4%	1.0%
SUMITOMO MITSUI FINANCIAL GROUP INC	437,044	23.1%	0.8%
<b>Sector Total</b>	<b>1,889,102</b>	<b>100.0%</b>	<b>3.4%</b>
<b>U.S. Treasury</b>			
UNITED STATES TREASURY	22,319,097	100.0%	39.8%
<b>Sector Total</b>	<b>22,319,097</b>	<b>100.0%</b>	<b>39.8%</b>
<b>Portfolio Total</b>	<b>56,132,144</b>	<b>100.0%</b>	<b>100.0%</b>



## Investment Strategy Outlook

- The strong U.S. economic expansion is expected to persist, aided by a vaccine-driven reopening, pent-up consumer demand, and continued fiscal and monetary support. GDP expectations for 2021 have been revised upward, with current forecasts pointing to an annualized 6% growth this year. However, growing inflationary pressures may force the Fed's hand when considering tapering its bond purchases and, ultimately, future rate increases. Given these risks, we plan to maintain the portfolio duration in line with the benchmark as we continue to monitor the economic recovery.
- Our outlook for major investment-grade sectors includes the following:
  - **Treasuries:** Current allocations provide “dry powder” to add to other sectors should spreads become more attractive. Portfolio rebalancing and duration extension trades are focused in the steepest portions of the curve. Along with income, yield curve roll-down should serve as a significant contributor to portfolio returns as the upside for pure price appreciation is quite limited.
  - **Agencies:** There is limited room for further spread tightening from current levels as spreads are in the single-digit range across most of the curve. With spreads likely to remain near zero over the coming quarter, the sector offers very little incremental yield compared to Treasuries. We will continue to reduce allocations, realize gains where appropriate, and favor other sectors.
  - **Corporates:** Continued economic recovery, supportive monetary policy, lower expected supply, and strong investor demand for high-quality yield should serve as catalysts for good performance in the corporate sector. While historically tight spreads have encouraged us to position allocations defensively, the sector still represents a core allocation to portfolios.
  - **Asset-Backed Securities (ABS):** New issue activity was elevated to start 2021; however, investor appetite remains robust, and spreads have remained near their recent floor. Collateral performance in consumer sectors has been stronger than expected, and there is little expectation for any material change in the near term. With this outlook, we will look to modestly reduce holdings by attrition as holdings pay down.
  - **Taxable Municipals:** Taxable municipals have been a great alternative to corporates over the past year. While we still see opportunities in the sector, we have turned more cautious due to very tight spreads. Similar to other sectors, we may begin to opportunistically sell rich holdings while continuing to evaluate new issues that come to market.

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## *Portfolio Transactions and Holdings*

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amt (\$)	Yield at Market	Realized G/L (BV)
<b>BUY</b>									
4/5/21	4/7/21	535,000	91282CBC4	US TREASURY NOTES	0.37%	12/31/25	522,852.24	0.89%	
4/13/21	4/21/21	180,000	14314QAC8	CARMX 2021-2 A3	0.52%	2/17/26	179,961.21	0.52%	
4/19/21	4/22/21	70,000	61772BAA1	MORGAN STANLEY CORP NOTES (CALLABLE)	0.73%	4/5/24	70,000.00	0.73%	
4/20/21	4/28/21	120,000	44933LAC7	HART 2021-A A3	0.38%	9/15/25	119,987.38	0.38%	
4/20/21	4/22/21	205,000	61772BAA1	MORGAN STANLEY CORP NOTES (CALLABLE)	0.73%	4/5/24	205,258.30	0.69%	
4/27/21	5/4/21	135,000	172967MX6	CITIGROUP INC CORPORATE NOTES	0.98%	5/1/25	135,000.00	0.98%	
4/28/21	5/4/21	145,000	172967MX6	CITIGROUP INC CORPORATE NOTES	0.98%	5/1/25	145,384.25	0.91%	
5/3/21	5/3/21	137,000	91282CBC4	US TREASURY NOTES	0.37%	12/31/25	134,803.82	0.75%	
5/6/21	5/7/21	600,000	91282CBC4	US TREASURY NOTES	0.37%	12/31/25	591,133.11	0.73%	
5/17/21	5/17/21	1,020,000	912828ZT0	US TREASURY NOTES	0.25%	5/31/25	1,006,753.48	0.60%	
5/18/21	5/19/21	535,000	53944QX13	LMA AMERICAS LLC COMM PAPER	0.00%	10/1/21	534,719.13	0.14%	
5/27/21	5/28/21	245,000	91282CBW0	US TREASURY N/B NOTES	0.75%	4/30/26	244,527.31	0.80%	
6/1/21	6/1/21	500,000	91282CCF6	US TREASURY N/B NOTES	0.75%	5/31/26	498,428.22	0.81%	
6/8/21	6/9/21	1,635,000	01329WU90	ALBION CAP CORP/LLC COMM PAPER	0.00%	7/9/21	1,634,931.88	0.05%	
6/17/21	6/21/21	201,000	110122DN5	BRISTOL-MYERS SQUIBB CO CORPORATE NOTES	0.75%	11/13/25	199,157.17	0.98%	
<b>Total BUY</b>		<b>6,263,000</b>					<b>6,222,897.50</b>		

## INTEREST

4/1/21	4/1/21	1,000,000	13063DAD0	CA ST TXBL GO BONDS	2.36%	4/1/22	11,835.00		
4/1/21	4/1/21	0	83369XDL9	SOCIETE GENERALE NY CERT DEPOS	1.80%	2/14/22	(57.00)		
4/5/21	4/5/21	970,000	3135G0T45	FANNIE MAE NOTES	1.87%	4/5/22	9,093.75		
4/5/21	4/5/21	247,000	02587DN38	AMERICAN EXPRESS CREDIT CD	2.45%	4/5/22	3,017.46		
4/11/21	4/11/21	965,000	931142DH3	WAL MART STORES INC GLOBAL NT (CALLABLE)	2.55%	4/11/23	12,303.75		
4/14/21	4/14/21	560,000	3130AJHU6	FEDERAL HOME LOAN BANK NOTES	0.50%	4/14/25	1,400.00		

## UNION SANITARY DISTRICT

## Portfolio Activity

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amt (\$)	Yield at Market	Realized G/L (BV)
4/15/21	4/15/21	90,000	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/25	25.50		
4/15/21	4/15/21	185,000	14315XAC2	CARMX 2020-1 A3	1.89%	12/16/24	291.38		
4/15/21	4/15/21	415,000	89232HAC9	TAOT 2020-A A3	1.66%	5/15/24	574.08		
4/21/21	4/21/21	305,000	43813RAC1	HAROT 2020-1 A3	1.61%	4/22/24	409.21		
4/21/21	4/21/21	150,000	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/25	33.75		
4/22/21	4/22/21	580,000	3135G03U5	FANNIE MAE NOTES	0.62%	4/22/25	1,812.50		
4/26/21	4/26/21	1,000,000	3130AB3D6	FEDERAL HOME LOAN BANKS NOTES	2.00%	10/26/21	10,000.00		
4/30/21	4/30/21	249,000	732333AJ8	PONCE DE LEON FEDERAL BK CD	1.85%	5/28/21	378.62		
4/30/21	4/30/21	1,005,000	912828YM6	US TREASURY NOTES	1.50%	10/31/24	7,537.50		
4/30/21	4/30/21	590,000	912828X70	US TREASURY NOTES	2.00%	4/30/24	5,900.00		
5/5/21	5/5/21	220,000	3137EAER6	FREDDIE MAC NOTES	0.37%	5/5/23	412.50		
5/7/21	5/7/21	520,000	3135G06G3	FANNIE MAE NOTES	0.50%	11/7/25	1,263.89		
5/10/21	5/10/21	580,000	69371RP83	PACCAR FINANCIAL CORP CORP NOTES	2.65%	5/10/22	7,685.00		
5/10/21	5/10/21	415,000	02665WDH1	AMERICAN HONDA FINANCE	1.95%	5/10/23	4,046.25		
5/11/21	5/11/21	325,000	037833DV9	APPLE INC CORPORATE NOTES	0.75%	5/11/23	1,218.75		
5/15/21	5/15/21	415,000	89232HAC9	TAOT 2020-A A3	1.66%	5/15/24	574.08		
5/15/21	5/15/21	90,000	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/25	25.50		
5/15/21	5/15/21	185,000	14315XAC2	CARMX 2020-1 A3	1.89%	12/16/24	291.38		
5/15/21	5/15/21	180,000	14314QAC8	CARMX 2021-2 A3	0.52%	2/17/26	62.40		
5/15/21	5/15/21	120,000	44933LAC7	HART 2021-A A3	0.38%	9/15/25	21.53		
5/18/21	5/18/21	525,000	46625HRL6	JPMORGAN CHASE & CO (CALLABLE) CORP NOTE	2.70%	5/18/23	7,087.50		
5/21/21	5/21/21	150,000	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/25	33.75		
5/21/21	5/21/21	305,000	43813RAC1	HAROT 2020-1 A3	1.61%	4/22/24	409.21		
5/22/21	5/22/21	865,000	3135G04Q3	FANNIE MAE NOTES	0.25%	5/22/23	1,081.25		
5/22/21	5/22/21	380,000	38148LAE6	GOLDMAN SACHS GROUP INC CORPORATE NOTES	3.75%	5/22/25	7,125.00		
5/31/21	5/31/21	550,000	912828U65	US TREASURY NOTES	1.75%	11/30/21	4,812.50		
5/31/21	5/31/21	1,020,000	912828ZT0	US TREASURY NOTES	0.25%	5/31/25	1,275.00		
6/1/21	6/1/21	0	MONEY0002	MONEY MARKET FUND			0.04		
6/2/21	6/2/21	430,000	23341VZT1	DNB BANK ASA/NY LT CD	2.04%	12/2/22	4,434.73		
6/4/21	6/4/21	190,000	3137EAF2	FREDDIE MAC NOTES	0.25%	12/4/23	237.50		

## UNION SANITARY DISTRICT

## Portfolio Activity

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amt (\$)	Yield at Market	Realized G/L (BV)
6/15/21	6/15/21	180,000	14314QAC8	CARMX 2021-2 A3	0.52%	2/17/26	78.00		
6/15/21	6/15/21	90,000	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/25	25.50		
6/15/21	6/15/21	120,000	44933LAC7	HART 2021-A A3	0.38%	9/15/25	38.00		
6/15/21	6/15/21	185,000	14315XAC2	CARMX 2020-1 A3	1.89%	12/16/24	291.38		
6/15/21	6/15/21	415,000	89232HAC9	TAOT 2020-A A3	1.66%	5/15/24	574.08		
6/17/21	6/17/21	1,875,000	3135G04Z3	FANNIE MAE NOTES	0.50%	6/17/25	4,687.50		
6/20/21	6/20/21	525,000	05531FBG7	BRANCH BANKING & TRUST (CALLABLE) CORP N	3.05%	6/20/22	8,006.25		
6/21/21	6/21/21	305,000	43813RAC1	HAROT 2020-1 A3	1.61%	4/22/24	409.21		
6/21/21	6/21/21	150,000	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/25	33.75		
6/26/21	6/26/21	780,000	3137EAS4	FREDDIE MAC NOTES	0.25%	6/26/23	975.00		
6/29/21	6/29/21	247,000	254672Y36	DISCOVER BANK CD	2.25%	12/29/21	2,771.14		
6/30/21	6/30/21	2,027,000	91282CBC4	US TREASURY NOTES	0.37%	12/31/25	3,800.63		
6/30/21	6/30/21	1,385,000	912828S35	US TREASURY NOTES	1.37%	6/30/23	9,521.88		
6/30/21	6/30/21	470,000	912828XX3	US TREASURY NOTES	2.00%	6/30/24	4,700.00		
6/30/21	6/30/21	710,000	912828XG0	US TREASURY NOTES	2.12%	6/30/22	7,543.75		
6/30/21	6/30/21	1,170,000	912828N30	US TREASURY NOTES	2.12%	12/31/22	12,431.25		
6/30/21	6/30/21	2,000,000	912828V23	US TREASURY NOTES	2.25%	12/31/23	22,500.00		

**Total INTEREST** **28,410,000** **185,040.58**

## MATURITY

4/2/21	4/2/21	575,000	22535CDU2	CREDIT AGRICOLE CIB NY CERT DEPOS	2.83%	4/2/21	591,317.70	0.00
5/16/21	5/16/21	1,000,000	166764BG4	CHEVRON CORP (CALLABLE) NOTES	2.10%	5/16/21	1,010,500.00	0.00
5/19/21	5/19/21	530,000	857477AV5	STATE STREET CORP NOTES	1.95%	5/19/21	535,167.50	0.00
5/28/21	5/28/21	249,000	732333AJ8	PONCE DE LEON FEDERAL BK CD	1.85%	5/28/21	249,353.38	0.00
6/1/21	6/1/21	500,000	769036BA1	RIVERSIDE, CA TXBL PO BONDS	2.12%	6/1/21	505,312.50	0.00
6/9/21	6/9/21	1,635,000	3133ELH64	FEDERAL FARM CREDIT NOTES (CALLED, OMD 0	0.23%	6/9/21	1,636,880.25	0.00

## UNION SANITARY DISTRICT

## Portfolio Activity

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amt (\$)	Yield at Market	Realized G/L (BV)
<b>Total MATURITY</b>		<b>4,489,000</b>					<b>4,528,531.33</b>		<b>0.00</b>
<b>SELL</b>									
4/7/21	4/7/21	523,000	9127963H0	US TREASURY BILL	0.00%	6/17/21	522,990.10		170.61
4/19/21	4/21/21	180,000	3135G05G4	FANNIE MAE NOTES	0.25%	7/10/23	180,264.85		424.87
4/20/21	4/22/21	275,000	3137EAER6	FREDDIE MAC NOTES	0.37%	5/5/23	276,616.89		873.32
4/21/21	4/28/21	120,000	3135G05G4	FANNIE MAE NOTES	0.25%	7/10/23	120,201.60		300.80
4/27/21	5/3/21	135,000	3137EAFA2	FREDDIE MAC NOTES	0.25%	12/4/23	135,003.34		(21.01)
4/28/21	5/4/21	145,000	3137EAFA2	FREDDIE MAC NOTES	0.25%	12/4/23	145,024.89		(2.40)
5/3/21	5/4/21	135,000	9128284W7	US TREASURY NOTES	2.75%	8/15/21	136,859.89		659.82
5/6/21	5/7/21	510,000	9128284W7	US TREASURY NOTES	2.75%	8/15/21	517,022.96		2,417.16
5/6/21	5/7/21	80,000	9127963H0	US TREASURY BILL	0.00%	6/17/21	79,999.77		15.71
6/17/21	6/21/21	177,000	110122DC9	BRISTOL-MYERS SQUIBB CO CORPORATE NOTES	3.87%	8/15/25	199,658.21		(1,046.98)
<b>Total SELL</b>		<b>2,280,000</b>					<b>2,313,642.50</b>		<b>3,791.90</b>

## 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 Bond / Note</b>											
US TREASURY NOTES DTD 08/15/2018 2.750% 08/15/2021	9128284W7	400,000.00	AA+	Aaa	10/25/2019	10/28/2019	407,562.50	1.68	4,132.60	400,517.98	401,312.48
US TREASURY NOTES DTD 11/30/2016 1.750% 11/30/2021	912828U65	550,000.00	AA+	Aaa	6/15/2020	6/16/2020	562,396.49	0.20	815.23	553,541.85	553,867.16
US TREASURY NOTES DTD 02/28/2017 1.875% 02/28/2022	912828W55	485,000.00	AA+	Aaa	4/1/2019	4/2/2019	479,259.57	2.30	3,039.49	483,693.15	490,759.38
US TREASURY NOTES DTD 06/30/2015 2.125% 06/30/2022	912828XG0	710,000.00	AA+	Aaa	3/19/2019	3/20/2019	703,454.69	2.42	41.00	708,011.27	724,310.90
US TREASURY NOTES DTD 07/15/2019 1.750% 07/15/2022	9128287C8	1,000,000.00	AA+	Aaa	7/31/2019	7/31/2019	998,789.06	1.79	8,073.20	999,575.05	1,017,187.50
US TREASURY NOTES DTD 09/30/2015 1.750% 09/30/2022	912828L57	835,000.00	AA+	Aaa	3/19/2019	3/20/2019	816,016.80	2.43	3,673.09	828,289.66	851,830.43
US TREASURY NOTES DTD 12/31/2015 2.125% 12/31/2022	912828N30	1,170,000.00	AA+	Aaa	3/19/2019	3/20/2019	1,157,340.24	2.43	67.56	1,164,980.07	1,204,186.00
US TREASURY NOTES DTD 03/31/2016 1.500% 03/31/2023	912828Q29	175,000.00	AA+	Aaa	3/19/2019	3/20/2019	168,799.81	2.43	659.84	172,312.69	178,937.50
US TREASURY NOTES DTD 06/30/2016 1.375% 06/30/2023	912828S35	1,385,000.00	AA+	Aaa	3/19/2019	3/20/2019	1,325,866.99	2.43	51.75	1,357,419.73	1,416,162.50
US TREASURY NOTES DTD 08/01/2016 1.250% 07/31/2023	912828S92	1,035,000.00	AA+	Aaa	4/1/2019	4/2/2019	990,365.62	2.30	5,396.58	1,013,543.88	1,056,185.21
US TREASURY NOTES DTD 09/30/2016 1.375% 09/30/2023	912828T26	1,545,000.00	AA+	Aaa	3/19/2019	3/20/2019	1,475,112.89	2.44	5,339.96	1,510,330.93	1,582,176.56
US TREASURY NOTES DTD 01/03/2017 2.250% 12/31/2023	912828V23	2,000,000.00	AA+	Aaa	3/19/2019	3/20/2019	1,982,968.75	2.44	122.28	1,991,099.30	2,094,375.00
US TREASURY NOTES DTD 02/28/2017 2.125% 02/29/2024	912828W48	2,000,000.00	AA+	Aaa	3/19/2019	3/20/2019	1,970,625.00	2.44	14,205.16	1,984,182.69	2,092,500.00
US TREASURY NOTES DTD 03/31/2017 2.125% 03/31/2024	912828W71	730,000.00	AA+	Aaa	3/2/2020	3/2/2020	767,412.50	0.84	3,899.32	755,209.50	764,332.78
US TREASURY NOTES DTD 05/01/2017 2.000% 04/30/2024	912828X70	590,000.00	AA+	Aaa	6/3/2019	6/7/2019	592,996.09	1.89	1,988.04	591,731.67	616,181.25

## 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 Bond / Note</b>											
US TREASURY NOTES DTD 06/30/2017 2.000% 06/30/2024	912828XX3	470,000.00	AA+	Aaa	7/1/2019	7/3/2019	474,846.87	1.78	25.54	472,909.72	491,517.16
US TREASURY NOTES DTD 10/31/2019 1.500% 10/31/2024	912828YM6	1,005,000.00	AA+	Aaa	1/11/2021	1/12/2021	1,049,479.10	0.33	2,539.81	1,044,031.37	1,037,034.38
US TREASURY NOTES DTD 05/31/2020 0.250% 05/31/2025	912828ZT0	1,020,000.00	AA+	Aaa	5/17/2021	5/17/2021	1,005,576.56	0.61	215.98	1,006,016.60	1,002,787.50
US TREASURY NOTES DTD 12/31/2020 0.375% 12/31/2025	91282CBC4	755,000.00	AA+	Aaa	1/22/2021	1/25/2021	752,847.07	0.43	7.70	753,034.75	740,607.81
US TREASURY NOTES DTD 12/31/2020 0.375% 12/31/2025	91282CBC4	535,000.00	AA+	Aaa	4/5/2021	4/7/2021	522,314.65	0.89	5.45	522,938.28	524,801.56
US TREASURY NOTES DTD 12/31/2020 0.375% 12/31/2025	91282CBC4	137,000.00	AA+	Aaa	5/3/2021	5/3/2021	134,629.26	0.75	1.40	134,711.39	134,388.44
US TREASURY NOTES DTD 12/31/2020 0.375% 12/31/2025	91282CBC4	600,000.00	AA+	Aaa	5/6/2021	5/7/2021	590,343.75	0.73	6.12	590,656.34	588,562.50
US TREASURY NOTES DTD 01/31/2019 2.625% 01/31/2026	9128286A3	715,000.00	AA+	Aaa	2/4/2021	2/4/2021	791,164.26	0.46	7,828.95	785,019.28	773,540.63
US TREASURY NOTES DTD 02/28/2021 0.500% 02/28/2026	91282CBQ3	1,260,000.00	AA+	Aaa	3/4/2021	3/5/2021	1,242,970.31	0.78	2,105.71	1,244,073.83	1,240,706.25
US TREASURY N/B NOTES DTD 04/30/2021 0.750% 04/30/2026	91282CBW0	245,000.00	AA+	Aaa	5/27/2021	5/28/2021	244,387.50	0.80	309.58	244,399.08	243,736.73
US TREASURY N/B NOTES DTD 05/31/2021 0.750% 05/31/2026	91282CCF6	500,000.00	AA+	Aaa	6/1/2021	6/1/2021	498,417.97	0.81	317.62	498,443.98	497,109.40
<b>Security Type Sub-Total</b>		<b>21,852,000.00</b>					<b>21,705,944.30</b>	<b>1.69</b>	<b>64,868.96</b>	<b>21,810,674.04</b>	<b>22,319,097.01</b>
<b>Municipal Bond / Note</b>											
VICTOR VALLEY CCD, CA TXBL GO BONDS DTD 05/05/2016 1.896% 08/01/2021	92603PER9	500,000.00	AA-	Aa3	12/28/2016	12/28/2016	490,150.00	2.35	3,950.00	499,817.92	500,665.00
CA ST TXBL GO BONDS DTD 04/27/2017 2.367% 04/01/2022	13063DAD0	1,000,000.00	AA-	Aa2	4/27/2017	4/27/2017	1,010,000.00	2.15	5,917.50	1,001,522.22	1,016,690.00



## 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>Security Type Sub-Total</b>		<b>1,500,000.00</b>					<b>1,500,150.00</b>	<b>2.22</b>	<b>9,867.50</b>	<b>1,501,340.14</b>	<b>1,517,355.00</b>
<b>Federal Agency Bond / Note</b>											
FEDERAL HOME LOAN BANKS NOTES DTD 04/26/2017 2.000% 10/26/2021	3130AB3D6	1,000,000.00	AA+	Aaa	4/26/2017	4/26/2017	1,000,000.00	2.00	3,611.11	1,000,000.00	1,006,197.00
FANNIE MAE NOTES DTD 04/10/2017 1.875% 04/05/2022	3135G0T45	970,000.00	AA+	Aaa	3/13/2020	3/16/2020	993,619.50	0.68	4,344.79	978,754.96	983,123.13
FEDERAL HOME LOAN BANKS NOTES DTD 02/21/2020 1.375% 02/17/2023	3130AJ7E3	775,000.00	AA+	Aaa	2/20/2020	2/21/2020	773,574.00	1.44	3,966.49	774,221.71	789,783.90
FREDDIE MAC NOTES DTD 05/07/2020 0.375% 05/05/2023	3137EAER6	220,000.00	AA+	Aaa	5/29/2020	5/29/2020	220,305.80	0.33	128.33	220,192.16	220,584.54
FANNIE MAE NOTES DTD 05/22/2020 0.250% 05/22/2023	3135G04Q3	865,000.00	AA+	Aaa	5/20/2020	5/22/2020	862,396.35	0.35	234.27	863,359.34	865,317.46
FREDDIE MAC NOTES DTD 06/26/2020 0.250% 06/26/2023	3137EAES4	780,000.00	AA+	Aaa	6/24/2020	6/26/2020	777,722.40	0.35	27.08	778,492.00	780,145.86
FANNIE MAE NOTES DTD 07/10/2020 0.250% 07/10/2023	3135G05G4	795,000.00	AA+	Aaa	7/8/2020	7/10/2020	793,290.75	0.32	944.06	793,846.45	794,875.19
FREDDIE MAC NOTES DTD 08/21/2020 0.250% 08/24/2023	3137EAEV7	520,000.00	AA+	Aaa	8/19/2020	8/21/2020	519,469.60	0.28	458.61	519,621.28	519,802.40
FEDERAL FARM CREDIT BANK (CALLABLE) DTD 09/21/2020 0.250% 09/21/2023	3133EMAM4	1,625,000.00	AA+	Aaa	10/7/2020	10/9/2020	1,622,237.50	0.31	1,128.47	1,622,917.22	1,622,076.63
FREDDIE MAC NOTES DTD 12/04/2020 0.250% 12/04/2023	3137EAFA2	190,000.00	AA+	Aaa	12/2/2020	12/4/2020	189,811.90	0.28	35.63	189,847.80	189,643.37
FANNIE MAE NOTES (CALLABLE) DTD 10/26/2020 0.310% 01/26/2024	3136G46V0	259,000.00	AA+	Aaa	10/23/2020	10/26/2020	258,896.40	0.32	345.69	258,918.05	258,261.59
FREDDIE MAC NOTES DTD 02/14/2020 1.500% 02/12/2025	3137EAEP0	1,035,000.00	AA+	Aaa	2/13/2020	2/14/2020	1,034,203.05	1.52	5,994.38	1,034,422.70	1,067,957.51
FEDERAL HOME LOAN BANK NOTES DTD 04/16/2020 0.500% 04/14/2025	3130AJHU6	560,000.00	AA+	Aaa	4/15/2020	4/16/2020	557,222.40	0.60	598.89	557,893.96	556,701.04

## 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>Federal Agency Bond / Note</b>											
FANNIE MAE NOTES DTD 04/24/2020 0.625% 04/22/2025	3135G03U5	125,000.00	AA+	Aaa	4/28/2020	4/28/2020	124,763.75	0.66	149.74	124,819.44	124,846.12
FANNIE MAE NOTES DTD 04/24/2020 0.625% 04/22/2025	3135G03U5	455,000.00	AA+	Aaa	4/22/2020	4/24/2020	454,062.70	0.67	545.05	454,285.21	454,439.90
FANNIE MAE NOTES DTD 06/19/2020 0.500% 06/17/2025	3135G04Z3	1,010,000.00	AA+	Aaa	10/26/2020	10/28/2020	1,011,494.80	0.47	196.39	1,011,277.60	1,002,209.87
FANNIE MAE NOTES DTD 06/19/2020 0.500% 06/17/2025	3135G04Z3	865,000.00	AA+	Aaa	6/17/2020	6/19/2020	863,209.45	0.54	168.19	863,579.54	858,328.26
FREDDIE MAC NOTES DTD 07/23/2020 0.375% 07/21/2025	3137EAEU9	525,000.00	AA+	Aaa	7/21/2020	7/23/2020	522,385.50	0.48	875.00	522,877.15	518,093.10
FANNIE MAE NOTES (CALLABLE) DTD 08/14/2020 0.500% 08/14/2025	3135G05S8	1,000,000.00	AA+	Aaa	8/24/2020	8/24/2020	998,400.00	0.53	1,902.78	998,674.01	987,775.00
FANNIE MAE NOTES DTD 08/27/2020 0.375% 08/25/2025	3135G05X7	415,000.00	AA+	Aaa	10/21/2020	10/22/2020	412,754.85	0.49	544.69	413,074.86	409,246.85
FANNIE MAE NOTES DTD 08/27/2020 0.375% 08/25/2025	3135G05X7	555,000.00	AA+	Aaa	8/25/2020	8/27/2020	552,402.60	0.47	728.44	552,841.20	547,306.04
FREDDIE MAC NOTES DTD 09/25/2020 0.375% 09/23/2025	3137EAEX3	795,000.00	AA+	Aaa	9/23/2020	9/25/2020	792,607.05	0.44	811.56	792,973.08	783,447.06
FANNIE MAE NOTES DTD 11/12/2020 0.500% 11/07/2025	3135G06G3	520,000.00	AA+	Aaa	11/9/2020	11/12/2020	518,138.40	0.57	390.00	518,374.55	514,343.96
<b>Security Type Sub-Total</b>		<b>15,859,000.00</b>					<b>15,852,968.75</b>	<b>0.67</b>	<b>28,129.64</b>	<b>15,845,264.27</b>	<b>15,854,505.78</b>
<b>Corporate Note</b>											
AMERICAN EXPRESS CREDIT (CALLABLE) NOTES DTD 03/03/2017 2.700% 03/03/2022	0258M0EG0	1,000,000.00	A-	A2	5/15/2017	5/15/2017	1,013,279.67	2.41	8,850.00	1,001,650.32	1,014,245.00
PACCAR FINANCIAL CORP CORP NOTES DTD 05/10/2019 2.650% 05/10/2022	69371RP83	580,000.00	A+	A1	5/3/2019	5/10/2019	579,686.80	2.67	2,177.42	579,910.56	592,313.98

## 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>Corporate Note</b>											
BRANCH BANKING & TRUST (CALLABLE) CORP N DTD 03/18/2019 3.050% 06/20/2022	05531FBG7	525,000.00	A-	A3	3/20/2019	3/22/2019	525,714.00	3.01	489.27	525,199.67	537,912.38
AMAZON.COM INC BONDS DTD 06/06/2018 2.400% 02/22/2023	023135AW6	675,000.00	AA	A1	4/11/2019	4/15/2019	668,499.75	2.66	5,805.00	672,227.36	697,258.80
EXXON MOBIL CORPORATION CORP NOTES DTD 03/03/2016 2.726% 03/01/2023	30231GAR3	985,000.00	AA-	Aa2	6/13/2019	6/14/2019	1,001,400.25	2.26	8,950.37	992,353.50	1,019,399.16
WAL MART STORES INC GLOBAL NT (CALLABLE) DTD 04/11/2013 2.550% 04/11/2023	931142DH3	965,000.00	AA	Aa2	5/21/2020	5/26/2020	1,015,701.10	0.70	5,468.33	994,522.83	998,863.78
AMERICAN HONDA FINANCE DTD 01/10/2020 1.950% 05/10/2023	02665WDH1	415,000.00	A-	A3	1/7/2020	1/10/2020	414,846.45	1.96	1,146.44	414,914.39	426,956.57
APPLE INC CORPORATE NOTES DTD 05/11/2020 0.750% 05/11/2023	037833DV9	325,000.00	AA+	Aa1	5/4/2020	5/11/2020	324,116.00	0.84	338.54	324,451.84	327,722.85
JPMORGAN CHASE & CO (CALLABLE) CORP NOTE DTD 05/18/2016 2.700% 05/18/2023	46625HRL6	525,000.00	A-	A2	3/20/2019	3/22/2019	517,970.25	3.04	1,693.13	521,823.18	545,745.38
BANK OF AMERICA CORP NOTES DTD 07/23/2013 4.100% 07/24/2023	06053FAA7	500,000.00	A-	A2	3/20/2019	3/22/2019	520,405.00	3.09	8,940.28	509,693.98	537,073.50
MORGAN STANLEY CORP NOTES (CALLABLE) DTD 04/22/2021 0.731% 04/05/2024	61772BAA1	205,000.00	BBB+	A1	4/20/2021	4/22/2021	205,258.30	0.69	287.22	205,232.94	205,245.39
MORGAN STANLEY CORP NOTES (CALLABLE) DTD 04/22/2021 0.731% 04/05/2024	61772BAA1	70,000.00	BBB+	A1	4/19/2021	4/22/2021	70,000.00	0.73	98.08	70,000.00	70,083.79
JPMORGAN CHASE & CO CORPORATE NOTES DTD 09/16/2020 0.653% 09/16/2024	46647PBS4	110,000.00	A-	A2	9/9/2020	9/16/2020	110,000.00	0.65	209.50	110,000.00	109,960.62
TOYOTA MOTOR CREDIT CORP CORP NOTES DTD 02/13/2020 1.800% 02/13/2025	89236TGT6	180,000.00	A+	A1	5/20/2020	5/26/2020	181,758.60	1.58	1,242.00	181,349.55	185,847.66

## 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>Corporate Note</b>											
TOYOTA MOTOR CREDIT CORP CORP NOTES DTD 02/13/2020 1.800% 02/13/2025	89236TGT6	250,000.00	A+	A1	5/20/2020	5/26/2020	252,442.50	1.58	1,725.00	251,874.38	258,121.75
CITIGROUP INC CORPORATE NOTES DTD 05/04/2021 0.981% 05/01/2025	172967MX6	145,000.00	BBB+	A3	4/28/2021	5/4/2021	145,384.25	0.91	225.22	145,368.96	144,803.09
CITIGROUP INC CORPORATE NOTES DTD 05/04/2021 0.981% 05/01/2025	172967MX6	135,000.00	BBB+	A3	4/27/2021	5/4/2021	135,000.00	0.98	209.69	135,000.00	134,816.67
GOLDMAN SACHS GROUP INC CORPORATE NOTES DTD 05/22/2015 3.750% 05/22/2025	38148LAE6	380,000.00	BBB+	A2	2/12/2021	2/17/2021	424,528.40	0.94	1,543.75	420,458.27	414,552.64
BRISTOL-MYERS SQUIBB CO CORPORATE NOTES DTD 11/13/2020 0.750% 11/13/2025	110122DN5	201,000.00	A+	A2	6/17/2021	6/21/2021	198,998.04	0.98	201.00	199,010.51	199,445.47
<b>Security Type Sub-Total</b>		<b>8,171,000.00</b>					<b>8,304,989.36</b>	<b>1.99</b>	<b>49,600.24</b>	<b>8,255,042.24</b>	<b>8,420,368.48</b>
<b>Commercial Paper</b>											
ALBION CAP CORP/LLC COMM PAPER DTD 06/07/2021 0.000% 07/09/2021	01329WU90	1,635,000.00	A-1	P-1	6/8/2021	6/9/2021	1,634,931.88	0.05	0.00	1,634,981.83	1,634,932.97
LMA AMERICAS LLC COMM PAPER DTD 03/01/2021 0.000% 10/01/2021	53944QX13	535,000.00	A-1	P-1	5/18/2021	5/19/2021	534,719.13	0.14	0.00	534,808.59	534,654.39
MUFG BANK LTD/NY COMM PAPER DTD 02/22/2021 0.000% 11/19/2021	62479LYK5	1,000,000.00	A-1	P-1	2/22/2021	2/22/2021	998,725.00	0.17	0.00	999,334.17	999,636.00
<b>Security Type Sub-Total</b>		<b>3,170,000.00</b>					<b>3,168,376.01</b>	<b>0.10</b>	<b>0.00</b>	<b>3,169,124.59</b>	<b>3,169,223.36</b>
<b>Certificate of Deposit - FDIC Insured</b>											
DISCOVER BANK CD DTD 12/29/2016 2.250% 12/29/2021	254672Y36	247,000.00	NR	NR	12/29/2016	12/29/2016	247,000.00	2.25	30.45	247,000.00	249,713.79
STATE BANK OF INDIA CD DTD 01/26/2017 2.250% 01/26/2022	8562846A7	247,000.00	NR	NR	1/26/2017	1/26/2017	247,000.00	2.25	2,375.26	247,000.00	250,111.71

## 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>Certificate of Deposit - FDIC Insured</b>											
SYNCHRONY BANK CD DTD 02/24/2017 2.300% 02/24/2022	87165ELT2	247,000.00	NR	NR	2/28/2017	2/28/2017	247,000.00	2.30	1,976.68	247,000.00	250,605.95
BMW BANK NORTH AMERICA CD DTD 03/10/2017 2.150% 03/10/2022	05580AGR9	247,000.00	NR	NR	3/10/2017	3/10/2017	247,000.00	2.15	1,644.07	247,000.00	250,541.49
BELMONT SAVINGS BANK CD DTD 03/20/2017 2.150% 03/21/2022	080515BV0	248,000.00	NR	NR	3/20/2017	3/20/2017	248,000.00	2.15	1,490.04	248,000.00	251,688.50
AMERICAN EXPRESS CREDIT CD DTD 04/05/2017 2.450% 04/05/2022	02587DN38	247,000.00	NR	NR	4/5/2017	4/5/2017	247,000.00	2.45	1,442.41	247,000.00	251,447.73
<b>Security Type Sub-Total</b>		<b>1,483,000.00</b>					<b>1,483,000.00</b>	<b>2.26</b>	<b>8,958.91</b>	<b>1,483,000.00</b>	<b>1,504,109.17</b>
<b>Certificate of Deposit</b>											
SOCIETE GENERALE NY CERT DEPOS DTD 02/19/2020 1.800% 02/14/2022	83369XDL9	570,000.00	A-1	P-1	2/14/2020	2/19/2020	570,000.00	1.80	3,904.50	570,000.00	575,141.40
SUMITOMO MITSUI BANK NY CERT DEPOS DTD 07/14/2020 0.700% 07/08/2022	86565CKU2	435,000.00	A-1	P-1	7/10/2020	7/14/2020	435,000.00	0.70	1,471.75	435,000.00	437,043.63
DNB BANK ASA/NY LT CD DTD 12/06/2019 2.040% 12/02/2022	23341VZT1	430,000.00	AA-	Aa2	12/5/2019	12/6/2019	430,000.00	2.03	706.63	430,000.00	441,223.43
CREDIT SUISSE NEW YORK CERT DEPOS DTD 03/23/2021 0.590% 03/17/2023	22552G3C2	435,000.00	A+	Aa3	3/19/2021	3/23/2021	435,000.00	0.59	712.92	435,000.00	435,693.83
<b>Security Type Sub-Total</b>		<b>1,870,000.00</b>					<b>1,870,000.00</b>	<b>1.32</b>	<b>6,795.80</b>	<b>1,870,000.00</b>	<b>1,889,102.29</b>
<b>Asset-Backed Security</b>											
HAROT 2020-1 A3 DTD 02/26/2020 1.610% 04/22/2024	43813RAC1	305,000.00	NR	Aaa	2/19/2020	2/26/2020	304,940.22	1.61	136.40	304,959.57	309,211.96
TAOT 2020-A A3 DTD 02/12/2020 1.660% 05/15/2024	89232HAC9	415,000.00	AAA	Aaa	2/4/2020	2/12/2020	414,970.04	1.66	306.18	414,979.78	420,571.42

## 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>Asset-Backed Security</b>											
CARMX 2020-1 A3 DTD 01/22/2020 1.890% 12/16/2024	14315XAC2	185,000.00	AAA	NR	1/14/2020	1/22/2020	184,963.70	1.89	155.40	184,974.37	188,640.28
HAROT 2021-1 A3 DTD 02/24/2021 0.270% 04/21/2025	43813GAC5	150,000.00	NR	Aaa	2/17/2021	2/24/2021	149,997.26	0.27	11.25	149,997.49	149,860.34
HART 2021-A A3 DTD 04/28/2021 0.380% 09/15/2025	44933LAC7	120,000.00	AAA	NR	4/20/2021	4/28/2021	119,987.38	0.38	20.27	119,987.88	119,968.02
CARMX 2021-1 A3 DTD 01/27/2021 0.340% 12/15/2025	14316NAC3	90,000.00	AAA	NR	1/20/2021	1/27/2021	89,982.22	0.34	13.60	89,983.77	89,892.91
CARMX 2021-2 A3 DTD 04/21/2021 0.520% 02/17/2026	14314QAC8	180,000.00	AAA	NR	4/13/2021	4/21/2021	179,961.21	0.52	41.60	179,962.77	180,238.21
<b>Security Type Sub-Total</b>		<b>1,445,000.00</b>					<b>1,444,802.03</b>	<b>1.21</b>	<b>684.70</b>	<b>1,444,845.63</b>	<b>1,458,383.14</b>
<b>Managed Account Sub Total</b>		<b>55,350,000.00</b>					<b>55,330,230.45</b>	<b>1.36</b>	<b>168,905.75</b>	<b>55,379,290.91</b>	<b>56,132,144.23</b>
<b>Securities Sub-Total</b>		<b>\$55,350,000.00</b>					<b>\$55,330,230.45</b>	<b>1.36%</b>	<b>\$168,905.75</b>	<b>\$55,379,290.91</b>	<b>\$56,132,144.23</b>
<b>Accrued Interest</b>											<b>\$168,905.75</b>
<b>Total Investments</b>											<b>\$56,301,049.98</b>

Bolded items are forward settling trades.

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**IMPORTANT DISCLOSURES**

This material is based on information obtained from sources generally believed to be reliable and available to the public; however, PFM Asset Management LLC cannot guarantee its accuracy, completeness or suitability. This material is for general information purposes only and is not intended to provide specific advice or a specific recommendation. All statements as to what will or may happen under certain circumstances are based on assumptions, some, but not all of which, are noted in the presentation. Assumptions may or may not be proven correct as actual events occur, and results may depend on events outside of your or our control. Changes in assumptions may have a material effect on results. Past performance does not necessarily reflect and is not a guaranty of future results. The information contained in this presentation is not an offer to purchase or sell any securities.

- 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.
- **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 DURATION:** Represents each sector or maturity range's relative contribution to the overall duration of the portfolio measured as a percentage weighting. Since duration is a key measure of interest rate sensitivity, the contribution to duration measures the relative amount or contribution of that sector or maturity range to the total rate sensitivity of the portfolio.
- **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.



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## 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.
- **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.

**Directors**

Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**

Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

**SEPTEMBER 13, 2021  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 8**

**TITLE:**                **Review and Consider Approval of Unclassified Publicly Available Pay Schedule  
(This is a Motion Item)**

**SUBMITTED:**    Paul R. Eldredge, General Manager/District Engineer  
Mark Carlson, Business Services Workgroup Manager  
Gene Boucher, Human Resources Manager

**Recommendation**

Review, consider, and sign the September 1, 2021, Unclassified Employees Pay Schedule which will be posted and retained in accordance with CalPERS requirements.

**Discussion**

The Publicly Available Pay Schedule, mandated by CalPERS in August 2011, is designed to: 1) ensure consistency between CalPERS employers; and 2) enhance the disclosure and transparency of public employee compensation.

The “Publicly Available Pay Schedule” (CCR 570.5) must:

- Be duly approved and adopted by the employer’s governing body in accordance with requirements of applicable public meetings laws; and
- Identify the position title for every employee position; and
- show the pay rate for each identified position as a single amount or as multiple amounts within a range; and
- Indicate the time base (i.e., bi-weekly, monthly, etc.); and
- Be posted at the office of the employer or immediately accessible and available for public review from the employer during normal business hours or posted on the employer’s internet website; and

- Indicate an effective date and date of any revisions; and
- Be retained by the employer and available for public inspection for not less than 5 years.

**Background**

The salary changes contained in the attached document are:

- 1) The adjustments made to the Unclassified employee pay ranges are effective pay period that includes September 1, 2021.
- 2) The CPI for the Western Region Bay Area from December 2019 through December 2020 was 2.2%.
- 3) The updated salary table reflects an increase of 3.25% to all Unclassified salary ranges consistent with those received by Classified Employees with SEIU effective March 1, 2021.

**Previous Board Action**

10/12/2020 Board Meeting – Approval of Unclassified Publicly Available Pay Schedule



**Union Sanitary District  
Unclassified Employees Salary Schedule  
Effective September 1, 2021**

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accounting and Financial Analyst I	\$3,540.33	\$4,646.68
Accounting and Financial Analyst II	\$3,997.89	\$5,247.22
Assistant Engineer	\$4,278.72	\$5,615.82
Assistant Engineer - Limited Term	\$4,278.72	\$5,615.82
Associate Engineer	\$4,800.50	\$6,300.65
Buyer I	\$3,286.79	\$4,313.92
Buyer II	\$3,651.99	\$4,793.24
Coach, Capital Improvement Projects	\$6,332.30	\$8,311.14
Coach, Collection Services	\$5,014.56	\$6,581.61
Coach, Customer Service	\$6,332.30	\$8,311.14
Coach, Electrical & Technology	\$5,966.76	\$7,831.37
Coach, Environmental Compliance	\$5,441.38	\$7,141.82
Coach, Finance & Acquisition Services	\$5,863.69	\$7,696.09
Coach, Mechanical Maintenance	\$5,080.38	\$6,668.00
Coach, Research & Support/Sr. Process Engineer	\$5,638.62	\$7,400.68
Coach, Wastewater Plant Operations	\$5,130.45	\$6,733.72
Coach, Wastewater Plant Operations - Limited Term	\$5,130.45	\$6,733.72
Enhanced Treatment Site Upgrade Assistant Program Manager - Limited Term	\$5,367.50	\$7,044.84
Enhanced Treatment Site Upgrade Program Manager - Limited Term	\$6,166.97	\$8,094.14
Environmental Health and Safety Specialist	\$3,928.46	\$5,156.10
Environmental Program Coordinator	\$4,923.16	\$6,461.64
Executive Assistant to the General Manager/Board Secretary	\$3,855.75	\$5,060.67
Human Resources Analyst II	\$4,149.52	\$5,446.25
Human Resources Manager	\$5,853.62	\$7,682.88
Information Technology Administrator	\$5,682.63	\$7,458.45



**Union Sanitary District  
Unclassified Employees Salary Schedule  
Effective September 1, 2021**

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Information Technology Analyst	\$3,778.16	\$4,958.83
Junior Engineer	\$3,850.85	\$5,054.24
Manager, Business Services / Chief Financial Officer	\$7,940.95	\$10,422.49
Manager, Collection Services	\$6,943.58	\$9,113.45
Manager, Maintenance and Technology Services	\$7,290.76	\$9,569.12
Manager, Technical Services	\$7,616.53	\$9,996.69
Manager, Treatment & Disposal Services	\$6,943.58	\$9,113.45
Organizational Performance Coordinator I	\$3,577.40	\$4,695.34
Organizational Performance Coordinator II	\$4,131.90	\$5,423.12
Organizational Performance Manager	\$4,772.34	\$6,263.70
Principal Engineer	\$5,729.22	\$7,519.61
Purchasing Agent	\$4,439.11	\$5,826.34
Senior Accounting and Financial Analyst	\$4,226.62	\$5,547.44
Senior Database Administrator / Developer	\$4,727.46	\$6,204.79
Senior GIS/Database Administrator/Developer	\$4,820.83	\$6,327.34
Senior Human Resources Analyst	\$4,695.20	\$6,162.45
Senior Information Technology Analyst	\$4,197.95	\$5,509.81
Senior Network Administrator	\$4,696.36	\$6,163.97
Senior Engineer/Senior Process Engineer	\$5,101.61	\$6,695.86

**Board of Directors:** Directors meet or serve in their official capacity 3 – 12 times per month with a maximum of six paid meetings/month at a rate of \$212.10 per meeting and are paid for a maximum of one meeting per day.

Approved by:

---

President, Board of Directors



**Directors**  
Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**  
Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

**SEPTEMBER 13, 2021  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 9**

**TITLE:** **Approve the Additional Expenditure of \$35,451 for the FMC Water Truck (*This is a Motion Item*)**

**SUBMITTED:** Paul R. Eldredge, General Manager/District Engineer  
James Schofield, CS Work Group Manager  
Robert Simonich, FMC Work Group Manager  
Scott Martin, FMC Mechanical Team Coach

**Recommendation**

Authorize the General Manager to execute a purchase order in the amount of \$160,451 with Davidson Enterprises, Inc. for the purchase of a new Water truck.

**Discussion**

The Board initially authorized Staff to spend up to \$125,000 for a new Water Truck as part of the Board's approval of the fiscal year 2022 (FY22) budget. The most recent estimate for this vehicle have the total cost at \$160,451. The Water truck is included as part of the District's vehicle renewal and replacement program. The cost increase is attributed to the following two reasons:

1. FMC Staff is advising that the size of the pump and drive system be increased to allow for higher suction and discharge pressures. A larger pump and drive system will allow the Water truck to more efficiently remove impacted grease and grit accumulation from the District's air relief valves (ARV). This larger pump and drive system was not included in the original estimate because the original pump and drive system was thought to produce enough vacuum and pressure, with the wastewater characteristics changing in the Fremont basin, we have been operating at the extreme high end of the pump and drive system. The increased cost associated with these changes are \$20,230.00

2. The City of Union City's sales tax was increased to 10.75% as of July 1, 2021. An increase of \$3,216.00.

Staff is recommending the board authorize these increased expenditures. Staff is not requesting an increase to the Vehicle Renewal and Replacement budget.

**Background**

The District's current water truck is over 20 years old and at the end of its useful life. Mechanical components associated with the auxiliary motor and pump suction/discharge systems are no longer supported by the manufacturer. Staff has had to rebuild the auxiliary motor several times and build custom parts to make the current Water truck operate. The Water truck is used primarily to perform ARV maintenance for approximately 30 ARV's located on the District's twin force mains.

The Board, through the approval of the District's FY 22 budget, has already authorized the District to spend up to \$125,000 on the purchase of a new Water Truck.

**Previous Board Action**

06/28/2021 Board Meeting – Approval of \$125,000 for purchase of a new Water truck



**Directors**  
Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**  
Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

**SEPTEMBER 13, 2021  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 10**

**TITLE:** **Authorize the General Manager to Execute Amendment No. 3 to Task Order No. 2 with Brown and Caldwell for the Standby Power Generation System Upgrade Project (*This is a Motion Item*)**

**SUBMITTED:** Paul R. Eldredge, General Manager/District Engineer  
Sami E. Ghossain, Technical Services Work Group Manager  
Raymond Chau, CIP Team Coach  
Kevin Chun, Associate Engineer

**Recommendation**

Staff recommends the Board authorize the General Manager to execute Amendment No. 3 to Task Order No. 2 with Brown and Caldwell in the amount of \$176,176 for the Standby Power Generation System Upgrade Project (Project).

**Discussion**

The purpose of Amendment No. 3 is to authorize Brown and Caldwell (BC) to provide additional design services. The main additional services are summarized as follows:

1. Revise the project plans and specifications to change the connection of the new standby generators to the Plant's power system at the new service entrance switchgear (SWGR-SE) in lieu of the existing 12 kV switchgear (SWGR-MVSA). This includes revisions to the electrical design, modifications to the layout of the new Standby Building, relocation of the new diesel storage tank and transformers, site grading adjustments, and routing of the new electrical duct bank.
2. Revise the project plans to increase the elevation of the new Standby Power Building's finished floor elevation to match the Campus Building design and meet Union City's local floodplain administrator requirements.
3. Revise the project plans and specifications to add provisions for future standby generator Tier 4 emissions abatement equipment that may be required by the Bay Area Air Quality Management District (BAAQMD).



4. Conduct a historical assessment of the Plant's pre-1970s structures to meet Clean Water State Revolving Fund (CWSRF) loan requirements.

Figure 1 shows the revised layout of the new Standby Power Building, fuel tank, and transformers and the updated ductbank routing.

BC's scope of services and fee for Amendment No. 3 to Task Order No. 2 are summarized below:

<b>Task No.</b>	<b>Task Description</b>	<b>Additional Fee</b>
1	Project Management	\$13,423
3	Permitting	\$17,693
6	Preparation of Design Documents	\$143,225
7	Bid Period Services	\$1,835
	<b>Total Not-to-Exceed Amendment Fee</b>	<b>\$176,176</b>

Staff believes the fee is reasonable based on the level of effort required to re-design key elements of the Project and prepare an additional design submittal.

The total fee for the Project's agreement with BC is summarized in the table below:

<b>Description</b>	<b>Fee</b>
Task Order No. 1 – Pre-design report and site selection	\$175,064
Amendment No. 1 to Task Order No. 1 – Electrical Load Analysis	\$29,969
Task Order No. 2 – Final Design	\$1,975,808
Amendment No. 1 to Task Order No. 2 – Temporary Generation Standby Power Technical Memorandum and CEQA Plus Services	\$43,323
Amendment No.2 to Task Order No.2 – CWSRF Submittal and Detailed Design	\$262,207
Amendment No. 3 to Task Order No. 2 – Connection to SWGR-SE, emissions provisions, adjust building finished floor elevation, historical research for CWSRF loan	\$176,176
<b>Total for this Agreement</b>	<b>\$2,662,547</b>

Staff anticipates BC will complete the design of the Project by October 2021 with construction to begin by first quarter of 2022.

### **Background**

The Project was identified from a study completed in 2016 to evaluate the condition of the Plant's current standby power system. The study concluded that the current standby generator equipment, generator control systems, and electrical switchgear equipment are outdated, unreliable, and difficult to maintain due to the age and obsolescence of the equipment and systems.

On November 14, 2016, the Board authorized staff to execute an agreement and Task Order No. 1 in the amount of \$175,064 with BC to provide predesign services associated with the Project. The primary elements of the predesign effort were to evaluate and select a site location for the new standby generator system, establish criteria for final design, and develop a preliminary construction sequencing plan.

On February 5, 2018, the Board authorized staff to execute Task Order No. 2 in the amount of \$1,975,808 with BC to provide final design services associated with the Project. The final design was originally based on future power demands of upcoming plant upgrades. At the same time, the District was in the process of developing the Enhanced Treatment and Site Upgrade (ETSU) program. The ETSU program considered two potential secondary improvement alternatives that could address the plant's solids capacity needs: conventional activated sludge (CAS) and membrane bioreactor (MBR). The ETSU program determined that an enhanced CAS secondary process is the best value solution for the District.

On March 9, 2020, the Board authorized staff to execute Amendment No. 2 to Task Order No. 2 to have BC re-evaluate the basis of design for the Project to ensure standby power capacity identified in the Project is appropriate. The evaluation concluded the electrical load projections were lower for the CAS secondary treatment process when compared to the MBR technology, and instead of the 3.5-MW generators originally planned for the Project, 2.5-MW generators would be sufficient to meet future power demands. This future electrical load projection was carried forward as the basis of design for the final design phase of the Project.

A summary of the Project's major scope items is as follows:

- Installation of three new 2.5-MW standby engine generators and necessary appurtenances, located at the north end of the Plant, west of the Veasy Street cul-de-sac.
- Construction of a new, smaller prefabricated metal building sized to house three new standby engine generators, with room for one future standby engine generator and associated electrical equipment.
- Construction of comparable, exterior pad-mounted equipment such as transformers and aboveground diesel fuel storage tank.
- Construction of a new double-ended switchgear to replace the existing Substation No. 2 and Odor Control Building switchgears. At the Odor Control Building, the two existing motor control centers will be replaced.

- Installation of new electrical duct banks.
- Demolition of existing equipment and structures such as the six current standby engine generators, generator control panels and switchgears, and PLC panels.

Figure 2 shows the overall Plant site plan identifying other project scope.

#### Amendment No. 3 to Task Order No. 2

In July 2021, the ESTU program concluded a value engineering (VE) study of the Phase 1A Aeration Basin Modifications Project. One of the VE concepts was the construction of a new 12 Kilovolt (kV) utility SWGR-SE on the north side of the Plant next to the new Standby Power Building to simplify the construction of multiple projects, including the Standby Power Generation System Upgrade Project. The VE study concluded that the connection of the new standby generator system to the new SWGR-SE would reduce construction risks and simplify construction sequencing by not having to connect to the existing 12 kV SWGR-MVSA located at the Main Electrical Building. The existing SWGR-MVSA is 25 years old, has no room for expansion, and has obsolete controls that are difficult to find parts and personnel qualified to work on it. This VE concept will be carried forward and reflected in the updated design to connect the new standby generator system to the new SWGR-SE. SWGR-SE will be constructed as part of the ESTU Phase 1A Project.

The Standby Power Project and the Campus Building Project required consultation with the local floodplain administrator, which is the City of Union City. The role of the local floodplain administrator is to update flood maps and plans in accordance with the Federal Emergency Management Agency (FEMA) and adopt and enforce minimum floodplain management regulations so that development, including buildings, is undertaken in ways that reduce exposure to flooding. Both the new Standby Power and Campus buildings will be designed with a finished floor elevation of 12.0 feet, which is on average 3 feet higher than the existing site elevation.

On December 22, 2020, the BAAQMD adopted new Best Available Control Technology (BACT) Guidelines for large diesel engines used for emergency standby power. The new guidelines required large diesel engines meet the Environmental Protection Agency's Tier 4 emissions standards that contain more stringent requirements than the previous BACT Guidelines. The changes to the BACT Guidelines did not affect projects that already have an Authority to Construct (ATC) issued. Staff received the Project's ATC in November 2020, therefore the new BACT Guidelines do not apply. However, to accommodate the new BACT Guidelines should they be applied to the District's standby generators in the future, staff requested that BC include provisions in the design to accommodate them. These provisions will include enlarging pipe trenches and including additional spare conduits to accommodate future Tier 4 emissions abatement equipment. If required, the abatement equipment could include a selective catalytic reduction system with a particulate matter filter, a chemical tank for urea solution, chemical feed system, and controls.

During the review of the Clean Water State Revolving Fund (CWSRF) loan application for the Project, the State Water Resources Control Board's staff required an historical assessment of any pre-1970 Plant structures that will be demolished. The Project will include demolition of an old concrete tank, circa 1958, located in the northwest corner of the site to allow for the construction of the new Standby Power Building. BC hired a specialty consultant to conduct the historical assessment of the tank. The consultant found an image of the tank from a 1958 aerial photo but found no connection to the Plant that was constructed as part of the 1962 Alvarado Water Pollution Control Plant Project and subsequent Plant upgrade projects. The consultant found that the Plant property, including all structures, did not have any historical significance. This finding allowed the District to proceed with the Project as designed.

#### **Previous Board Action**

November 14, 2016, the Board authorized the General Manager to execute an agreement and Task Order No. 1 with BC in the amount of \$175,064 for providing pre-design services for the Project.

February 12, 2018, the Board authorized the General Manager to execute Task Order No. 2 with BC in the amount of \$1,975,808 for providing final design services for the Project.

October 14, 2019, the Board adopted the Mitigated Negative Declaration (MND) for the Project and approved the Project as defined in the MND.

February 24, 2020, the Board adopted an addendum to the MND for the Project and approved modifications to the Project as set forth in the addendum to the MND.

March 9, 2020, the Board authorized the General Manager to execute Amendment No. 2 to Task Order No. 2 with BC in the amount of \$262,207 for providing additional design services for the Project.

September 14, 2020, the Board determined that all bids received for the Standby Generator System Equipment Supply Agreement were non-responsive and rejected all bids. The Board directed staff to negotiate an agreement, starting with apparent low bidder Cummins, or alternative action.

November 9, 2020, the Board awarded the Standby Generator System Equipment Supply Agreement in the amount of \$3,122,090 to Cummins Sales and Service.

PRE/SEG/RC/KC;mb

Attachments: Figures 1 and 2 – Project and Plant Site Plans  
Amendment No. 3 to Task Order No. 2

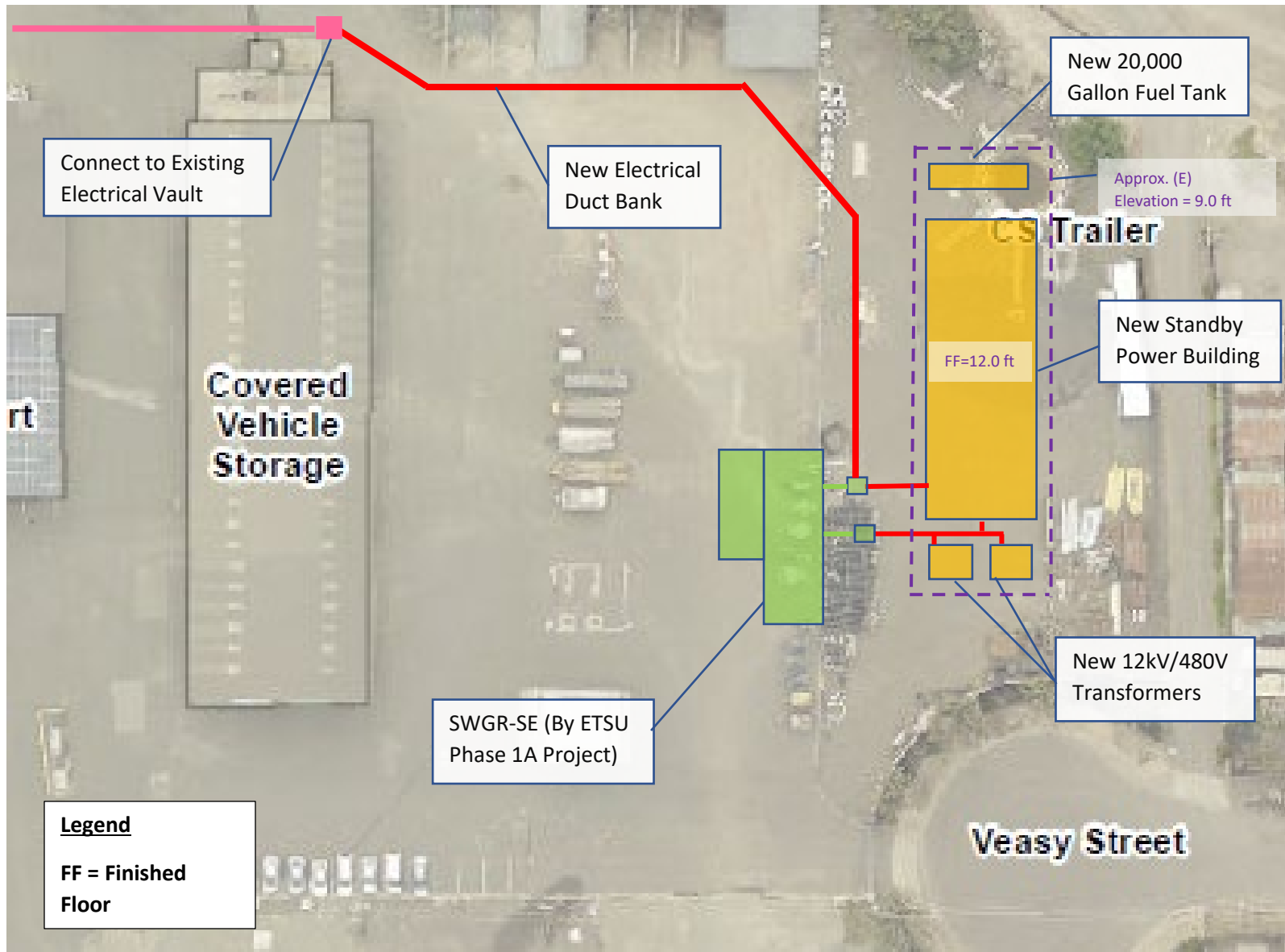


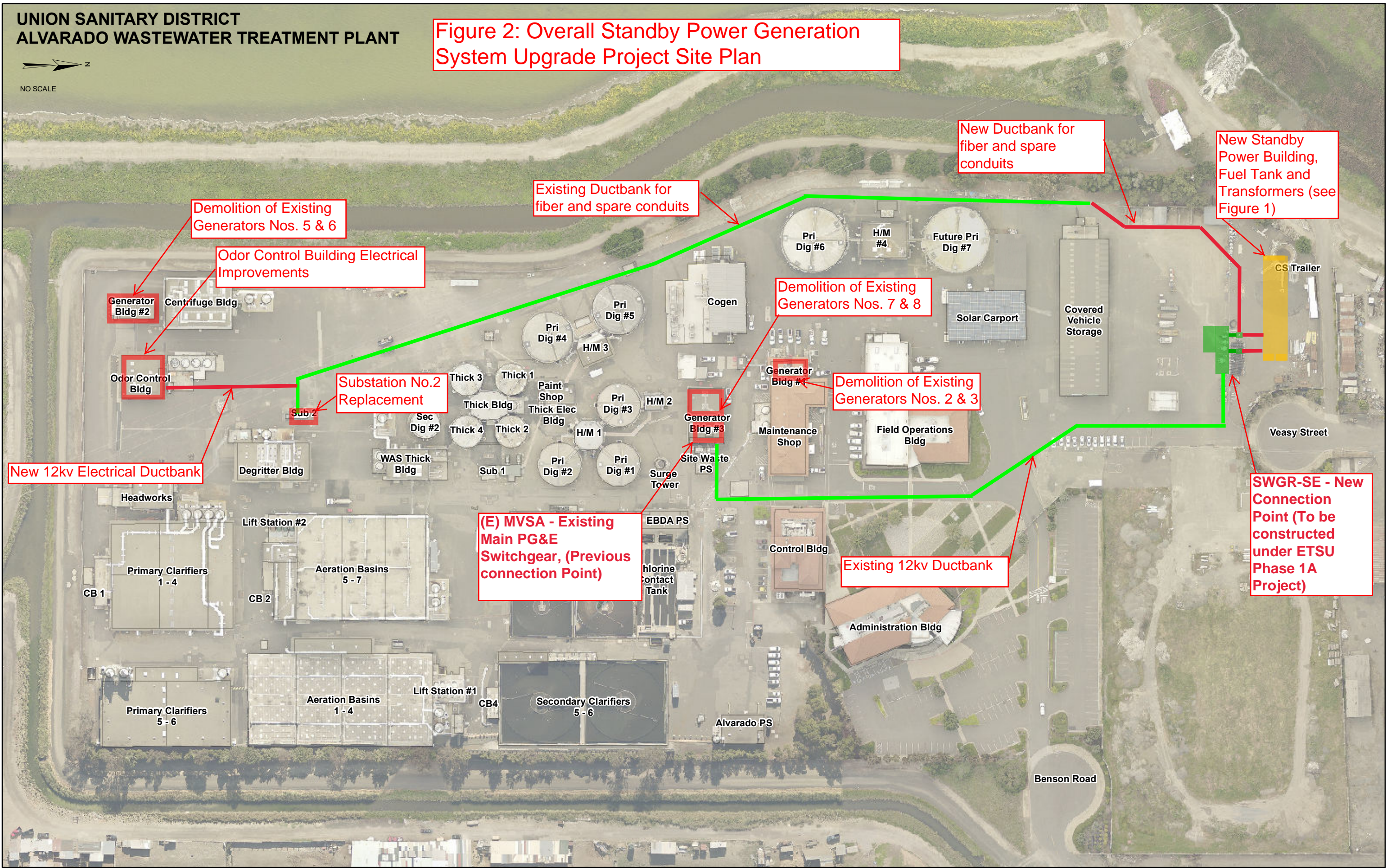
Figure 1 – Project Site Plan



UNION SANITARY DISTRICT  
ALVARADO WASTEWATER TREATMENT PLANT

NO SCALE

Figure 2: Overall Standby Power Generation System Upgrade Project Site Plan





**STANDBY POWER GENERATION SYSTEM UPGRADE PROJECT  
(USD PROJECT NO. 800-452)**

**AMENDMENT NO. 3**

**TO**

**TASK ORDER NO. 2**

**BETWEEN**

**UNION SANITARY DISTRICT**

**AND**

**BROWN AND CALDWELL**

**FOR PROFESSIONAL SERVICES**

**DATED November 15, 2016**

**1. PURPOSE**

The purpose of Amendment No. 3 to Task Order No. 2 is to authorize engineering services provided by Brown and Caldwell, hereinafter referred to as “Engineer,” for the Standby Power Generation Upgrades Project, hereinafter referred to as the “Project.” This amendment reflects modifications to the existing scope of work, as well as new scope items.

The amendment includes effort associated with revising the design to connect the standby generation system to the new Service Entrance Switchgear (SWGR-SE) instead of the existing Switchgear MVSA. Throughout detailed design, the Project had shown the new standby generators tying into existing Switchgear MVSA, similar to the District’s existing standby generators. In early April 2021, the District informed BC that they were considering connecting the new standby generators to a new switchgear that would be designed and constructed as part of the District’s Enhance Secondary Treatment Upgrades (ETSU) project. After discussing the advantages and disadvantages of connecting the standby generator system to SWGR-SE and after holding coordination meetings with the Engineer and the ETSU design consultant, the District confirmed their decision to proceed with the new SWGR-SE via email on June 3, 2021.

The amendment also adds effort for revising the generator building design to include accommodations for future Tier IV emissions abatement equipment. In December 2020, the Bay Area Air Quality Management District (BAAQMD) released a Best Available

Control Technology (BACT) determination for stationary emergency compression ignition engines. That BACT determination effectively required Tier IV emission control for stationary emergency compression ignition engines without an approved Authority to Construct (ATC), dated before December 22, 2020. Because the District has an approved ATC for the new standby generators, the BACT determination does not apply. However, to accommodate future Tier IV emissions control equipment, and as noted in a March 11, 2021 email, the District decided to proceed with modifying the design to accommodate for future Tier IV abatement equipment but to wait to procure the equipment itself.

At the direction of Union City's floodplain administrator and to coordinate with the Campus Building design, the District requested that the Engineer increase the elevation of the standby building finish floor and adjacent finish grade. Previous site elevations had been agreed upon in CEQA documentation for the project. This amendment includes redesign effort for raising the site elevation.

To comply with a Clean Water State Revolving Fund (CWSRF) financing requirement, the District requested that the Engineer perform a historical assessment of Alvarado Wastewater Treatment Plant (WWTP). That assessment is included in this amendment.

Additionally, this amendment addresses effort associated with schedule delays, which are described in the following paragraphs.

During the 90 percent design process, the District raised a concern about single points of failure for the new standby power facility. That concern resulted in discussions regarding adding a second output breaker to the standby generator switchgear. Those discussions lasted approximately two months from March 2020 through April 2020. During that time, the 90 percent design progress was delayed until a decision was made due to the significant impacts of adding a second output breaker.

Negotiations with the standby generator system supplier lasted from August 2020 through December 2020, longer than anticipated in the original design scope, which assumed three weeks of negotiations. Because the generator and associated switchgear submittals are being incorporated into the 100 percent design, that negotiation process delayed the start of the 100 percent design.

Additionally, while the District was deciding whether to proceed with the new SWGR-SE connection, the 100 percent design effort was put on hold to avoid rework. The decision-making process lasted approximately two months, from April 2021 through early June 2021.

Although the Scope of Services is broken down into tasks, the fee estimate for each individual task shall not be considered a "not to exceed" amount for each task. It is anticipated that some tasks may require more effort, and some may require less effort.



The Engineer shall have the ability to adjust the budgets within the Scope of Services among tasks to balance the overall level of effort. The Engineer shall not exceed the total budget for the project without written authorization from the District.

## **2. SCOPE OF SERVICES**

This scope of services includes amended activities for the Project Coordination and Management, Environmental Compliance, and 100 Percent Design subtasks. The scope amendments are related to District-requested design changes and schedule delays associated with the design changes and the decision-making process.

### **Task 1: Project Management**

#### **Subtask 1.3 Project Coordination and Management**

The scope of services for Subtask 1.3 shall be amended to reflect additional project management efforts associated with the extension of the project schedule and processing of subconsultant amendments.

Project delay periods have extended the schedule by an additional seven months. The amendment includes additional fee for seven months of project management activities (invoice preparation and monthly status report preparation) associated with the preparation of the final design package.

Also, because the design revisions covered by this amendment were directed by the District, additional effort for preparation of this amendment is included in Subtask 1.3.

#### **Assumptions:**

- Project schedule extension is a total of seven months.

#### **Deliverables:**

- Preparation of seven monthly invoices and project status reports.

### **Task 3: Permitting**

#### **Subtask 3.1: Air Permitting**

No changes to the existing scope of work.

### **Subtask 3.2: Environmental Compliance**

As a result of being approved for CWSRF financing, the State Water Resources Control Board requested that the District perform a historical assessment of Alvarado Treatment Plant. The District directed the Engineer to perform this work. The following shall be added to the current scope of work to reflect the additional effort required to meet the State Water Resources Control Board's requirements.

The Engineer shall research the history of Alvarado WWTP, relying primarily on the District to provide documents about its design, construction, alterations, and operation. The Engineer shall conduct research adequate to provide a description of what the Alvarado WWTP was at the time of its construction and shall conduct selected additional research online and at available repositories. The Engineer shall conduct a site visit to photograph the Alvarado WWTP and note alterations. The Engineer shall identify the historical theme and context under the National Register of Criteria and whether the Alvarado WWTP is significant under any of the four Significance Criteria. If the Alvarado WWTP is significant, the Engineer shall evaluate integrity and determine the period of significance. This scope covers the Alvarado WWTP as a single property and will include descriptions of the clarifier tank, splitter box, digesters, Heat Mix Building 2, and outfall. Individual evaluations and California State Department of Parks and Recreation (DPR) forms for these components will not be included.

The Engineer shall prepare DPR 523a, 523b, and 523j forms and revise forms as required by the California Office of Historic Preservation. The forms will be submitted electronically.

#### **Assumptions:**

- The District shall provide documents from its archives and facilitate a site visit.
- Deliverables will be submitted to the District as draft for review and comment. Schedule and budget are based on a two-week review period. A final document will be submitted that will incorporate the District's comments. If comments are not incorporated, the comments and the reason that they were not incorporated, will be added to a log that will be provided to the District.

#### **Deliverables:**

- DPR 523a, 523b, and 523j forms, submitted electronically

### **Task 5: PG&E Coordination**

The SWGR-SE modifications impact the PG&E interconnection application process. The SWGR-SE facility requires a New Service Application, which must be submitted by

the ETSU design consultant before the District can submit an Interconnection Application for the Project.

This amendment does not add any scope to Task 5, but it revises the PG&E Coordination schedule. The Engineer will initiate the PG&E Interconnection Application development once the District receives approval PG&E for the SWGR-SE New Service Application.

It is assumed that PG&E will approve the SWGR-SE New Service Application in December 2021.

## **Task 6: Preparation of Design Documents**

### **Subtask 6.2: 90 Percent Design Documents**

No changes to the existing scope of work.

### **Subtask 6.3: 100 Percent Design Documents**

The current scope of work under Task 6.3 shall be amended to include the following:

The Engineer shall revise the standby generation system and standby generator building design such that the new standby generation system will be connected to the new SWGR-SE, which is being designed by another design consultant, instead of the existing Switchgear MVSA. The Engineer shall submit a preliminary abbreviated set of drawings, which will include the civil site layout, building layout drawings for each discipline, and the revised electrical diagrams, for the District's review before the finalized 100 percent design deliverable is submitted, and the Engineer shall incorporate District comments from that review into the 100 percent design documents.

Design revisions required for the new switchgear connection shall include, but are not limited to:

- The electrical design of the Standby Switchgear and associated wiring and conduits will be revised to account for connection to SWGR-SE.
- The standby building layout will be mirrored, such that the generator room and electrical room locations are swapped.
- The locations of the bulk diesel storage tank and the standby generation system transformers will be swapped.
- Civil grading and paving design will be modified to accommodate the new SWGR-SE building and revised standby building layout.
- Duct bank routes, yard piping arrangements, and associated sections and profiles will be adjusted.

The Engineer shall revise the standby generator building design to allow the District to make Tier IV retrofits to account for possible future requirements for adding Tier IV standby generator emissions abatement equipment. Design revisions associated with this effort will include adjusting the lighting design, increasing the size of the pipe trench to allow for additional piping, verifying that there is adequate space for future equipment, and adding additional conduits to the electrical drawings.

The Engineer shall increase the elevation of the standby building finish floor and adjacent finish grade to meet the Union City floodplain administrator's requirements and to coordinate with the District's new Campus Building design. The Engineer shall also revise the finish floor and adjacent grade elevations of the equipment pads adjacent to the standby building and make any necessary changes to the site grading, paving, and storm drain piping.

It is estimated that the SWGR-SE design revisions, the Tier IV equipment accommodation design revisions, and site elevation revisions will impact the following quantities of drawings and specifications:

- (6) Civil drawings
- (6) Architectural drawings
- (1) Structural drawing
- (2) Mechanical drawings
- (2) HVAC drawings
- (16) Electrical drawings
- (3) Process and Instrumentation Diagrams
- (10) Specifications

Add the following to assumptions:

- The Engineer shall attend bimonthly virtual design coordination meetings with the District and the SWGR-SE design consultant. Two members of the Engineer's team shall attend eight coordination meetings.
- The SWGR-SE design documents, calculations and CAD files will be provided, as necessary, by the District a maximum of three weeks after NTP of this amendment.
- Draft deliverables will be submitted to the District for review and comment. One consolidated set of District comments will be provided on the preliminary abbreviated 100 percent design submittal. Schedule and budget are based on a two-week review period. A final document will be submitted that will incorporate the Client's comments. If comments are not incorporated, the comments and the reason that they were not incorporated will be added to a log that will be provided to the District.
- District comments on the final 100 percent design submittal will be limited to items regarding how the Engineer addressed the District's 90-percent design

review comments and preliminary abbreviated 100 percent design submittal comments, formatting, text, and presentation. Changes to design or concepts are not expected.

- Design revisions to accommodate for future Tier IV retrofits do not include the design or supply of the Tier IV emissions abatement equipment and associated support equipment.

#### **Subtask 6.4: Bid Documents**

There are no changes to the existing scope of work; however, due to the schedule delays the subtask cost has been adjusted for rate increases.

#### **Subtask 6.5: CWSRF Basis of Design Report (BODR)**

No changes to the existing scope of work.

#### **Subtask 6.6: CWSRF Design Submittal**

No changes to the existing scope of work.

#### **Task 7: Bid Period Services**

There are no changes to the existing scope of work; however, due to the schedule delays the subtask cost has been adjusted for rate increases.

### **PAYMENT TO THE ENGINEER**

Payment to the Engineer shall be as called for in Article 2 of the Agreement. The Multiplier for this work shall be 3.23, the profit shall be 13 percent. Subconsultants shall be billed at actual cost plus 5 percent.

Amendment No. 3 hereby increases Task Order No. 2 by \$176,176, which includes 5 percent markup for subconsultant services. A summary of the anticipated distribution of cost and manpower between tasks is shown in Exhibit A.

The following table summarizes all task orders and amendments including those previously executed under the Agreement, ending with this Amendment:

<b>Task Order / Amendment</b>	<b>Not to Exceed Amount</b>	<b>Board Authorization Required? (Yes/No)</b>	<b>District Staff Approval</b>
Task Order No.1 - Predesign	\$175,064	Yes	Paul Eldredge
Amendment No.1 to Task Order No.1 – Electrical Load Analysis	\$29,969	No	Sami Ghossain
Task Order No.2 – Final Design	\$ 1,975,808	Yes	Paul Eldredge
Amendment No.1 to Task Order No.2 – Temporary Generation Standby Power TM and CEQA Plus Services	\$43,323	No	Sami Ghossain
Amendment No.2 to Task Order No.2 – CWSRF Submittal and Detailed Design	\$262,207	Yes	Paul Eldredge
Amendment No.3 to Task Order No.2 – SWGR-SE Design Changes	\$176,176	Yes	Paul Eldredge
<b>Total</b>	<b>\$2,662,547</b>		

### 3. TIME OF COMPLETION

Work defined in this Task Order shall be completed according to the design milestones listed below subject to the conditions of Article 3 of this Agreement. Additionally, a revised project schedule that incorporates the work defined in this Task Order is attached in Exhibit B.

<b>Milestone</b>	<b>Deliverable Date</b>
Draft Abbreviated 100 Percent Design Submittal	August 25, 2021
100 Percent Design Submittal	September 14, 2021
Bid Documents	October 12, 2021
Initiate PG&E Application	December 2021 (assumption due to SWGR-SE New Service Application review timeline uncertainty)

#### 4. KEY PERSONNEL

Key engineering personnel or subconsultants assigned to this Amendment are as follows:

ROLE	PERSONNEL
Project Manager	William Pevec
Electrical Lead Engineer	Matthew Pagendarm
Electrical Technical Advisor	Chris Kindle
Principal-In-Charge	Grace Chow

Key personnel shall not be changed except in accordance with Article 8 of the Agreement.

In WITNESS HEREOF, the parties hereto have executed this Amendment No. 3 to Task Order No. 2 as of \_\_\_\_\_, and therewith incorporated it as part of the Agreement.

ENGINEER:  
Brown and Caldwell

DISTRICT:  
Union Sanitary District

Signature \_\_\_\_\_

Signature \_\_\_\_\_

Name Grace Chow, P.E.

Name Paul R. Eldredge, P.E.

Title Vice President

Title General Manager/District Engineer

Date \_\_\_\_\_

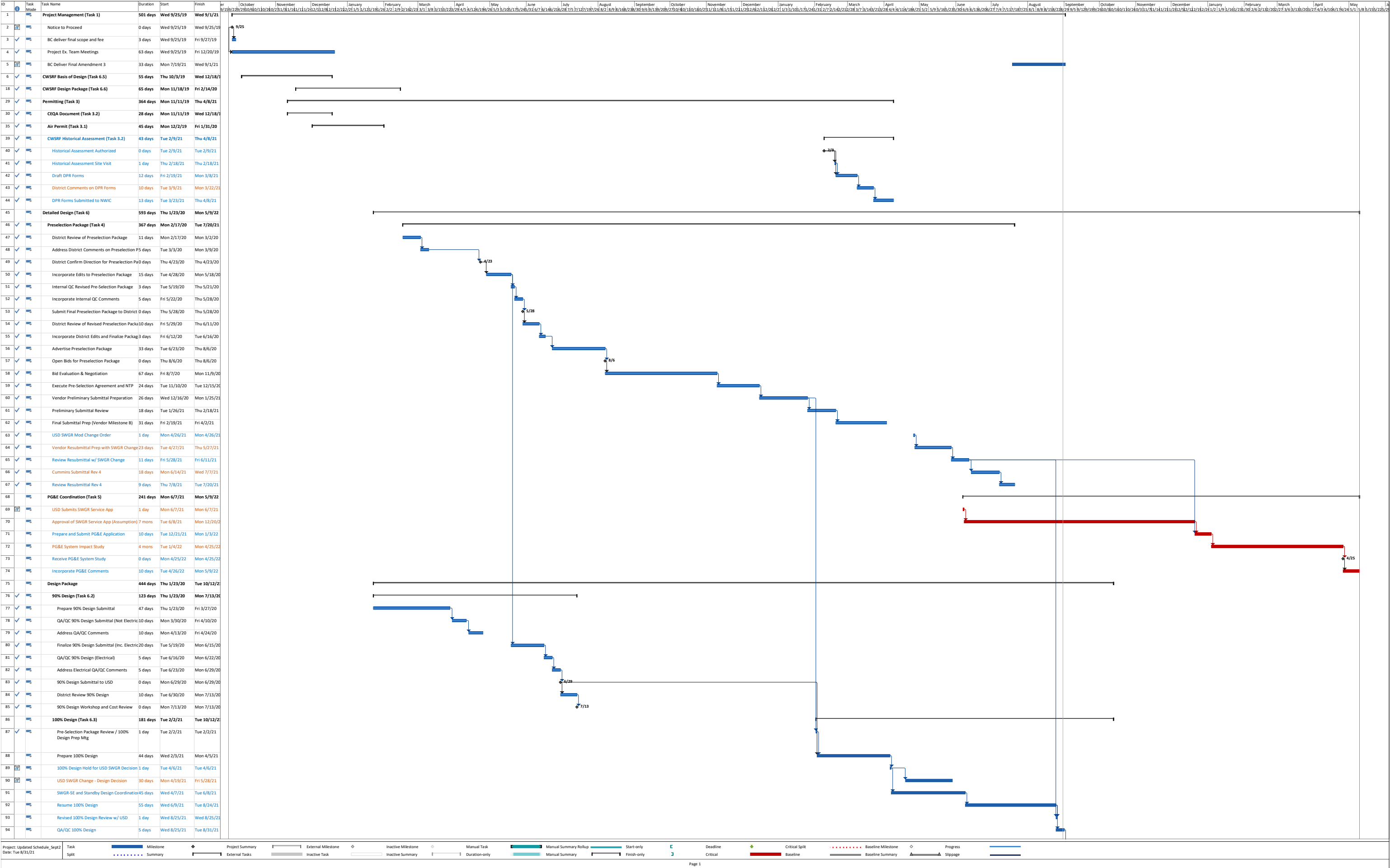
Date \_\_\_\_\_

Exhibit A

Exhibit A - Union Sanitary District (CA) - Standby Power Gen Final Design - Amendment 3																														
		Pevec, William J	Ingebrigtsen, Cara C	Jones, Lori	Terrazas, Richard	Pagendam, Matthew R	Forsberg, Dane	Kindle, Christopher	Bobka, Ryan	Klittich, Kenneth D	MizeI, Maxwell T	Adrian, Hunter	Burke, Fred	Matsumoto, Mark	Crawford, David	Gomez, Brandon R	Giurgius, Michael	Lambert, Tait R	Tanner, Deanna L	Hesby, James C	Chow, Grace				NSB / Gannett Fleming	Scheidegger & Assoc				
Phase	Phase Description	PM	PA	MM	PMO	Elec. Lead	Elec. Eng / Design	Sub 2 Elec. Lead	I&C	Mech. Lead	Mech. Staff	HVAC Lead	BIM Lead	Mech. Design	Arch. Lead	Arch. Design	Civil Lead	Civil Design	Word Processing	Chief Engineer	PIC	Total BC Labor Hours	Total BC Labor Effort	APC	Sub Cost	Sub Cost	Total Sub Cost	Total Expense Cost	Total Expense Effort	Total Effort
	Budgeted Hourly Rate	\$155	\$158	\$332	\$331	\$283	\$132	\$290	\$229	\$230	\$115	\$137	\$202	\$182	\$287	\$117	\$291	\$164	\$129	\$330	\$340			\$8						
001	Project Management	22	26	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	64	\$12,911	\$512	\$0	\$0	\$0	\$0	\$512	\$13,423
003	Permitting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$16,850	\$16,850	\$16,850	\$17,693	\$17,693
006	Preparation of Design Documents	60	4	2	0	48	80	0	16	60	0	16	72	64	24	36	60	90	0	0	2	634	\$128,913	\$5,072	\$8,800	\$0	\$8,800	\$8,800	\$14,312	\$143,225
007	Bid Period Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$1,835	\$0	\$0	\$0	\$0	\$0	\$0	\$1,835
TOTAL		82	30	8	2	48	80	0	16	60	0	16	72	64	24	36	60	90	0	0	10	698	\$143,659	\$5,584	\$8,800	\$16,850	\$25,650	\$25,650	\$32,517	\$176,176
Hours and Dollars are rounded to nearest whole number.																														
A 5% markup is applied to all subconsultants.																														
An annual escalation for BC labor of 3% per calendar year is assumed.																														



Exhibit B







**Directors**  
Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**  
Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

**SEPTEMBER 13, 2021  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 11**

**TITLE:** **Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Brown and Caldwell for the Cogeneration Replacement and Ventilation Study (*This is a Motion Item*)**

**SUBMITTED:** Paul R. Eldredge, General Manager/District Engineer  
Sami E. Ghossain, Technical Services Work Group Manager  
Raymond Chau, CIP Team Coach  
Somporn Boonsalat, Associate Engineer

**Recommendation**

Staff recommends the Board authorize the General Manager to execute an agreement and Task Order No. 1 with Brown and Caldwell (BC) in the amount of \$141,987 for the Cogeneration Replacement and Ventilation Study (Study).

**Discussion**

The purpose of the Task Order No. 1 is to authorize BC to conduct a study of the existing cogeneration system at the Alvarado Wastewater Treatment Plant (AWTP). The study will review the operational and maintenance history of the cogeneration system, evaluate its cost effectiveness, and develop short-term and long-term strategies to maximize the use of the existing system, and recommend replacement engine-generator brands and their respective replacement phasing plans.

The study will also review and evaluate the existing Cogeneration Building's ventilation system and recommend improvements to improve the cooling of the engines and their electronics and reduce the effect of the surrounding marine environment. Finally, the study will evaluate the fuel cell technology and provide a detailed level review of its suitability as a cogeneration system at the AWTP.

BC's scope of services and fee for Task Order No. 1 are summarized below:

<b>Task No.</b>	<b>Task Description Fee</b>	<b>Fee</b>
1	Existing Cogeneration and Ventilation Improvements	\$69,513
2	Future Alternatives	\$36,145
3	Action Plan	\$26,183
4	Project Management	\$10,146
	<b>Task Order No-to-Exceed Fee</b>	<b>\$141,987</b>

Staff believes the proposed fee is reasonable based on the level of effort required to evaluate the existing cogeneration system and develop the short- and long-term strategies.

Staff anticipates BC will complete the Study by summer 2022.

### **Background**

In 2014, the District installed two new engine generators housed within a new metal building, a new digester gas conditioning system, and modifications to the existing digester gas piping and hot water system. When fully operational, the engine generators provide approximately two-thirds of the average peak power demand of the AWTP and all the heat demand of the primary digesters. See attached Figure 1 – Site Map.

Since commissioning the GE Jenbacher engine generators in November 2014, the District has faced some challenges in operating and maintaining the equipment. Some of the issues included the following:

1. In May 2016, there was a catastrophic failure of the liner and piston in one of the engine cylinders which required the District to replace the engine block for Cogen No. 1. The block was replaced in September 2016.
2. The ventilation system's supply inlet and exhaust outlet are both located on the east end of the building (Figure 2). The hot exhaust air gets pulled into the supply inlet, causing the building's internal temperature to increase over time. During hot days the increased temperatures have resulted in the shutdown of the engines.
3. The engine's cylinder monitoring system units (SAFI) sit directly on the engine block above the cylinders. Even though the supply air ducts are directed toward the engines, the engine's intake air filters are located between the ducts and the SAFI units, thus restricting the supply air flow. To combat this, staff installed small fans on the engine blocks to cool the SAFI units. Figure 3 shows a photo of the building's supply air duct.

4. More recently in 2020, the generators on both the cogeneration engines failed. Troubleshooting performed by a vendor found corrosion in the copper winding. The vendor posited the corrosion was caused by the marine air that is pulled in by the building's supply fan and contributed to the failure. The windings were repaired, and the generators were returned to service.

Because of these and other issues, staff has found it challenging to keep the engine generators operating for extended periods of time. In addition, the maintenance effort and costs have been higher than anticipated.

In 2019, the District retained HDR Engineering, Inc. (HDR) to conduct a feasibility study of various cogeneration technologies that could provide similar levels of power and heat to the AWTP while minimizing the complexity of the operation and the effort and costs of equipment maintenance. HDR's study concluded that reciprocating internal combustion engines yielded the greatest return.

**Previous Board Action**

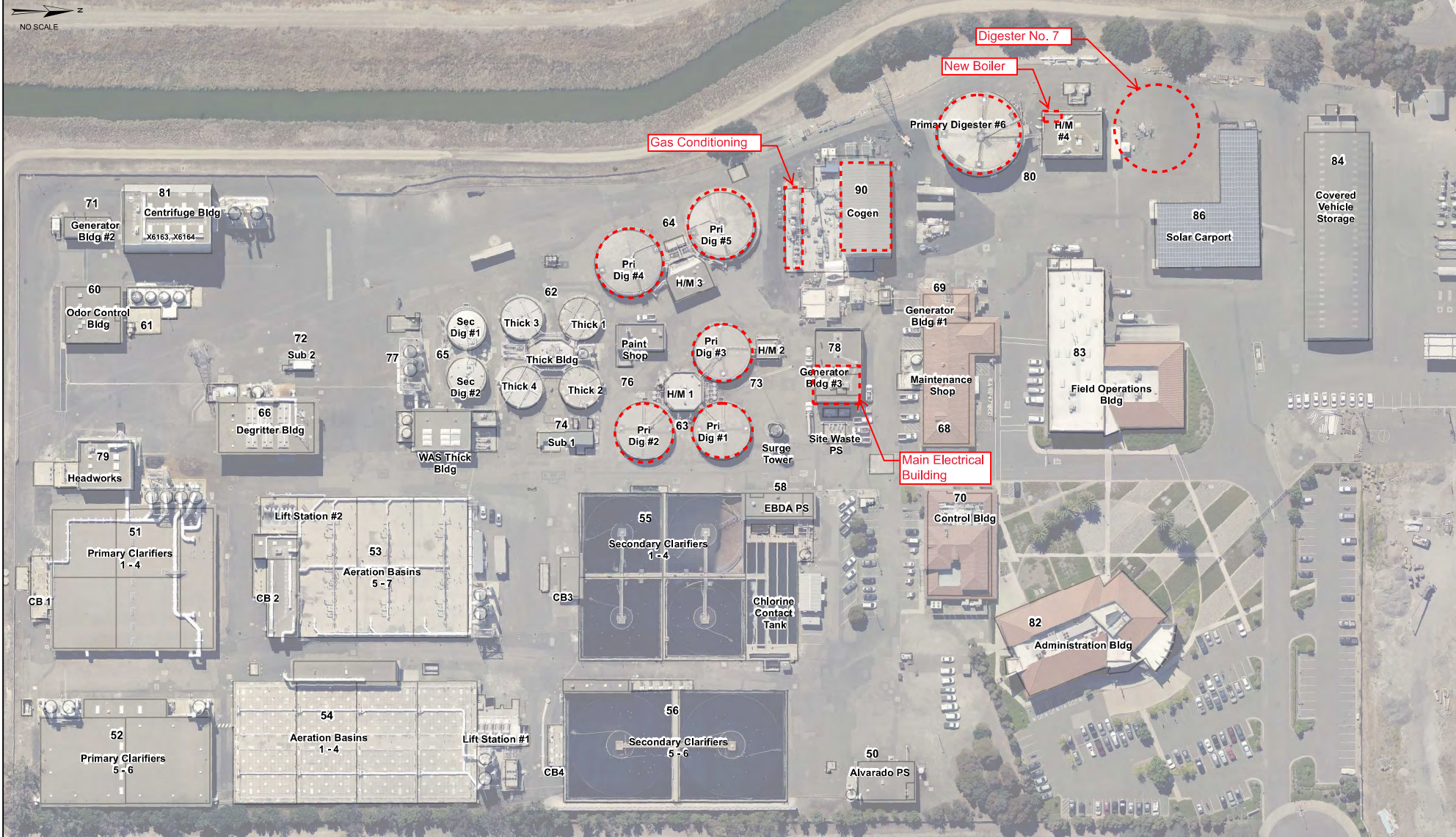
None.

PRE/SEG/RC/SB/mb

Attachment: Figure 1 – Site Map  
Figures 2 and 3 – Cogeneration Building Ventilation  
Agreement  
Task Order No. 1



**UNION SANITARY DISTRICT  
ALVARADO WASTEWATER TREATMENT PLANT  
FIGURE 1 - SITE MAP**





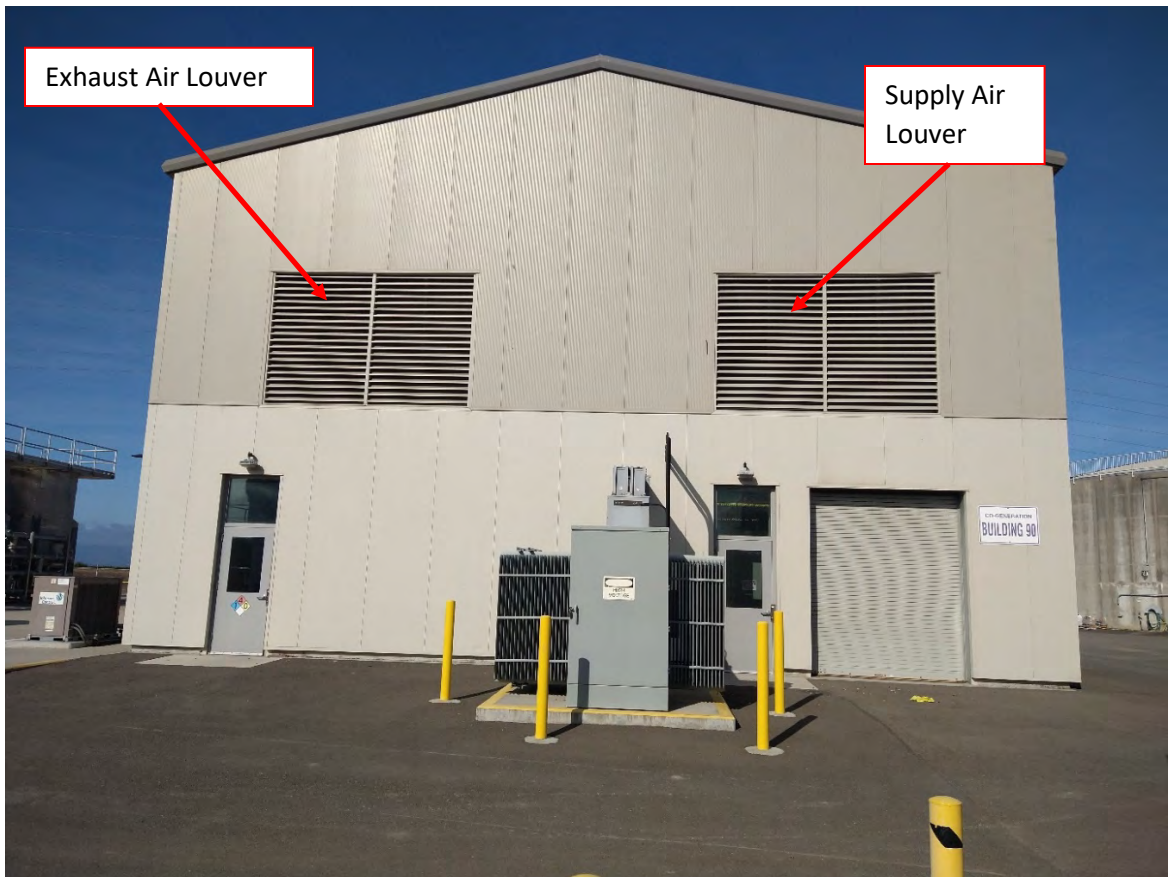


Figure 2 – Cogeneration Building East Wall Exterior

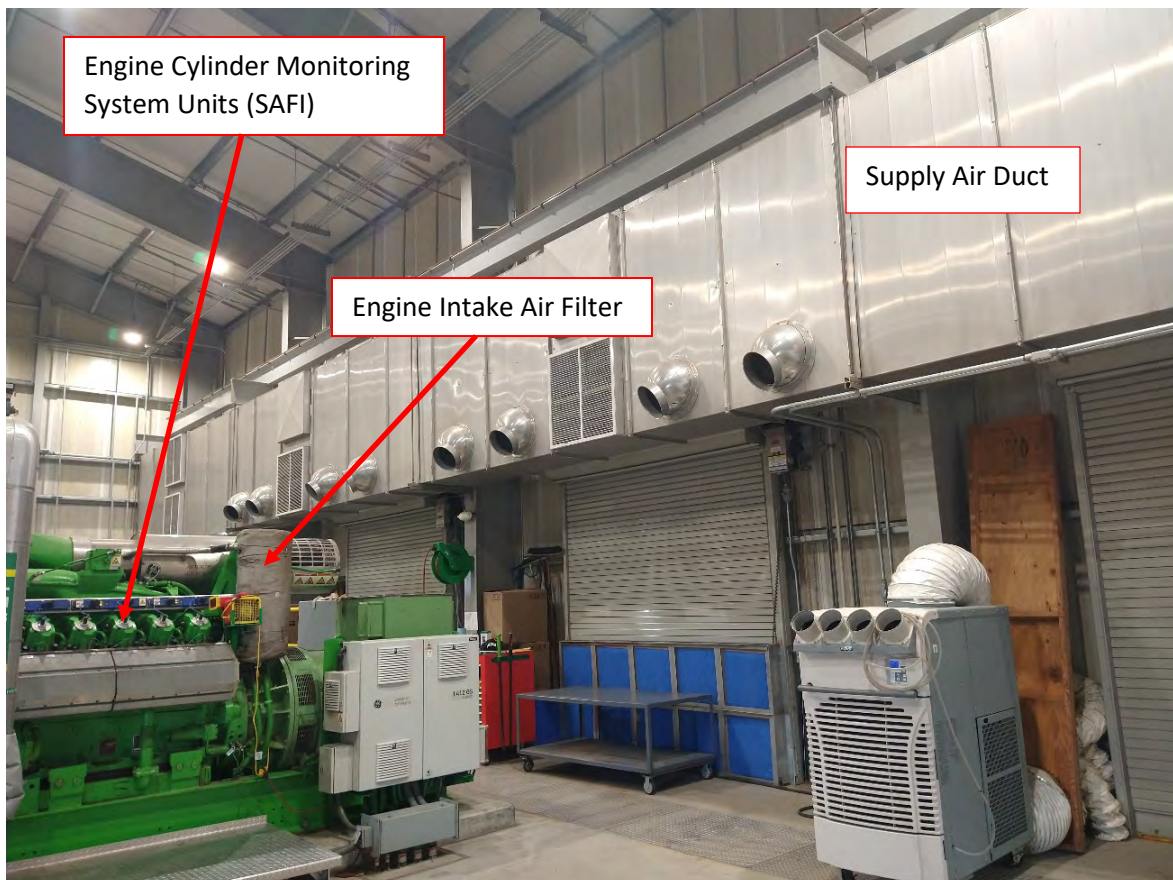


Figure 3 – Cogeneration Building North Wall Interior

# **COGENERATION REPLACEMENT AND VENTILATION STUDY**

## **AGREEMENT**

### **BETWEEN**

**UNION SANITARY DISTRICT**

### **AND**

**BROWN AND CALDWELL**

### **FOR**

**PROFESSIONAL SERVICES**

THIS IS AN AGREEMENT MADE AS OF \_\_\_\_\_, BETWEEN UNION SANITARY DISTRICT (hereinafter referred to as District), and BROWN AND CALDWELL (hereinafter referred to as Engineer).

WITNESSETH:

WHEREAS, District intends to conduct a cogeneration feasibility study (hereinafter referred to as Study), and,

WHEREAS, District requires certain professional services in connection with the Study (hereinafter referred as Services); and

WHEREAS, Engineer is qualified and prepared to provide such Services;

NOW, THEREFORE, in consideration of the promises contained herein, the parties agree as follows:

## **ARTICLE 1 - SERVICES TO BE PERFORMED BY ENGINEER**

- 1.1 Specific Services and the associated scope of services, payment, schedule, and personnel will be defined in specific Task Order as mutually agreed by District and Engineer.
- 1.2 All Task Orders will by reference incorporate the terms and conditions of this Agreement, and become formal amendments hereto.

## **ARTICLE 2 - COMPENSATION**

- 2.1 Compensation for consulting services performed under this Agreement shall include:



- (1) Direct labor costs, multiplied by an agreed upon fixed factor (the Multiplier), to compensate for fringe benefits, indirect costs, and profit.
- (2) Non-labor direct project charge not included in the fixed factor and acceptable, without any markup.
- (3) Subconsultant costs, with a maximum markup of 5%.

Definitions are as follows:

- (a) Direct labor is salaries and wages paid to personnel for time directly chargeable to the project. Direct labor does not include the cost of Engineer's statutory and customary benefits, such as sick leave, holidays, vacations, and medical and retirement benefits nor the cost of the time of executive and administrative personnel and others whose time is not identifiable to the project.
- (b) Fringe benefits include Engineer's statutory and customary benefits, such as sick leave, holidays, vacations, medical and retirement benefits, incentive pay, tuition, and other costs classified as employee benefits.
- (c) Indirect costs are allocations of costs that are not directly chargeable to a specific engagement and are commonly referred to as Engineer's overhead. Indirect costs include provisions for such things as clerical support, office space, light and heat, insurance, statutory and customary employee benefits, and the time of executive and administrative personnel and others whose time is not identifiable to the Study or to any other project. Under no circumstances can the same labor costs be charged as direct labor and also appear at the same time as indirect costs, and vice versa.
- (d) The Multiplier is a multiplicative factor which is applied to direct labor costs, and compensates Engineer for fringe benefits and indirect costs (overhead) and profit.
- (e) Other non-labor direct project charges shall be included in the overhead and these charges include typical expenses as cost of transportation and subsistence, printing and reproduction, computer time and programming costs, identifiable supplies, outside consultant's charges, subcontracts, and charges by reviewing authorities."

Alternatively, the District and the Engineer may agree to utilize the fully-encumbered hourly rates and fees for Services performed by the Engineer. These hourly rates and fees shall be based on the Engineer's rate schedule published at the time this Agreement or Task Order is executed and shall be attached to each applicable Task Order.

- 2.2 Reimbursement for mileage shall not exceed the prevailing Internal Revenue Service's standard mileage rate.
- 2.3 A *Cost Ceiling* will be established for each Task Order which is based upon estimated labor-hours and cost estimates. Costs as described above, comprising direct labor, overhead cost, and other direct costs, shall be payable up to a Cost Ceiling as specified in the Task Order. A *Maximum Fee Ceiling*, or *Task Order Firm Ceiling*, will also be established for each Task Order which includes the Cost Ceiling plus the Professional Fee.
- 2.4 Engineer shall invoice District monthly for the actual costs incurred, and a pro-rated portion of the Professional Fee for work performed during the previous month. If the Maximum Fee Ceiling is reached, the Engineer will complete the agreed-upon work for the Maximum Fee Ceiling. With District staff approval, labor hours may be reallocated within the tasks without renegotiation in such a manner so as not to exceed the Maximum Fee Ceiling.
- 2.5 The Engineer shall provide the District with a review of the budget amounts when 75 percent of the Cost Ceiling for any task has been expended. Engineer may request a revision in the Cost Ceiling for performance of this Agreement, and will relate the rationale for the revision to the specific basis of estimate as defined in the Scope of Services. Such notification will be submitted to the District at the earliest possible date. The authorized Cost Ceiling shall not be exceeded without written approval of the District.
- 2.6 The Professional Fee will not be changed except in the case of a written amendment to the Agreement which alters the Scope of Services. District and Engineer agree to negotiate an increase or decrease in Cost Ceiling and Professional Fee for any change in Scope of Services required at any time during the term of this Agreement. Engineer will not commence work on the altered Scope of Services until authorized by District.
- 2.7 Direct labor rates are subject to revision to coincide with Engineer's normal salary review schedule. Adjustments in direct labor rates shall

not affect the firm ceiling without prior written authorization of the District.

- 2.8 District shall pay Engineer in accordance with each Task Order for Services.
- 2.9 Engineer shall submit monthly statements for Services rendered. District will make prompt monthly payments in response to Engineer's monthly statements.

### ARTICLE 3 - PERIOD OF SERVICE

- 3.1 Engineer's services will be performed and the specified services rendered and deliverables submitted within the time period or by the date stipulated in each Task Order.
- 3.2 Engineer's services under this Agreement will be considered complete when the services are rendered and/or final deliverable is submitted and accepted by District.
- 3.3 If any time period within or date by which any of the Engineer's services are to be completed is exceeded through no fault of Engineer, all rates, measures and amounts of compensation and the time for completion of performance shall be subject to equitable adjustment.

### ARTICLE 4 - DISTRICT'S RESPONSIBILITIES

District will do the following in a timely manner so as not to delay the services of Engineer.

- 4.1 Provide all criteria and full information as to District's requirements for the services assignment and designate in writing a person with authority to act on District's behalf on all matters concerning the Engineer's services.
- 4.2 Furnish to Engineer all existing studies, reports and other available data pertinent to the Engineer's services, obtain or authorize Engineer to obtain or provide additional reports and data as required, and furnish to Engineer services of others required for the performance of Engineer's services hereunder, and Engineer shall be entitled to use and rely upon all such information and services provided by District or others in performing Engineer's services under this Agreement.

- 4.3 Arrange for access to and make all provisions for Engineer to enter upon public and private property as required for Engineer to perform services hereunder.
- 4.4 Perform such other functions as are indicated in each Task Order related to duties of District.
- 4.5 Bear all costs incident to compliance with the requirements of this Section.

#### ARTICLE 5 - STANDARD OF CARE

- 5.1 Engineer shall exercise the same degree of care, skill, and diligence in the performance of the Services as is ordinarily provided by a professional Engineer under similar circumstance and Engineer shall, at no cost to District, re-perform services which fail to satisfy the foregoing standard of care.

#### ARTICLE 6 - OPINIONS OF COST AND SCHEDULE

- 6.1 Since Engineer has no control over the cost of labor, materials, equipment or services furnished by others, or over contractors', subcontractors' , or vendors' methods of determining prices, or over competitive bidding or market conditions or economic conditions, Engineer's cost estimate and economic analysis shall be made on the basis of qualification and experience as a professional engineer.
- 6.2 Since Engineer has no control over the resources provided by others to meet contract schedules, Engineer's forecast schedules shall be made on the basis of qualification and experience as a professional Engineer.
- 6.3 Engineer cannot and does not guarantee that proposals, bids or actual project costs will not vary from his cost estimates or that actual schedules will not vary from his forecast schedules.

#### ARTICLE 7 - SUBCONTRACTING

- 7.1 No subcontract shall be awarded by Engineer until prior written approval is obtained from the District.

#### ARTICLE 8 - ENGINEER-ASSIGNED PERSONNEL

- 8.1 Engineer shall designate in writing an individual to have immediate responsibility for the performance of the services and for all matters relating to performance under this Agreement. Key personnel to be assigned by Engineer will be stipulated in each Task Order. Substitution of any assigned person shall require the prior written approval of the District, which shall not be unreasonably withheld. If the District determines that a proposed substitution is not responsible or qualified to perform the services then, at the request of the District, Engineer shall substitute a qualified and responsible person.

#### ARTICLE 9 - OWNERSHIP OF DOCUMENTS

- 9.1 All work products, drawings, data, reports, files, estimate and other such information and materials (except proprietary computer programs, including source codes purchased or developed with Engineer monies) as may be accumulated by Engineer to complete services under this Agreement shall be owned by the District.
- 9.2 Engineer shall retain custody of all project data and documents other than deliverables specified in each Task Order, but shall make access thereto available to the District at all reasonable times the District may request. District may make and retain copies for information and reference.
- 9.3 All deliverables and other information prepared by Engineer pursuant to this Agreement are instruments of service in respect to this project. They are not intended or represented to be suitable for reuse by District or others on extensions of this Study or on any other project. Any reuse without written verification or adaptation by Engineer for the specific purpose intended will be at District's sole risk and without liability or legal exposure to Engineer; and District shall indemnify and hold harmless Engineer against all claims, damages, losses, and expenses including attorney's fees arising out of or resulting from such reuse. Any such verification or adaptation will entitle Engineer to further compensation at rates to be agreed upon by District and Engineer.

#### ARTICLE 10 - RECORDS OF LABOR AND COSTS

- 10.1 Engineer shall maintain for all Task Orders, records of all labor and costs used in claims for compensation under this Agreement. Records shall mean a contemporaneous record of time for personnel; a methodology and calculation of the Multiplier for fringe benefits and

indirect costs; and invoices, time sheets, or other factors used as a basis for determining other non-labor Study charges. These records must be made available to the District upon reasonable notice of no more than 48 hours during the period of the performance of this Agreement.

- 10.2 After delivery of Services (completion of Task Orders) under this Agreement, the Engineer's records of all costs used in claims for compensation under this Agreement shall be available to District's accountants and auditors for inspection and verification. These records will be maintained by Engineer and made reasonably accessible to the District for a period of three (3) years after completion of Task Orders under this Agreement.
- 10.3 Engineer agrees to cooperate and provide any and all information concerning the Study costs which are a factor in determining compensation under this Agreement as requested by the District or any public agency which has any part in providing financing for, or authority over, the Services which are provided under the Agreement.
- 10.4 Failure to provide documentation or substantiation of all Study costs used as a factor in compensation paid under Article 2 hereof will be grounds for District to refuse payment of any statement submitted by the Engineer and for a back charge for any District funds, including interest from payment; or grant, matching, or other funds from agencies assisting District in financing the Services specified in this Agreement.

#### ARTICLE 11 - INSURANCE

Engineer shall provide and maintain at all times during the performance of the Agreement the following insurances:

- 11.1 Workers' Compensation and Employer's Liability Insurance for protection of Engineer's employees as required by law and as will protect Engineer from loss or damage because of personal injuries, including death to any of his employees.
- 11.2 Comprehensive Automobile Liability Insurance. Engineer agrees to carry a Comprehensive Automobile Liability Policy providing bodily injury liability. This policy shall protect Engineer against all liability arising out of the use of owned or leased automobiles both passenger and commercial. Automobiles, trucks, and other vehicles and equipment (owned, not owned, or hired, licensed or unlicensed for road use) shall be covered under this policy. Limits of liability for

Comprehensive Automobile Liability Insurance shall not be less than \$1,000,000 Combined Single Limit.

- 11.3 Comprehensive General Liability Insurance as will protect Engineer and District from any and all claims for damages or personal injuries, including death, which may be suffered by persons, or for damages to or destruction to the property of others, which may arise from the Engineer's operations under this Agreement, which insurance shall name the District as additional insured. Said insurance shall provide a minimum of \$1,000,000 Combined Single Limit coverage for personal injury, bodily injury, and property damage for each occurrence and aggregate. Such insurance will insure Engineer and District from any and all claims arising from the following:
1. Personal injury;
  2. Bodily injury;
  3. Property damage;
  4. Broad form property damage;
  5. Independent contractors;
  6. Blanket contractual liability.
- 11.4 Engineer shall maintain a policy of professional liability insurance, protecting it against claims arising out of negligent acts, errors, or omissions of Engineer pursuant to this Agreement, in an amount of not less than \$1,000,000. The said policy shall cover the indemnity provisions under this Agreement.
- 11.5 Engineer agrees to maintain such insurance at Engineer's expense in full force and effect in a company or companies satisfactory to the District. All coverage shall remain in effect until completion of the Study.
- 11.6 Engineer will furnish the District with certificates of insurance and endorsements issued by Engineer's insurance carrier and countersigned by an authorized agent or representative of the insurance company. The certificates shall show that the insurance will not be cancelled without at least thirty (30) days' prior written notice to the District. The certificates for liability insurance will show that liability assumed under this Agreement is included. The endorsements will show the District as an additional insured on Engineer's insurance policies for the coverage required in Article 11 for services performed under this Agreement, except for workers' compensation and professional liability insurance.
- 11.7 Waiver of Subrogation: Engineer hereby agrees to waive subrogation which any insurer of Engineer may acquire from Engineer by virtue of

the payment of any loss. Engineer agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation.

The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the District for all work performed by the Engineer, its employees, agents and subconsultants.

## ARTICLE 12 - LIABILITY AND INDEMNIFICATION

- 12.1 Having considered the risks and potential liabilities that may exist during the performance of the Services, and in consideration of the promises included herein, District and Engineer agree to allocate such liabilities in accordance with this Article 12. Words and phrases used in this Article shall be interpreted in accordance with customary insurance industry usage and practice.
- 12.2 Engineer shall indemnify and save harmless the District and all of their agents, officers, and employees from and against all claims, demands, or causes of action of every name or nature to the extent caused by the negligent error, omission, or act of Engineer, its agents, servants, or employees in the performance of its services under this Agreement. In no event shall Engineer's costs to defend the District exceed the Engineer's proportionate percentage of negligence or fault, based upon a final judicial determination, except that if one or more defendants in an action are unable to pay its share of defense costs due to bankruptcy or dissolution, Engineer shall meet and confer with the other defendant parties regarding defense costs.
- 12.3 In the event an action for damages is filed in which negligence is alleged on the part of District and Engineer, Engineer agrees to defend District. In the event District accepts Engineer's defense, District agrees to indemnify and reimburse Engineer on a pro rata basis for all expenses of defense and any judgment or amount paid by Engineer in resolution of such claim. Such pro rata share shall be based upon a final judicial determination of proportionate negligence or, in the absence of such determination, by mutual agreement.
- 12.4 Engineer shall indemnify District against legal liability for damages arising out of claims by Engineer's employees. District shall indemnify Engineer against legal liability for damages arising out of claims by District's employees.
- 12.5 Indemnity provisions will be incorporated into all Study contractual arrangements entered into by District and will protect District and Engineer to the same extent.



- 12.6 Upon completion of all services, obligations and duties provided for in the Agreement, or in the event of termination of this Agreement for any reason, the terms and conditions of this Article shall survive.
- 12.7 To the maximum extent permitted by law, Engineer's liability for District's damage will not exceed the aggregate compensation received by Engineer under this Agreement or the maximum amount of professional liability insurance available at the time of any settlement or judgment, which ever is greater.

#### ARTICLE 13 - INDEPENDENT CONTRACTOR

Engineer undertakes performance of the Services as an independent contractor and shall be wholly responsible for the methods of performance. District will have no right to supervise the methods used, but District will have the right to observe such performance. Engineer shall work closely with District in performing Services under this Agreement.

#### ARTICLE 14 - COMPLIANCE WITH LAWS

In performance of the Services, Engineer will comply with applicable regulatory requirements including federal, state, and local laws, rules, regulations, orders, codes, criteria and standards. Engineer shall procure the permits, certificates, and licenses necessary to allow Engineer to perform the Services. Engineer shall not be responsible for procuring permits, certificates, and licenses required for any construction unless such responsibilities are specifically assigned to Engineer in Task Order.

#### ARTICLE 15 - NONDISCLOSURE OF PROPRIETARY INFORMATION

Engineer shall consider all information provided by District and all drawings, reports, studies, design calculations, specifications, and other documents resulting from the Engineer's performance of the Services to be proprietary unless such information is available from public sources. Engineer shall not publish or disclose proprietary information for any purpose other than the performance of the Services without the prior written authorization of District or in response to legal process.

#### ARTICLE 16 - TERMINATION OF CONTRACT

- 16.1 The obligation to continue Services under this Agreement may be terminated by either party upon seven days written notice in the event

of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.

- 16.2 District shall have the right to terminate this Agreement or suspend performance thereof for District's convenience upon written notice to Engineer, and Engineer shall terminate or suspend performance of Services on a schedule acceptable to District. In the event of termination or suspension for District's convenience, District will pay Engineer for all services performed and costs incurred including termination or suspension expenses. Upon restart of a suspended project, equitable adjustment shall be made to Engineer's compensation.

#### ARTICLE 17 - UNCONTROLLABLE FORCES

- 17.1 Neither District nor Engineer shall be considered to be in default of this Agreement if delays in or failure of performance shall be due to uncontrollable forces, the effect of which, by the exercise of reasonable diligence, the nonperforming party could not avoid. The term "uncontrollable forces" shall mean any event which results in the prevention or delay of performance by a party of its obligations under this Agreement and which is beyond the control of the nonperforming party. It includes, but is not limited to, fire, flood, earthquake, storms, lightening, epidemic, war, riot, civil disturbance, sabotage, inability to procure permits, licenses, or authorizations from any state, local, or federal agency or person for any of the supplies, materials, accesses, or services required to be provided by either District or Engineer under this Agreement, strikes, work slowdowns or other labor disturbances, and judicial restraint.
- 17.2 Neither party shall, however, be excused from performance if nonperformance is due to uncontrollable forces which are removable or remediable, and which the nonperforming party could have, with the exercise of reasonable diligence, removed or remedied with reasonable dispatch. The provisions of this Article shall not be interpreted or construed to require Engineer or District to prevent, settle, or otherwise avoid a strike, work slowdown, or other labor action. The nonperforming party shall, within a reasonable time of being prevented or delayed from performance by an uncontrollable force, give written notice to the other party describing the circumstances and uncontrollable forces preventing continued performance of the obligations of this Agreement. The Engineer will be allowed reasonable negotiated extension of time or adjustments for District initiated temporary stoppage of services.

## ARTICLE 18 - MISCELLANEOUS

- 18.1 A waiver by either District or Engineer of any breach of this Agreement shall not be binding upon the waiving party unless such waiver is in writing. In the event of a written waiver, such a waiver shall not affect the waiving party's rights with respect to any other or further breach.
- 18.2 The invalidity, illegality, or unenforceability of any provision of this Agreement, or the occurrence of any event rendering any portion or provision of this Agreement void, shall in no way effect the validity or enforceability of any other portion or provision of the Agreement. Any void provision shall be deemed severed from the Agreement and the balance of the Agreement shall be construed and enforced as if the Agreement did not contain the particular portion or provision held to be void.

## ARTICLE 19 - INTEGRATION AND MODIFICATION

- 19.1 This Agreement (consisting of pages 1 to 14), together with all Task Orders executed by the undersigned, is adopted by District and Engineer as a complete and exclusive statement of the terms of the Agreement between District and Engineer. This Agreement supersedes all prior agreements, contracts, proposals, representations, negotiations, letters, or other communications between the District and Engineer pertaining to the Services, whether written or oral.
- 19.2 The Agreement may not be modified unless such modifications are evidenced in writing signed by both District and Engineer.

## ARTICLE 20 - SUCCESSORS AND ASSIGNS

- 20.1 District and Engineer each binds itself and its directors, officers, partners, successors, executors, administrators, assigns and legal representatives to the other party to this Agreement and to the partners, successors, executors, administrators, assigns, and legal representatives of such other party, in respect to all covenants, agreements, and obligations of this Agreement.
- 20.2 Neither District nor Engineer shall assign, sublet, or transfer any rights under or interest in (including, but without limitation, monies that may become due or monies that are due) this Agreement without the written consent of the other, except to the extent that the effect of this limitation may be restricted by law. Unless specifically stated to the

contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent Engineer from employing such independent engineers, associates, and subcontractors as he may deem appropriate to assist him/her in the performance of the Services hereunder and in accordance with Article 7.

- 20.3 Nothing herein shall be construed to give any rights or benefits to anyone other than District and Engineer.

#### ARTICLE 21 – INFORMATION SYSTEM SECURITY

When the District determines this article is applicable, the Engineer shall obtain written approval from the District representative prior to accessing District internal systems through real-time computer connections. Upon approval, the Engineer will use only in-bound connections to accomplish a legitimate business need and a previously defined and approved task. As a condition of approval, the Engineer shall:

- a) Be running a current operating system supported by the District with up-to-date security patches applied as defined in the District COE/Non-COE document.
- b) Have anti-virus software installed on his/her personal computer with up-to-date virus signatures.
- c) Have personal firewall software installed and enabled on their computer.
- d) Understand and sign the District's Electronic Equipment Use Policy, number 2160.

The District reserves the right to audit the security measures in effect on Engineer's connected systems without prior notice. The District also reserves the right to terminate network connections immediately with all Engineer's systems not meeting the above requirements.

#### ARTICLE 22 – EMPLOYEE BACKGROUND CHECK

Engineer, at no additional expense to the District, shall conduct a background check for each of its employees, as well as for the employees of its subconsultants (collectively "Consultant Employees") who will have access to District's computer systems, either through on-site or remote access, or whose contract work requires an extended presence on the District's premises. The

minimum background check process for any District consultant shall include, but not be limited to

1. California residents: Criminal Records (County and State Criminal Felony and Misdemeanor)
2. Out of State residents: Federal criminal search of the National Criminal Database,

The background check shall be conducted and the results submitted to the District prior to initial access by Consultant Employees. If at any time, it is discovered that a Consultant Employee has a criminal record that includes a felony or misdemeanor, the Engineer is required to inform the District immediately and the District will assess the circumstances surrounding the conviction, time frame, nature, gravity, and relevancy of the conviction to the job duties, to determine whether the Consultant Employee will be placed or remain on a District assignment. The District may withhold consent at its sole discretion. The District may also conduct its own criminal background check of the Consultant Employees. Failure of the Engineer to comply with the terms of this paragraph may result in the termination of its contract with the District.

#### ARTICLE 23 - EXCEPTIONS

- 23.1 Article 11.3 – CHANGE "Comprehensive General Liability Insurance..." to "Commercial General Liability Insurance..."
- 23.2 Article 11.4 – DELETE the last sentence "The said policy shall cover the indemnity provisions under this Agreement."
- 23.3 Article 11.6 – In the third sentence, ADD "general" prior to "liability Insurance..."
- 23.4 Article 12.3 – DELETE in its entirety, ADD "Not Used."
- 23.5 Article 12.7 – CHANGE "...or the maximum amount of professional liability insurance required by this Agreement available at the time of any settlement or judgement, whichever is greater." to "...or the minimum amount of professional liability insurance required by this Agreement."

IN WITNESS THEREOF, the parties hereto have made and executed this Agreement as of the day and year first above written.

DISTRICT

ENGINEER

Union Sanitary District

Brown & Caldwell

By: \_\_\_\_\_  
Paul R. Eldredge, P.E.  
General Manager/District Engineer

By: \_\_\_\_\_  
Grace Chow, P.E.  
Vice President

Date: \_\_\_\_\_

Date: \_\_\_\_\_

# COGENERATION REPLACEMENT AND VENTILATION STUDY

TASK ORDER NO. 1

to

AGREEMENT

BETWEEN

UNION SANITARY DISTRICT

AND

BROWN AND CALDWELL

FOR

PROFESSIONAL SERVICES

Dated \_\_\_\_\_

## 1. PURPOSE

The objective of this study is to evaluate the operational data, maintenance history, and cost effectiveness of the existing cogeneration system and make recommendations for improvements to ensure optimal use of the digester gas produced at the Alvarado Wastewater Treatment Plant (AWTP). The Engineer shall review the available operation and maintenance data and develop a plan to collect additional information, if necessary, to recommend both short-term and long-term strategies for the District to maximize the use of the existing system and recommend replacement engine-generator brands and their respective replacement phasing plans.

The Engineer shall also review the existing Cogeneration Building's ventilation system's design and recommend improvements to eliminate the recirculation of the building's exhaust into the supply air and to reduce the effects of the marine environment on the longevity of the cogeneration system's equipment components.

Finally, the Engineer shall evaluate the fuel cell technology and provide a detailed level review of its suitability as a cogeneration system at the AWTP.

## 2. PROJECT COORDINATION

All work related to this task order shall be coordinated through the Union Sanitary District's (District's) Project Manager, Somporn Boonsalat.

## 3. SCOPE OF SERVICES

The task numbers in this Scope of Services are associated with the cost estimate presented in Section 4 of the Proposal.

### **Task 1.0 – Existing Cogeneration and Ventilation Improvements**

Engineer shall review the existing cogeneration and ventilation information and develop short-term strategies to maximize the runtime of the existing system and generation of electricity for on-site use.

Engineer shall review the following information:

1. Existing District data, drawings, reports, and other pertinent information.
2. The Cogeneration Feasibility Study Report (HDR, 2020) to gain an understanding of its findings and recommendations.
3. The existing cogeneration system, including but not limited to:
  - a. Digester gas piping system
  - b. Digester gas conditioning system
  - c. Hot water loop system
  - d. Electrical system
  - e. Improvements made to the above systems during the Primary Digester No. 7 Project
4. Operational and maintenance data of the existing cogeneration system, including downtime and major repairs.

Engineer shall conduct on-site interviews with maintenance staff and site investigations to evaluate the ventilation system improvements. Engineer shall conduct a Project Kickoff Workshop within two (2) weeks of receiving the background information from the District.

Following data review and site investigations, Engineer shall evaluate the cost effectiveness of the existing cogeneration system, including approximate levelized cost of electricity of the cogeneration equipment based on available information. Engineer shall determine the total energy generated from the engines since the cogeneration engines' commissioning, the potential power generation, and compare potential power generation with actual to determine efficiency.



Engineer shall evaluate the existing Cogeneration Building's ventilation system and recommend improvements to maximize the cooling of the engines and electronics and eliminate the recirculation of the building's exhaust air and reduce the effect of the building's supply air from the surrounding marine environment. HVAC flow visualization methods such as thermal imaging, smoke or flow-indicating ribbons will be employed to confirm the direction of air flow and heat accumulation inside the cogeneration building and at the external louvers.

Engineer shall develop a digester gas sampling plan to help inform accurate digester gas characteristics. Engineer shall coordinate with the District for digester gas collection and shipping to the laboratory facilities. Engineer will contract with the lab facility and pay for shipping and testing costs.

Engineer shall serve as a resource to integrate the District's upcoming Digester 8 Study. Engineer shall complete a sensitivity analysis for sizing of the future digester equipment. Tasks will be performed at the direction of the District up to the budgeted effort.

Engineer shall prepare workshop materials (PowerPoint slides) summarizing key findings from review of existing data and site investigations at the Project Kickoff Workshop. A separate workshop shall include improvement recommendations for the existing cogeneration and ventilation system. District shall review the workshop materials for both workshops and provide comments during the Near-Term Improvements Review Workshop.

**Assumptions:**

- District will provide all background information within two (2) weeks after receiving the Engineer's request for information.
- Engineer will conduct on-site interviews and investigations in two (2) site visits attended by three (3) Brown and Caldwell (BC) team members. Assumed duration is 4 hours for a total of 24 hours.
- Site investigation planning and preparation is assumed to require an additional 24 hours of effort.
- District staff will collect digester gas grab samples once a month for four months.
- Lab costs assume four (4) sampling events total. Each event includes a raw gas sample and conditioned gas sample.
- Engineer shall conduct two (2) workshops: Project Kickoff Workshop and Near-Term Improvements Workshop.
- Workshops will be attended by up to three (3) members of the Engineer's project team in person and up to two (2) team members

- shall attend virtually. Workshops are assumed to be two (2) hours in duration.
- District will provide comments two (2) weeks after draft workshop materials are submitted.
- District comments will be consolidated and coordinated into one spreadsheet for incorporation.

**Deliverables:**

- Draft and Final Kickoff Meeting Workshop PowerPoint Slides.
- Meeting minutes from the Kickoff Meeting Workshop (PDF).
- Digester gas sampling plan.
- Digester gas sampling results.
- Draft and Final Near-Term Improvements PowerPoint Slides.
- AACE Class V Cost estimate for the recommended strategies.
- Meeting Minutes from Near-Term Improvements Review Workshop (PDF).

**Task 2.0 – Future Alternatives**

Engineer shall evaluate alternatives to provide the District with long-term strategies to:

- Extend the life of the existing cogeneration system or replace it with the same or alternative technology
- Maximize the reliable and stable operation of the existing cogeneration system with the use of a gas-blending storage tank as compared to utilizing all digester gas as it is generated.

Engineer shall evaluate the fuel cell technology for cogeneration and provide a detailed assessment of the current installed base in the wastewater field (including the number and size of successful systems), operation and maintenance requirements and challenges associated with this technology, required staff skill set, scalability for future expansion, and life cycle cost analysis.

Engineer shall evaluate up to three (3) reciprocating internal combustion engine brands that could replace the existing Jenbacher units along with their respective replacement phasing plans. Engineer shall document the advantages, disadvantages, operation and maintenance requirements, required staff skill set, and scalability for future expansion, and provide a life cycle cost analysis. Specific areas of focus include the following:

1. Extent of the existing piping, utilities, controls, and building modifications that will be required to facilitate the replacement engines.
2. Replacement strategy such as these two possible scenarios:
  - a. Replace the existing engines with a different brand of engines and install fuel cells in the open bay of the Cogeneration Building.
  - b. Replace the existing engines with a different brand of engines and install a larger (minimum output of 1 MW) engine of the same brand in the open bay of the Cogeneration Building. In this scenario, the larger engine would be installed first, and the two existing engines are replaced when their 60,000-hour service becomes due.

Engineer shall also serve as a resource to integrate the District's upcoming Thermal Dryer Study. Findings from this task will be presented at the Future Alternatives Workshop. Tasks will be performed at the direction of the District up to the budgeted effort. Engineer shall prepare workshop materials (PowerPoint slides) documenting the future alternatives. District shall review the workshop materials and provide comments during the Future Alternatives Review Workshop.

**Assumptions:**

- District will provide comments two (2) weeks after draft workshop materials are submitted.
- District comments will be consolidated into one spreadsheet for incorporation.
- Future Alternatives Review Workshop will be attended by up to two (2) members of the Engineer's project team in person and up to two (2) team members shall attend virtually. Workshops are assumed to be two (2) hours in duration.

**Deliverables:**

- Draft and Final Future Alternatives Workshop PowerPoint Slides.
- AACE Cost V cost estimate for each alternative.
- Meeting Minutes from Future Alternatives Workshop (PDF).

**Task 3.0 – Action Plan**

Engineer shall develop an actionable roadmap for the future of the Cogeneration Facility. Engineer shall incorporate the recommended near-term solutions and long-term solutions into an action plan. The Action Plan will include updated cost estimates for two (2) alternatives selected as best

recommendations. The financial analysis completed in Task 1 shall serve as the status quo and be the basis of comparison for other alternatives. The recommended improvements shall be factored into a forward-looking levelized cost of electricity, annual generation output and 20-year life-cycle cost analysis.

Previous work completed in Tasks 1 and 2 will be documented in a final report presenting findings and recommendations. Engineer shall hold a final workshop to present the recommended Action Plan.

**Assumptions:**

- District will provide comments three (3) weeks after draft report is submitted.
- District comments will be consolidated and coordinated into one spreadsheet for incorporation.
- Action Plan Review Workshop will be attended by up to three (3) members of the Engineer's project team in person and up to two (2) team members shall attend virtually. Workshops are assumed to be two (2) hours in duration.

**Deliverables:**

- Draft and Final Action Plan Report (Word and PDF format).
- Action Plan Review Workshop PowerPoint slides.
- Meeting Minutes from Action Plan Workshop (PDF).

## **Task 4.0 – Project Management**

Engineer shall manage the coordination and oversight of the Engineer's staff and administration of the contract, including project management plan development, project resources oversight, quality, costs, deliverables and schedule, periodic status calls, monthly progress reporting, invoicing, and coordinating communications between the Engineer's staff and District staff.

The project management plan will include a quality assurance/quality control (QA/QC) plan. QA/QC reviews for deliverables will be performed under each task. Additionally, Engineer shall maintain a risk register, action item log and decision log to track and document project risks, decisions, and action items. It is assumed that the duration of activities will not exceed the 10-month schedule provided with this scope of work.

**Assumptions:**

- Project duration is ten (10) months.

**Deliverables:**

- Monthly Project Status Reports.

#### 4. PAYMENT TO THE ENGINEER

Payment to the Engineer shall be as called for in Article 2 of the Agreement. The labor multiplier for this work shall be 3.22 and the not-to-exceed amount shall be \$141,987. A summary of the anticipated distribution of cost and manpower between tasks is shown in Exhibit A. Other travel presented in Exhibit A includes airfare and hotel for experts traveling from out of the area. Our fee estimate includes other direct costs, and a 5 percent markup on subconsultants.

We have incorporated into our fee proposal the known impacts of COVID-19 pandemic; we have not accounted for unknown future changes due to COVID-19 including without limitation, additional restrictions by government agencies on the availability of the site for access and/or delays to the project.

The following table summarizes the proposed task orders under the Agreement:

<b>Task Order / Amendment</b>	<b>Not to Exceed Amount</b>	<b>Board Authorization Required?</b>	<b>District Staff Approval</b>
Task Order No. 1 Cogeneration Replacement and Ventilation Study	\$141,987	Yes	Paul Eldredge
<b>Total</b>	<b>\$141,987</b>		

#### 5. TIME OF COMPLETION

All work defined in this Task Order shall be completed by July 2022, subject to the conditions of Article 3 of the Agreement. The anticipated milestone dates are as follows:

<u>Activity</u>	<u>Estimated Dates</u>
Project Notice to Proceed	September 2021
Kickoff Workshop	November 2021
Near-Term Improvements Workshop	January 2022
Future Alternatives Review Workshop	March 2022
Action Plan Review Workshop	July 2022

6. KEY PERSONNEL

Key engineering personnel assigned to this Study are as follows:

<u>Role</u>	<u>Key Person to be Assigned</u>
Principal in Charge	Grace Chow
Project Manager	Adam Ross
Project Engineer	Kenny Klittich
Financial Analysis	Alison Nojima
Mechanical Engineer	Mary Lou Romero

Key personnel shall not be changed except in accordance with Article 8 of the Agreement.

IN WITNESS WHEREOF, the parties hereto have made and executed this Task Order No. 1 as of \_\_\_\_\_ and therewith incorporate it as part of the Agreement.

DISTRICT

ENGINEER

Union Sanitary District

Brown & Caldwell

By: \_\_\_\_\_  
Paul R. Eldredge, P.E.  
General Manager/District Engineer

By: \_\_\_\_\_  
Grace Chow, P.E.  
Vice President

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Exhibit A

Cogeneration Replacement and Ventilation Study

Union Sanitary District (CA) -- Cogeneration Replacement and Ventilation Study																									
		Ross, Adam D	Ingebrigtsen, Cara C	Chow, Grace C	Klittich, Kenneth D	Nojima, Alison C	Romero Urbina, Mary Lou	Adrian, Hunter	Trueblood, Donald C	Pagendam, Matthew R	Dummer, Catherine A	Slezak, Lloyd A	Sierra, Natalie V												
		Project Manager	Project Analyst	Principal-In-Charge	Project Engineer	Engineer	Mechanical Engineer	HVAC	Air Permitting	Electrical	Cost Estimating	QA/QC	Solids/Energy	Total Labor Hours	Total Labor Effort	APC	Other Travel	HVAC Flow Visualization	Gas Testing	Total ODCs	Company Vehicles	Total Unit Pricing Effort	Total Expense Cost	Total Expense Effort	Total Effort
Phase	Phase Description																								
		\$314.32	\$157.68	\$339.28	\$229.65	\$209.01	\$179.61	\$136.77	\$245.95	\$282.08	\$206.53	\$330.81	\$280.63												
001	Exisiting Cogen & Ventilation Imp	44	0	4	56	40	36	32	0	4	20	8	4	248	56,279	1,984	500	1,500	8,000	10,000	1,250	1,250	10,000	13,234	69,513
001	Review Background Information	6	0	2	10	10	10	0	0	0	0	0	0	38	8,747	304	0	0	0	0	0	0	0	304	9,051
002	Site Invest & Staff Interviews	16	0	0	16	0	0	16	0	0	0	0	0	48	10,892	384	500	1,500	0	2,000	500	500	2,000	2,884	13,776
003	Kickoff Workshop	2	0	2	2	2	2	0	0	0	0	0	0	10	2,544	80	0	0	0	0	500	500	0	580	3,124
004	Digester Gas Sampling	4	0	0	8	0	0	0	0	0	0	2	0	14	3,756	112	0	0	8,000	8,000	0	0	8,000	8,112	11,868
005	Gas Production Sensitivity	2	0	0	0	16	0	0	0	0	0	2	4	24	5,757	192	0	0	0	0	0	0	0	192	5,949
006	Develop Rec & Eval Cost Effect	12	0	0	18	12	22	16	0	4	20	4	0	108	23,136	864	0	0	0	0	0	0	0	864	24,000
007	Near-Term Imp Workshop	2	0	0	2	0	2	0	0	0	0	0	0	6	1,447	48	0	0	0	0	250	250	0	298	1,745
002	Future Alternatives	16	0	0	12	32	24	0	4	4	20	6	24	142	34,759	1,136	0	0	0	0	250	250	0	1,386	36,145
001	Evaluate Future Alternatives	12	0	0	10	26	22	0	4	4	20	4	0	102	23,711	816	0	0	0	0	0	0	0	816	24,527
002	Future Alt Review Workshop	2	0	0	2	2	2	0	0	0	0	0	0	8	1,921	64	0	0	0	0	250	250	0	314	2,235
003	Thermal Biosolids Dryer Fuel	2	0	0	0	4	0	0	0	0	0	2	24	32	9,127	256	0	0	0	0	0	0	0	256	9,383
003	Action Plan	22	6	4	16	22	22	0	2	4	0	4	0	102	25,117	816	0	0	0	0	250	250	0	1,066	26,183
001	Final Action Plan Deliverable	20	6	2	14	20	20	0	2	4	0	4	0	92	22,497	736	0	0	0	0	0	0	0	736	23,233
002	Action Plan Review Workshop	2	0	2	2	2	2	0	0	0	0	0	0	10	2,620	80	0	0	0	0	250	250	0	330	2,950
004	Project Management	16	20	4	0	0	0	0	0	0	0	0	0	40	9,826	320	0	0	0	0	0	0	0	320	10,146
001	Ongoing PM	16	20	4	0	0	0	0	0	0	0	0	0	40	9,826	320	0	0	0	0	0	0	0	320	10,146
GRAND TOTAL		98	26	12	84	94	82	32	6	12	40	18	28	532	125,981	4,256	500	1,500	8,000	10,000	1,750	1,750	10,000	16,006	141,987
Hours and Dollars are rounded to nearest whole number. To display decimals, change the format of the cells.																									



**Directors**  
Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**  
Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

**SEPTEMBER 13, 2021  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 12**

**TITLE:**               **Receive Information and Provide Direction Regarding Revised and Updated Operational Excellence Balanced Scorecard *(This is a Direction Item)***

**SUBMITTED:**   Paul R. Eldredge, General Manager/District Engineer  
Mark Carlson, CFO/ Business Services Work Group Manager  
Gene Boucher, Organizational Support Team Coach  
Karoline Terrazas, Organizational Performance Manager  
Jason Yeates, Organizational Performance Coordinator

**Recommendation**

Receive information and provide direction regarding revised and updated Operational Excellence Balanced Scorecard, to begin reporting with FY22 Quarter 1 Balanced Scorecard.

**Discussion**

The District has updated the Operational Excellence (OPEX) Balanced Scorecard (BSC) metrics to provide an improved representation of the District's performance and enhances transparency.

Highlights of the improvements to the OPEX BSC are as follows:

**Customer Objectives**

- Increased reporting on average response time to customer inquiries and service calls
- Additional details on categories for outreach and emergency activities

**Finance Objectives**

- Sewer Service Charge target has been changed to track and report, additional comparison with other regional/ national averages
- Added metrics to capture growth in USD's service area



- Several new funding and budget performance metrics, and increased frequency of reporting
- Included plant performance metrics, such as chemical usage and energy produced onsite

#### Internal Process Objectives

- Tracking of all infrastructure maintenance activities and hours to show prevention of asset failures
- Expanded reporting on progress of Districtwide Projects
- Added settleability metric for the plant

#### Employee Growth and Development Objectives

- Training hours for all employees, to include training beyond District scheduled
- Added a metric for employee engagement activities

#### **Background**

The District uses the Balanced Scorecard, a strategic management tool, to track performance of operational activities, and was adopted when the District reorganized in 2007. The current metrics have been used for several years with great success in oversight and with achievement of goals. However, with increased construction and improvements at the plant, there was an opportunity to review and update our Balanced Scorecard metrics.

Over the last few years, we gathered feedback and comments from all Teams at the District. A representative from each team was selected to participate in the refinement of the feedback and recommended updated metrics for the OPEX BSC. New metrics were reviewed extensively by all management, and a final draft was produced.

#### **Previous Board Action**

None

CUSTOMER OBJECTIVES

	Target	Q1	Q2	Q3	Q4	FY to Date	Comments	FY21	FY20	FY19
Stewardship: Demonstrate responsible stewardship										
# of Outreach Activities/Events Completed	TBD									
Community Events / Online Outreach	TBD									
Business	TBD									
Schools	TBD									
Civic	TBD									
Service: Provide reliable, high quality service										
% of service calls responded to within 1 hour	≥95%									
Average time to customer contact	T&R									
Initial response time to contact USD website inquiries (% within 3 business days)	≥90%									
Average Response time of contact USD website inquiries	T&R									
# of adverse impacts on customers that were caused by USD (non-SSO)	≤10									
Emergencies: Be prepared for emergencies										
# of Emergency Preparedness Activities/Events	4									
Drills	2									
Training/Exercises (or Communication)	1									
Documents, Plans, Policies Updated	1									

USD Operational Excellence Balanced Scorecard

FINANCIAL OBJECTIVES

	Target	Q1	Q2	Q3	Q4	FY to Date	Comments	FY21	FY20	FY19
Fiscal responsibility: Ensure funding for critical programs and projects, while maintaining comparable rates										
Residential Sewer Service Charge (SSC) compared to other local agencies	T&R					Annual				
\$: SSC Union Sanitary District	T&R					Annual				
\$: SSC Regional Average	T&R					Annual				
\$: SSC National Average	T&R					Annual				
Total Service Population Change	T&R					Annual				
Total Parcels Served	T&R					Annual				
Fiscal responsibility:(Financial) Accurately project and control costs										
Debt Coverage Ratio	1.5					Annual				
PERS Funding Level	90-100%					Annual				
OPEB Funding Level	90-100%					Annual				
% of Budgeted Operating Expenditures	95-103%									
% of Budgeted Overtime Used	T&R									
% of Budgeted Special Projects Expenditures	80-110%									
Fiscal responsibility: (Chemical Usage) Accurately project and control costs										
Ferrous Chloride Usage	≤ 40									
Hydrogen Peroxide Usage	≤ 10									
Hypochlorite Usage	≤ 143									
Polymer Usage - Gravity Belt Thickener (GBT)	≤ 5.5									
Polymer Usage - Dewatering	≤ 37									

FINANCIAL OBJECTIVES (Con't)

	Target	Q1	Q2	Q3	Q4	FY to Date	Comments	FY21	FY20	FY19
Fiscal responsibility: (Process) Accurately project and control costs										
Energy Produced: Cogeneration	T&R									
Energy Produced: Solar	T&R									
Total Electrical Usage	T&R									
Plant Daily Flow (Average)	T&R									
Influent Total Suspended Solids	T&R									
Effluent Total Suspended Solids	T&R									
% Removal of Total Suspended Solids	≥85%									

INTERNAL PROCESS OBJECTIVES										
	Target	Q1	Q2	Q3	Q4	FY to Date	Comments	FY21	FY20	FY19
Asset Management: Manage and maintain assets and infrastructure										
Total # of Maintenance Activities to Prevent Failures	T&R									
Corrective Maintenance (CM)	T&R									
Preventative Maintenance (PM)	T&R									
Proactive Corrective Maintenance (CMP)	T&R									
Total hours used for Maintenance Activities to Prevent Failures	T&R									
Corrective Maintenance (CM)	T&R									
Preventative Maintenance (PM)	T&R									
Proactive Corrective Maintenance (CMP)	T&R									
Total # of Urgent Reponses	≤10									
Total hours used for Urgent Reponses	T&R									
% of Collection System Cleaned per Plan	TBD									
% asset renewal/year: Plant	T&R					Annual				
% asset renewal/year: Collection System	T&R					Annual				
Environmental Protection: Maintain our ability to meet current and future regulations										
# of Category 1 SSO's	0									
# of Category 2/3 SSO's	≤10									
Settleability Performance: Sludge Volume Index (SVI)	100 - 150 mL/gal									
Number of Days SVI Outside of Range	T&R									
Planning: Implement projects and programs that benefit the environment										
Districtwide Critical Projects On schedule	≥85									
How many hours project points expend on District projects	T&R									
Efficiency: Optimize processes; Use technology and resources effectively										
# of projects that improve efficiency	T&R					Annual				

EMPLOYEE GROWTH & DEVELOPMENT OBJECTIVES

	Target	Q1	Q2	Q3	Q4	FY to Date	Comments	FY21	FY20	FY19
Employees: Maintain a highly competent, flexible workforce										
Employee Turnover Rate- Total	T&R					Annual				
Employee Turnover Rate Nonretirement	T&R					Annual				
% of employees completing training beyond District scheduled	≥80%					Annual				
Average training hours per FTE	≥20									
Business Services	≥20									
Technical Services	≥20									
Collections Systems	≥20									
Fabrication, Maintenance, and Construction	≥20									
Treatment and Disposal	≥20									
Safety: Work safely; reduce accidents and injuries										
See Safety Scorecard										
Culture: Foster a collaborative employee-management relationship that encourages new ideas and continuous improvement										
% of employee participating in committee and/or taskforces (Excludes management)	≥45%					Annual				
# Districtwide Employee Engagement Activities Completed (Survey, training, events)	TBD									



**Directors**  
Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**  
Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

**SEPTEMBER 13, 2021  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM #13**

**TITLE:** **Annual Report to Union City Fiscal Year 2021 (*This is an Information Item*)**

**SUBMITTED:** Paul R. Eldredge, General Manager/District Engineer  
Armando Lopez, Work Group Manager  
Tim Grillo, R&S Team Coach

**Recommendation**

Information only.

**Discussion**

A copy of the District's annual report to Union City for FY 2021 is attached for review.

**Background**

Union City Use Permit UP-4-95 requires the District to submit a report annually to the City Manager's Office. The purpose of the report is to:

1. Document the existing wastewater treatment plant flow
2. Provide a projection of the plant flow for the following year
3. Review compliance with effluent discharge limits
4. Provide a status report on progress made in the development of any new treatment facilities outside of Union City limits

**Previous Board Action**

None.

**Directors**

Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**

Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

September 7, 2021

Ms. Joan Malloy  
City Manager, City of Union City  
34009 Alvarado-Niles Road  
Union City, CA 94587

**SUBJECT: SUBMISSION OF ANNUAL REPORT FOR UNION SANITARY DISTRICT FOR  
FISCAL YEAR 2021**

Dear Ms. Malloy,

Pursuant to Union City Use Permit (UP-4-95), Union Sanitary District hereby submits its Annual Report for Fiscal Year 2021.

**Introduction**

The Union City Planning Commission approved Use Permit No. UP-4-95 on July 20, 1995, which allowed for the expansion of the Union Sanitary District (USD) Alvarado Wastewater Treatment Plant from a capacity of 35 million gallons per day (MGD) to 38 MGD. The Use Permit requires the District to submit an annual report to the City Manager's office documenting the current wastewater flow received at the Alvarado Treatment Plant, a projection of flows for the next year, the current discharge limits imposed by the Regional Water Quality Control Board (RWQCB), and a status report of progress made toward development of any new facilities outside of Union City limits (Condition 9).

A second condition (Condition 6), requiring an annual operations audit by an independent expert, was eliminated by mutual agreement of USD's General Manager and Union City's City Manager in January 2005 following more than 10 years of perfect NPDES permit compliance.



## Background

Union Sanitary District, founded in 1918, collects and treats wastewater from the communities of Union City, Newark, and Fremont, California. The District owns and operates a wastewater treatment plant located in Union City. Treated effluent is discharged through the East Bay Dischargers Authority (EBDA) outfall into the San Francisco Bay.

The Alvarado Wastewater Treatment Facility was completed in 1981 and was originally rated for a design flow of 19.7 MGD. A plant expansion project increased the treatment capacity in 1985 and further modifications were made in 1993. The firm, reliable treatment capacity of 33 MGD was confirmed in 1997. Construction to renew and replace aging equipment is a continual and ongoing process. In 2019, a study of alternatives was completed to determine the upgrades necessary to meet more stringent requirements for nutrients that are expected in 2024 under the third Nutrient Watershed Permit.

## Current Wastewater Flow

The following is a summary of the average dry weather flow (ADWF) and annual average daily flow (AADF) for recent fiscal years. The Alvarado Treatment Facility is permitted to treat an ADWF flow of 33 MGD under the current National Pollution Discharge Elimination System (NPDES) permit. The ADWF is defined as the average flow during the summer months of May through September. The AADF is defined as the annual average daily flow throughout the fiscal year, including both wet and dry seasons.

Fiscal Year	ADWF Permitted by NPDES, MGD	Actual ADWF, MGD	Actual AADF, MGD
2017	33	22.7	24.4
2018	33	23.3	23.3
2019	33	23.0	23.7
2020	33	23.1	22.9
2021	33	23.2	23.1

## Projected Wastewater Flows

Both the annual average daily flow (AADF) and the annual dry weather flow (ADWF) for FY21 increased from the previous year. We expect the wastewater flow to decrease slightly in FY22 due to the drought and increased water conservation efforts. Based on the last four years' flow data, we predict an AADF of 23.1 MGD and an ADWF of 23.0 MGD for FY22.

### **Discharge Compliance and Permit Limits**

We are pleased to report that the District achieved full compliance with NPDES discharge requirements in FY21. USD was recognized by the National Association of Clean Water Agencies (NACWA) under their Peak Performance Award program for the 28<sup>th</sup> consecutive year. In 2021, USD received a twelfth Platinum award for calendar year 2020 from NACWA, which is awarded for maintaining perfect compliance with the NPDES permit for five consecutive years.

The San Francisco Regional Water Quality Control Board adopted the second Nutrient Watershed Permit in 2019. The permit includes monitoring requirements and nutrient loading targets for permitted agencies based on the subembayments that they discharge to in the San Francisco Bay. It is expected that the information collected for the watershed permit will lead to the establishment of nutrient limitations in the subsequent watershed permit in 2024. We anticipate that future changes to total inorganic nitrogen limitations could require substantial improvements to the treatment plant to provide for the removal of nutrients. The design of improvements for nutrient removal began in 2020.

The District began design for the Enhanced Treatment and Site Upgrade (ETSU) Program in 2020. The design of ETSU Phase 1A improvements is expected to be completed by the end of calendar year 2021. Construction of Phase 1A improvements is expected to be completed in 2025. ETSU Phase 1A will include a new campus building which will free up land needed for the construction of further phases of the program. ETSU Phase 1A will also include aeration basin modifications that will improve activated sludge settleability and the final effluent water quality. Design of ETSU Phase 1B began this year and will continue into calendar year 2023, with construction projected to be completed in 2027. Substantial nutrient removal will be possible after construction of the ETSU Phase 1B improvements.

### **Development of Facilities Outside of Union City**

The ETSU Project will not increase the flow capacity of the USD treatment plant. As a result, the District has no plans for the construction of additional treatment facilities outside of Union City.

If you have any questions or need additional information, please contact me at (510) 477-7517 or [armandol@unionsanitary.ca.gov](mailto:armandol@unionsanitary.ca.gov).

Sincerely,

Armando Lopez  
Manager, Treatment & Disposal



**Summary of the EBDA Commission Meeting  
Thursday, July 15, 2021, at 9:30 a.m.**

- Commissioners Cutter, Duncan, Johnson, Andrews, and Toy were present. This meeting was conducted telephonically and the dial-in information for the meeting was provided in the agenda.
- Commissioner Johnson moved to approve the Commission Meeting Minutes of June 17, 2021; List of Disbursements for June 2021; and Treasurer's Report for June 2021. The motion was seconded by Commissioner Toy and carried 5-0.
- The Commission unanimously approved the reports from the Managers Advisory, Regulatory Affairs, Financial Management, and Operations & Maintenance Committees. The following items were discussed:
  - **General Managers Report**  
The General Manager (GM) provided a reminder that the Commission will be on hiatus in August and that the September 23 Commission meeting is scheduled to be in-person. Staff will be requesting the Commissioners provide proof of full vaccination prior to resuming in-person meetings.
  - **Managers Advisory Committee (MAC)**  
The GM deferred to the specific agenda items.
  - **Presentation on Nature-based Solutions**  
Presentations were given by Angela Stiegler of U.C. Berkeley, Consultant Ian Wren, and the EBDA General Manager on Nature-based Solutions studies underway at Member Agencies' sites.  
  
Chair Cutter expressed interest in having access to the slides for use in the City of San Leandro Council's consideration of their Climate Action Plan.
  - **Regulatory Affairs Committee**  
The GM reported on the Regulatory Affairs Committee, which met on July 12, 2021. The GM provided an update on PFAS and reviewed the Memorandum of Agreement with the Army Corps of Engineers.
  - **Motion Authorizing the General Manager to Execute the Restated and Amended Memorandum of Agreement Between the San Francisco Bay Restoration Authority, Funding Entity/Entities, and the United States Army Corps of Engineers, San Francisco District**  
Commissioner Duncan moved to approve the item. The motion was seconded by Commissioner Johnson and carried unanimously 5-0, by roll call vote.

Ayes: Commissioners Johnson, Andrews, Toy, Duncan, Chair Cutter

Noes: None

Absent: None

Abstain: None

- **Financial Management Committee**

The GM reported on the Financial Management Committee, which met on July 12, 2021, and discussed the draft Emergency Reserves Policy and pension funding. The Committee supports the framework of the draft Emergency Reserves Policy but directed staff to reassess the recommended reserve amount. The Committee recommended approval of the additional discretionary payment to the Authority's pension plan.

- **Motion Authorizing the General Manager to Make an Additional Discretionary Payment of \$65,861 to Reduce the Unfunded Accrued Liability of the Authority's Pension Plan**

Commissioner Andrews moved to approve the item. The motion was seconded by Commissioner Cutter and carried unanimously 5-0, by roll call vote.

Ayes: Commissioners Johnson, Andrews, Toy, Duncan, Chair Cutter

Noes: None

Absent: None

Abstain: None

- **Operations and Maintenance Committee**

The O&M Manager reviewed the proposed agreements for Beecher Engineering, Inc and Currie Engineers. The O&M Committee recommended approval of both agreements.

- **Motion Authorizing the General Manager to Execute a Professional Services Agreement with Beecher Engineering, Inc. in the Amount of \$75,000 for Electrical Engineering Services in Fiscal Years 2021/2022, 2022/2023, and 2023/2024**

Commissioner Toy moved to approve the item. The motion was seconded by Commissioner Duncan and carried unanimously 5-0, by roll call vote.

Ayes: Commissioners Johnson, Andrews, Toy, Duncan, Chair Cutter

Noes: None

Absent: None

Abstain: None

- **Motion Authorizing the General Manager to Execute a Professional Services Agreement with Currie Engineers, Inc. in the Amount of \$75,000 for Project and Construction Management Services in Fiscal Years 2021/2022, 2022/2023, and 2023/2024**

Commissioner Cutter moved to approve the item. The motion was seconded by Commissioner Toy and carried unanimously 5-0, by roll call vote.

Ayes: Commissioners Johnson, Andrews, Toy, Duncan, Chair Cutter

Noes: None

Absent: None

Abstain: None

- **Bruce Wolfe Memorial**

The Commission directed staff to proceed with the establishment of the Bruce Wolfe Memorial

Scholarship for women on a STEM and/or water/wastewater career path. The Commission supports making a total contribution of \$6,000 to the following programs: Project satHERate will be given a one-time award of \$1,000, and the CASA Education Foundation will be awarded \$1,000 per year for five years. The EBDA Personnel Committee will recommend a representative to serve on the CASA Education Foundation's selection committee.

- **Items from Commission and Staff**

Commissioner Andrews announced a Keep Hayward Clean and Green event will take place at Giuliani Plaza on Saturday, July 24 between the hours of 8:30 a.m. – 12:00 p.m.

Commissioner Duncan has been nominated to the CASA Board at the upcoming meeting in San Diego. Chair Cutter expressed EBDA's support.

Chair Cutter reminded everyone that no meetings will take place in August. Additionally, the September Commission and Committee meetings will take place the week of September 20.

**Directors**

Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

**Officers**

Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

**SEPTEMBER 13, 2021  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 15**

**TITLE:** COVID-19 Update (*This is an Information Item*)

**SUBMITTED:** Paul R. Eldredge, General Manager/District Engineer

**Recommendation**

Information only.

**Discussion**

None.

**Background**

General Manager Eldredge will provide an update on the District's COVID-19 response and staffing levels.

**Previous Board Action**

None.

**UNION SANITARY DISTRICT  
CHECK REGISTER  
08/14/2021-09/03/2021**

Check No.	Date	Dept	Invoice No.	Vendor	Description	Invoice Amt	Check Am
178418	9/2/2021	114	201180046	HAZEN AND SAWYER	ETSU PHASE 1B PROJECT	\$149,865.30	\$980,398.72
	9/2/2021	114	2011800219		MP - AERATION BASIN MODIFICATIONS	\$438,637.29	
	9/2/2021	114	2011800315		CAMPUS BUILDINGS (ADMIN, FMC, OPS)	\$391,896.13	
178365	8/26/2021	143	800501.12	KIEWIT INFRASTRUCTURE WEST CO	ALVARADO INFLUENT PS PUMPS AND VFDS	\$836,282.40	\$836,282.40
178382	8/26/2021	143	210409	OVERAA	PRIMARY DIGESTER NO. 7	\$183,411.75	\$183,411.75
178361	8/26/2021	143	W8Y07900007R	JACOBS ENGINEERING GROUP, INC	PUMP STATIONS CHEMICAL SYSTEM IMPROVEMENTS	\$133,041.69	\$146,667.69
	8/26/2021	143	W8Y02800013		PLANT ODOR CONTROL PILOT STUDY	\$13,626.00	
178354	8/26/2021	143	16312	DW NICHOLSON CORP	CALCIUM THIOSULFATE CHEMICAL TANK	\$112,057.75	\$112,057.75
178394	8/26/2021	110	23733	SYNAGRO WEST LLC	JUL 2021 BIOSOLIDS DISPOSAL	\$85,005.18	\$85,005.18

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178424	9/2/2021	110	2989183	OLIN CORPORATION	4920 GALS SODIUM HYPOCHLORITE	\$3,801.39	\$78,198.89
	9/2/2021	110	2994335		4946 GALS SODIUM HYPOCHLORITE	\$3,821.47	
	9/2/2021	110	3000000394		4714 GALS SODIUM HYPOCHLORITE	\$3,675.42	
	9/2/2021	110	3000005686		4880 GALS SODIUM HYPOCHLORITE	\$3,804.84	
	9/2/2021	110	2994337		4834 GALS SODIUM HYPOCHLORITE	\$3,734.95	
	9/2/2021	110	3000004611		4846 GALS SODIUM HYPOCHLORITE	\$3,778.32	
	9/2/2021	110	3000001917		4802 GALS SODIUM HYPOCHLORITE	\$3,744.03	
	9/2/2021	110	2996036		4600.104 GALS SODIUM HYPOCHLORITE	\$3,554.22	
	9/2/2021	110	2994720		4599.627 GALS SODIUM HYPOCHLORITE	\$3,553.86	
	9/2/2021	110	2994336		4896 GALS SODIUM HYPOCHLORITE	\$3,782.84	
	9/2/2021	110	2997196		4791.508 GALS SODIUM HYPOCHLORITE	\$3,702.11	
	9/2/2021	110	2994721		4699.208 GALS SODIUM HYPOCHLORITE	\$3,630.79	
	9/2/2021	110	2994977		4832 GALS SODIUM HYPOCHLORITE	\$3,733.40	
	9/2/2021	110	2998782		4796 GALS SODIUM HYPOCHLORITE	\$3,705.58	
	9/2/2021	110	3000001918		4922 GALS SODIUM HYPOCHLORITE	\$3,837.59	
	9/2/2021	110	2998783		4918 GALS SODIUM HYPOCHLORITE	\$3,799.84	
	9/2/2021	110	2999334		4908 GALS SODIUM HYPOCHLORITE	\$3,792.11	
	9/2/2021	110	3000006180		4900 GALS SODIUM HYPOCHLORITE	\$3,820.43	
	9/2/2021	110	3000008541		4797.7 GALS SODIUM HYPOCHLORITE	\$3,740.67	



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178424	9/2/2021	110	2994724	OLIN CORPORATION	4700.983 GALS SODIUM HYPOCHLORITE	\$3,632.17	\$78,198.89
	9/2/2021	110	2998607		4598.338 GALS SODIUM HYPOCHLORITE	\$3,552.86	
178433	9/2/2021	143	221179	TANNER PACIFIC INC	ALVARADO INFLUENT PS PUMPS AND VFDS	\$45,831.25	\$63,026.25
	9/2/2021	143	221181		AERATION BLOWER 11 & CENTRIFUGE BLDG IMPROV	\$17,195.00	
178413	9/2/2021	143	13710	CAROLLO ENGINEERS	PRIMARY DIGESTER NO. 7	\$62,425.14	\$62,425.14
178404	8/26/2021	110	101121	WASTEWATER SOLIDS MGMT INC	DIGESTER CLEANING	\$54,690.00	\$54,690.00
178387	8/26/2021	110	1564131	POLYDYNE INC	46,160 LBS CLARIFLOC C-6267	\$51,853.25	\$51,853.25
178332	8/19/2021		533620210722	US BANK CORP PAYMENT SYSTEM	MONTHLY CAL-CARD REPORT - JUL 2021	\$31,586.62	\$31,586.62
178416	9/2/2021		160101	FONG & FONG PRINTERS & LITHO	POSTAGE FOR NEWSLETTER	\$27,499.91	\$27,499.91
178280	8/19/2021	110	4KP72	BAY AREA AIR QUALITY MGMT DIST	ANNUAL PERMIT RNWL-PLANT A1209	\$27,177.00	\$27,177.00
178369	8/26/2021	123	950148	LMK TECHNOLOGIES LLC	18 LMK TRAILER PIPE KITS	\$24,381.45	\$24,381.45
178402	8/26/2021	122	78653	VALLEY OIL COMPANY	5,924 GALS UNLEADED 10% ETHANOL GAS	\$22,114.77	\$22,114.77
178388	8/26/2021		41599	PREFERRED BENEFIT INSUR ADMINS	AUGUST 2021 DELTA DENTAL STMT	\$15,696.09	\$18,966.09
	8/26/2021		41600		AUGUST 2021 VSP STMT	\$3,270.00	

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178284	8/19/2021	150	272086	BURKE, WILLIAMS & SORENSON LLP	FORCE MAIN RELOCATION - JUN 2021	\$133.12	\$18,127.20
	8/19/2021		272088		EMPLOYMENT LEGAL - JUN 2021	\$3,594.24	
	8/19/2021	150	272090		GENERAL PERSONNEL - JUN 2021	\$266.24	
	8/19/2021	150	272091		SEWER LINE CLAIM - JUN 2021	\$499.20	
	8/19/2021		272085		CIP - JUN 2021	\$1,730.56	
	8/19/2021	150	272087		ETSU - JUN 2021	\$798.72	
	8/19/2021	150	272092		GENERAL LEGAL - JUN 2021	\$10,905.44	
	8/19/2021	150	272089		STANDBY POWER PROJECT - JUN 2021	\$199.68	
178347	8/26/2021	173	424099	CDW GOVERNMENT LLC	TEAMS CONFERNENCE AUDIO LICENSES	\$2,449.92	\$16,800.70
	8/26/2021	143	698864		NETWORK R AND R	\$8,915.96	
	8/26/2021		851417		1 SWITCH - WAS THICKENERS	\$5,434.82	
178364	8/26/2021	110	9017721753	KEMIRA WATER SOLUTIONS INC	46,660 LBS FERROUS CHLORIDE	\$7,174.63	\$15,209.48
	8/26/2021	110	9017721369		48,360 LBS FERROUS CHLORIDE	\$8,034.85	
178419	9/2/2021	110	9017722190	KEMIRA WATER SOLUTIONS INC	43,600 LBS FERROUS CHLORIDE	\$7,220.37	\$14,696.99
	9/2/2021	110	9017722352		47,840 LBS FERROUS CHLORIDE	\$7,476.62	
178296	8/19/2021	110	1421079	DEPARTMENT OF GENERAL SERVICES	SERV: JUN 2021 PLANT	\$13,668.54	\$13,668.54
178431	9/2/2021	132	46845	SLOAN SAKAI YEUNG & WONG LLP	SPECIAL COUNSEL SERVICES	\$8,820.00	\$12,737.00
	9/2/2021	132	46846		SPECIAL COUNSEL SERVICES	\$3,917.00	
178383	8/26/2021	143	210409E	OVERAA	PRIMARY DIGESTER NO. 7 - ESCROW PYMT	\$9,653.25	\$9,653.25

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178342	8/26/2021	173	517504	AVERTIUM LLC	SCADA NIST	\$8,450.00	\$8,450.00
178397	8/26/2021	170	9021142641	THERMO ELECTRON NORTH AMERICA	ICP SERVICE & MAINTENANCE PLAN 7/15/21 - 7/14/22	\$8,234.00	\$8,234.00
178381	8/26/2021	110	3000003943	OLIN CORPORATION	4912 GALS SODIUM HYPOCHLORITE	\$3,829.79	\$7,640.86
	8/26/2021	110	3000003942		4888 GALS SODIUM HYPOCHLORITE	\$3,811.07	
178285	8/19/2021		20210817	STATE OF CALIFORNIA	SALES & USE TAX 07/01/21 - 07/31/2021	\$7,525.97	\$7,525.97
178327	8/19/2021	121	15492	SCHWALM USA LLC	1 CABLE	\$7,408.13	\$7,408.13
178274	8/19/2021	170	347619	ADVANCED CHEMICAL TRANSPORT	HAZARDOUS MATERIAL MANAGEMENT	\$6,418.57	\$6,418.57
178323	8/19/2021	110	1564165	POLYDYNE INC	42,940 LBS CLARIFLOC WE-539	\$6,401.04	\$6,401.04
178349	8/26/2021	170	12463	COLUMBIA WEATHER SYSTEMS INC	WEATHER STATION PIIAN CONTROL	\$6,368.00	\$6,368.00
178275	8/19/2021	171	2000522113	AECOM TECHNICAL SERVICES INC	HAZMAT CONSULTING SERVICES	\$6,349.03	\$6,349.03
178321	8/19/2021		29608534	PAN PACIFIC SUPPLY COMPANY	2 CHESTERTON SEALS	\$5,648.76	\$5,648.76
178405	8/26/2021	143	5123	WORKSMART AUTOMATION INC	CALCIUM THIOSULFATE CHEMICAL TANK	\$5,593.00	\$5,593.00
178401	8/26/2021	143	20488	V&A CONSULTING ENGINEERS	CATHODIC PROTECTION IMPROVEMENTS	\$2,273.50	\$4,885.50
	8/26/2021	143	20516		PLANT MISCELLANEOUS IMPROVEMENTS	\$2,612.00	
178355	8/26/2021	132	11429	ESKILL CORPORATION	ONLINE TESTING SUBSCRIPTION	\$4,790.00	\$4,790.00
178390	8/26/2021	173	20015262	PROGRESS SOFTWARE CORPORATION	WHATS UP GOLD 08/08/21 - 08/07/22	\$4,740.00	\$4,740.00

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178373	8/26/2021	113	2107C66	MCCAMPBELL ANALYTICAL	LAB SAMPLE ANALYSIS	\$1,235.00	\$4,277.00
	8/26/2021	113	2107F27		LAB SAMPLE ANALYSIS	\$266.00	
	8/26/2021	113	2107E98		LAB SAMPLE ANALYSIS	\$1,544.00	
	8/26/2021	113	2107E89		LAB SAMPLE ANALYSIS	\$348.00	
	8/26/2021	113	2102949A		LAB SAMPLE ANALYSIS	\$70.00	
	8/26/2021	113	2107A98		LAB SAMPLE ANALYSIS	\$814.00	
178386	8/26/2021	130	1330	PFM ASSET MANAGEMENT LLC	INVESTMENT MANAGEMENT / ADVISORY SERVICES	\$4,153.04	\$4,153.04
178377	8/26/2021	113	2483	MG LAB SOLUTIONS INC	ASTD DISHWASHER ACCESSORIES	\$4,126.91	\$4,126.91
178322	8/19/2021	110	106010	PIIAN SYSTEMS LLC	6 5-GAL ODOR NEUTRALIZERS	\$4,028.16	\$4,028.16
178337	8/26/2021		69793	3T EQUIPMENT COMPANY INC	6 PIPE PATCH KITS WINTER	\$3,960.38	\$3,960.38
178395	8/26/2021		28178	TENAYA THERAPEUTICS	REFUND # 39916	\$3,550.63	\$3,550.63
178319	8/19/2021	170	8481230	OVIVO USA LLC	ASTD CLARIFIER PARTS	\$3,519.55	\$3,519.55
178358	8/26/2021	170	95993836	H & E EQUIPMENT SERVICES INC	EQUIPMENT RENTAL 07/14/2021 - 08/10/21	\$3,333.04	\$3,333.04
178417	9/2/2021	122	338788	FREMONT FORD LINCOLN MERCURY	REPAIRS: P8365	\$3,310.08	\$3,310.08
178281	8/19/2021	122	22911	BAYSCAPE LANDSCAPE MANAGEMENT	LANDSCAPE MAINTENANCE SERVICES - JUL 2021	\$3,310.00	\$3,310.00
178336	8/19/2021		9810	WEST COAST SELF STORAGE	REFUND # 39892	\$3,300.00	\$3,300.00
178374	8/26/2021		9987	MCCLELLAND ARCHITECTURE	REFUND # 39913	\$3,300.00	\$3,300.00
178307	8/19/2021	170	2003137	JENSEN INSTRUMENT COMPANY	2 ROSEMOUNT TEMPERTURE TRANSMITTERS	\$3,265.48	\$3,265.48
178298	8/19/2021	143	264272	ENGEO INCORPORATED	ALAMEDA CREEK-FORCEMAIN CROSSING GEOTECH	\$3,096.00	\$3,096.00

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178391	8/26/2021	141	20210805	QUADIENT INC	POSTAGE BY PHONE - TMS 8060344	\$3,000.00	\$3,000.00
178398	8/26/2021	123	144413	TRI-SIGNAL INTEGRATION INC	FIRE PROTECTION SERVICE - UL CERTIFICATE	\$350.00	\$2,995.83
	8/26/2021	123	144412		FIRE PROTECTION SERVICE - MONTHLY CHARGE MONITORING AGREE	\$133.33	
	8/26/2021	123	144414		FIRE PROTECTION SERVICE - MONTHLY CHARGE MONITORING AGREE	\$312.50	
	8/26/2021	123	144411		FIRE PROTECTION SERVICE - ALARM INSPECTION	\$2,200.00	
178385	8/26/2021	170	013720210812	PACIFIC GAS AND ELECTRIC	SERV TO 08/05/21 BOYCE RD PS	\$2,855.92	\$2,880.57
	8/26/2021	170	140120210812		SERV TO 08/04/21 IRVINGTON PS	\$24.65	
178389	8/26/2021	122	754	PRIME MECHANICAL SERVICE INC	QUARTERLY MAINTENANCE - JUN 21	\$1,695.00	\$2,640.00
	8/26/2021	170	732		MONTHLY MAINTENANCE - JUL 21	\$945.00	
178403	8/26/2021	120	12916	VON EUW TRUCKING	SPOILS DUMP FEE	\$2,575.00	\$2,575.00
178329	8/19/2021		30292	THERMA INC	REFUND # 39883	\$2,500.00	\$2,500.00
178411	9/2/2021		30320	BEN FRANKLIN PLUMBING SOUTHBAY	REFUND # 39924	\$2,500.00	\$2,500.00
178426	9/2/2021		10250	PERMITS.COM	REFUND # 39922	\$2,500.00	\$2,500.00
178346	8/26/2021	121	168462	BRENNTAG PACIFIC INC	2552 LBS SODIUM HYDROXIDE	\$829.31	\$2,487.93
	8/26/2021	121	168461		5104 LBS SODIUM HYDROXIDE	\$1,658.62	
178393	8/26/2021	110	21072718	S&S TRUCKING	GRIT HAULING 07/19/2021	\$794.34	\$2,407.62
	8/26/2021	110	21080616		GRIT HAULING 07/28/2021	\$743.91	
	8/26/2021	110	21072816		GRIT HAULING 07/23/2021	\$869.37	

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178351	8/26/2021	170	314061	CORE & MAIN LP	ASTD PARTS & MATERIALS	\$1,141.84	\$2,283.68
	8/26/2021	170	204322		ASTD PARTS & MATERIALS	\$1,141.84	
178344	8/26/2021	122	107469	BETTER SOURCE LIQUIDATORS, LLC	WORKSTATION FURNITURE	\$2,216.09	\$2,216.09
178421	9/2/2021	113	2107D23	MCCAMPBELL ANALYTICAL	LAB SAMPLE ANALYSIS	\$1,816.00	\$2,196.00
	9/2/2021	113	2108084		LAB SAMPLE ANALYSIS	\$380.00	
178422	9/2/2021	170	62892183	MCMASTER SUPPLY INC	ASTD PARTS & MATERIALS	\$784.52	\$2,181.12
	9/2/2021	170	63214841		ASTD PARTS & MATERIALS	\$287.44	
	9/2/2021		63819752		ASTD PARTS & MATERIALS	\$324.78	
	9/2/2021	170	63729447		ASTD PARTS & MATERIALS	\$718.52	
	9/2/2021	170	63892829		ASTD PARTS & MATERIALS	\$65.86	
178427	9/2/2021	114	210049796B	PINE ENVIRONMENTAL SERVICES	RENTAL: GAS METER H2S ANALYZER 06/10/21-07/07/21	\$2,087.66	\$2,087.66
178300	8/19/2021	170	1139799	FLUID COMPONENTS INTERNATIONAL	1 FLOW METER REPAIR	\$1,026.11	\$2,070.06
	8/19/2021	170	1132323		1 GAS FLOW METER	\$1,043.95	
178360	8/26/2021	141	DVLK390	IRON MOUNTAIN	OFF-SITE STORAGE AND SERVICE - AUG 2021	\$1,520.27	\$2,058.79
	8/26/2021	141	DVJV708		OFF-SITE STORAGE AND SERVICE - AUG 2021	\$538.52	
178350	8/26/2021		127669146	COLORADO WASHINGTON INC COMCAST OF	FIBER INTERNET BACKUP - AUG 2021	\$2,040.87	\$2,040.87

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178303	8/19/2021	170	9958250897	GRAINGER INC	ASTD PARTS & MATERIALS	\$116.91	\$2,040.52
	8/19/2021	170	9958250905		ASTD PARTS & MATERIALS	\$709.77	
	8/19/2021	170	9961146223		ASTD PARTS & MATERIALS	\$440.67	
	8/19/2021		9959979940		ASTD PARTS & MATERIALS	\$671.95	
	8/19/2021	170	9964541941		ASTD PARTS & MATERIALS	\$55.73	
	8/19/2021	170	9963883906		4 SAFETY SIGNS	\$45.49	
178408	9/2/2021		16903923	AT&T	SERV: 07/13/21 - 08/12/21	\$66.46	\$1,956.42
	9/2/2021		16869330		SERV: 07/10/21 - 08/09/21	\$1,007.32	
	9/2/2021		16903922		SERV: 07/13/21 - 08/12/21	\$43.20	
	9/2/2021		16903924		SERV: 07/13/21 - 08/12/21	\$88.14	
	9/2/2021		16903920		SERV: 07/13/21 - 08/12/21	\$751.30	
178412	9/2/2021		020210827	CURTIS BOSICK	COMPUTER NOTE	\$1,934.37	\$1,934.37
178276	8/19/2021	122	9115921508	AIRGAS NCN	ASTD PARTS & MATERIALS	\$68.72	\$1,846.79
	8/19/2021	122	9115921506		ASTD PARTS & MATERIALS	\$1,717.45	
	8/19/2021	122	9115921507		ASTD PARTS & MATERIALS	\$60.62	
178311	8/19/2021	113	2107793	MCCAMPBELL ANALYTICAL	LAB SAMPLE ANALYSIS	\$873.00	\$1,793.00
	8/19/2021	113	2107C68		LAB SAMPLE ANALYSIS	\$210.00	
	8/19/2021	113	2107845		LAB SAMPLE ANALYSIS	\$503.00	
	8/19/2021	113	2107B03		LAB SAMPLE ANALYSIS	\$207.00	

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178362	8/26/2021	170	345024	KAMAN INDUSTRIAL TECHNOLOGIES	1 MOTOR	\$1,782.92	\$1,782.92
178339	8/26/2021	120	14881	AMERICAN DISCOUNT SECURITY	07/01/21 - 07/30/21 GUARD AT DISTRICT	\$1,764.00	\$1,764.00
178315	8/19/2021	170	24117851	MOTION INDUSTRIES INC	ASTD PARTS & MATERIALS	\$105.50	\$1,748.06
	8/19/2021	170	24117755		ASTD PARTS & MATERIALS	\$1,441.34	
	8/19/2021		24118067		ASTD PARTS & MATERIALS	\$201.22	
178438	9/2/2021		5322	ZELAYA DESIGNS	NEWSLETTER SERVICES	\$1,664.00	\$1,664.00
178375	8/26/2021	170	63336876	MCMaster SUPPLY INC	ASTD PARTS & MATERIALS	\$123.53	\$1,635.80
	8/26/2021		63509015		ASTD PARTS & MATERIALS	\$410.32	
	8/26/2021		63512452		ASTD PARTS & MATERIALS	\$41.68	
	8/26/2021		62730193		ASTD PARTS & MATERIALS	\$908.26	
	8/26/2021	122	63589350		ASTD PARTS & MATERIALS	\$152.01	
178288	8/19/2021		159870	CDW GOVERNMENT LLC	1 SWITCH - WAS THICKENERS	\$1,615.71	\$1,615.71
178353	8/26/2021		20210725	DALE HARDWARE INC	07/21 - ASTD PARTS & MATERIALS	\$1,513.94	\$1,513.94
178302	8/19/2021	122	1841095148	GOODYEAR COMM TIRE & SERV CTRS	3 TIRES	\$1,450.74	\$1,450.74
178299	8/19/2021		30311.1	ER PLUMBING & CONSTRUCTION	REFUND # 39885	\$350.00	\$1,350.00
	8/19/2021		29278.1		REFUND # 39884	\$500.00	
	8/19/2021		30311.2		REFUND # 39887	\$50.00	
	8/19/2021		30311		REFUND # 39886	\$450.00	



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178396	8/26/2021	170	410581066	TERMINIX COMMERCIAL	JULY PEST CONTROL	\$1,054.00	\$1,346.00
	8/26/2021	170	410581065		PEST CONTROL	\$132.00	
	8/26/2021	170	410577171		PEST CONTROL	\$160.00	
178312	8/19/2021	170	63056192	MCMASTER SUPPLY INC	ASTD PARTS & MATERIALS	\$83.11	\$1,336.69
	8/19/2021	170	63048714		ASTD PARTS & MATERIALS	\$860.16	
	8/19/2021		63054316		ASTD PARTS & MATERIALS	\$203.00	
	8/19/2021	121	61893662		ASTD PARTS & MATERIALS	\$190.42	
178357	8/26/2021	111	9972219035	GRAINGER INC	ASTD PARTS & MATERIALS	\$37.02	\$1,307.98
	8/26/2021		9970284445		20 PACKS DISPOSABLE GLOVES	\$675.80	
	8/26/2021	170	9971090338		1 BALLAST KIT	\$112.75	
	8/26/2021	170	9966923162		8 SAFETY SIGNS	\$90.99	
	8/26/2021	170	9970508843		1 PUMP	\$198.84	
	8/26/2021	170	9966537129		ASTD PARTS & MATERIALS	\$192.58	
178343	8/26/2021	122	33153	BAY COUNTIES DIESEL SERVICE	ANNUAL DPF CLEANING	\$324.21	\$1,296.84
	8/26/2021	122	33128		ANNUAL DPF CLEANING	\$324.21	
	8/26/2021	122	33193		ANNUAL DPF CLEANING	\$324.21	
	8/26/2021	122	33154		ANNUAL DPF CLEANING	\$324.21	
178370	8/26/2021	173	23201	LOOKINGPOINT INC	ANNUAL PBX AND NETWORK SUPPORT	\$1,225.00	\$1,225.00

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Check No.	Date	Dept	Invoice No.	Vendor	Description	Invoice Amt	Check Am
178320	8/19/2021	170	096020210806	PACIFIC GAS AND ELECTRIC	SERV TO 08/01/21 CATHODIC PROJECT	\$51.37	\$1,207.42
	8/19/2021	170	666720210806		SERV TO 08/01/2021 PASEO PADRE PS	\$460.07	
	8/19/2021	170	380420210806		SERV TO 08/01/21 CHERRY ST PS	\$388.83	
	8/19/2021	110	892820210806		SERV TO 08/01/2021 HAYWARD MARSH	\$74.48	
	8/19/2021	170	898220210806		SERV TO 08/01/21 FREMONT PS	\$232.67	
178292	8/19/2021	170	265150	CORE & MAIN LP	ASTD PARTS & MATERIALS	\$1,191.67	\$1,191.67
178290	8/19/2021	170	20210728	COMMUNICATION & CONTROL INC	UTILITY FEE/ANTENNA RENTAL	\$1,136.60	\$1,136.60
178378	8/26/2021	114	2174464	MOBILE MODULAR MANAGEMENT CORP	ETSU TEMPORARY OFFICE SPACE	\$1,080.81	\$1,080.81
178338	8/26/2021	170	9981811756	AIRGAS NCN	CYLINDER RENTAL	\$940.62	\$1,065.63
	8/26/2021	170	9116091042		ASTD PARTS & MATERIALS	\$125.01	
178384	8/26/2021	173	202107311	AYHAN OZCAN	UPDATING VISUAL STUDIO	\$1,050.00	\$1,050.00
178434	9/2/2021		32979	THE CONSTRUCTION ZONE LLC	4 TRAFFIC SIGN STANDS	\$1,043.87	\$1,043.87
178306	8/19/2021		28201	IPERMIT	REFUND # 39880	\$1,000.00	\$1,000.00
178326	8/19/2021		29266	ROOTER HERO	REFUND # 39879	\$1,000.00	\$1,000.00
178340	8/26/2021		111868	AMERICAN TEXTILE & SUPPLY INC	35 RAGS	\$953.95	\$953.95
178286	8/19/2021	113	623637	CALTEST ANALYTICAL LABORATORY	13 LAB SAMPLE ANALYSIS	\$899.75	\$899.75
178409	9/2/2021		3841673606	AT&T	SERV: 07/11/21 - 08/10/21	\$882.85	\$882.85
178279	8/19/2021	136	2522403997	BANK OF NEW YORK	JUNE 2021 SERVICE FEES	\$872.89	\$872.89

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Check No.	Date	Dept	Invoice No.	Vendor	Description	Invoice Amt	Check Am
178345	8/26/2021	141	16329050	BLAISDELL'S	ASTD OFFICE SUPPLIES	\$55.08	\$835.91
	8/26/2021	113	16320850		ASTD OFFICE SUPPLIES	\$373.28	
	8/26/2021	141	16332710		1 LASER CARTRIDGE	\$303.73	
	8/26/2021	120	16327160		ASTD OFFICE SUPPLIES	\$103.82	
178428	9/2/2021	121	8201103486	RED WING BUS ADVANTAGE ACCT	SAFETY SHOES: J. RODRIGUES	\$207.93	\$811.34
	9/2/2021	111	8201103948		SAFETY SHOES: M. FULKERSON	\$208.00	
	9/2/2021	172	8201103169		SAFETY SHOES: G. OSEGUERA	\$208.00	
	9/2/2021	171	8201103210		SAFETY SHOES: L. RIVERA	\$187.41	
178330	8/19/2021		4239	TRUGRIT TRACTION INC	8 WHEELS	\$804.80	\$804.80
178335	8/19/2021	113	8805562539	VWR INTERNATIONAL LLC	LAB SUPPLIES	\$11.83	\$797.37
	8/19/2021	113	8805554742		LAB SUPPLIES	\$676.06	
	8/19/2021	113	8805544145		LAB SUPPLIES	\$109.48	
178410	9/2/2021	136	2522405156	BANK OF NEW YORK	JUL 2021 SERVICE FEES	\$788.70	\$788.70
178294	8/19/2021	120	20210811	CWEA	4 CERT & 2 MEMBERSHIP RENEWALS - CS 5 EMPLOYEES	\$768.00	\$768.00
178392	8/26/2021	170	270879	ROCHESTER MIDLAND CORPORATION	HOT WATER LOOP SERVICE	\$721.48	\$721.48
178287	8/19/2021	173	4036951013	CANON SOLUTIONS AMERICA INC	MTHLY MAINTENANCE BASED ON USE	\$360.27	\$676.17
	8/19/2021	173	4036951882		MTHLY MAINTENANCE BASED ON USE	\$315.90	
178359	8/26/2021	123	2272909	HANSON AGGREGATES INC	8.03 TONS 1/2 MAX HMA TYPE A-R	\$674.73	\$674.73

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178341	8/26/2021		1102582159	ARAMARK	UNIFORM LAUNDERING SERVICE	\$351.06	\$668.44
	8/26/2021		1102582144		UNIFORM LAUNDERING & RUGS	\$270.06	
	8/26/2021	122	1102582116		ASTD DUST MOPS, WET MOPS & TERRY	\$47.32	
178348	8/26/2021	132	210914687	CLAREMONT BEHAVIORAL SERVICES	SEP 2021 EAP PREMIUMS	\$667.00	\$667.00
178278	8/19/2021	173	517058	AVERTIUM LLC	VULNERABILITY SCAN SUBSCRIPTION - JUL 2021	\$645.00	\$645.00
178379	8/26/2021	170	24117943	MOTION INDUSTRIES INC	ASTD PARTS & MATERIALS	\$318.72	\$637.91
	8/26/2021	170	24117031		ASTD PARTS & MATERIALS	\$319.19	
178324	8/19/2021	170	665	PRIME MECHANICAL SERVICE INC	SERVICE CALL: BLDG 80	\$630.00	\$630.00
178407	9/2/2021		1102585663	ARAMARK	UNIFORM LAUNDERING & RUGS	\$260.86	\$607.92
	9/2/2021		1102585680		UNIFORM LAUNDERING SERVICE	\$347.06	
178277	8/19/2021		1102578639	ARAMARK	UNIFORM LAUNDERING & RUGS	\$262.76	\$604.82
	8/19/2021		1102578652		UNIFORM LAUNDERING SERVICE	\$342.06	
178376	8/26/2021	170	210847	METROMOBILE COMMUNICATIONS INC	RADIO SERVICE - AUG 2021	\$599.08	\$599.08
178304	8/19/2021		28171	RAJEEV GULIANI	REFUND # 39893	\$500.00	\$500.00
178313	8/19/2021		29274	MIKE COUNSIL PLUMBING	REFUND # 39881	\$500.00	\$500.00
178314	8/19/2021		29239	MONARCH PLUMBING & ROOTER INC	REFUND # 39878	\$500.00	\$500.00
178318	8/19/2021		15795	MOHAMMAD NOORWALA	REFUND # 39877	\$500.00	\$500.00
178325	8/19/2021		29282	RESCUE ROOTER	REFUND # 39882	\$500.00	\$500.00
178415	9/2/2021		30338	FIX-IT PLUMBING INC	REFUND # 39945	\$500.00	\$500.00

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178435	9/2/2021		30297	THE EXPERT PLUMBER	REFUND # 39946	\$500.00	\$500.00
178305	8/19/2021		3Q3186	HARRINGTON INDUSTRIAL PLASTICS	ASTD PVC PARTS & MATERIALS	\$336.14	\$493.54
	8/19/2021	170	3Q3230		ASTD PVC PARTS & MATERIALS	\$157.40	
178297	8/19/2021	173	528330	DLT SOLUTIONS, LLC	AWS CLOUD STORAGE - JUN 2021	\$484.11	\$484.11
178368	8/26/2021	143	30815	KJELDSSEN SINNOCK & NEUDECK INC	QUIT CLAIM - STANDBY POWER SYSTEM UPGRADE	\$450.00	\$450.00
178380	8/26/2021		20210731	NAPA AUTO PARTS	MONTHLY AUTO PARTS STMT - JUL 2021	\$382.73	\$382.73
178363	8/26/2021	170	28611	KAMAN INDUSTRIAL TECHNOLOGIES	1 MOTOR BASE	\$262.20	\$371.24
	8/26/2021	170	464788		ASTD PARTS & MATERIALS	\$109.04	
178291	8/19/2021	132	72151344	CONCENTRA MEDICAL CENTERS	1 NEW HIRE & 1 DOT PHYSICAL	\$361.00	\$361.00
178423	9/2/2021	173	23410	NETXPERTS INC	NETWORK DESIGN REVIEW	\$350.00	\$350.00
178293	8/19/2021	173	82089024	CORELOGIC INFORMATION SOLUTION	MTHLY MAINTENANCE BASED ON USE	\$339.90	\$339.90
178352	8/26/2021	173	82093228	CORELOGIC INFORMATION SOLUTION	MTHLY MAINTENANCE BASED ON USE	\$339.90	\$339.90
178399	8/26/2021	141	429359	ULTRAEX LLC	COURIER SVCS: 5 BOARDMEMBER DELIVERY - 07/26/21	\$315.65	\$315.65
178283	8/19/2021	170	40032946	BUREAU VERITAS/ANALYSTS INC	12 LAB SAMPLE ANALYSIS	\$302.00	\$302.00
178436	9/2/2021		514962	VALLEY OIL COMPANY	60 TUBES GREASE	\$297.58	\$297.58
178425	9/2/2021	132	2101993	OPTIMUM TECHNOLOGIES LLC	AT HOME EMPLOYEE PORTAL	\$295.00	\$295.00
178356	8/26/2021	144	484986468	GLACIER ICE COMPANY INC	150 7-LB BAGS OF ICE	\$281.51	\$281.51
178371	8/26/2021	121	20210824	ANTHONY MARTINEZ	EXP REIMB: CWEA TEST FEE	\$195.00	\$255.00
	8/26/2021	121	20210825		EXP REIMB: PESTICIDE CONTROL CERT RENEWAL	\$60.00	

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178437	9/2/2021	113	8805624759	VWR INTERNATIONAL LLC	LAB SUPPLIES	\$110.27	\$254.50
	9/2/2021	113	8805669982		LAB SUPPLIES	\$144.23	
178301	8/19/2021	120	4095121101	GLACIER ICE COMPANY INC	120 7-LB BAGS OF ICE	\$239.29	\$239.29
178295	8/19/2021	120	20210816	MICHAEL DELA ROSA	EXP REIMB: MILEAGE/PER DIEM FACILITY EXPO	\$213.88	\$213.88
178282	8/19/2021		16298810	BLAISDELL'S	10 RM PAPER	\$176.98	\$210.19
	8/19/2021	110	16288250		ASTD OFFICE SUPPLIES	\$33.21	
178367	8/26/2021	132	20210825	KATHLEEN KING	EXP REIMB: RECRUITMENT AD	\$200.00	\$200.00
178309	8/19/2021	113	20210816	CONGNA LI	EXP REIMB: PE LICENSE RENEWAL	\$180.00	\$180.00
178328	8/19/2021	141	20210731	SPOK INC	AUG 2021 PAGER SERVICE	\$173.43	\$173.43
178310	8/19/2021		5144712	MALLORY SAFETY AND SUPPLY LLC	ASTD CAL GAS	\$166.13	\$166.13
178432	9/2/2021	173	20210831	RUFUS TAI	EXP REIMB: PMI MEMBERSHIP RENEWAL	\$154.00	\$154.00
178372	8/26/2021	170	771015229	MATHESON TRI-GAS INC	MONTHLY CYLINDER RENTAL - JUL 2021	\$153.62	\$153.62
178420	9/2/2021	136	20210831	RICHARD LEBON	EXP REIMB: DOT MEDICAL EXAM	\$115.00	\$115.00
178429	9/2/2021		113946	REMOTE SATELLITE SYSTEMS INT'L	IRIDIUM SVC FEE SEP 2021	\$112.00	\$112.00
178289	8/19/2021	122	322969	CENTERVILLE LOCKSMITH	SERVICE: REKEY OFFICE	\$110.00	\$110.00
178414	9/2/2021	113	20210825	CWEA	MEMBERSHIP RENEWAL - CALANOG	\$101.00	\$101.00
178430	9/2/2021	170	85340220210820	SAN FRANCISCO WATER DEPT	SERVICE 07/22/2021 - 08/19/21	\$100.36	\$100.36
178308	8/19/2021	170	62600000233201	KELLY-MOORE PAINT COMPANY	ASTD PAINTING SUPPLIES	\$93.14	\$93.14
178316	8/19/2021	122	225286	NAYLOR STEEL INC	ASTD METAL, STEEL, STAINLESS & ALUMINUM	\$75.38	\$75.38

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178317	8/19/2021	122	20210818.1	SHAWN NESGIS	EXP REIMB: CS SAFETY AWARDS	\$51.14	\$67.18
	8/19/2021	120	20210818		EXP REIMB: CS RECOGNITION	\$16.04	
178334	8/19/2021		20210818	AUDREY VILLANUEVA	REIMB: MEDICAL ACCRUAL	\$54.24	\$54.24
178406	9/2/2021	143	20210830	ALAMEDA COUNTY TREASURER	FILING FEE: STANDBY POWER SYSTEM UPGRADE	\$50.00	\$50.00
178366	8/26/2021	132	20210825	STEVEN KIM	REIMB LIVESCAN PRE-EMPLOYMENT	\$29.99	\$29.99
178333	8/19/2021		9885219129	VERIZON WIRELESS	WIRELESS SERV 07/02/21-08/01/21	\$21.10	\$21.10
178331	8/19/2021	136	98XW53301	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 07/24/21	\$21.01	\$21.01
178400	8/26/2021	136	98XW53311	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 07/31/21	\$14.61	\$14.61

**Invoices:**

<b>Credit Memos :</b>	<b>0</b>	
<b>\$0 - \$1,000 :</b>	<b>164</b>	<b>55,485.37</b>
<b>\$1,000 - \$10,000 :</b>	<b>100</b>	<b>354,569.15</b>
<b>\$10,000 - \$100,000 :</b>	<b>15</b>	<b>503,655.64</b>
<b>Over \$100,000 :</b>	<b>7</b>	<b>2,245,192.31</b>
<b>Total:</b>	<b>286</b>	<b>3,158,902.47</b>

**Checks:**

<b>\$0 - \$1,000 :</b>	<b>69</b>	<b>29,277.32</b>
<b>\$1,000 - \$10,000 :</b>	<b>73</b>	<b>232,642.38</b>
<b>\$10,000 - \$100,000 :</b>	<b>18</b>	<b>638,164.46</b>
<b>Over \$100,000 :</b>	<b>5</b>	<b>2,258,818.31</b>
<b>Total:</b>	<b>165</b>	<b>3,158,902.47</b>

# EAST BAY TIMES

## \$200M IN LOANS

## EPA offers funds to help fix treatment plants, pipes

By Aldo Toledo 8/18/21

[atoledo@bayareanewsgroup.com](mailto:atoledo@bayareanewsgroup.com)

**REDWOOD CITY »** Three massive loans from the federal government totaling nearly \$200 million were announced Tuesday to help repair aging clay pipes in the East Bay and to fund a new water treatment facility in Redwood City, a sum which Environmental Protection Agency administrator Michael Regan said could increase if Congress passes the trillion- dollar infrastructure bill.

At an event hosted by Silicon Valley Clean Water on Tuesday at the agency's new wastewater treatment plant under construction in Redwood Shores, Regan announced two Water Infrastructure Finance and Innovation Act loans totaling \$143 million to SVCW and one for \$25 million to the Oro Loma Sanitary District supporting projects expected to create more than 2,500 jobs.

"Investing in water infrastructure has proven time and again to deliver a multitude of benefits, including building climate and drought-resilient water systems, safeguarding public health, and creating good-paying jobs," Regan said. "Today's announcements embody the promise of the Bipartisan Infrastructure Deal, which will broaden the scope of these powerful benefits for communities across the nation." On his California tour, Regan stopped by Redwood City before joining Gov. Gavin Newsom at Big Basin State Park in the Santa Cruz Mountains Tuesday, where both will discuss how the EPA and California can work together to tackle the climate crisis and collaborate on wildfire recovery efforts. The massive CZU wildfire tore through the state park last year, destroying much of the park's trails and buildings.

Regan made clear that the federal government will support future economic vitality by improving water infrastructure while also protecting the environment in announcing the three loans. The EPA's two loans to Silicon Valley Clean Water will help finance wastewater system rehabilitation projects, including \$69 million for sewer upgrades and \$74 million of the new treatment plant. Together, the projects will allow the plant to self-generate 100% of its power, saving the agency about \$133 million.

"We are immensely grateful and proud of the partnership SVCW has with EPA, a collaboration that has allowed SVCW to lead the industry with innovative and



sustainable capital improvement projects," said Silicon Valley Clean Water General Manager Teresa Herrera. "We look forward to our continued alliance by advancing our shared commitment to the protection of public health and our environment for generations to come." In the East Bay's Oro Loma Sanitary District, aging clay pipes installed more than 100 years ago are leaking and increasing the likelihood of massive failures. That's why Oro Loma board President Rita Duncan believes the \$25 million federal loan will be a lifesaver for the district, which mainly provides water to unincorporated Alameda County communities.

"Oro Loma is pleased to partner with WIFIA to fund these much-needed sewer improvements," Duncan said. "Through our partnership, we will renew the infrastructure in our community, provide jobs to local tradespeople, and help protect the health of the San Francisco Bay."

## BRIEF

# California's growing storage fleet is beginning to impact energy markets as envisioned, says grid operator

Published Aug. 31, 2021



Kavya Balaraman  
Reporter

## Dive Brief:

- The California Independent System Operator (CAISO) is seeing signs of storage resources' ability to shift energy between different times of the day, as the state begins to deploy more and more energy storage systems, a representative for the grid operator said at a regulatory meeting on Monday.
- "We're seeing the kind of performance from storage resources that very much matches what we've envisioned the storage fleet doing in the past... inter-temporal movement of energy from low-priced hours of the day to high-priced hours of the day," Gabe Murtaugh, CAISO's storage sector manager, said at a regulatory meeting Monday.
- Last year, CAISO had around 550 MW of storage on its system; today, that number has grown to a little over 1,500 MW, and is expected to top 3,000 MW by the end of the year, Murtaugh said at the California Energy Commission (CEC) workshop.

## Dive Insight:

Storage resources will be a critical component of California's resource mix toward the middle of the decade, experts anticipate, as the state prepares to retire a series of natural gas plants as well as the Diablo Canyon nuclear plant in the coming years. The California Public Utilities Commission (CPUC) this June approved a decision requiring power providers to procure 11.5 GW of clean energy resources to meet expected grid needs, and regulators are now analyzing whether to also authorize the procurement of additional natural gas.

As part of that analysis into reliability needs for the middle of the decade, energy agencies are taking a closer look at the performance of battery storage resources. California has been adding significant amounts of storage to the grid in recent months; on July 16, the state hit a milestone where for a five-minute period, batteries provided a gigawatt of electricity to the grid.

The increase in storage on the grid is "impressive," Murtaugh said, "and at the ISO, we're trying our best to stay on top of this and make sure we're managing the resources properly."

However, CAISO does have some concerns that rules like the investment tax credit (ITC), or some property taxes on storage resources, effectively restrict their ability to "grid charge," or take energy directly off the grid, according to Murtaugh.

This is essentially an "unfortunate consequence" of how the ITC is structured, Jin Noh, policy director with the California Energy Storage Alliance (CESA), told Utility Dive — in order for battery systems to qualify for the credit, they have to be charged by the paired renewable energy system more than 75% of the time. But there could be periods when the grid operator considers it more optimal for these resources to be able to charge from the grid, rather than the system it is paired with.

"We just would like to ask the commission ... to the extent that we can, if there are rules that we're putting in place to incentivize or encourage storage build-out, that we don't create other byproducts of those rules that could cause perverse incentives when those resources are trying to participate in our markets," Murtaugh said at the meeting.

And as California ramps up to thousands more megawatts of storage resources, it will start to see differences in how the market operates, Murtaugh said.

"We still start to see a shift from needing four-hour duration batteries, which are just fine for our needs today, to longer-duration batteries" of up to 10 hours, and potentially even multi-day or multi-week storage, he added.

Storage industry players, meanwhile, say that California will need to smooth out certain processes in order to rapidly deploy more storage resources. For instance, the state's fragmented local permitting process can present risks to projects, Dan Patry, manager of policy innovation with Fluence, told regulators at the meeting.

Moreover, California is looking for storage resources to come online quickly to meet near-term and medium-term reliability needs, and "the challenges and risks associated with those compressed schedules tend to flow down to technology providers and developers," Patry said.

"You would love to have it be as simple as possible to do business in California to bring this capacity online," he added.

CESA's Noh agreed that California needs to allow more time for procurement to support project development.

"There are certain milestones, certain time periods that we have to take into account in terms of triggering procurement," like interconnecting and permitting processes, Noh said.