



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

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

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

**Monday, June 26, 2023  
Regular Meeting - 4:00 P.M.**

Karen W. Murphy  
*Attorney*

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

1. Call to Order.

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2. Salute to the Flag.

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3. Roll Call.

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- Motion 4. Approve Minutes of the Union Sanitary District Board Meeting of June 12, 2023.

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- Information 5. Operations Report:
  - a) May 2023 Monthly Operations Report *(to be reviewed by the Budget & Finance and Legal/Community Affairs Committees).*
  - b) Fiscal Year 2023 3<sup>rd</sup> Quarter Managed Investment Portfolio Report from PFM *(to be reviewed by the Investment Portfolio Ad Hoc).*

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6. Written Communications.

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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.

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- Motion 8. Public Hearing to Consider Collection of Sewer Service Charges on the Tax Rolls for Fiscal Year 2024 and Adoption of a Resolution Electing to Collect Sewer Service Charges on the Tax Rolls *(to be reviewed by the Budget & Finance Committee).*

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- Motion 9. Consider Approving Proposed Operating and CIP Budget for Fiscal Year 2024 *(to be reviewed by the Budget & Finance Committee).*

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- Motion 10. Consider a Resolution to Accept Construction of the Force Main Corrosion Repairs Project – Phase 3 from Power Engineering Construction Co. *(to be reviewed by the Engineering and Information Technology Committee).*

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|-------------|---|
| Motion      | 11. Authorize the General Manager to Execute Contract Change Order No. 1 with Wastewater Solids Management for the Cleaning of Primary Digester No. 6 Contract <i>(to be reviewed by the Engineering and Information Technology Committee)</i> .  |
| Direction   | 12. Discuss and Provide Direction on the District’s Strategic Communication Plan.   |
| Information | 13. Residential FOG (Fats, Oils, and Grease) Outreach <i>(to be reviewed by the Legal/Community Affairs Committee)</i> .  |
| Information | 14. Check Register.   |
| Information | 15. Committee Meeting Reports. <i>(No Board action is taken at Committee meetings)</i> : <ol style="list-style-type: none"> <li>a. Investment Portfolio Ad Hoc – Wednesday, June 21, 2023, at 1:00 p.m.           <ul style="list-style-type: none"> <li>• Director Handley and Director Lathi</li> </ul> </li> <li>b. Budget &amp; Finance Committee – Thursday, June 22, 2023, at 11:00 a.m.           <ul style="list-style-type: none"> <li>• Director Kite and Director Toy</li> </ul> </li> <li>c. Engineering and Information Technology Committee – Thursday, June 22, 2023, at 11:30 a.m.           <ul style="list-style-type: none"> <li>• Director Handley and Director Lathi</li> </ul> </li> <li>d. Legal/Community Affairs Committee – Friday, June 23, 2023, at 10:30 a.m.           <ul style="list-style-type: none"> <li>• Director Kite and Director Lathi</li> </ul> </li> <li>e. Legislative Committee – will not meet.</li> <li>f. Personnel Committee – will not meet.</li> </ol> |
| Information | 16. General Manager’s Report. <i>(Information on recent issues of interest to the Board)</i> .  |
|             | 17. Other Business: <ol style="list-style-type: none"> <li>a. Comments and questions. <i>Directors can share information relating to District business and are welcome to request information from staff.</i></li> <li>b. Scheduling matters for future consideration.</li> </ol>   |
|             | 18. Adjournment – The Board will adjourn to next Regular Board Meeting to be held in the Boardroom on Monday, July 17, 2023, 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.



**USD** TREAT  
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PRESERVE  
est.1918  
**TRI-CITY WASTEWATER**

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

**INVESTMENT/PORTFOLIO AD HOC MEETING**  
Committee Members: Director Handley and Director Lathi

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

**AGENDA**  
**Wednesday, June 21, 2023**  
**1:00 P.M.**

Karen W. Murphy  
*Attorney*

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

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 June 26, 2023:

- Fiscal Year 2023 Third Quarter Managed Investment and Portfolio Report from PFM
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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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**TRI-CITY WASTEWATER**

**REVISED**

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

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

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

**AGENDA**

~~Wednesday, June 21, 2023~~ **Thursday, June 22, 2023**  
~~12:30 P.M.~~ **11:00 A.M.**

Karen W. Murphy  
*Attorney*

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

**THIS MEETING WILL BE TELECONFERENCED WITH DIRECTOR KITE FROM THE EXTERIOR  
OF 35040 NEWARK BOULEVARD, NEWARK, CALIFORNIA.  
THE TELECONFERENCE LOCATION SHALL BE ACCESSIBLE TO THE PUBLIC.**

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.
  - Alvarado Conference Room
  - Teleconference Location

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4. Items to be reviewed for the Regular Board meeting of June 26, 2023:
  - May 2023 Monthly Operations Report – Financial Reports
  - Public Hearing to Consider Collection of Sewer Service Charges on the Tax Rolls for Fiscal Year 2024 and Adoption of a Resolution Electing to Collect Sewer Service Charges on the Tax Rolls
  - Consider Approving Proposed Operating and CIP Budget for Fiscal Year 2024

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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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TRI-CITY WASTEWATER

**REVISED**

**ENGINEERING AND INFORMATION TECHNOLOGY  
COMMITTEE MEETING**  
Committee Members: Director Handley and Director Lathi

**AGENDA**  
**Thursday, June 22, 2023**  
**11:30 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*

**THIS MEETING SHALL BE TELECONFERENCECED WITH DIRECTOR LATHI FROM THE GUEST PARKING AREA LOCATED ON OCASO CAMINO, WEST OF AND CLOSEST TO THE INTERSECTION OF PASEO PADRE PARKWAY IN FREMONT, CALIFORNIA. THE TELECONFERENCE LOCATION SHALL BE ACCESSIBLE TO THE PUBLIC.**

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.
  - Alvarado Conference Room
  - Teleconference Location

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4. Items to be reviewed for the Regular Board meeting of June 26, 2023:
  - Consider a Resolution to Accept Construction of the Force Main Corrosion Repairs Project – Phase 3 from Power Engineering Construction Co.
  - Authorize the General Manager to Execute Contract Change Order No. 1 with Wastewater Solids Management for the Cleaning of Primary Digester No. 6 Contract

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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.

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.



**USD** TREAT  
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**REVISED**

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

**LEGAL/COMMUNITY AFFAIRS COMMITTEE MEETING**

Committee Members: Director Kite and Director Lathi

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

**AGENDA**

**Friday, June 23, 2023**

**10:30 A.M.**

Karen W. Murphy  
*Attorney*

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

**THIS MEETING WILL BE TELECONFERENCED WITH DIRECTOR KITE FROM THE EXTERIOR OF 35040 NEWARK BOULEVARD, NEWARK, CALIFORNIA.**

**THE TELECONFERENCE LOCATION SHALL BE ACCESSIBLE TO THE PUBLIC.**

**THIS MEETING SHALL BE TELECONFERENCED WITH DIRECTOR LATHI FROM THE GUEST PARKING AREA LOCATED ON OCASO CAMINO, WEST OF AND CLOSEST TO THE INTERSECTION OF PASEO PADRE PARKWAY IN FREMONT, CALIFORNIA. THE TELECONFERENCE LOCATION SHALL BE ACCESSIBLE TO THE PUBLIC.**

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.

- Alvarado Conference Room
  - Teleconference Location
- 

4. Items to be reviewed for the Regular Board meeting of June 26, 2023:

- May 2023 Monthly Operations Report – Odor and Work Group Reports
  - Residential FOG (Fats, Oils, and Grease) Outreach
- 

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.

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  
June 12, 2023**

**CALL TO ORDER**

President Fernandez called the meeting to order at 4:00 p.m.

**SALUTE TO THE FLAG**

President Fernandez led the salute to the flag.

**ROLL CALL**

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

ABSENT: Tom Handley, Secretary

STAFF: Paul Eldredge, General Manager/District Engineer  
Karen Murphy, District Counsel  
Mark Carlson, Business Services Manager/CFO  
Armando Lopez, Treatment and Disposal Services Manager  
Jose Rodrigues, Collection Services Manager  
Raymond Chau, Technical Services Manager  
Ric Pipkin, Enhanced Treatment and Site Upgrade Program Manager  
Chris Pachmayer, Fabrication, Maintenance, and Construction Coach  
Mitchell Costello, Treatment and Disposal Services Coach  
Curtis Bosick, Capital Improvements Projects Coach  
Michelle Powell, Communications and Intergovernmental Relations Coordinator  
Trieu Nguyen, IT Administrator  
Regina McEvoy, Executive Assistant to the General Manager/Board Clerk

VISITORS: Lela Huenergardt, KBM Hogue  
Leonard Ancona, resident

**APPROVE MINUTES OF THE UNION SANITARY DISTRICT BOARD MEETING OF  
MAY 22, 2023**

It was moved by Director Lathi, seconded by Director Kite, to Approve the Minutes of the Board Meeting of May 22, 2023. Motion carried with the following vote:

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

ABSTAIN: None  
ABSENT: Handley

**APPROVE MINUTES OF THE UNION SANITARY DISTRICT SPECIAL BOARD MEETING OF MAY 23, 2023**

It was moved by Director Lathi, seconded by Vice President Toy, to Approve the Minutes of the Special Board Meeting of May 22, 2023. Motion carried with the following vote:

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

The Board agreed by consensus to move the General Manager's Report to this point in the meeting to allow a guest to address the Board.

**GENERAL MANAGER'S REPORT**

General Manager Eldredge introduced resident Leonard Ancona. Mr. Ancona stated he was appearing before the Board on behalf of his 93-year-old mother, Mrs. Bonhellita Ancona, who had accidentally dropped her wedding ring into her toilet. Mrs. Ancona contacted District staff in the hope they would be able to locate her 74-year-old wedding ring. Mr. Ancona expressed his gratitude to USD Collections Services staff for successfully retrieving the ring.

**WRITTEN COMMUNICATIONS**

There were no written communications.

**PUBLIC COMMENT**

There was no public comment.

**REVIEW AND CONSIDER APPROVAL OF POLICY NO. 2970, SOCIAL MEDIA COMMUNICATIONS POLICY**

This item was reviewed by the Legal/Community Affairs Committee. Communications and Intergovernmental Relations Coordinator Powell stated the District's Social Media Communications Policy, No. 2970, was last approved February 10, 2020. Staff reviewed the Policy and have proposed minor grammatical and clarification edits. Staff recommended the Board review and consider approval of updated Policy No. 2970, Social Media Communications Policy.

Director Lathi requested, and Vice President Toy agreed, the Board revisit the District's social media strategy. General Manager Eldredge stated the topic would be added to a future Board meeting agenda.

It was moved by Director Lathi, seconded by Vice President Toy, to Approve Policy No. 2970, Social Media Communications Policy. Motion carried with the following vote:

AYES: Fernandez, Kite, Lathi, Toy



NOES: None  
ABSTAIN: None  
ABSENT: Handley

**AUTHORIZE THE GENERAL MANAGER TO EXECUTE AN AGREEMENT AND TASK ORDER NO. 1 WITH HAZEN AND SAWYER FOR THE PRIMARY DIGESTER NO. 6 REHABILITATION PROJECT**

This item was reviewed by the Engineering and Information Technology Committee. Technical Services Manager Chau stated Primary Digester No. 6, originally constructed in 1993, was last taken out of service for cleaning and inspection in 2006. While digesters are typically cleaned every eight to ten years, due to capacity constraints, Primary Digester No. 6 could not be taken out of service until Primary Digester No. 7 was constructed and in operation. Task Order No. 1 would authorize Hazen to provide conditional assessment and preliminary design services for the Project, the scope of services was included in the Board meeting packet. Hazen should complete the condition assessment and preliminary design services by Winter 2023, and staff anticipate final design will begin in Winter 2023 to be completed in 2024. Staff recommended the Board authorize the General Manager to execute an Agreement and Task Order No. 1 with Hazen and Sawyer for the Primary Digester No. 6 Rehabilitation Project.

It was moved by Director Lathi, seconded by Director Kite, to Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Hazen and Sawyer for the Primary Digester No. 6 Rehabilitation Project. Motion carried with the following vote:

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

**AWARD A CONTRACT FOR FURNITURE PLANNING, SELECTION, PROCUREMENT, AND INSTALLATION SERVICES TO KBM OFFICE EQUIPMENT FOR THE ENHANCED TREATMENT AND SITE UPGRADE PHASE 1A CAMPUS BUILDING PROJECT**

This item was reviewed by the Budget & Finance Committee. Enhanced Treatment and Site Upgrade Program Manager Pipkin stated the Enhanced Treatment and Site Upgrade Phase 1A will include construction of a new combined Campus Building that will replace current Administration, Control, and Fabrication, Maintenance, and Construction (FMC) buildings. The construction contract for the new building includes furniture that will be permanently installed; remaining furniture needs will be addressed by a combination of reusing existing furniture and purchasing new as needed. A Request for Proposals was issued to seek a qualified consultant to provide furniture planning, selection, procurement, and installation services for the Project. KBM demonstrated effective communication skills and that they have the resources and experience to meet the Project needs. While staff recommended the Board award the contract for the entire scope of work, staff would only proceed with the design portion of the scope at this time. The total not to exceed fee for authorization to commence design services would be \$89,301. The actual costs of procurement, installation, and storage will be determined based on furnishings chosen

for the Project. Staff recommended the Board award a contract to and authorize the General Manager to execute an Agreement with KBM Office Equipment, DBA KBM Hogue, for furniture planning, selection, procurement, and installation services for the Enhanced Treatment and Site Upgrade Phase 1A Campus Building Project and further authorize the General Manager or designee to execute any other documents and take actions necessary to effectuate the terms of the agreement.

It was moved by Vice President Toy, seconded by Director Kite, to Award a Contract to and Authorize the General Manager to Execute an Agreement with KBM Office Equipment, DBA KBM Hogue, for Furniture Planning, Selection, Procurement, and Installation Services for the Enhanced Treatment and Site Upgrade Phase 1A Campus Building Project and Further Authorize the General Manager or Designee to Execute Any Other Documents and Take Actions Necessary to Effectuate the Terms of the Agreement. Motion carried with the following vote:

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

#### **INFORMATION ITEMS:**

##### **Report on the East Bay Dischargers Authority Meeting of May 18, 2023**

Director Lathi provided an overview of the EBDA meeting summary included in the Board meeting packet.

##### **Check Register**

There were no questions regarding the check register.

#### **COMMITTEE MEETING REPORTS:**

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

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

- The recent Alameda Local Agency Formation Commission meeting included a presentation about multi-agency water reuse programs which included a discussion regarding potential regional opportunities to share resources and open communication.
- Washington Hospital will host a family health fair 10:00 a.m. – 2:00 p.m. on Saturday, July 29, 2023. USD will bring two trucks for the “touch a truck” section of the fair.
- District offices will be closed in observance of the Juneteenth holiday on Monday, June 19, 2023.
- General Manager Eldredge stated a significant number of blue plastic bags have been causing damage at the District’s Boyce Pump Station. Environmental Compliance staff have been conducting extensive outreach in the area to find the source of the blue plastic bags.

**OTHER BUSINESS:**

There was no other business.

**ADJOURNMENT:**

The meeting was adjourned at 4:36 p.m. to the next Regular Board Meeting to be held in the Boardroom on Monday, June 26, 2023, at 4:00 p.m.

SUBMITTED:

ATTEST:

\_\_\_\_\_  
REGINA McEVOY  
BOARD CLERK

\_\_\_\_\_  
TOM HANDLEY  
SECRETARY

APPROVED:

\_\_\_\_\_  
MANNY FERNANDEZ  
PRESIDENT

Adopted this 26<sup>th</sup> day of June 2023



# Union Sanitary District

## Monthly Operations Report May 2023



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## 2023 MONTHLY OPERATIONS REPORT

The October 2023 Monthly Operations Reports highlights the District's performance in the following areas:

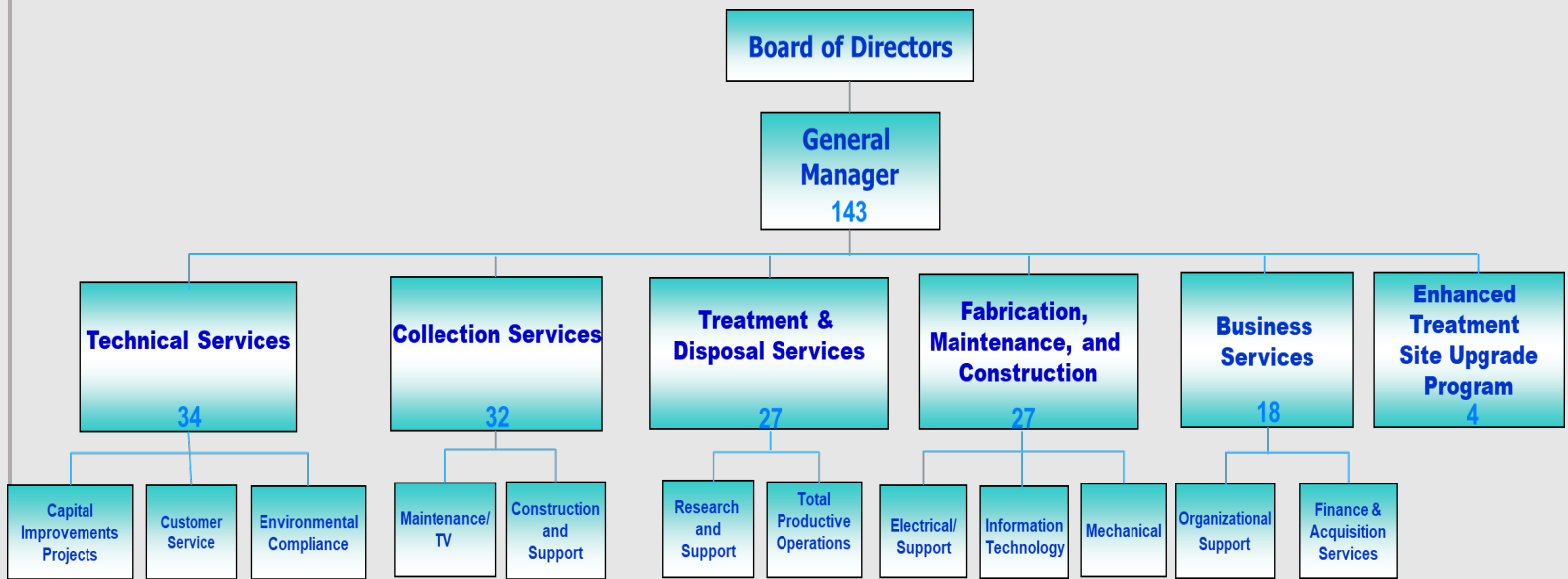
- **Organizational Overview**
- **Financial Reports**
  - Budget and Finance Report
  - Investment Portfolio
  - Portfolio Holdings by Asset Class and by Maturity Range
- **Customer Relations**
  - Odor Investigations and Response
  - Service Request and Response
  - Communication and Outreach
- **Plant Operations**
- **Maintenance Report**
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  - Studies and Designs
- **Permitting and Inspections**
- **Staffing and Personnel**



# Organizational Overview

## 2023 MONTHLY OPERATIONS REPORT

**Union Sanitary District** operates a 33-acre wastewater treatment facility in Union City and provides collection, treatment, and disposal services to a total population of over 356,000 in Fremont, Newark and Union City, California. The District maintains over 839 miles of underground pipeline in its service area.



### Executive Team

Paul Eldredge	General Manager/District Engineer	Oversees District operations and liaison to the Board of Directors
Mark Carlson	Business Services/CFO	Includes Finance, Purchasing, Human Resources, and Safety
Jose Rodrigues	Collection Services	Maintains, and repairs the sewer lines and manholes throughout the service area
Raymond Chau	Technical Services	Permits and inspections, pretreatment program, and capital improvements
Armando Lopez	Treatment and Disposal Services	Operates the treatment plant, process and analyze wastewater samples
Robert Simonich	Fabrication, Maintenance, and Construction	Information technology, equipment installation, service, repair for the plant and pump stations



# Financial Report

# 2023 MONTHLY OPERATIONS REPORT

## Total Revenues and Expenditures

FY 2023

Year-to-date as of 5/31/23

92% of year elapsed

### Revenues

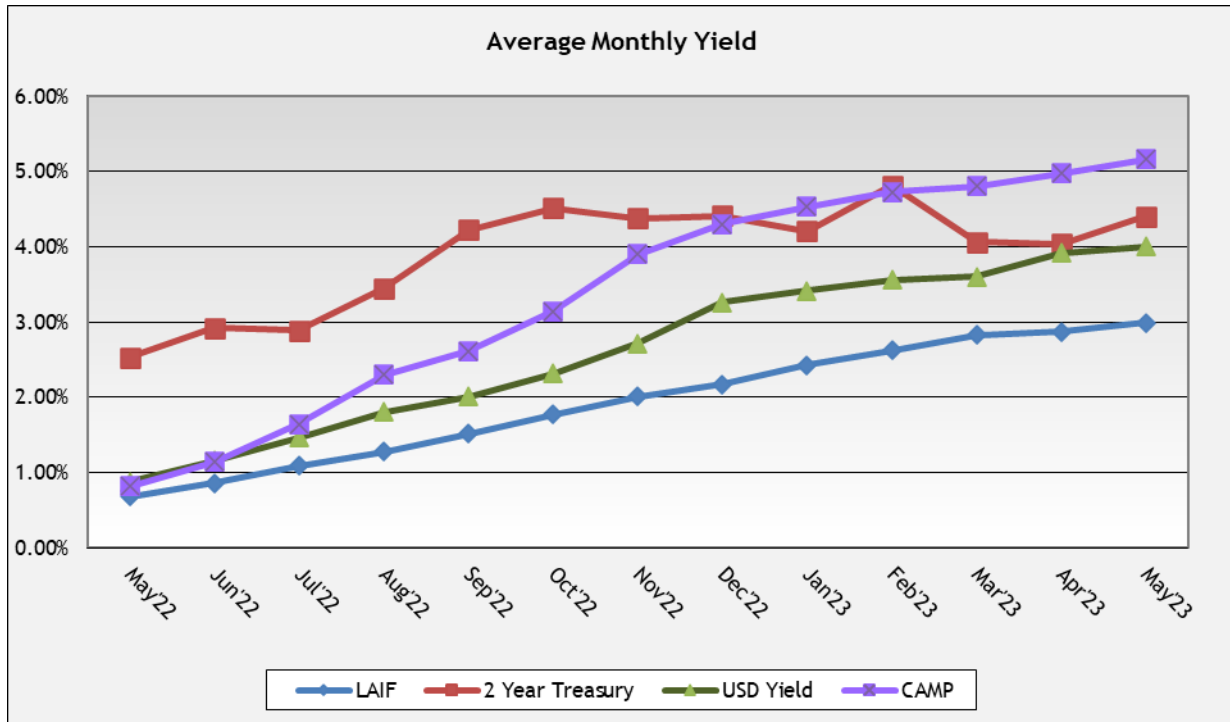
	Budget	Actual	% of Budget Rec'd	Audited Last Year Actuals 6/30/22
Capacity Fees	\$ 7,467,000	\$ 5,126,308	69%	\$ 11,145,152
Sewer Service Charges	76,965,000	74,166,781	96%	73,822,317
Operating (Includes work groups and fund 85)	1,234,500	1,201,837	97%	1,307,546
Interest	1,385,000	5,080,348	367%	1,122,856
Misc. (Annex fees, forfeited deposits)	-	644,346	0%	1,607,370
<b>Subtotal Revenues</b>	<b>\$ 87,051,500</b>	<b>\$ 86,219,621</b>	<b>99%</b>	<b>\$ 89,005,242</b>
Bond Proceeds	-	-	0.0%	110,317,768
<b>Total Revenues + Bond Proceeds</b>	<b>\$ 87,051,500</b>	<b>\$ 86,219,621</b>	<b>99%</b>	<b>\$ 199,323,010</b>

### Expenses

	Budget	Actual	% of Budget Used	Audited Last Year Actuals 6/30/22
Capital Improvement Program:				
Capacity Proj.	\$ 15,624,000	\$ 7,085,695	45%	\$ 11,721,479
Renewal & Repl. Proj.	53,206,200	43,125,190	81%	14,840,229
Operating (includes fund 85)	50,509,850	42,845,744	85%	41,198,447
Special Projects	3,238,000	798,594	25%	1,002,174
Retiree Medical (ADC)	1,400,000	1,315,335	94%	- 27,870
115 Pension Trust	3,000,000	-	0%	3,000,000
Vehicle & Equipment	171,000	176,662	103%	-
Information Systems	1,207,500	430,163	36%	356,115
Plant & Pump Stat. R&R	400,000	206,494	52%	327,272
Emerg. Fund	-	-	0%	-
Cty Fee for SSC Admin.	113,000	112,512	100%	111,726
Debt Servicing:				
SRF Loans	-	-	0%	7,982
Bonds	9,017,480	9,693,038	107%	7,478,302
WIFIA	-	17,000	0%	363,040
<b>Total Expenses</b>	<b>\$ 137,887,030</b>	<b>\$ 105,806,426</b>	<b>77%</b>	<b>\$ 80,378,897</b>
<b>Total Revenue &amp; Proceeds less Expenses</b>	<b>\$ (50,835,530)</b>	<b>\$ (19,586,806)</b>		<b>118,944,113</b>

# Investment Portfolio

## Performance Measures for the USD Investment Portfolio



	Jan'23	Feb'23	Mar'23	Apr'23	May'23
<b>LAIF</b>	<b>2.43%</b>	<b>2.62%</b>	<b>2.83%</b>	<b>2.87%</b>	<b>2.99%</b>
<b>2 Year Treasury</b>	<b>4.21%</b>	<b>4.81%</b>	<b>4.06%</b>	<b>4.04%</b>	<b>4.40%</b>
<b>USD Yield</b>	<b>3.42%</b>	<b>3.56%</b>	<b>3.60%</b>	<b>3.91%</b>	<b>4.00%</b>
<b>CAMP</b>	<b>4.53%</b>	<b>4.73%</b>	<b>4.80%</b>	<b>4.97%</b>	<b>5.16%</b>

LAIF: Local Agency Investment Fund Yield

2 Year Treasury: Yield for investing in 2-Year U.S. Treasury security

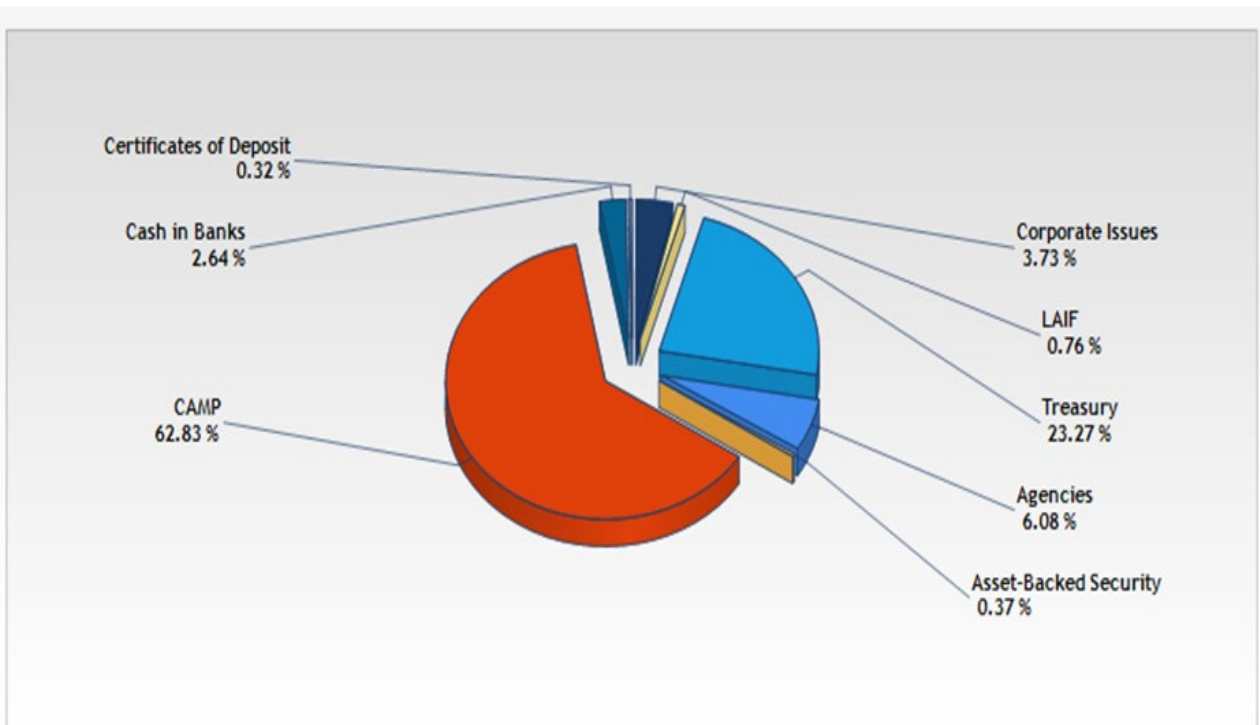
USD Yield: Summarizes USD portfolio's yield

CAMP: California Asset Management Program Yield

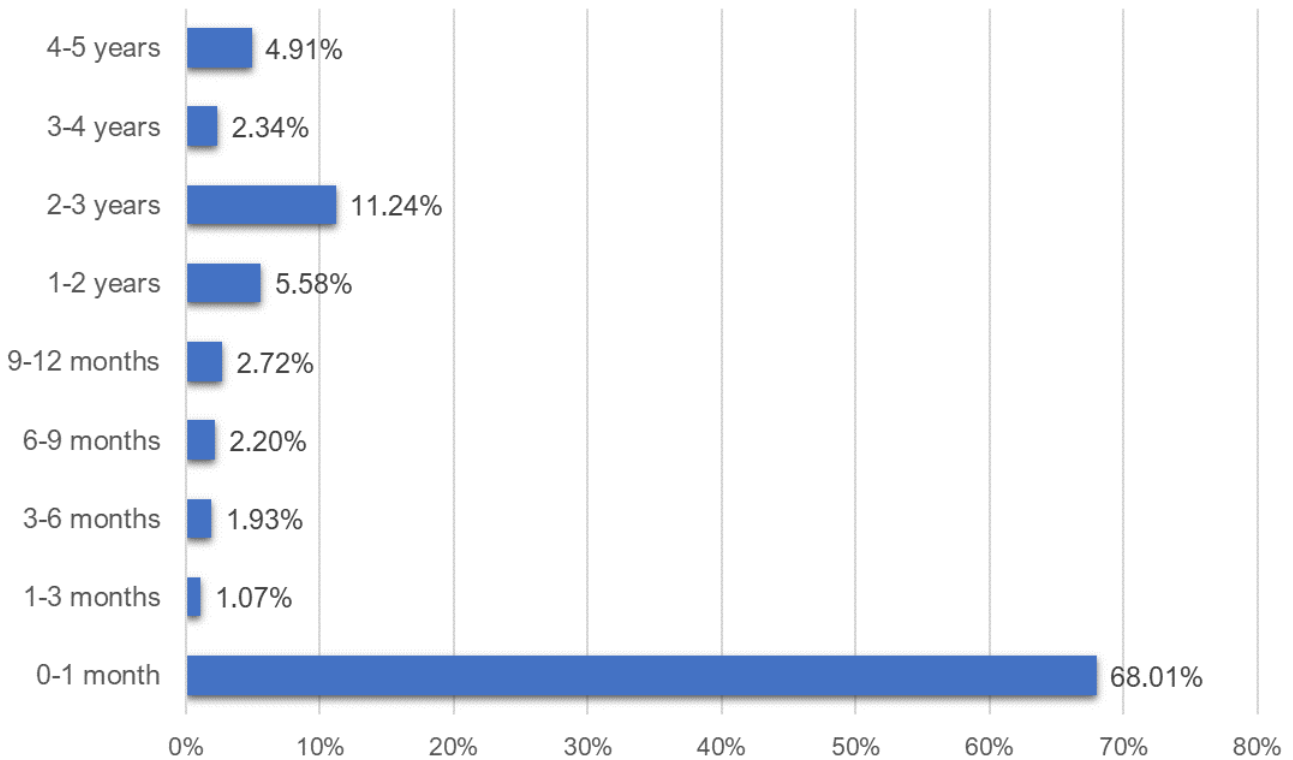


# Portfolio Holdings by Asset Class and by Maturity Range

## Portfolio Holdings Distribution by Asset Class



## Portfolio Holdings Distribution by Maturity Range

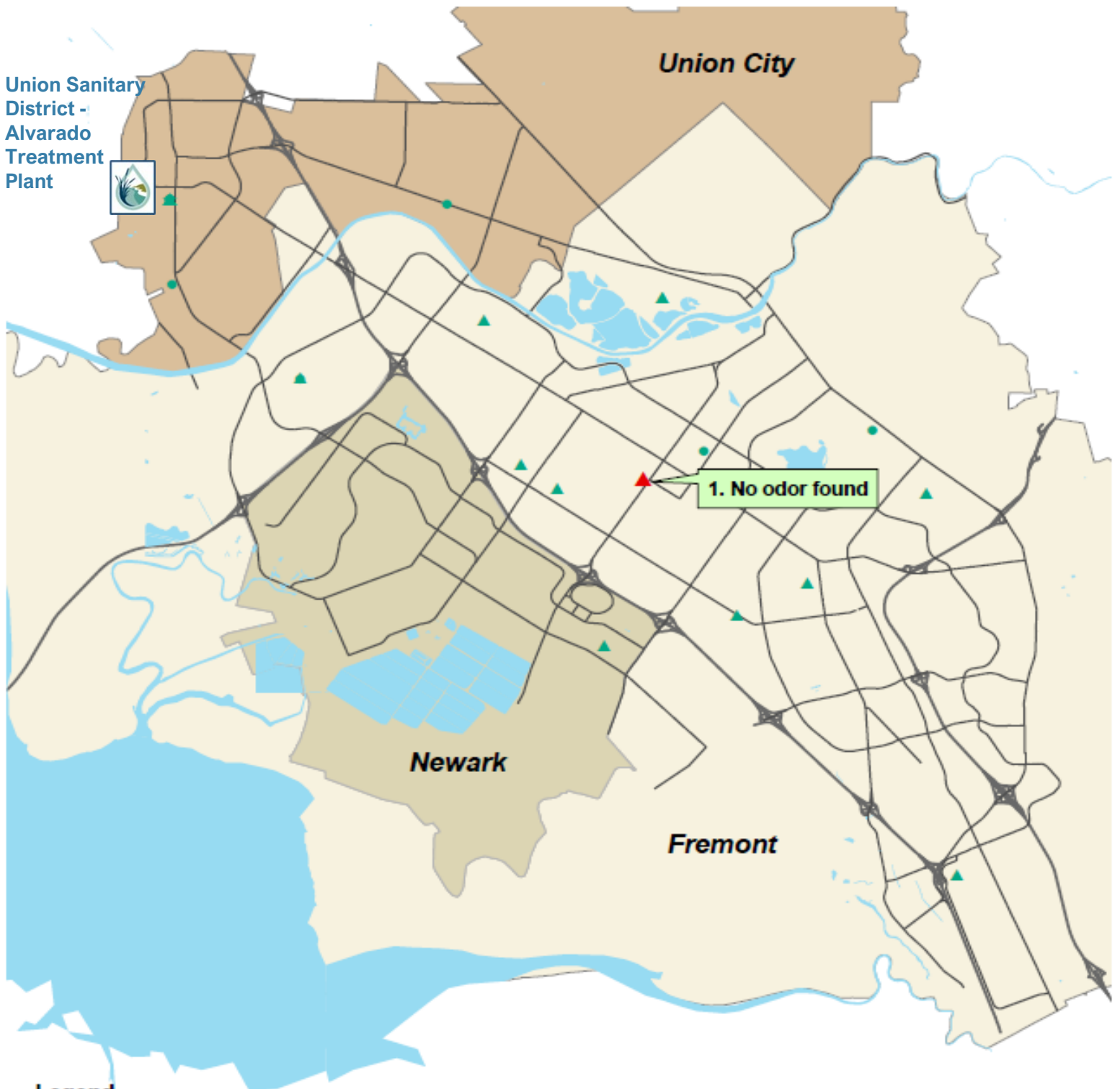


## Union Sanitary District Odor Map and Report

During the recording period between May 1, 2023 through May 31, 2023, there was 1 odor related service request(s) received by the District.

<b>City</b>	Fremont		
<b>District Related:</b>	No	<b>Date/Time:</b>	5/17/2023 10:32AM
<b>Location:</b>	Marie Court	<b>Reported by:</b>	Vinay Naik
<b>Weather/Temp:</b>	Clear Sunny / 73°F	<b>Wind:</b>	West / 10 mph
<b>Response and Follow-up:</b> Caller reported experiencing bad odors in their home after running the bathtub. Lateral line was recently replaced and the water heater lines were drained. A USD Trouble Call Inspector reported to the location and conducted a visual inspection of the area. No smell was detected upon arrival, nor was there any evidence of unsanitary or odor causing conditions. The inspector checked the U/S and D/S manholes, storm manhole and storm D/I. no backup or odor detected anywhere in the area. Odor may be caused by indoor plumbing issues.			

# Union Sanitary District Odor Map and Report



Union Sanitary District - Alvarado Treatment Plant



## Legend

### Odor Complaints: May 2023

- ★ Odor found, USD resolved (0)
- Odor found, not related to USD (0)
- ▲ No odor found (1)

### Odor Complaints: Jun. 2022 to Apr. 2023

- ★ Odor found, USD resolved (1)
- Odor found, not related to USD (10)
- ▲ No odor found (21)

## Location of Odor Reports June 2022 to May 2023





# Customer Relations

## 2023 MONTHLY OPERATIONS REPORT

### Customer Service Response

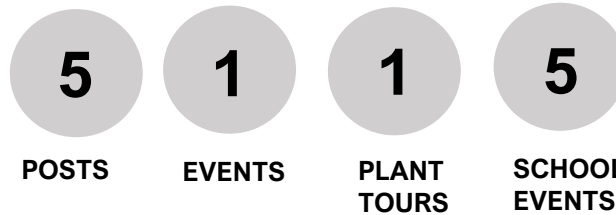
#### Front Desk Trouble Calls

Service calls that require immediate attention to support customer needs. Dispatched from the Front Desk during business hours.

Total Calls	Fremont	Newark	Union City	Total
May-23	6	1	3	10
Apr-23	13	0	2	15
Mar-23	14	5	1	20
Feb-23	9	2	2	13
Jan-23	15	3	2	20
Dec-22	10	1	0	11
6 Month Total				89
May-22	10	1	1	12

### Communication and Outreach

Includes participation in local events, social media communication, plant tours, and school outreach events.



#### Social Media Posts:

- ETSU Campus Topping Ceremony
- Don't Flush Medicines
- National Infrastructure Week – ETSU Aeration Basins photo
- ALCO Science Fair winners recognition at ACWD headquarters
- Memorial Day Office closure

#### Events:

- Certificates of Merit event
- Plant tour for Tesla staff after Certificates of Merit ceremony

#### Other Activities:

- Tri-City Communications representatives quarterly check-in
- Union City "Chamber Cares" community cleanup
- Union City Chamber of Commerce Board meeting participation



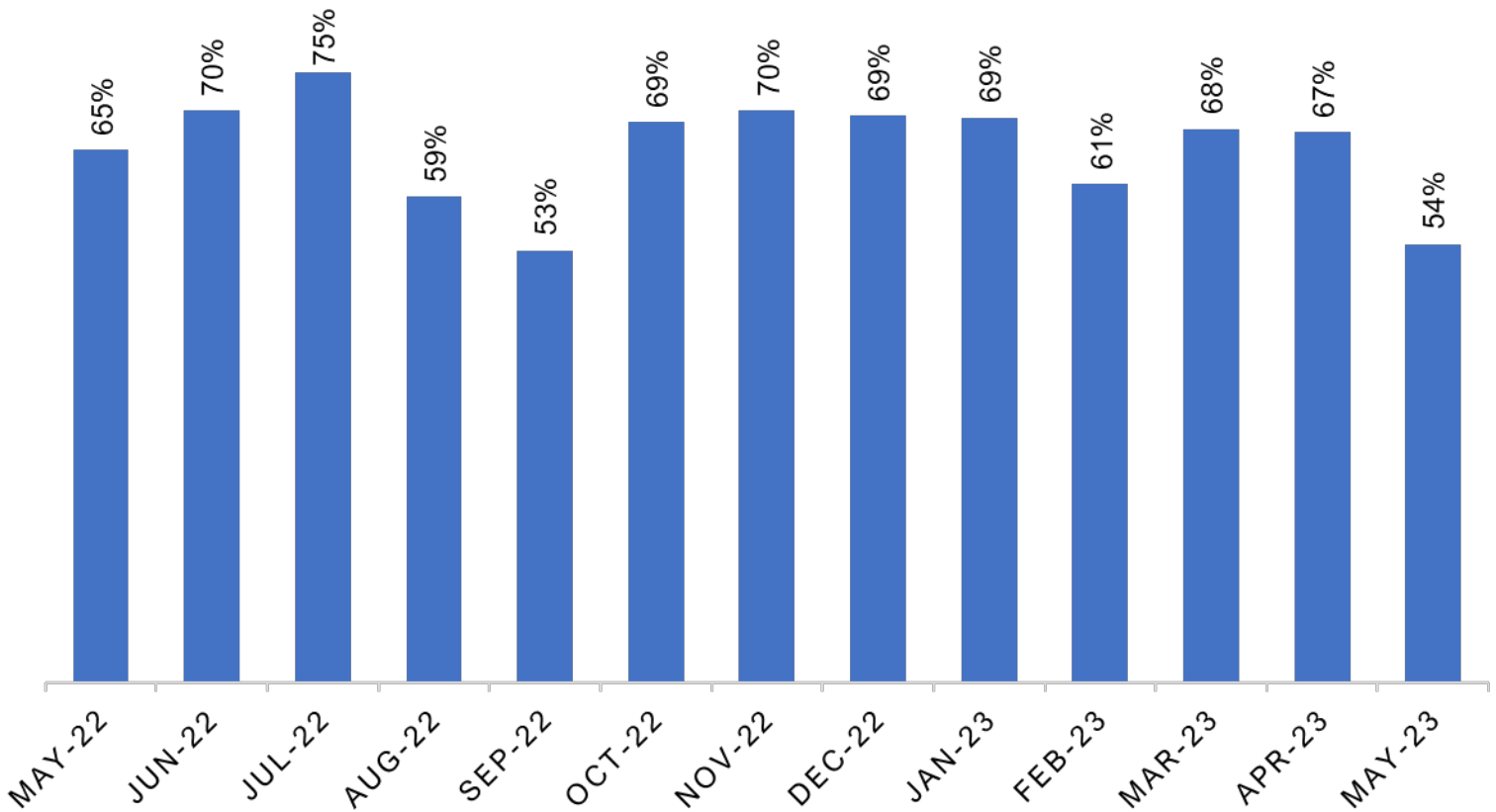
# Plant Operations

## 2023 MONTHLY OPERATIONS REPORT

### Cogeneration Engines at USD's Wastewater Treatment Plant

The chart below shows the percentage of Plant power usage generated by the District's cogeneration (cogen) engines monthly. The engines use biogas produced by the wastewater treatment process as the primary fuel to generate the majority of the plant's power needs, reducing operating costs.

Cogen Power Produced (% of total Plant load)



Mechanics working on the cogeneration engine



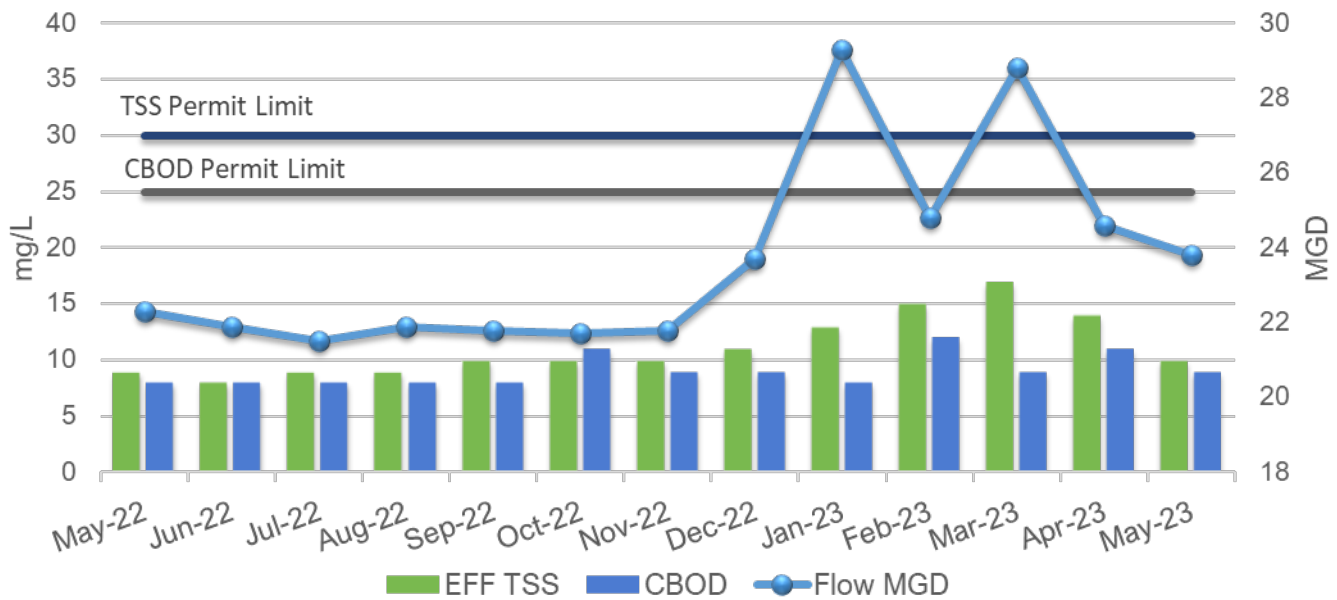
# Plant Operations

## 2023 MONTHLY OPERATIONS REPORT

### Lab Monitoring Results

USD's laboratory staff process over 6,200 samples and perform about 17,000 analyses every year to ensure discharges from the plant meet necessary standards.

Lab Results and Effluent Flow



**EFF SS:** Effluent Suspended Solids     **CBOD:** Carbonaceous Biochemical Oxygen Demand     **MGD:** Million Gallons per Day

### USD's Final Effluent Monthly Monitoring Results

Parameter	Permit Limit	Mar-23	Apr-23	May-23
Copper, µg/l	53	5.6	5.6	4.3
Mercury, µg/l	0.066	NA	NA	E 0.0038
Cyanide, µg/l	20	ND 0.9	ND 0.9	ND 0.9
Ammonia- N, mg/L (Range)	86	31 - 45	33 - 44	43 - 45
Fecal Coliform, MPN/100ml (Range)				
• 5-Day Geometric Mean	500	47 - 70	47 - 72	52 - 104
• 11-Sample 90th Percentile	1100	78 - 86	89 - 93	93 - 199
Enterococci				
• 6-Week Geometric Mean	280	52	70	58

E = Estimated Value, concentration outside Calibration Range. ND = Not Detected, result is below Detection Limit.



# Maintenance Report

## 2023 MONTHLY OPERATIONS REPORT

### Collection System Performance Report

#### Average Spills per 100 Miles of Sewer Over the Last 12 Months USD vs. Regional vs. State

**NO DATA AVAILABLE FOR MAY 2023**

**NOTE:** During the month of June and at the time of publication, the California State Water Resources Control Board spill reporting tool on their website was not operational. We were unable to pull the spill data for May 2023. The state has been made aware of the issue and have not yet responded.

#### Definition of Spill Categories

- Category 1: 1,000 gallons or more. Discharges to surface water, not fully captured.
- Category 2: 1,000 gallons or more. Does not reach surface water, not fully captured.
- Category 3: 1,000 gallons or less. Does not reach surface water, fully captured.

#### Collection System Maintenance Work Completed

The Collection Services Workgroup maintains over 839 miles of gravity sewer through cleaning and televised inspection. They also service 63 District vehicles and maintain 3 buildings. Maintenance of equipment is completed by staff through sewer line repairs and work orders.

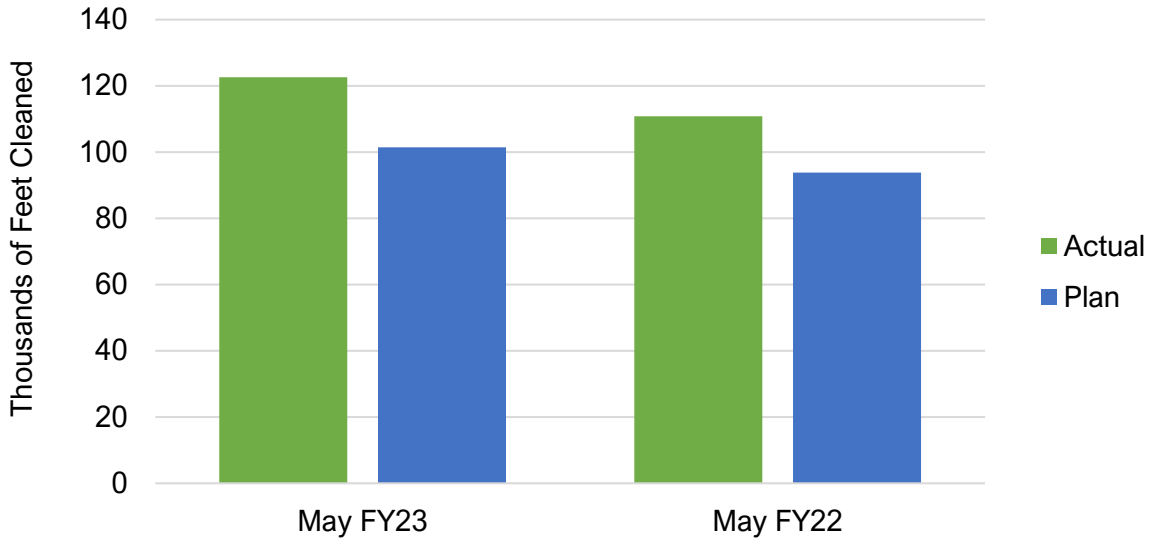
	This Month	Fiscal Year to Date	Historical Monthly Average
Sewer Line Repairs - # of Open Trench	0	0	2
Sewer Line Repairs - # of Trenchless	6	185	14
Work Orders Completed on Vehicles and Buildings	274	2339	171



# Maintenance Report

## 2023 MONTHLY OPERATIONS REPORT

### Sewer Line Cleaning



**Cleaning Cost per Foot=\$0.86**

Description	FY23 Q1 Footage	FY23 Q2 Footage	FY23 Q3 Footage	Apr-23 Footage	May-23 Footage	FY23 YTD Footage	Historical FY22 Footage	FY23 YE Goal	% Completed to Plan
84 Month Hydro-Jet Clean	164,544	122,926	164,865	54,431	67,007	506,766	654,851	579,314	87.5%
Selective Line Cleaning	31,441	122,926	70,097	15,355	15,279	168,671	196,114	221,641	76.1%
Special Condition Clean (not in total)	1,390	4,184	8,140	490	3,864	14,204	32,029	28,940	49.1%
Root Control/Chemical Clean	42,723	161,568	126,767	45,052	40,337	320,841	320,841	410,502	78.2%
Cast Iron Cleaning	1,270	5,508	720	-	-	7,498	-	6,293	
<b>Totals</b>	<b>239,978</b>	<b>341,780</b>	<b>362,449</b>	<b>114,838</b>	<b>122,623</b>	<b>1,181,668</b>	<b>1,171,806</b>	<b>1,217,750</b>	<b>97.0%</b>

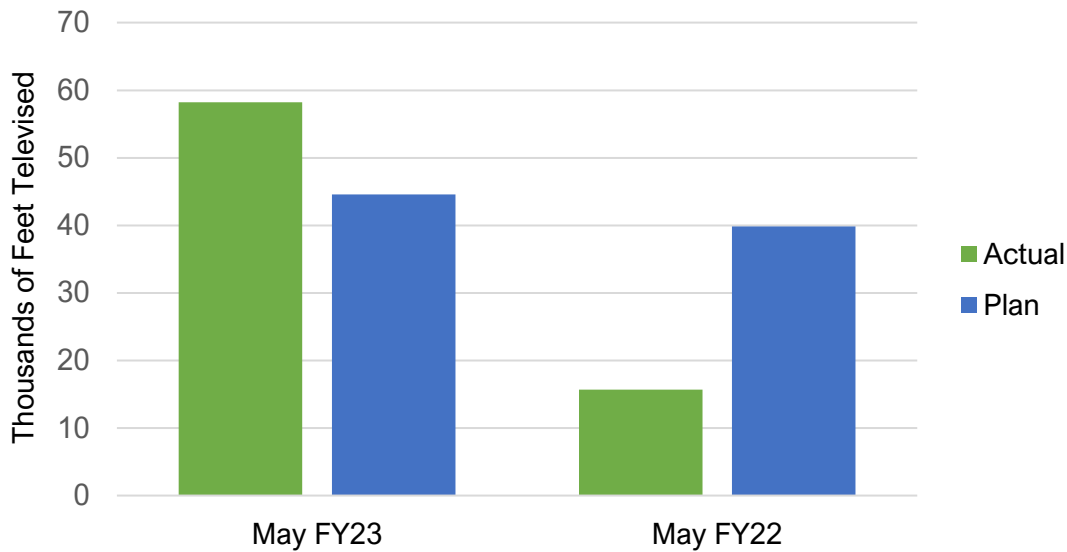




# Maintenance Report

## 2023 MONTHLY OPERATIONS REPORT

### Sewer Line Inspection and Televising



Televising Cost per Foot=\$1.00									
Description	FY23 Q1 Footage	FY23 Q2 Footage	FY23 Q3 Footage	Apr-23 Footage	May-23 Footage	FY23 YTD Footage/Count	Historical FY22 Footage/Count	FY23 Goal	% Completed to Plan
84 Month TV Inspection	108,880	120,029	122,345	30,824	58,249	440,327	481,639	477,964	92.1%
84 Month Manhole Inspection Count	525	297	539	306	266	1,933	1,163	2,468	78.3%
Visual/Condition, Pre/Post Cnst TV (not in total)	-	-	10,483	-	-	10,483	1,793	11,704	89.6%
Visual Manhole Inspection Count (not in total)	79	26	30	3	24	162	329	-	-
New Development, CIP, Misc (not in total)	1,507	6,394	12,087	2,360	1,543	23,891	33,140	34,056	70.2%
QA/QC Line Condition	-	-	16,436	-	-	16,436	19,201	16,074	102.3%
QA/QC Root Control	20,286	2,064	-	-	-	41,050	22,270	41,108	99.9%
<b>Totals</b>	<b>129,166</b>	<b>140,793</b>	<b>138,781</b>	<b>30,824</b>	<b>58,249</b>	<b>497,813</b>	<b>523,110</b>	<b>535,146</b>	<b>93.0%</b>

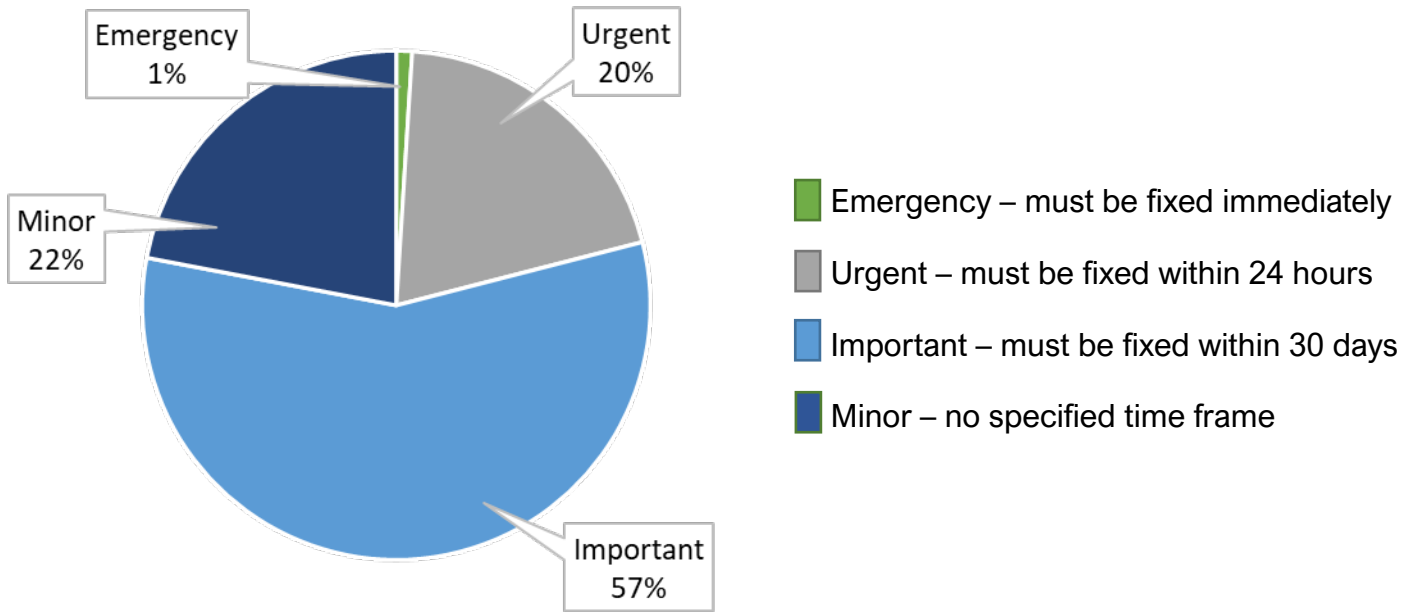


# Maintenance Report

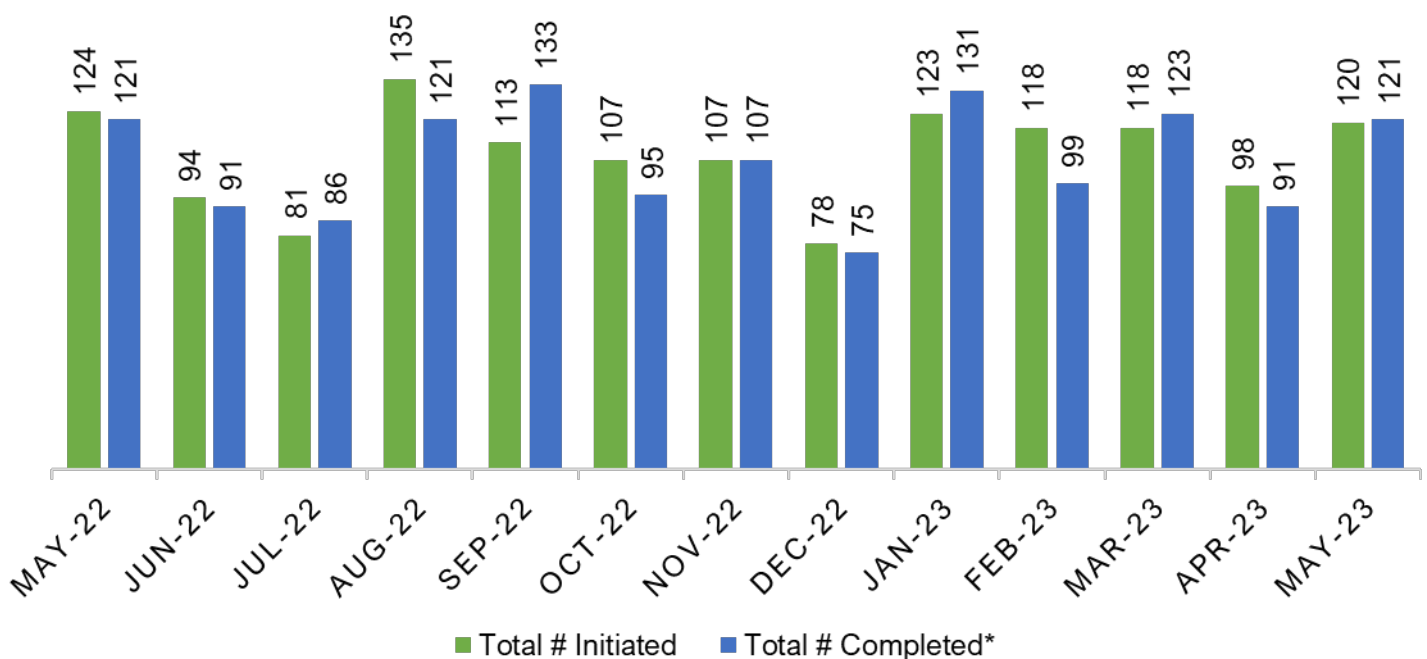
## 2023 MONTHLY OPERATIONS REPORT

### Plant and Pump Stations Maintenance Work Completed

Equipment at our Plant and Pump/Lift stations is maintained by mechanics and other staff through completion of work orders. Staff completed 98.49% of preventative maintenance activities for the month in addition to the following shown below.



### Work Orders Initiated and Completed



\*The number of work orders completed in a month is dependent upon several factors including the availability of necessary parts and the amount of time required by staff to accomplish a given task.



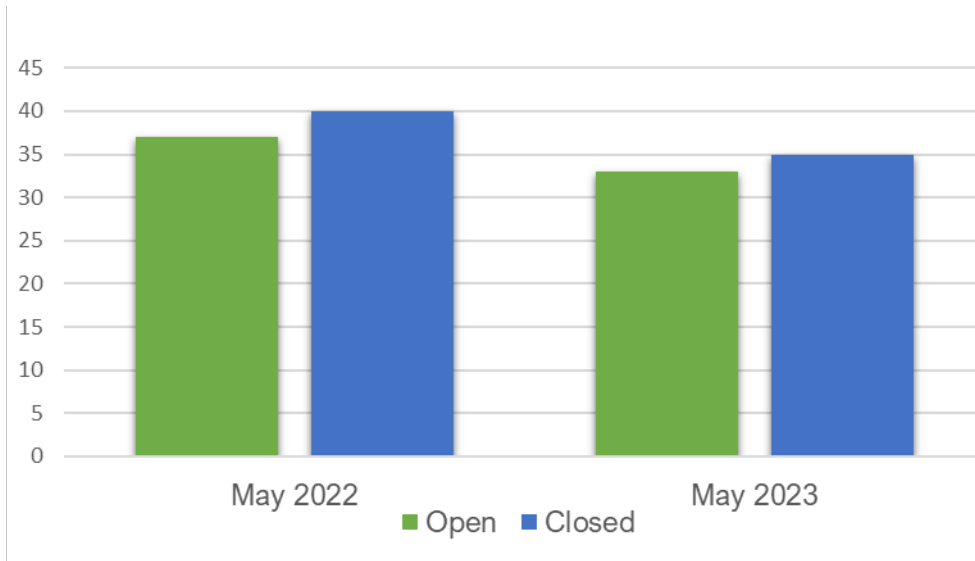
# Maintenance Report

## 2023 MONTHLY OPERATIONS REPORT

### Information Technology

USD’s Information Technology (IT) staff install, upgrade, and maintain District computers and software systems. IT staff responsibilities include ongoing maintenance of systems critical to operation of our wastewater treatment plant and pump stations.

#### IT Help Desk Tickets



#### Managed and Hosted IT Asset Uptime

Asset Name	USD Managed or Hosted by Third Party	% Up time
USD Website	Hosted	99.98%
Email Server	Hosted	100%
Newark Pump Station	USD Managed	100%
Boyce Pump Station	USD Managed	100%
Irvington Pump Station	USD Managed	100%
SCADA	USD Managed	100%
Total Average of All USD Servers	USD Managed	99.99%

The majority of our IT network assets are maintained onsite by IT staff with an uptime target of 99.90%. Additional assets, such as the USD website, are hosted externally by a third party.



# Capital Improvement Projects

## 2023 MONTHLY OPERATIONS REPORT

### Capital Improvement Project (CIP) Activities

Our engineers manage and coordinate project activities including completion of studies, designing of future projects, and project management of construction work at our Plant, Pump Stations, gravity sewer network, and Force Mains.

### Current CIP Projects – Budget and % complete

Current (FY23) CIP Projects	Budget (\$1,000)	Spent to Date (\$1,000)	Scheduled Completion	Completed Scope
1 – Alvarado Influent Pump Station Improvements Project	\$9,028	\$8,420	11/21	99%
2 – Force Main Corrosion Repairs Project – Phase 3	\$1,064	\$1,058	10/22	99%
3 – Irvington Basin Reinforced Concrete Pipe Rehabilitation Project	\$5,291	\$5,205	12/22	98%
4 – Plant Miscellaneous Improvements Project	\$5,544	\$0	9/24	0%
5 – Primary Digester No. 7 Project	\$23,783	\$22,901	5/22	99%
6 – Standby Power Generation System Upgrade Project	\$21,135	\$4,651	6/24	22%



**Standby Power Generation System Upgrade Project**



# Capital Improvement Projects

## 2023 MONTHLY OPERATIONS REPORT

### Design Phase – Budget and % of Completed Scope

Current (FY23) Design Phase	Budget (\$1,000)	Spent to Date (\$1,000)	Scheduled Completion	Completed Scope
1 – Force Main Corrosion Repairs Project – Phase 4	\$68	\$54	3/23	90%
2 – Pump Stations Chemical System Improvements Project	\$943	\$655	12/23	70%
3 – Switchboard No. 3 and MCC No. 25 Replacement Project	\$95	\$71	7/22	75%
4 – WAS Thickener Replacement Project	\$1,017	\$908	6/23	89%

### Study Phase – Budget and % of Completed Scope

Current (FY23) Study Phase	Budget (\$1,000)	Spent to Date (\$1,000)	Scheduled Completion	Completed Scope
1 – Alvarado Basin Capacity and Condition Assessment	\$70	\$0	12/23	5%
2 – Cogeneration Replacement and Ventilation Study	\$142	\$135	7/22	95%
3 – Digester Efficiency Study	\$353	\$36	11/23	10%
4 – Energy Resiliency Study	\$256	\$256	12/22	98%
5 – Force Main Condition Assessment	\$121	\$36	10/22	60%
6 – Headworks Degritting Study	\$200	\$189	10/22	97%
7 – Primary Digester No. 8 Feasibility Study	\$111	\$132	9/22	90%
8 – Pump Stations Condition Assessment Study	\$250	\$218	8/22	98%
9 – Sea Level Rise Study	\$162	\$158	11/22	98%
10 – Thermal Dryer Feasibility Study	\$128	\$127	7/22	98%



# Permitting and Inspections

## 2023 MONTHLY OPERATIONS REPORT

### Sewer Permits Issued

Permits issued upon approved completed plans.

Month	Repairs	Mains	New Laterals*	Secondary Units	Restaurants	Other**	Total
May-23	28	0	34	12	1	1	76
Apr-23	26	0	6	8	1	3	44
Mar-23	20	2	37	5	0	3	67

\*New Laterals- New residential lateral connections

\*\*Other- Non-residential construction (except restaurants)

### Storm Water Inspections (City of Fremont)

Under contract with City of Fremont's Environmental Services Group, our inspectors conduct routine inspections and document enforcement actions.

Total Inspections		Total Monthly Enforcements						Total
Current Month	Fiscal Year to Date	Verbal Warning	Warning Letter	Notice of Violation	Admin Fine	Legal Action	Notice of Deficiency	
101	972	6	0	5	5	0	0	16

### Pollution Prevention Inspections

Environmental Compliance conducts pollution prevention inspections at restaurants, car wash businesses, and other commercial facilities.

Total Inspections		Total Monthly Enforcements						Total
Current Month	Fiscal Year to Date	Verbal Warning	Warning Letter	Notice of Violation	Admin Fine	Legal Action	Notice of Deficiency	
79	652	8	6	0	0	0	1	15

### Permitted Industrial Businesses

City	Industrial Permits
Fremont	57
Newark	12
Union City	12

Examples of Permitted Industrial Businesses:

- Tesla
- Washington Hospital
- US Pipe
- Western Digital
- Lam Research



# Staffing and Personnel

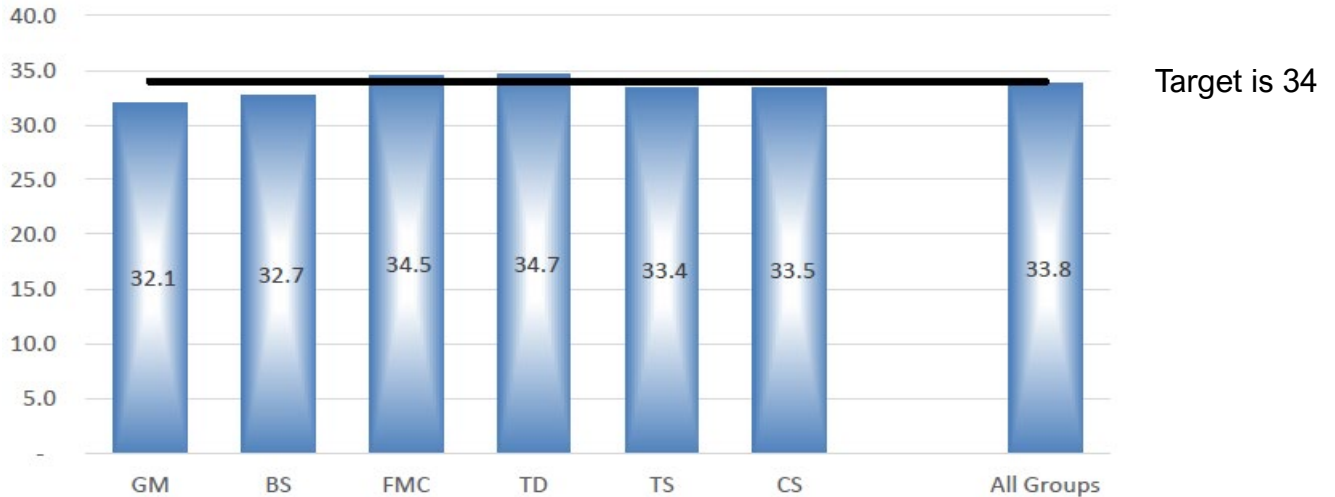
## 2023 MONTHLY OPERATIONS REPORT

### Hours Worked and Leave Time by Work Group

June 23, 2022 through May 24, 2023

Weeks to Date 48 out of 52 (92.31%)

**At-Work Hours Per Employee Per Week**



**Average Annual Sick Leave Used Per Employee Per Date**



### Recruitments

Position	Position Posted	Status
Plant Operator III Trainee – Limited Duty	3/22/2023	Raman Bains – DOH 5/1/2023
Organizational Support Coordinator I	2/1/2023	Nasiha Rahman – DOH 5/8/2023
Accounting and Financial Analyst I/II	4/17/2023	In progress
Junior/Assistant/Associate Engineer – CIP	4/20/2023	In progress
Quality Assurance Chemist	4/21/2023	In progress



**USD**  
TREAT  
PROTECT  
PRESERVE  
est. 1918  
**TRI-CITY WASTEWATER**

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

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

Karen W. Murphy  
*Attorney*

**JUNE 26, 2023  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 5.b**

**TITLE:** Fiscal Year 2023 Third 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 3<sup>rd</sup> Quarter of Fiscal Year 2023 (ending March 31, 2023).

This reporting format is intended to supplement the existing Monthly Operations Report provided by Staff for the months of January, February, and March of 2023 and includes the following sections, which will be presented in detail:

- Market Update
- Account Summary
- Portfolio Review
- 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 March 31, 2023.



# UNION SANITARY DISTRICT

## Investment Performance Review For the Quarter Ended March 31, 2023

### Client Management Team

Monique Spyke, Managing Director  
Joseph Creason, Portfolio Manager  
Jeremy King, Key Account Manager  
Rachael Miller, Client Consultant

### PFM Asset Management LLC

1 California Street Ste. 1000  
San Francisco, CA 94111-5411  
415-393-7270

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

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# Agenda

- Market Update
- Account Summary
- Portfolio Review

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# Market Update

## Current Market Themes



- ▶ The U.S. economy is characterized by:
  - ▶ Lingering inflation that remains well above the Fed's long-term inflation target
  - ▶ A labor market showing the first signs of moderation
  - ▶ Greater economic uncertainty following the surprise failure of Silicon Valley Bank and Signature Bank



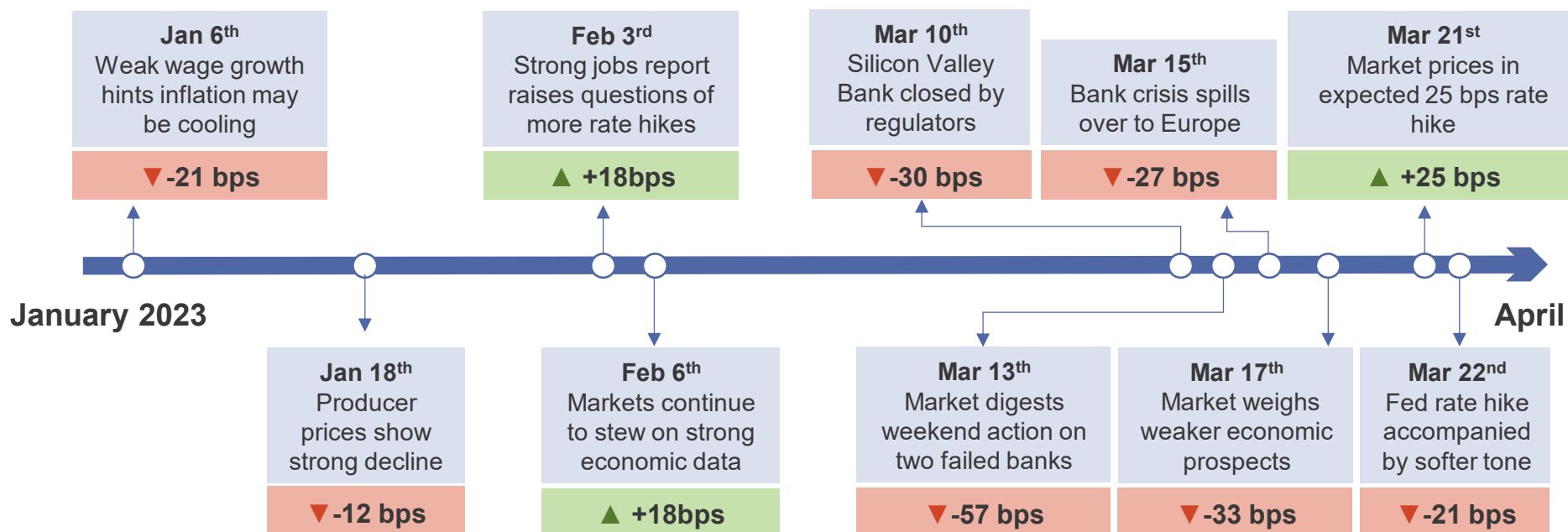
- ▶ Fed policy tightening may be nearly complete
  - ▶ The most recent FOMC statement noted that “some additional policy firming may be appropriate,” but the need for more rate hikes has become less clear
  - ▶ Although the Fed acknowledged the impact of the recent bank failures, their March updated Summary of Economic Projections were little changed from December
  - ▶ The Fed has maintained that they will keep rates elevated for some time, but the market is pricing in rate cuts beginning mid-year



- ▶ Bond markets saw unprecedented volatility in March
  - ▶ In a classic “flight to quality,” Treasury yields fell sharply, with the 2-year Treasury yield falling from 5.07% on March 8, to under 4.00% on March 17
  - ▶ The curve inversion from 3 months to 10 years reached the deepest levels in over 40 years
  - ▶ Credit yield spreads widened, especially those on banks, but not nearly to levels seen during the global financial crisis

## Market Events Drive Large Yield Moves

### Major Economic and Market Events and the Daily Change in the 2-Year U.S. Treasury Yield



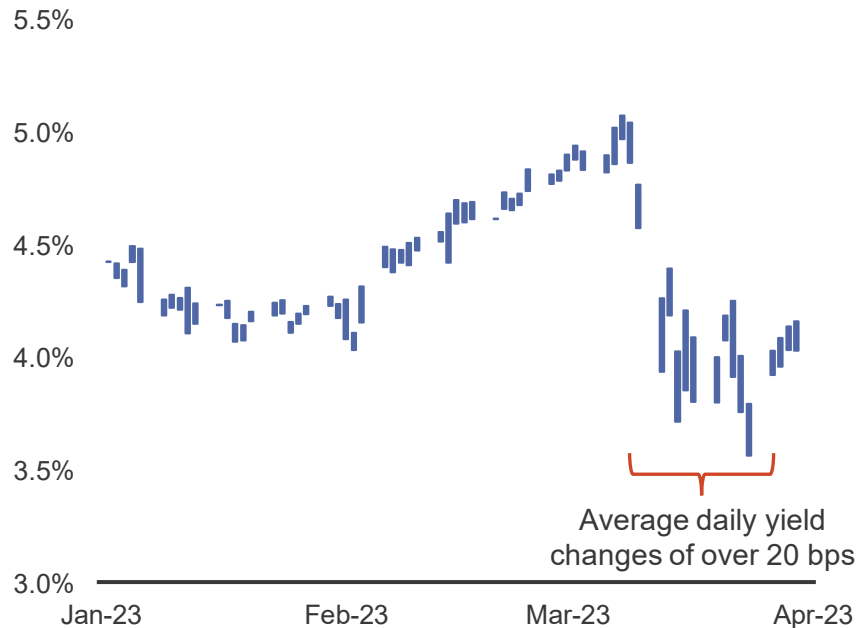
▼/▲ Changes in 2-Year Treasury

## Bond Markets Saw Unprecedented Volatility in March

The surprise failure of two large U.S. banks caused volatility in the markets. In a classic “flight to quality,” Treasury yields fell sharply, with the 2-year Treasury yield falling from 5.07% on March 8, to 4.03% on March 31.

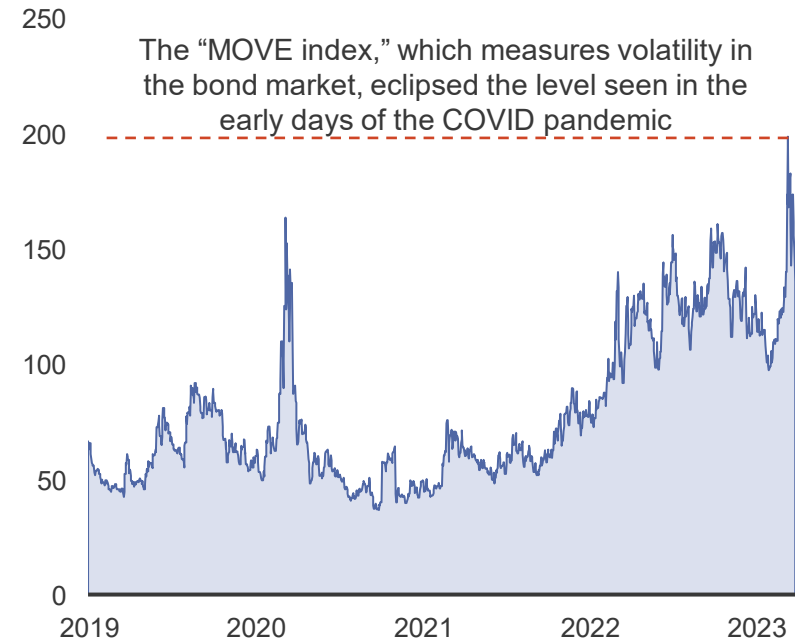
### 2-Year Treasury

Daily High and Low Yield



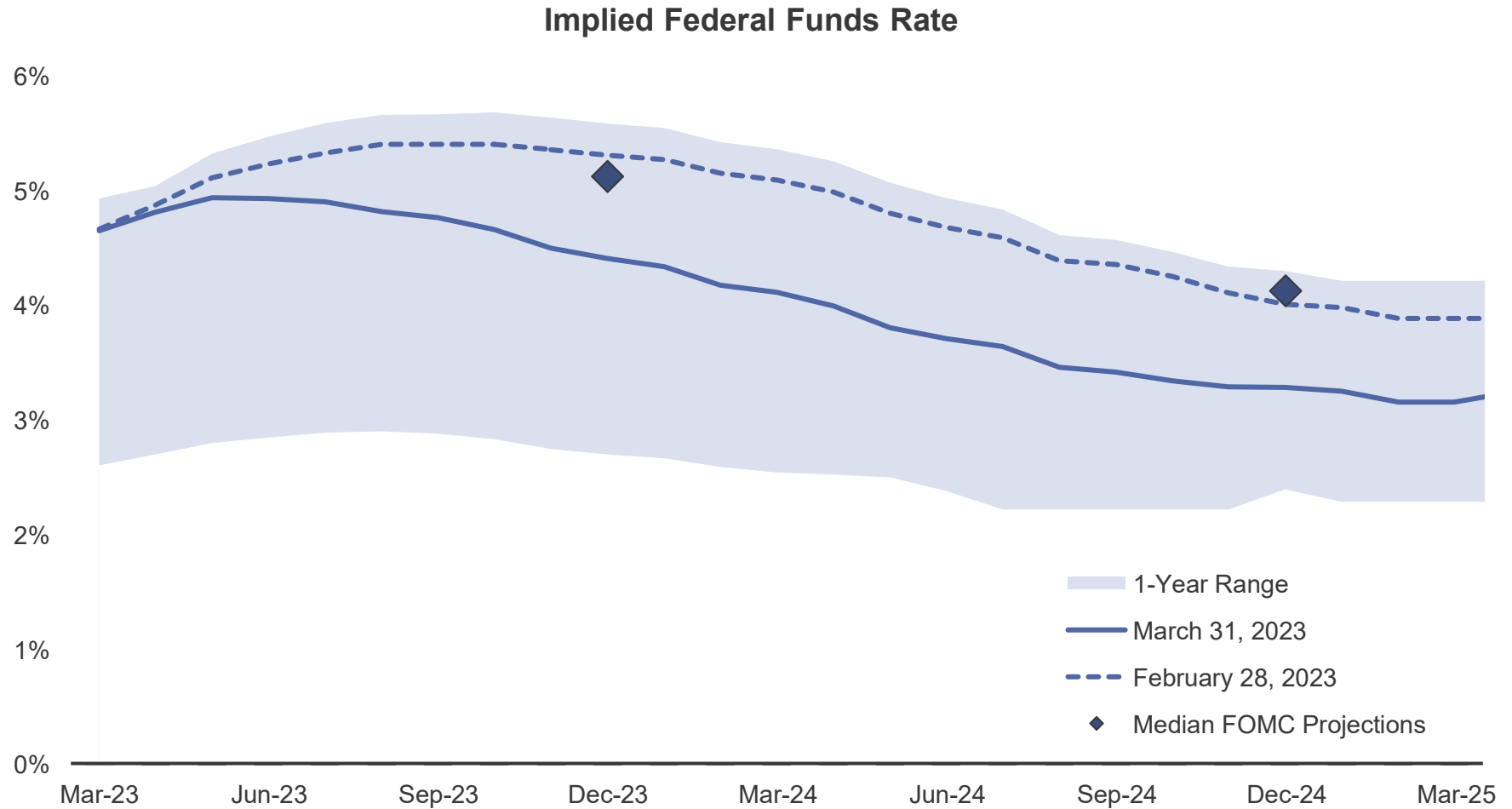
### Fixed Income Market Volatility

ICE BofA MOVE Index



Source: Bloomberg, ICE BofA Indices. As of 03/31/2023.

## Market Expectations Evolve Amid Changing Policy Environment

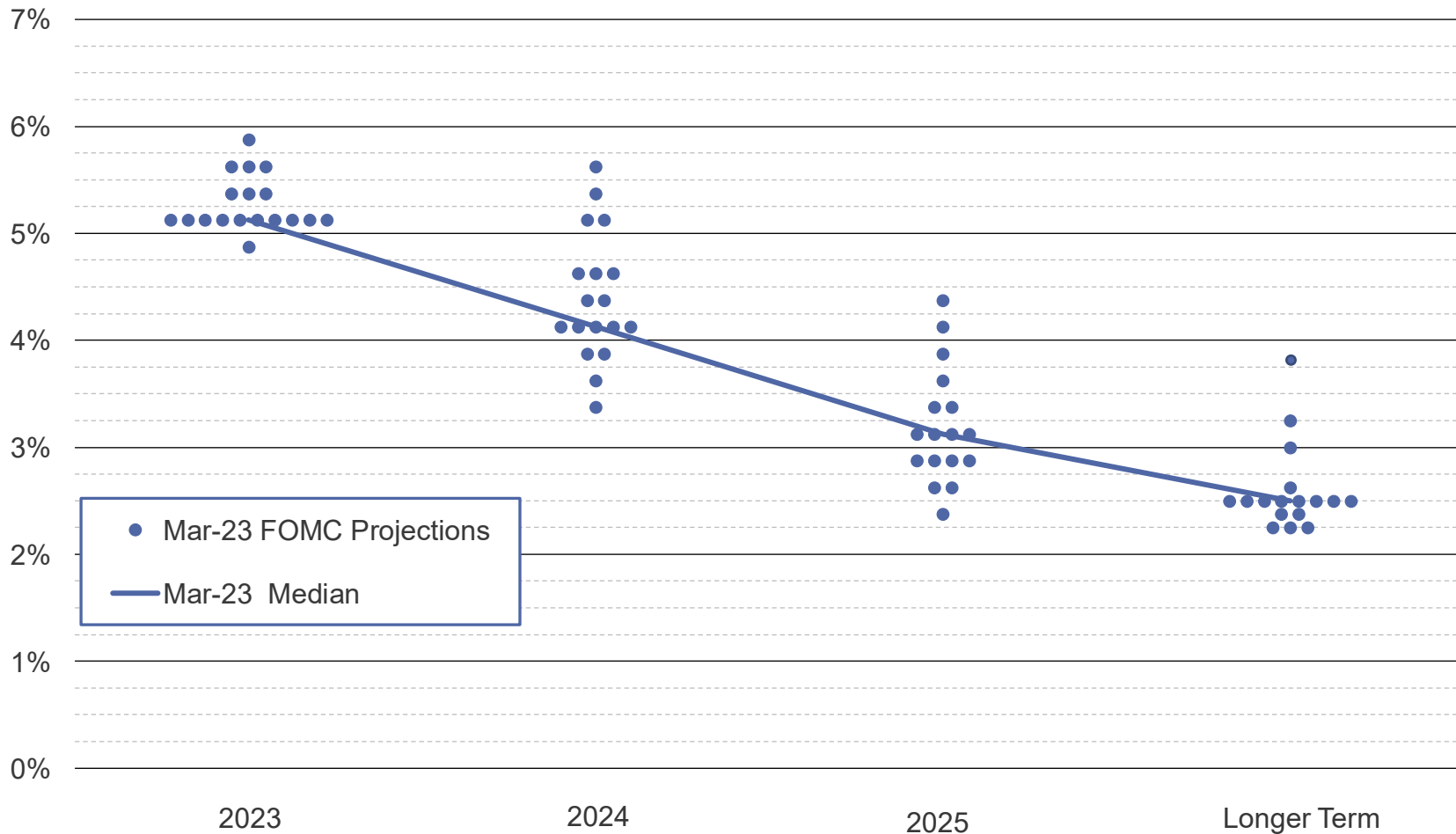


Source: Bloomberg, Federal Reserve latest economic projection as of 03/31/2023.



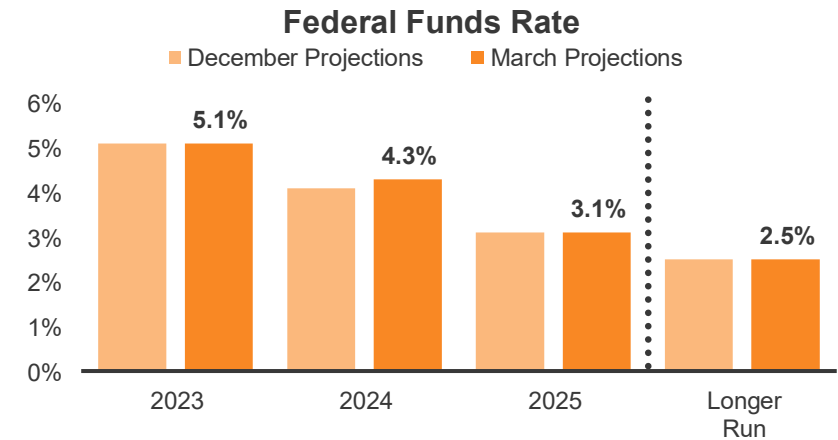
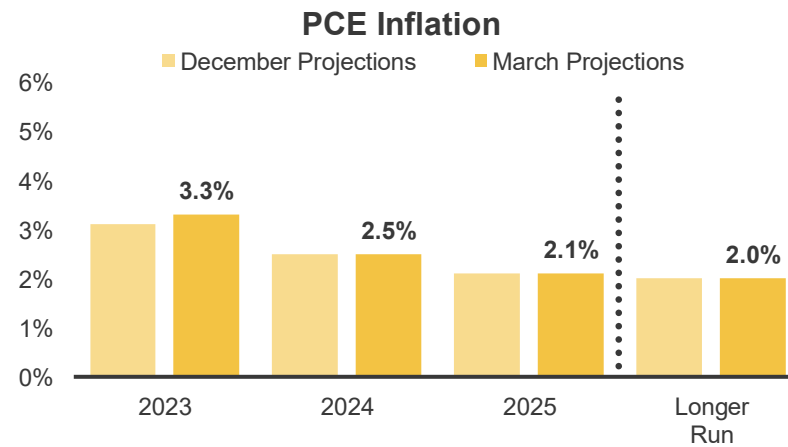
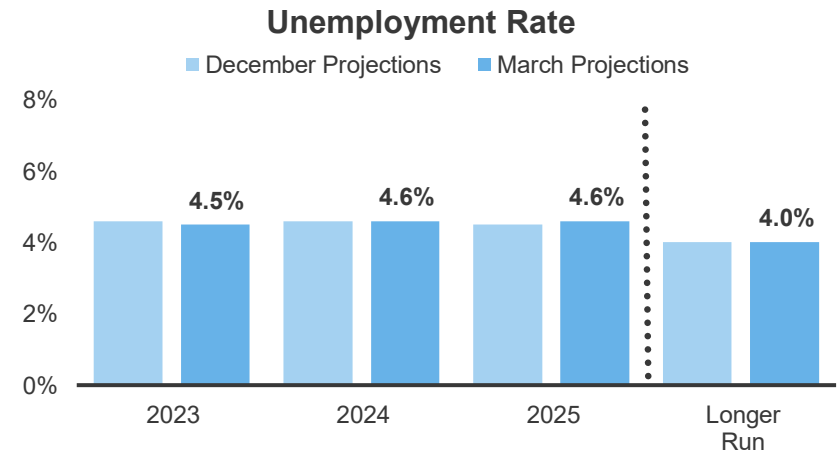
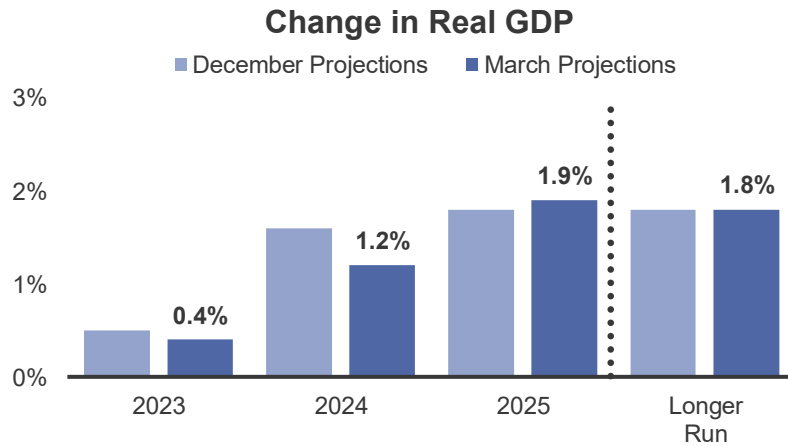
## Fed's "Dot Plot" Indicates We Are Nearing Sufficiently Restrictive Territory

### 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.

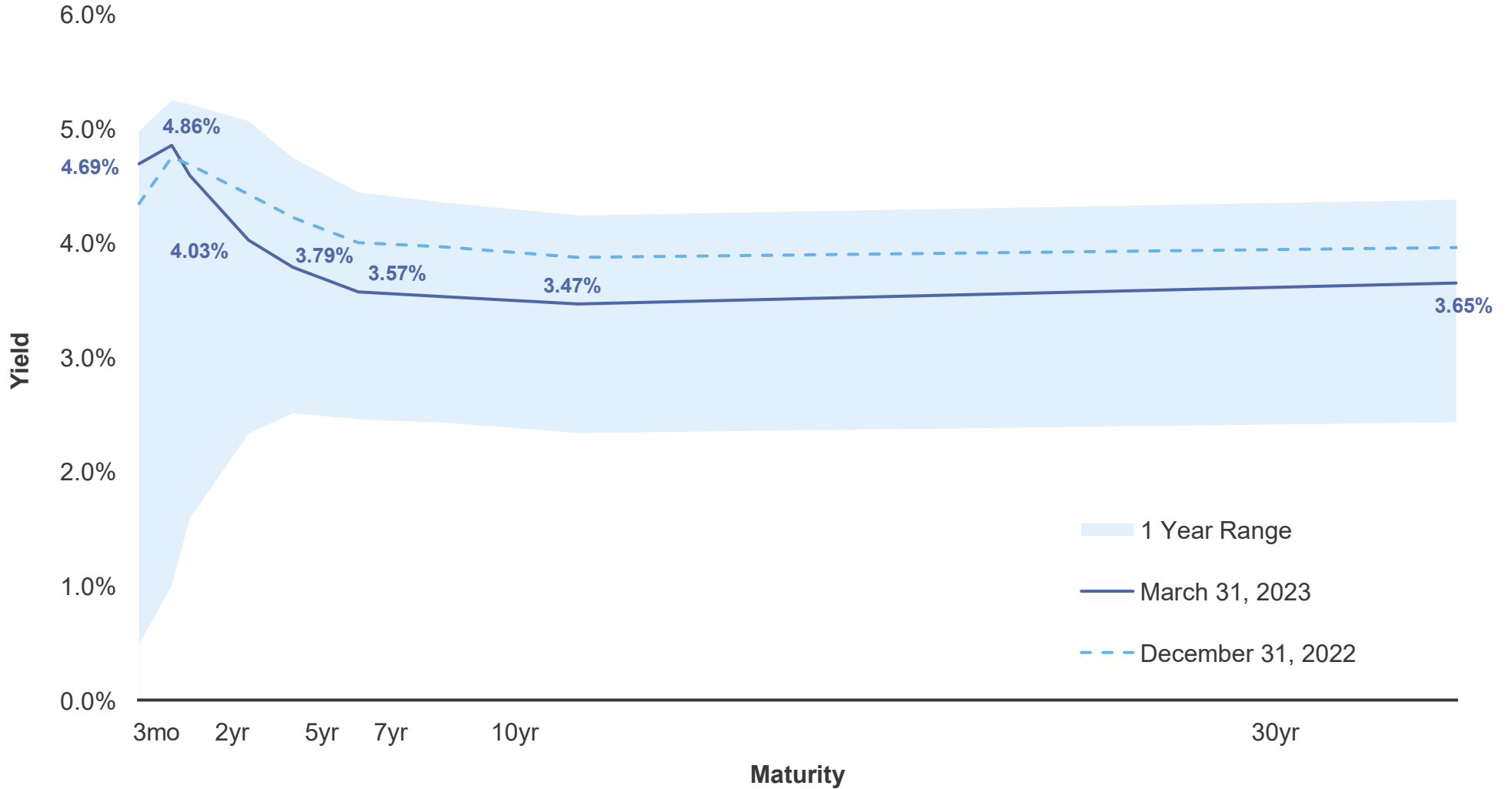
## Fed's Updated Projections Reflect Little Change From December



Source: Federal Reserve, latest economic projections as of March 2023.

### As Economic Uncertainty Increased, Longer-Term Interest Rates Fell

#### U.S. Treasury Yield Curve



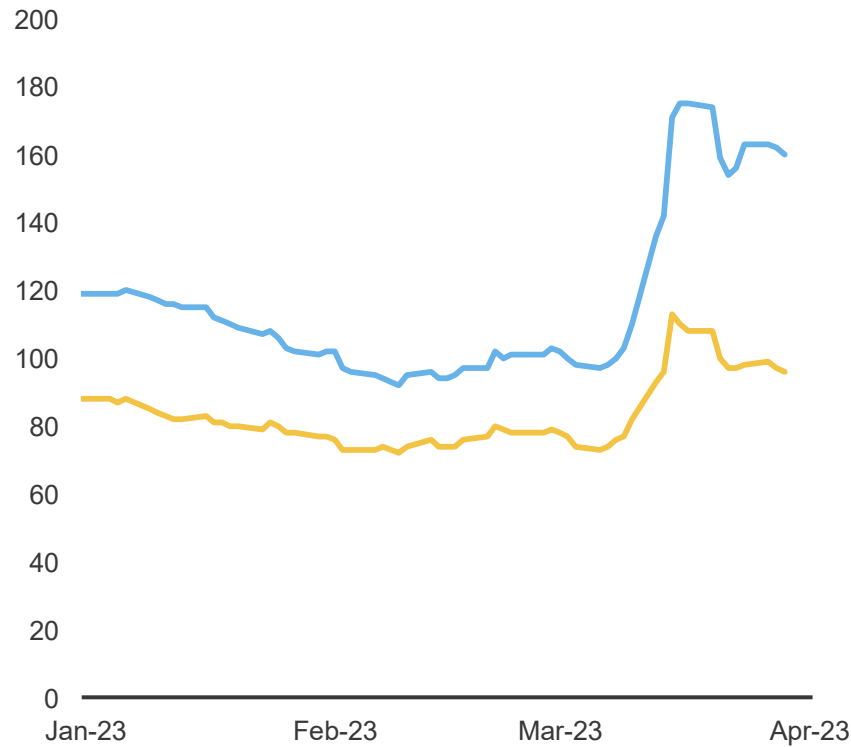
Source: Bloomberg, as of 03/31/2022.

## Corporate Yield Spreads Modestly Wider, Led By Financials

### Investment Grade Corporate Spreads

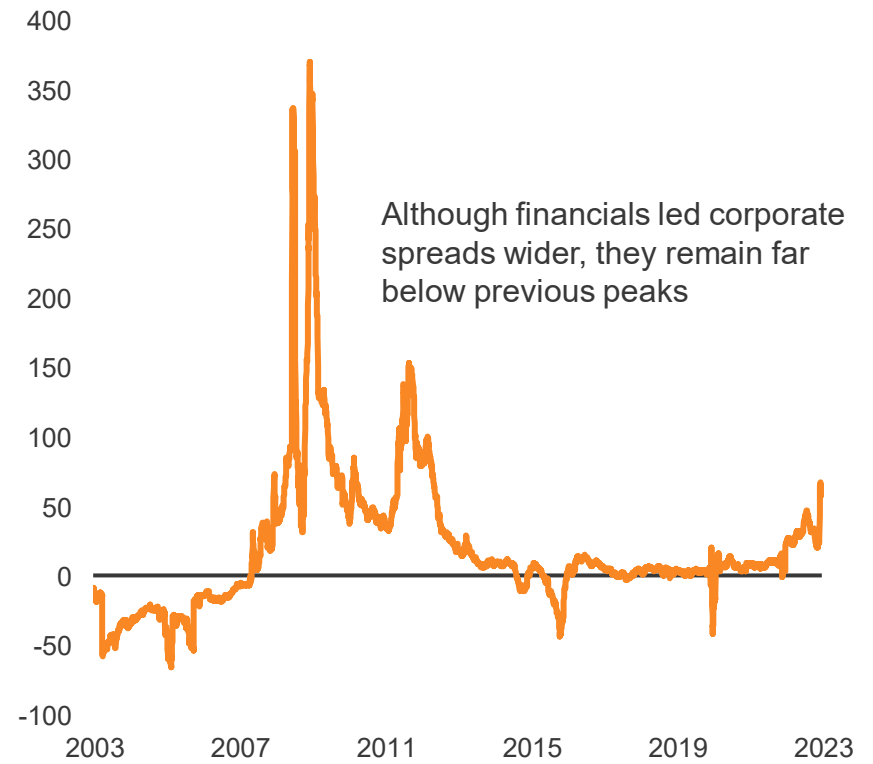
1-5 Year U.S. Corporate Index

— Financials — Industrials



### Difference Between Financial and Industrial Corporate Yield Spreads

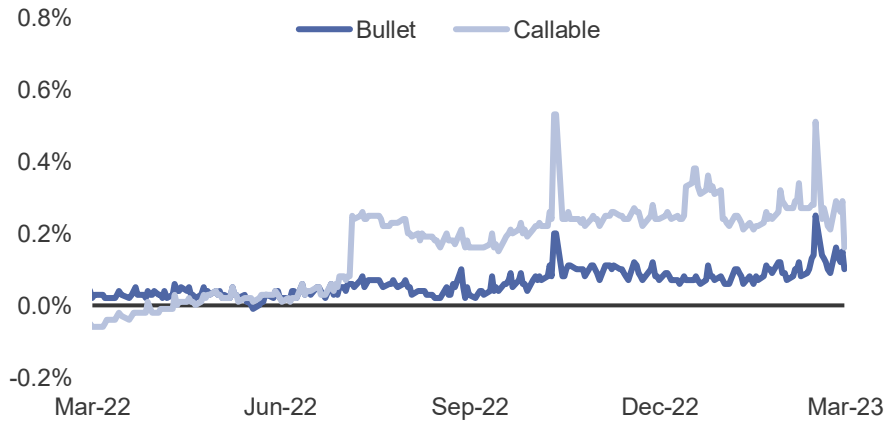
1-5 Year U.S. Corporate Index



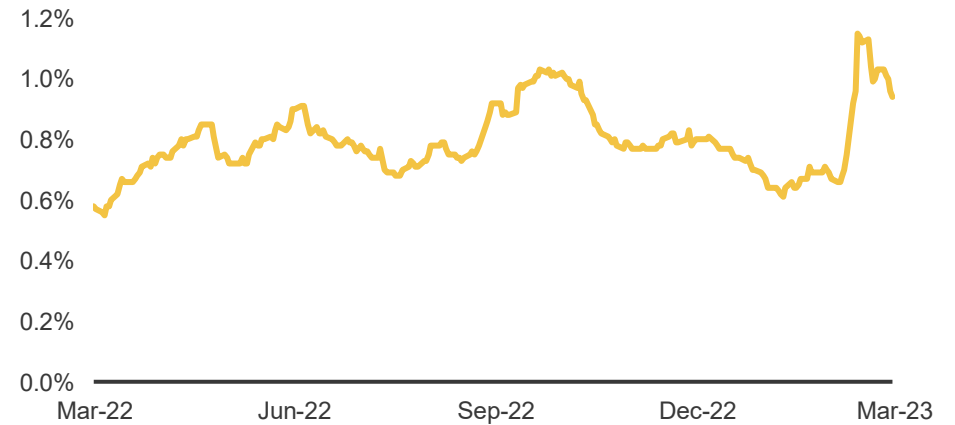
Source: Bloomberg, ICE BofA Indices as of 03/31/2023.

## Sector Yield Spreads

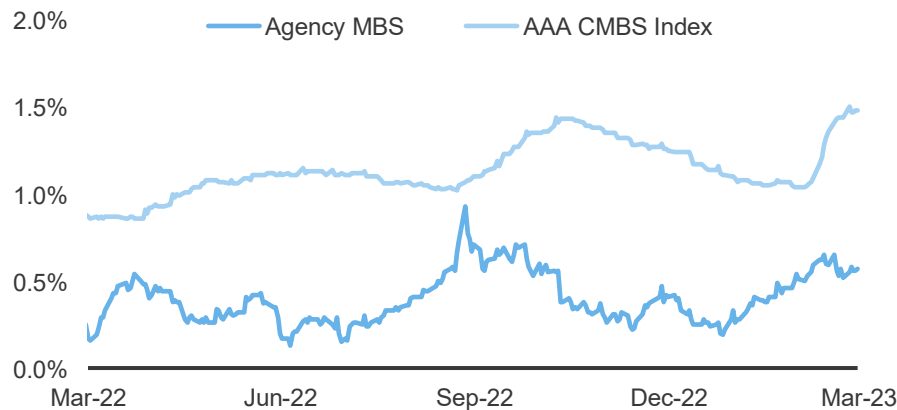
### Federal Agency Yield Spreads



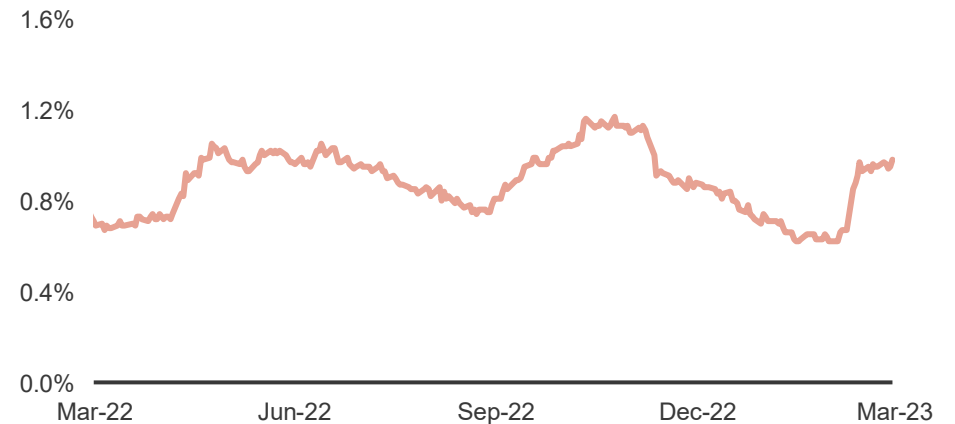
### Corporate Notes A-AAA Yield Spreads



### Mortgage-Backed Securities Yield Spreads

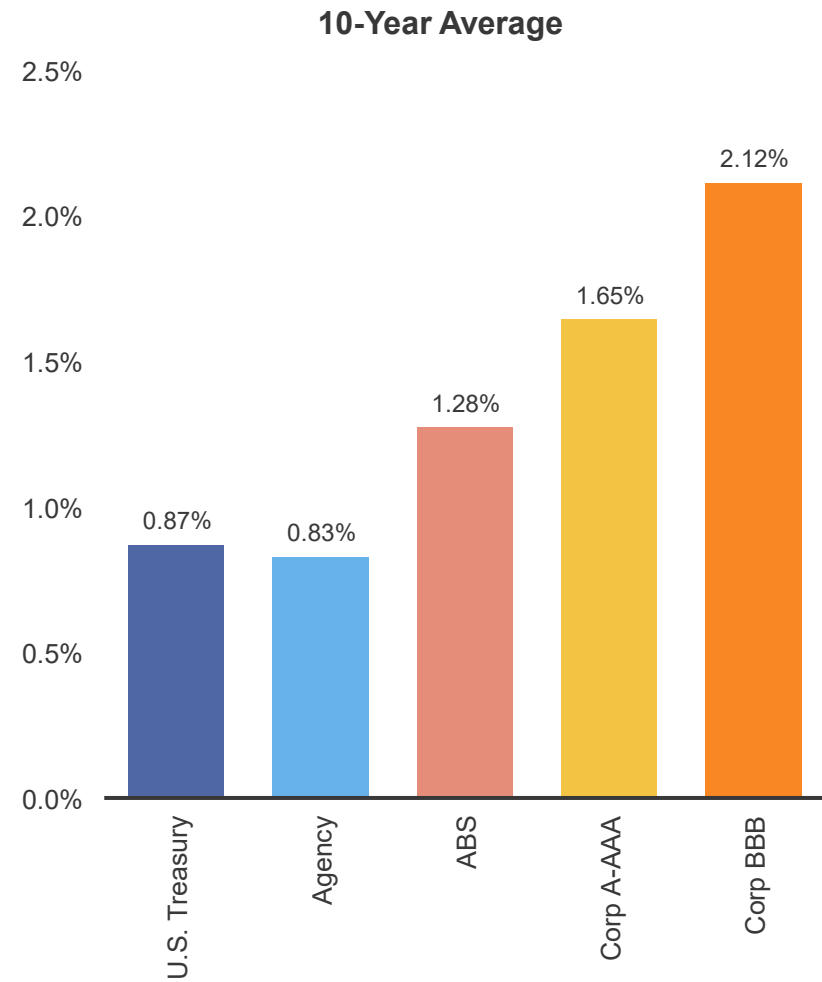
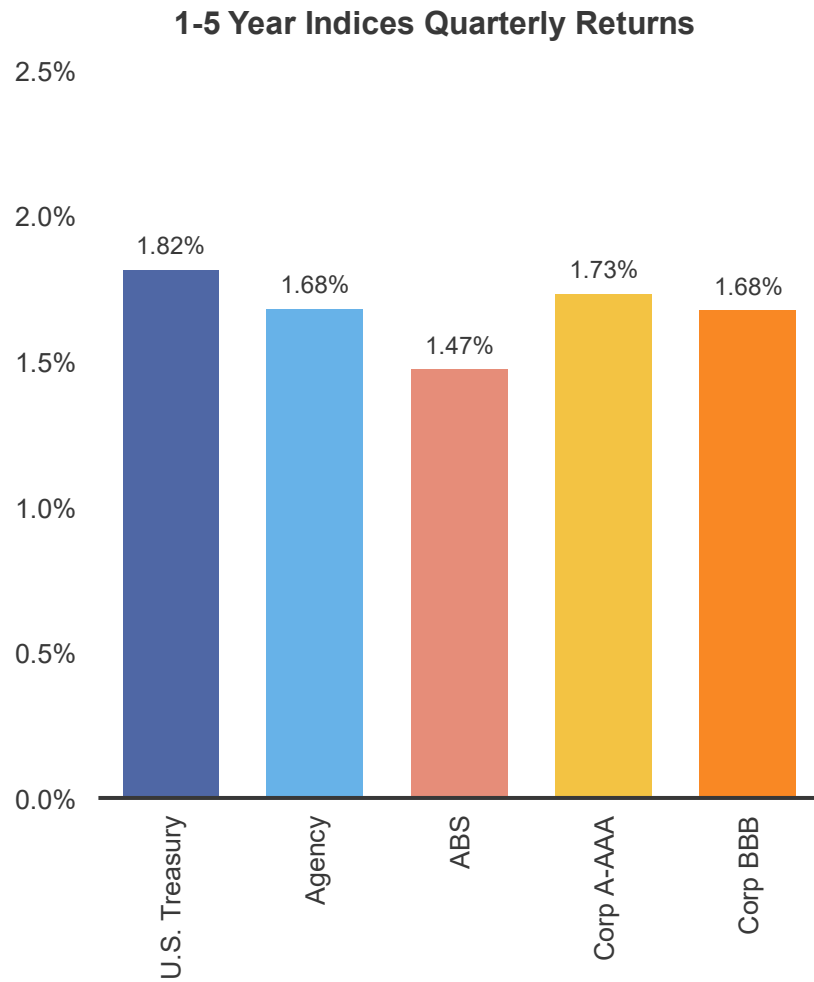


### Asset-Backed Securities AAA Yield Spreads



Source: ICE BofAML 1-5 year Indices via Bloomberg, MarketAxess and PFMAM as of 03/31/2023. 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.

## Fixed-Income Markets in Q1 2023



Source: ICE BofAML Indices. ABS indices are 0-5 year, based on weighted average life. As of 03/31/2023.

## Fixed-Income Sector Commentary – 1Q 2023

- ▶ **U.S. Treasury** experienced a classic “flight-to-quality” in March which caused 2-Year U.S. Treasury yields to plummet by more than 100 basis points in the biggest 3-day slide since 1987. Yields across the curve followed suit and shifted lower, further inverting the yield curve.
- ▶ **Federal agency** yield spreads widened this quarter as interest rates fell and new issuance was heavy. Callable agency spreads also widened for certain structures with the surge in market volatility.
- ▶ **Supranational** issuance experienced a strong start to the year as the value of U.S. dollar funding levels improved throughout Q1 vs. the Euro. Spreads ended the quarter tighter and the sector generated strong excess returns vs. other fixed income sectors.
- ▶ **Investment-Grade Corporate** fundamentals were stable to start the year, with yield spreads priced for continued economic growth and benign credit markets. However, spreads ended the quarter markedly wider, led by financials, in response to concerns in the banking sector. Spreads on industrial issues widened less, but appeared attractive relative to recent levels when considering the strength of their fundamentals.
- ▶ **Asset-Backed Security** fundamentals remain positive for prime deals. Collateral performance has slightly deteriorated, but remains well within typical historical norms. The new issue market has been active, causing spreads to touch multi-month wides near quarter-end.
- ▶ **Mortgage-Backed Securities** underperformed Treasuries for the quarter after outperforming during the first two months of the year. Elevated mortgage rates are leading to slower refinancings and prepayments while volatility led to wider spreads.
- ▶ **Taxable Municipal** saw little activity in Q1 and what issuance occurred was heavily oversubscribed. The secondary market had few opportunities as spreads were generally unattractive favoring sells over buys.
- ▶ **Short-term credit** (commercial paper and CDs) was impacted by the debt ceiling impasse to start the quarter and spreads narrowed. Along with the broad risk-off widening of credit in Q1; however, there were large dislocations between primary (new issue) and secondary offerings and a wide dispersion between financial and non-financial names. Short-term rates remain near the highest level in 15 years.

### Fixed-Income Sector Outlook – 2Q 2023

Sector	Our Investment Preferences
COMMERCIAL PAPER / CD	
TREASURIES	
T-Bill	
T-Note	
FEDERAL AGENCIES	
Bullets	
Callables	
SUPRANATIONALS	
CORPORATES	
Financials	
Industrials	
SECURITIZED	
Asset-Backed	
Agency Mortgage-Backed	
Agency CMBS	
MUNICIPALS	

● Current outlook

○ Outlook one quarter ago





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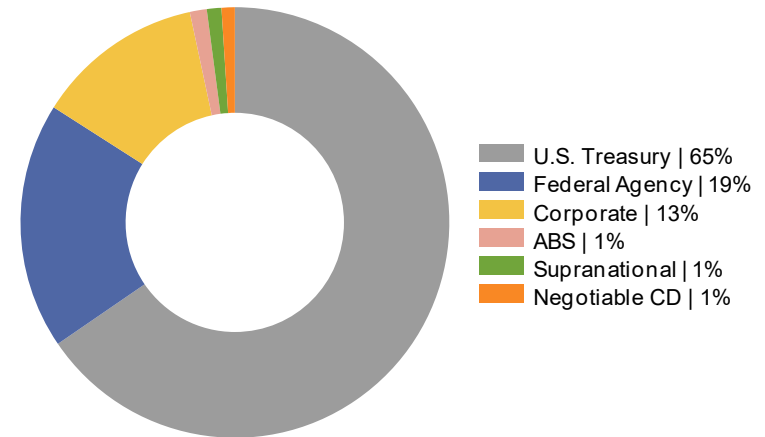
# Account Summary

### Consolidated Summary

#### Account Summary

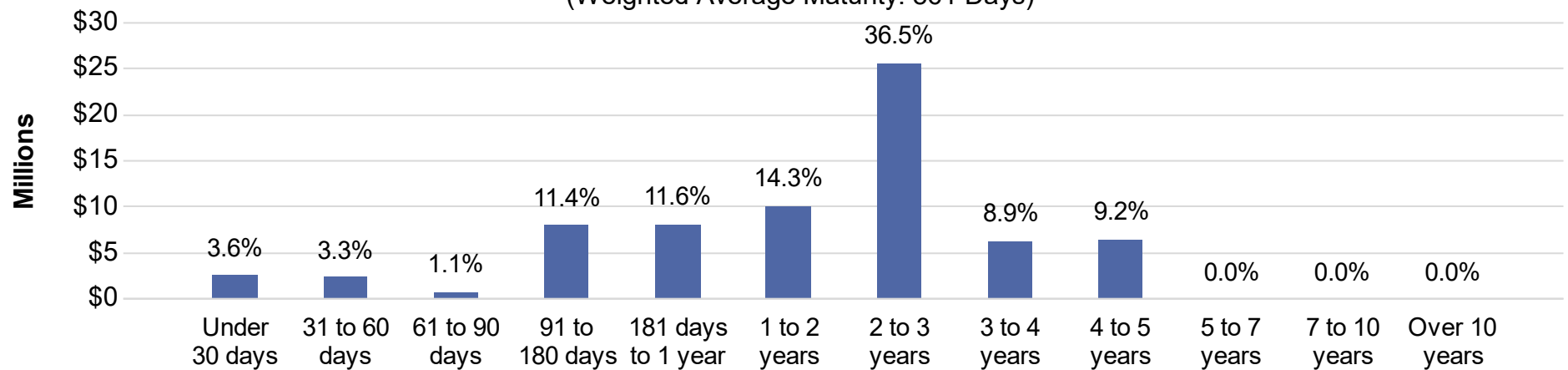
<b>PFMAM Managed Account</b>	\$70,461,589
<b>Total Program</b>	<b>\$70,461,589</b>

#### Sector Allocation



#### Maturity Distribution

(Weighted Average Maturity: 861 Days)



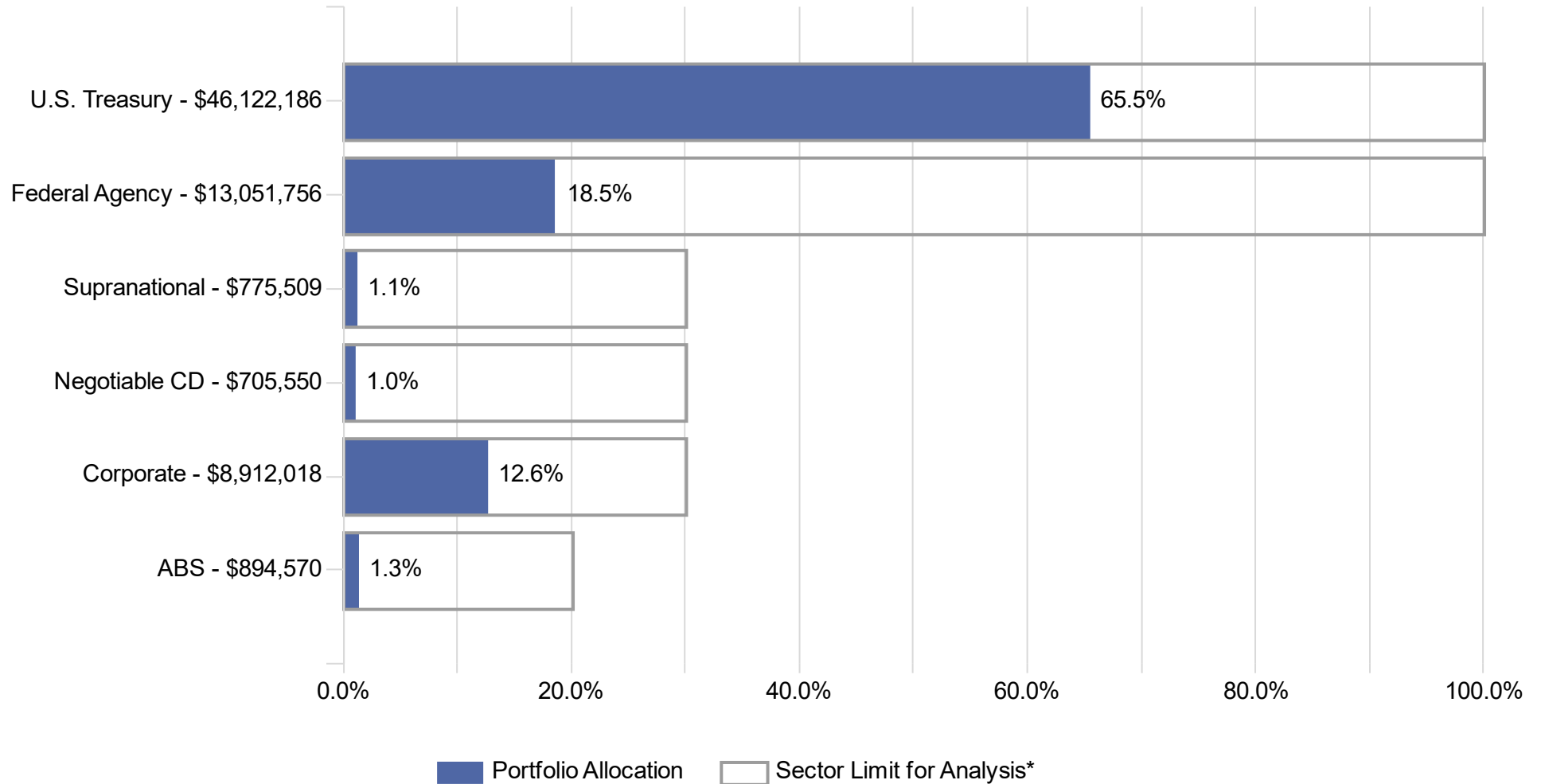
Account summary and sector allocation include market values, accrued interest, and overnight balances. Maturity distribution includes market values and excludes accrued interest and overnight balances

## Account Summary

UNION SANITARY DISTRICT					
Portfolio Values		March 31, 2023	Analytics <sup>1</sup>		March 31, 2023
PFMAM Managed Account		\$70,222,080	Yield at Market		4.27%
Amortized Cost		\$73,013,644	Yield on Cost		1.75%
Market Value		\$70,222,080	Portfolio Duration		1.84
Accrued Interest		\$239,509			
Cash		\$0			

1. Yield at market, yield on cost, and portfolio duration only include investments held within the separately managed account(s), excludes balances invested in overnight funds.

### Sector Allocation Analytics



*For informational/analytical purposes only and is not provided for compliance assurance. Includes accrued interest.*

*\*Sector Limit for Analysis is as derived from our interpretation of your most recent Investment Policy as provided.*

## Issuer Diversification

Security Type / Issuer	Market Value (%)	S&P / Moody's / Fitch
<b>U.S. Treasury</b>	<b>65.5%</b>	
UNITED STATES TREASURY	65.5%	AA / Aaa / AAA
<b>Federal Agency</b>	<b>18.5%</b>	
FANNIE MAE	9.2%	AA / Aaa / AAA
FEDERAL FARM CREDIT BANKS	2.3%	AA / Aaa / AAA
FEDERAL HOME LOAN BANKS	0.7%	AA / Aa / NR
FREDDIE MAC	6.4%	AA / Aaa / AAA
<b>Supranational</b>	<b>1.1%</b>	
INTER-AMERICAN DEVELOPMENT BANK	1.1%	AAA / Aaa / AAA
<b>Negotiable CD</b>	<b>1.0%</b>	
TORONTO-DOMINION BANK	1.0%	A / A / NR
<b>Corporate</b>	<b>12.6%</b>	
AMERICAN HONDA FINANCE	0.6%	A / A / A
APPLE INC	0.5%	AA / Aaa / NR
BANK OF AMERICA CO	1.5%	A / A / AA
BRISTOL-MYERS SQUIBB CO	0.3%	A / A / NR
CITIGROUP INC	0.4%	BBB / A / A
DEERE & COMPANY	0.8%	A / A / A
GOLDMAN SACHS GROUP INC	0.5%	BBB / A / A
HOME DEPOT INC	1.0%	A / A / A
JP MORGAN CHASE & CO	1.1%	A / A / AA
MICROSOFT CORP	1.0%	AAA / Aaa / NR
MORGAN STANLEY	0.4%	A / A / A
NOVARTIS AG	1.1%	AA / A / AA
TARGET CORP	0.7%	A / A / A
THE BANK OF NEW YORK MELLON CORPORATION	1.0%	A / A / AA
TOYOTA MOTOR CORP	0.6%	A / A / A

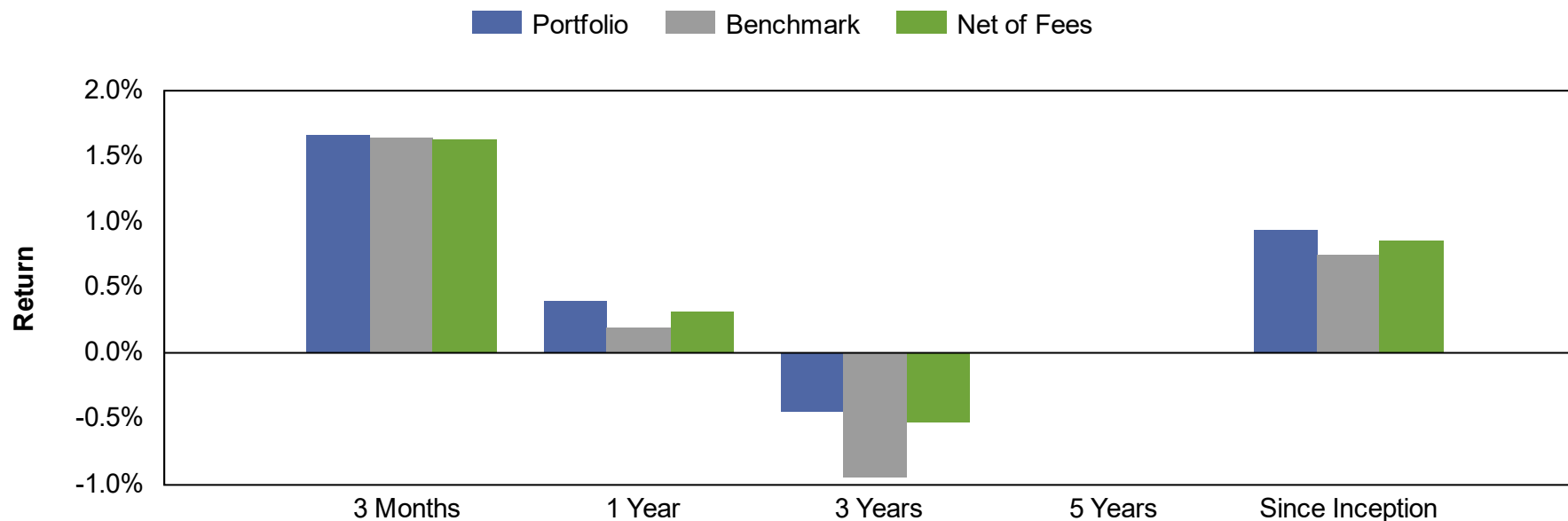
Security Type / Issuer	Market Value (%)	S&P / Moody's / Fitch
<b>Corporate</b>	<b>12.6%</b>	
WAL-MART STORES INC	1.4%	AA / Aa / AA
<b>ABS</b>	<b>1.3%</b>	
CARMAX AUTO OWNER TRUST	0.3%	AAA / NR / AAA
DISCOVER FINANCIAL SERVICES	0.2%	AAA / Aaa / NR
HONDA AUTO RECEIVABLES	0.2%	NR / Aaa / AAA
HYUNDAI AUTO RECEIVABLES	0.3%	AAA / NR / AAA
TOYOTA MOTOR CORP	0.3%	AAA / Aaa / NR
<b>Total</b>	<b>100.0%</b>	

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

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# Portfolio Review

### Portfolio Performance



Market Value Basis Earnings	3 Months	1 Year	3 Years	5 Years	Since Inception <sup>1</sup>
Interest Earned <sup>2</sup>	\$230,075	\$869,802	\$2,570,591	-	\$3,678,742
Change in Market Value	\$923,243	(\$616,790)	(\$3,754,183)	-	(\$1,906,010)
<b>Total Dollar Return</b>	<b>\$1,153,318</b>	<b>\$253,012</b>	<b>(\$1,183,592)</b>	<b>-</b>	<b>\$1,772,732</b>
<b>Total Return<sup>3</sup></b>					
Portfolio	1.66%	0.40%	-0.45%	-	0.94%
Benchmark <sup>4</sup>	1.65%	0.19%	-0.95%	-	0.75%
<b>Basis Point Fee</b>	<b>0.02%</b>	<b>0.08%</b>	<b>0.09%</b>	<b>-</b>	<b>0.09%</b>
<b>Net of Fee Return</b>	<b>1.64%</b>	<b>0.31%</b>	<b>-0.53%</b>	<b>-</b>	<b>0.86%</b>

1. The lesser of 10 years or since inception is shown. Since inception returns for periods one year or less are not shown. Performance inception date is March 31, 2019.

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

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

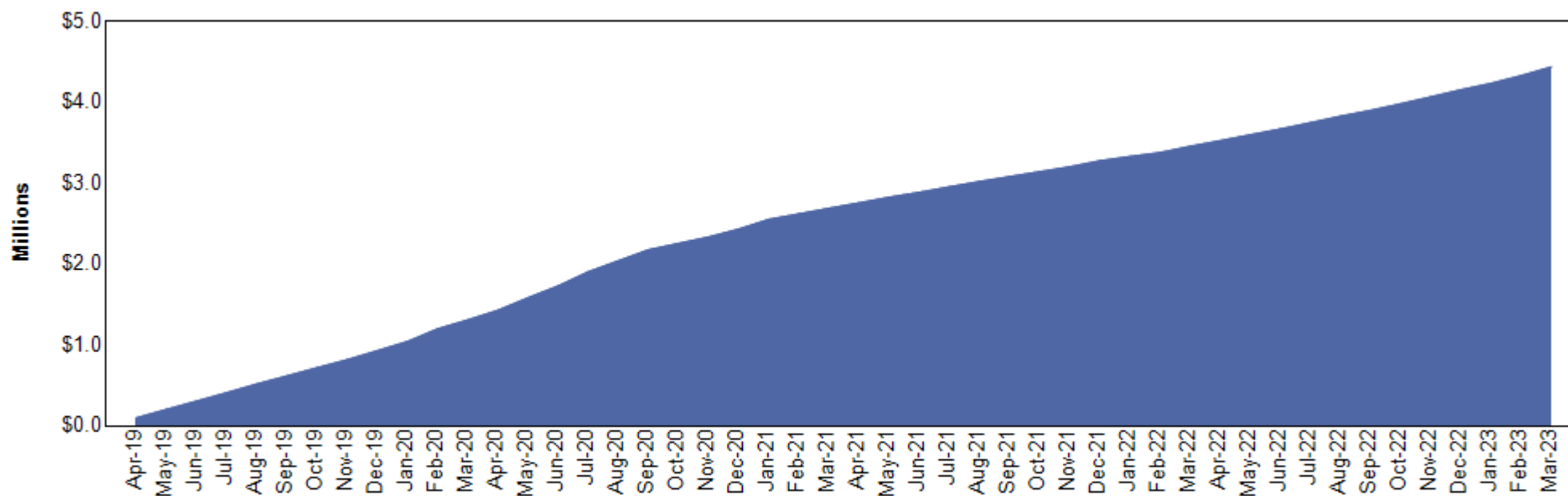
4. The portfolio's benchmark is the ICE BofAML 0-5 Year U.S. Treasury Index. Source: Bloomberg.

## Periodic Performance

Periodic Performance				
	Current Quarter	Q4 2022	Q3 2022	Since Inception 3/31/2019
Net Accrual Earnings	\$230,075	\$217,473	\$205,822	\$3,678,742
Change in Market Value	\$923,243	\$388,131	-\$1,237,960	-\$1,906,010
<b>Total Dollar Return</b>	<b>\$1,153,318</b>	<b>\$605,604</b>	<b>-\$1,032,138</b>	<b>\$1,772,732</b>
Fees in Basis Points	0.02%	0.02%	0.02%	0.09%
<b>Net of Fees Return</b>	<b>1.64%</b>	<b>0.85%</b>	<b>-1.48%</b>	<b>0.86%</b>



## Accrual Basis Earnings - UNION SANITARY DISTRICT



Accrual Basis Earnings	3 Months	1 Year	3 Years	5 Year	Since Inception <sup>1</sup>
Interest Earned <sup>2</sup>	\$230,075	\$869,802	\$2,570,591	-	\$3,678,742
Realized Gains / (Losses) <sup>3</sup>	(\$16,163)	(\$28,745)	\$432,827	-	\$531,155
Change in Amortized Cost	\$67,916	\$140,758	\$124,560	-	\$224,881
<b>Total Earnings</b>	<b>\$281,828</b>	<b>\$981,816</b>	<b>\$3,127,978</b>	-	<b>\$4,434,778</b>

1. The lesser of 10 years or since inception is shown. Performance inception date is March 31, 2019.

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

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

### Issuer Distribution As of March 31, 2023

Issuer	Market Value (\$)	% of Portfolio
UNITED STATES TREASURY	45,982,452	65.49%
FANNIE MAE	6,448,324	9.19%
FREDDIE MAC	4,475,953	6.38%
FEDERAL FARM CREDIT BANKS	1,590,058	2.26%
BANK OF AMERICA CO	1,046,810	1.49%
WAL-MART STORES INC	964,072	1.37%
INTER-AMERICAN DEVELOPMENT BANK	775,418	1.10%
NOVARTIS AG	747,340	1.06%
JP MORGAN CHASE & CO	743,059	1.06%
HOME DEPOT INC	696,284	0.99%
MICROSOFT CORP	694,013	0.99%
TORONTO-DOMINION BANK	689,614	0.98%
THE BANK OF NEW YORK MELLON CORPORATION	668,340	0.95%
TOYOTA MOTOR CORP	627,454	0.89%
DEERE & COMPANY	534,248	0.76%
FEDERAL HOME LOAN BANKS	520,286	0.74%
TARGET CORP	513,123	0.73%
AMERICAN HONDA FINANCE	413,609	0.59%
GOLDMAN SACHS GROUP INC	368,216	0.52%
APPLE INC	323,267	0.46%
MORGAN STANLEY	274,961	0.39%
CITIGROUP INC	266,109	0.38%
CARMAX AUTO OWNER TRUST	234,470	0.33%
BRISTOL-MYERS SQUIBB CO	183,537	0.26%

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Issuer	Market Value (\$)	% of Portfolio
HYUNDAI AUTO RECEIVABLES	179,373	0.26%
DISCOVER FINANCIAL SERVICES	145,653	0.21%
HONDA AUTO RECEIVABLES	116,039	0.17%
<b>Grand Total</b>	<b>70,222,080</b>	<b>100.00%</b>

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## Managed Account Detail of Securities Held

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>U.S. Treasury</b>											
US TREASURY NOTES DTD 04/30/2018 2.750% 04/30/2023	9128284L1	1,310,000.00	AA+	Aaa	3/30/2023	3/31/2023	1,307,799.61	4.73	15,126.52	1,307,872.96	1,307,748.37
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	4,787.24	1,381,595.03	1,373,530.54
US TREASURY NOTES DTD 07/02/2018 2.625% 06/30/2023	9128284U1	1,685,000.00	AA+	Aaa	12/21/2021	12/21/2021	1,738,314.46	0.54	11,118.91	1,693,630.04	1,676,575.00
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	2,144.34	1,031,583.96	1,022,709.38
US TREASURY NOTES DTD 09/15/2020 0.125% 09/15/2023	91282CAK7	1,100,000.00	AA+	Aaa	6/29/2022	6/30/2022	1,062,703.13	3.00	63.52	1,085,908.20	1,077,656.25
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	58.04	1,537,314.53	1,519,893.75
US TREASURY N/B NOTES DTD 11/30/2021 0.500% 11/30/2023	91282CDM0	2,505,000.00	AA+	Aaa	12/21/2021	12/21/2021	2,496,878.32	0.67	4,197.94	2,502,216.41	2,435,721.22
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	11,312.15	1,997,328.81	1,963,437.60
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	3,695.65	1,994,570.42	1,953,750.00
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	42.38	739,164.81	712,320.28
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	4,954.70	590,661.52	573,590.63
US TREASURY N/B NOTES DTD 05/15/2021 0.250% 05/15/2024	91282CCC3	2,530,000.00	AA+	Aaa	12/21/2021	12/21/2021	2,496,101.95	0.81	2,393.72	2,514,134.47	2,412,196.88
US TREASURY NOTES DTD 06/30/2017 2.000% 06/30/2024	912828XX3	355,000.00	AA+	Aaa	7/1/2019	7/3/2019	358,660.93	1.78	1,784.81	355,915.23	344,350.00
US TREASURY NOTES DTD 10/31/2019 1.500% 10/31/2024	912828YM6	60,000.00	AA+	Aaa	1/11/2021	1/12/2021	62,655.47	0.33	377.90	61,107.72	57,459.37
US TREASURY N/B NOTES DTD 12/15/2021 1.000% 12/15/2024	91282CDN8	2,495,000.00	AA+	Aaa	12/21/2021	12/21/2021	2,498,216.21	0.96	7,334.20	2,496,841.21	2,364,012.50

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>U.S. Treasury</b>											
US TREASURY NOTES DTD 05/31/2020 0.250% 05/31/2025	912828ZT0	2,570,000.00	AA+	Aaa	12/21/2021	12/21/2021	2,499,525.78	1.06	2,153.43	2,525,652.26	2,371,226.44
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	854.67	1,012,265.12	941,109.32
US TREASURY N/B NOTES DTD 06/15/2022 2.875% 06/15/2025	91282CEU1	865,000.00	AA+	Aaa	6/15/2022	6/15/2022	849,963.87	3.49	7,310.32	853,942.41	844,456.25
US TREASURY NOTES DTD 08/31/2020 0.250% 08/31/2025	91282CAJ0	410,000.00	AA+	Aaa	8/13/2021	8/16/2021	403,417.58	0.65	89.13	406,062.14	375,598.46
US TREASURY NOTES DTD 08/31/2020 0.250% 08/31/2025	91282CAJ0	500,000.00	AA+	Aaa	8/2/2021	8/2/2021	494,433.59	0.53	108.70	496,701.25	458,046.90
US TREASURY NOTES DTD 09/30/2020 0.250% 09/30/2025	91282CAM3	1,060,000.00	AA+	Aaa	9/7/2021	9/9/2021	1,042,195.31	0.67	7.24	1,049,031.25	970,065.57
US TREASURY NOTES DTD 10/31/2020 0.250% 10/31/2025	91282CAT8	555,000.00	AA+	Aaa	10/1/2021	10/1/2021	542,664.26	0.80	582.60	547,189.85	505,917.19
US TREASURY NOTES DTD 11/30/2020 0.375% 11/30/2025	91282CAZ4	1,020,000.00	AA+	Aaa	11/2/2021	11/3/2021	994,061.72	1.01	1,282.01	1,003,021.58	930,431.25
US TREASURY NOTES DTD 11/30/2020 0.375% 11/30/2025	91282CAZ4	2,575,000.00	AA+	Aaa	12/21/2021	12/21/2021	2,498,856.45	1.14	3,236.43	2,523,497.35	2,348,882.81
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	711.72	753,798.61	687,993.75
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	129.15	135,600.94	124,841.25
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	504.33	527,626.50	487,518.75
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	565.61	594,288.09	546,750.00
US TREASURY NOTES DTD 01/31/2021 0.375% 01/31/2026	91282CBH3	580,000.00	AA+	Aaa	5/19/2022	5/20/2022	529,884.38	2.85	360.50	541,597.79	526,531.25
US TREASURY NOTES DTD 01/31/2021 0.375% 01/31/2026	91282CBH3	590,000.00	AA+	Aaa	7/2/2021	7/7/2021	578,660.94	0.80	366.71	582,961.49	535,609.38
US TREASURY NOTES DTD 01/31/2021 0.375% 01/31/2026	91282CBH3	1,000,000.00	AA+	Aaa	6/29/2022	6/30/2022	905,273.44	3.19	621.55	925,143.62	907,812.50
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	3,110.84	758,307.45	691,539.06

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>U.S. Treasury</b>											
US TREASURY NOTES DTD 02/28/2021 0.500% 02/28/2026	91282CBQ3	1,040,000.00	AA+	Aaa	12/3/2021	12/7/2021	1,011,968.75	1.15	452.17	1,020,683.13	945,100.00
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	547.83	1,250,049.65	1,145,025.00
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	771.55	244,616.76	223,332.81
US TREASURY NOTES DTD 05/16/2016 1.625% 05/15/2026	912828R36	518,000.00	AA+	Aaa	12/21/2021	12/21/2021	527,429.22	1.20	3,185.63	524,693.22	484,896.59
US TREASURY N/B NOTES DTD 05/31/2021 0.750% 05/31/2026	91282CCF6	395,000.00	AA+	Aaa	6/1/2021	6/1/2021	393,750.20	0.81	992.93	394,208.35	359,264.82
US TREASURY NOTES DTD 08/15/2016 1.500% 08/15/2026	9128282A7	1,125,000.00	AA+	Aaa	10/4/2022	10/4/2022	1,024,672.85	4.01	2,097.72	1,037,400.39	1,044,140.63
US TREASURY N/B NOTES DTD 09/30/2021 0.875% 09/30/2026	91282CCZ2	645,000.00	AA+	Aaa	5/9/2022	5/10/2022	589,041.21	3.00	15.42	600,414.38	584,128.13
US TREASURY NOTES DTD 02/15/2017 2.250% 02/15/2027	912828V98	435,000.00	AA+	Aaa	7/5/2022	7/7/2022	423,751.17	2.85	1,216.68	425,541.36	412,094.55
US TREASURY NOTES DTD 05/15/2017 2.375% 05/15/2027	912828X88	310,000.00	AA+	Aaa	8/1/2022	8/1/2022	305,446.88	2.70	2,786.36	306,079.84	294,403.13
US TREASURY NOTES DTD 08/15/2017 2.250% 08/15/2027	9128282R0	1,365,000.00	AA+	Aaa	9/1/2022	9/6/2022	1,294,137.30	3.40	3,817.85	1,302,268.44	1,287,578.84
US TREASURY N/B NOTES DTD 09/30/2022 4.125% 09/30/2027	91282CFM8	474,000.00	AA+	Aaa	11/1/2022	11/3/2022	470,907.89	4.27	53.42	471,164.99	482,961.54
US TREASURY N/B NOTES DTD 10/31/2022 4.125% 10/31/2027	91282CFU0	365,000.00	AA+	Aaa	12/1/2022	12/2/2022	371,187.89	3.74	6,321.96	370,773.98	372,071.88
US TREASURY N/B NOTES DTD 10/31/2022 4.125% 10/31/2027	91282CFU0	1,150,000.00	AA+	Aaa	12/6/2022	12/8/2022	1,165,992.19	3.81	19,918.51	1,164,972.55	1,172,281.25
US TREASURY NOTES DTD 10/31/2020 0.500% 10/31/2027	91282CAU5	1,265,000.00	AA+	Aaa	1/3/2023	1/3/2023	1,076,238.28	3.93	2,655.80	1,085,665.65	1,097,585.09
US TREASURY N/B NOTES DTD 02/28/2023 4.000% 02/29/2028	91282CGP0	1,010,000.00	AA+	Aaa	3/1/2023	3/1/2023	998,242.97	4.26	3,513.04	998,442.57	1,028,306.25
<b>Security Type Sub-Total</b>		<b>48,414,000.00</b>					<b>47,402,615.40</b>	<b>1.89</b>	<b>139,733.83</b>	<b>47,723,508.28</b>	<b>45,982,452.41</b>

## UNION SANITARY DISTRICT

Portfolio Holdings

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>Supranational</b>											
INTER-AMERICAN DEVEL BK NOTES DTD 09/23/2021 0.500% 09/23/2024	4581X0DZ8	820,000.00	AAA	Aaa	9/15/2021	9/23/2021	819,393.20	0.52	91.11	819,700.48	775,418.24
<b>Security Type Sub-Total</b>		<b>820,000.00</b>					<b>819,393.20</b>	<b>0.52</b>	<b>91.11</b>	<b>819,700.48</b>	<b>775,418.24</b>
<b>Negotiable CD</b>											
TORONTO DOMINION BANK NY CERT DEPOS DTD 10/31/2022 5.470% 10/25/2024	89115B6F2	690,000.00	A	A1	10/27/2022	10/31/2022	690,000.00	5.44	15,935.93	690,000.00	689,613.60
<b>Security Type Sub-Total</b>		<b>690,000.00</b>					<b>690,000.00</b>	<b>5.44</b>	<b>15,935.93</b>	<b>690,000.00</b>	<b>689,613.60</b>
<b>Federal Agency</b>											
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	334.58	220,009.71	219,114.94
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	774.90	864,878.73	859,518.50
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	514.58	779,821.12	771,632.16
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	447.19	794,843.90	785,031.50
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	133.61	519,929.96	510,620.76
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	112.85	1,624,556.26	1,590,057.63
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	144.97	258,973.82	249,369.86
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	2,113.13	1,034,701.74	985,541.49
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	1,298.89	558,867.03	520,285.92
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	1,255.99	454,613.57	423,585.89

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Portfolio Holdings

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>Federal Agency</b>											
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	345.05	124,902.38	116,369.75
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	1,249.44	864,206.82	799,633.68
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	1,458.89	1,010,713.41	933,676.32
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	382.81	523,793.09	482,606.25
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	652.78	999,237.00	916,912.00
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	155.63	413,886.31	380,356.63
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	208.12	553,751.14	508,669.71
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	66.25	793,811.40	727,113.36
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	1,040.00	519,027.80	475,200.44
FREDDIE MAC NOTES (CALLABLE) DTD 02/23/2023 5.400% 02/23/2026	3134GYKA9	780,000.00	AA+	Aaa	2/15/2023	2/23/2023	780,000.00	5.40	4,446.00	780,000.00	779,323.74
<b>Security Type Sub-Total</b>		<b>13,704,000.00</b>					<b>13,675,963.35</b>	<b>0.81</b>	<b>17,135.66</b>	<b>13,694,525.19</b>	<b>13,034,620.53</b>
<b>Corporate</b>											
MORGAN STANLEY CORP NOTES (CALLED, OMD 4 DTD 04/22/2021 0.731% 04/05/2023	61772BAA1	70,000.00	A-	A1	4/19/2021	4/22/2021	70,000.00	0.73	250.16	70,000.00	69,990.06
MORGAN STANLEY CORP NOTES (CALLED, OMD 4 DTD 04/22/2021 0.731% 04/05/2023	61772BAA1	205,000.00	A-	A1	4/20/2021	4/22/2021	205,258.30	0.67	732.63	205,001.45	204,970.89
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	11,620.21	965,000.00	964,071.67



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Portfolio Holdings

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>Corporate</b>											
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	3,169.56	414,995.08	413,608.92
APPLE INC CORPORATE NOTES DTD 05/11/2020 0.750% 05/11/2023	037833DV9	325,000.00	AA+	Aaa	5/4/2020	5/11/2020	324,116.00	0.84	947.92	324,967.71	323,267.10
JPMORGAN CHASE & CO (CALLABLE) CORP NOTE DTD 05/18/2016 2.700% 05/18/2023	46625HRL6	525,000.00	A-	A1	3/20/2019	3/22/2019	517,970.25	3.04	5,236.88	524,782.35	523,022.85
JPMORGAN CHASE & CO CORPORATE NOTES (CAL DTD 09/16/2020 0.653% 09/16/2024	46647PBS4	110,000.00	A-	A1	9/9/2020	9/16/2020	110,000.00	0.65	29.93	110,000.00	107,338.22
JOHN DEERE CAPITAL CORP CORPORATE NOTES DTD 01/10/2022 1.250% 01/10/2025	24422EVY2	565,000.00	A	A2	3/8/2022	3/10/2022	550,728.10	2.17	1,589.06	556,054.26	534,248.18
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	600.00	250,969.07	237,595.25
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	432.00	180,697.73	171,068.58
CITIGROUP INC (CALLABLE) 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	551.81	135,000.00	128,302.38
CITIGROUP INC (CALLABLE) 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	592.69	145,139.22	137,806.26
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	5,106.25	401,049.24	368,215.82
JPMORGAN CHASE & CO CORP NOTES (CALLABLE DTD 08/10/2021 0.768% 08/09/2025	46647PCM6	120,000.00	A-	A1	8/3/2021	8/10/2021	120,000.00	0.77	133.12	120,000.00	112,698.12
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	577.88	199,807.05	183,536.52

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>Corporate</b>											
NOVARTIS CAPITAL CORP NOTES (CALLABLE) DTD 11/20/2015 3.000% 11/20/2025	66989HAJ7	770,000.00	AA-	A1	2/1/2023	2/3/2023	744,012.50	4.29	8,405.83	745,463.32	747,340.44
BANK OF AMERICA CORP NOTES (CALLABLE) DTD 03/22/2022 3.384% 04/02/2026	06051GKM0	585,000.00	A-	A2	3/17/2022	3/22/2022	585,000.00	3.38	9,843.21	585,000.00	561,181.14
BANK OF AMERICA CORP NOTES DTD 04/19/2016 3.500% 04/19/2026	06051GFX2	505,000.00	A-	A2	1/23/2023	1/25/2023	490,248.95	4.48	7,953.75	491,074.01	485,628.71
MICROSOFT CORP (CALLABLE) NOTES DTD 08/08/2016 2.400% 08/08/2026	594918BR4	730,000.00	AAA	Aaa	2/23/2022	2/25/2022	738,095.70	2.14	2,579.33	735,983.32	694,013.19
TARGET CORP CORP NOTES (CALLABLE) DTD 01/24/2022 1.950% 01/15/2027	87612EBM7	100,000.00	A	A2	1/19/2022	1/24/2022	99,830.00	1.99	411.67	99,870.42	92,454.60
TARGET CORP CORP NOTES (CALLABLE) DTD 01/24/2022 1.950% 01/15/2027	87612EBM7	455,000.00	A	A2	1/27/2022	1/31/2022	454,722.45	1.96	1,873.08	454,787.62	420,668.43
BANK OF NY MELLON CORP (CALLABLE) CORPOR DTD 01/26/2022 2.050% 01/26/2027	06406RBA4	745,000.00	A	A1	1/26/2022	1/28/2022	747,398.90	1.98	2,757.53	746,826.27	668,340.25
HOME DEPOT INC CORP NOTES (CALLABLE) DTD 09/14/2017 2.800% 09/14/2027	437076BT8	735,000.00	A	A2	1/26/2023	1/30/2023	693,399.00	4.16	971.83	694,902.35	696,283.88
<b>Security Type Sub-Total</b>		<b>9,216,000.00</b>					<b>9,219,439.49</b>	<b>2.29</b>	<b>66,366.33</b>	<b>9,157,370.47</b>	<b>8,845,651.46</b>
<b>ABS</b>											
HAROT 2020-1 A3 DTD 02/26/2020 1.610% 04/22/2024	43813RAC1	36,014.68	NR	Aaa	2/19/2020	2/26/2020	36,007.63	1.61	16.11	36,012.88	35,852.66
TAOT 2020-A A3 DTD 02/12/2020 1.660% 05/15/2024	89232HAC9	32,125.15	AAA	Aaa	2/4/2020	2/12/2020	32,122.83	1.66	23.70	32,124.54	32,024.49
CARMX 2020-1 A3 DTD 01/22/2020 1.890% 12/16/2024	14315XAC2	40,202.43	AAA	NR	1/14/2020	1/22/2020	40,194.54	1.89	33.77	40,199.68	39,856.42
HAROT 2021-1 A3 DTD 02/24/2021 0.270% 04/21/2025	43813GAC5	82,394.15	NR	Aaa	2/17/2021	2/24/2021	82,392.65	0.27	6.18	82,393.41	80,185.84

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Portfolio Holdings

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
<b>ABS</b>											
HART 2021-A A3 DTD 04/28/2021 0.380% 09/15/2025	44933LAC7	91,405.80	AAA	NR	4/20/2021	4/28/2021	91,396.19	0.38	15.44	91,400.41	88,678.45
CARMX 2021-1 A3 DTD 01/27/2021 0.340% 12/15/2025	14316NAC3	55,699.48	AAA	NR	1/20/2021	1/27/2021	55,688.49	0.34	8.42	55,693.38	53,866.82
TAOT 2021-C A3 DTD 09/27/2021 0.430% 01/15/2026	89239BAC5	195,000.00	AAA	Aaa	9/21/2021	9/27/2021	194,984.46	0.43	37.27	194,989.91	186,765.74
CARMX 2021-2 A3 DTD 04/21/2021 0.520% 02/17/2026	14314QAC8	145,781.77	AAA	NR	4/13/2021	4/21/2021	145,750.36	0.52	33.69	145,763.01	140,746.60
HART 2021-C A3 DTD 11/17/2021 0.740% 05/15/2026	44935FAD6	95,000.00	AAA	NR	11/9/2021	11/17/2021	94,978.80	0.75	31.24	94,985.26	90,694.43
DCENT 2021-A1 A1 DTD 09/27/2021 0.580% 09/15/2026	254683CP8	155,000.00	AAA	Aaa	9/20/2021	9/27/2021	154,966.81	0.58	39.96	154,976.89	145,652.60
<b>Security Type Sub-Total</b>		<b>928,623.46</b>					<b>928,482.76</b>	<b>0.64</b>	<b>245.78</b>	<b>928,539.37</b>	<b>894,324.05</b>
<b>Managed Account Sub Total</b>		<b>73,772,623.46</b>					<b>72,735,894.20</b>	<b>1.75</b>	<b>239,508.64</b>	<b>73,013,643.79</b>	<b>70,222,080.29</b>
<b>Securities Sub Total</b>		<b>\$73,772,623.46</b>					<b>\$72,735,894.20</b>	<b>1.75%</b>	<b>\$239,508.64</b>	<b>\$73,013,643.79</b>	<b>\$70,222,080.29</b>
<b>Accrued Interest</b>											<b>\$239,508.64</b>
<b>Total Investments</b>											<b>\$70,461,588.93</b>

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>BUY</b>									
1/3/2023	1/3/2023	1,265,000.00	91282CAU5	US TREASURY NOTES	0.50%	10/31/2027	1,077,356.51	3.93%	
1/23/2023	1/25/2023	505,000.00	06051GFX2	BANK OF AMERICA CORP NOTES	3.50%	4/19/2026	494,962.28	4.48%	
1/26/2023	1/30/2023	735,000.00	437076BT8	HOME DEPOT INC CORP NOTES (CALLABLE)	2.80%	9/14/2027	701,173.67	4.16%	
2/1/2023	2/1/2023	753,000.00	912796ZT9	CASH MGMT BILL BILLS	0.00%	2/7/2023	752,473.43	4.20%	
2/1/2023	2/3/2023	770,000.00	66989HAJ7	NOVARTIS CAPITAL CORP NOTES (CALLABLE)	3.00%	11/20/2025	748,696.67	4.29%	
2/15/2023	2/17/2023	780,000.00	912796T33	US TREASURY BILL	0.00%	2/23/2023	779,414.74	4.51%	
2/15/2023	2/23/2023	780,000.00	3134GYKA9	FREDDIE MAC NOTES (CALLABLE)	5.40%	2/23/2026	780,000.00	5.40%	
2/21/2023	2/22/2023	680,000.00	912796YB9	US TREASURY BILL	0.00%	3/2/2023	679,332.84	4.42%	
3/1/2023	3/1/2023	1,010,000.00	91282CGP0	US TREASURY N/B NOTES	4.00%	2/29/2028	998,352.75	4.26%	
3/1/2023	3/2/2023	675,000.00	912828Q29	US TREASURY NOTES	1.50%	3/31/2023	677,331.04	5.06%	
3/17/2023	3/17/2023	435,000.00	912828Q29	US TREASURY NOTES	1.50%	3/31/2023	437,297.87	5.74%	
3/30/2023	3/31/2023	1,310,000.00	9128284L1	US TREASURY NOTES	2.75%	4/30/2023	1,322,826.61	4.73%	
<b>Total BUY</b>		<b>9,698,000.00</b>					<b>9,449,218.41</b>		<b>0.00</b>
<b>INTEREST</b>									
1/10/2023	1/10/2023	565,000.00	24422EVY2	JOHN DEERE CAPITAL CORP CORPORATE NOTES	1.25%	1/10/2025	3,531.25		
1/10/2023	1/10/2023	795,000.00	3135G05G4	FANNIE MAE NOTES	0.25%	7/10/2023	993.75		
1/15/2023	1/15/2023	173,382.79	14314QAC8	CARMX 2021-2 A3	0.52%	2/17/2026	75.13		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>INTEREST</b>									
1/15/2023	1/15/2023	66,785.93	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/2025	18.92		
1/15/2023	1/15/2023	112,127.85	44933LAC7	HART 2021-A A3	0.38%	9/15/2025	35.51		
1/15/2023	1/15/2023	195,000.00	89239BAC5	TAOT 2021-C A3	0.43%	1/15/2026	69.88		
1/15/2023	1/15/2023	555,000.00	87612EBM7	TARGET CORP CORP NOTES (CALLABLE)	1.95%	1/15/2027	5,411.25		
1/15/2023	1/15/2023	60,357.27	14315XAC2	CARMX 2020-1 A3	1.89%	12/16/2024	95.06		
1/15/2023	1/15/2023	95,000.00	44935FAD6	HART 2021-C A3	0.74%	5/15/2026	58.58		
1/15/2023	1/15/2023	155,000.00	254683CP8	DCENT 2021-A1 A1	0.58%	9/15/2026	74.92		
1/15/2023	1/15/2023	81,152.97	89232HAC9	TAOT 2020-A A3	1.66%	5/15/2024	112.26		
1/21/2023	1/21/2023	71,900.54	43813RAC1	HAROT 2020-1 A3	1.61%	4/22/2024	96.47		
1/21/2023	1/21/2023	105,186.36	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/2025	23.67		
1/21/2023	1/21/2023	525,000.00	3137EAEU9	FREDDIE MAC NOTES	0.37%	7/21/2025	984.38		
1/24/2023	1/24/2023	500,000.00	06053FAA7	BANK OF AMERICA CORP NOTES	4.10%	7/24/2023	10,250.00		
1/26/2023	1/26/2023	259,000.00	3136G46V0	FANNIE MAE NOTES (CALLABLE)	0.31%	1/26/2024	401.45		
1/26/2023	1/26/2023	745,000.00	06406RBA4	BANK OF NY MELLON CORP (CALLABLE) CORPOR	2.05%	1/26/2027	7,636.25		
1/31/2023	1/31/2023	2,170,000.00	91282CBH3	US TREASURY NOTES	0.37%	1/31/2026	4,068.75		
1/31/2023	1/31/2023	715,000.00	9128286A3	US TREASURY NOTES	2.62%	1/31/2026	9,384.38		
1/31/2023	1/31/2023	1,035,000.00	912828S92	US TREASURY NOTES	1.25%	7/31/2023	6,468.75		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>INTEREST</b>									
2/8/2023	2/8/2023	730,000.00	594918BR4	MICROSOFT CORP (CALLABLE) NOTES	2.40%	8/8/2026	8,760.00		
2/9/2023	2/9/2023	120,000.00	46647PCM6	JPMORGAN CHASE & CO CORP NOTES (CALLABLE	0.76%	8/9/2025	460.80		
2/12/2023	2/12/2023	1,035,000.00	3137EAEP0	FREDDIE MAC NOTES	1.50%	2/12/2025	7,762.50		
2/13/2023	2/13/2023	430,000.00	89236TGT6	TOYOTA MOTOR CREDIT CORP CORP NOTES	1.80%	2/13/2025	3,870.00		
2/14/2023	2/14/2023	1,000,000.00	3135G05S8	FANNIE MAE NOTES (CALLABLE)	0.50%	8/14/2025	2,500.00		
2/15/2023	2/15/2023	105,168.53	44933LAC7	HART 2021-A A3	0.38%	9/15/2025	33.30		
2/15/2023	2/15/2023	435,000.00	912828V98	US TREASURY NOTES	2.25%	2/15/2027	4,893.75		
2/15/2023	2/15/2023	95,000.00	44935FAD6	HART 2021-C A3	0.74%	5/15/2026	58.58		
2/15/2023	2/15/2023	1,365,000.00	912828R0	US TREASURY NOTES	2.25%	8/15/2027	15,356.25		
2/15/2023	2/15/2023	155,000.00	254683CP8	DCENT 2021-A1 A1	0.58%	9/15/2026	74.92		
2/15/2023	2/15/2023	64,243.25	89232HAC9	TAOT 2020-A A3	1.66%	5/15/2024	88.87		
2/15/2023	2/15/2023	163,648.71	14314QAC8	CARMX 2021-2 A3	0.52%	2/17/2026	70.91		
2/15/2023	2/15/2023	1,125,000.00	912828A7	US TREASURY NOTES	1.50%	8/15/2026	8,437.50		
2/15/2023	2/15/2023	62,954.25	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/2025	17.84		
2/15/2023	2/15/2023	53,342.68	14315XAC2	CARMX 2020-1 A3	1.89%	12/16/2024	84.01		
2/15/2023	2/15/2023	195,000.00	89239BAC5	TAOT 2021-C A3	0.43%	1/15/2026	69.88		
2/21/2023	2/21/2023	59,575.23	43813RAC1	HAROT 2020-1 A3	1.61%	4/22/2024	79.93		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>INTEREST</b>									
2/21/2023	2/21/2023	97,345.59	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/2025	21.90		
2/24/2023	2/24/2023	520,000.00	3137EAEV7	FREDDIE MAC NOTES	0.25%	8/24/2023	650.00		
2/25/2023	2/25/2023	970,000.00	3135G05X7	FANNIE MAE NOTES	0.37%	8/25/2025	1,818.75		
2/28/2023	2/28/2023	2,000,000.00	912828W48	US TREASURY NOTES	2.12%	2/29/2024	21,250.00		
2/28/2023	2/28/2023	910,000.00	91282CAJ0	US TREASURY NOTES	0.25%	8/31/2025	1,137.50		
2/28/2023	2/28/2023	2,300,000.00	91282CBQ3	US TREASURY NOTES	0.50%	2/28/2026	5,750.00		
3/14/2023	3/14/2023	735,000.00	437076BT8	HOME DEPOT INC CORP NOTES (CALLABLE)	2.80%	9/14/2027	10,290.00		
3/15/2023	3/15/2023	195,000.00	89239BAC5	TAOT 2021-C A3	0.43%	1/15/2026	69.88		
3/15/2023	3/15/2023	155,000.00	254683CP8	DCENT 2021-A1 A1	0.58%	9/15/2026	74.92		
3/15/2023	3/15/2023	46,609.08	14315XAC2	CARMX 2020-1 A3	1.89%	12/16/2024	73.41		
3/15/2023	3/15/2023	154,544.97	14314QAC8	CARMX 2021-2 A3	0.52%	2/17/2026	66.97		
3/15/2023	3/15/2023	95,000.00	44935FAD6	HART 2021-C A3	0.74%	5/15/2026	58.58		
3/15/2023	3/15/2023	1,100,000.00	91282CAK7	US TREASURY NOTES	0.12%	9/15/2023	687.50		
3/15/2023	3/15/2023	47,669.16	89232HAC9	TAOT 2020-A A3	1.66%	5/15/2024	65.94		
3/15/2023	3/15/2023	59,249.25	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/2025	16.79		
3/15/2023	3/15/2023	98,129.45	44933LAC7	HART 2021-A A3	0.38%	9/15/2025	31.07		
3/16/2023	3/16/2023	110,000.00	46647PBS4	JPMORGAN CHASE & CO CORPORATE NOTES (CAL	0.65%	9/16/2024	359.15		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>INTEREST</b>									
3/21/2023	3/21/2023	89,654.20	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/2025	20.17		
3/21/2023	3/21/2023	47,550.69	43813RAC1	HAROT 2020-1 A3	1.61%	4/22/2024	63.80		
3/21/2023	3/21/2023	1,625,000.00	3133EMAM4	FEDERAL FARM CREDIT BANK (CALLABLE)	0.25%	9/21/2023	2,031.25		
3/23/2023	3/23/2023	820,000.00	4581X0DZ8	INTER-AMERICAN DEVEL BK NOTES	0.50%	9/23/2024	2,050.00		
3/23/2023	3/23/2023	795,000.00	3137EAEX3	FREDDIE MAC NOTES	0.37%	9/23/2025	1,490.63		
3/31/2023	3/31/2023	1,545,000.00	912828T26	US TREASURY NOTES	1.37%	9/30/2023	10,621.88		
3/31/2023	3/31/2023	645,000.00	91282CCZ2	US TREASURY N/B NOTES	0.87%	9/30/2026	2,821.88		
3/31/2023	3/31/2023	474,000.00	91282CFM8	US TREASURY N/B NOTES	4.12%	9/30/2027	9,776.25		
3/31/2023	3/31/2023	730,000.00	912828W71	US TREASURY NOTES	2.12%	3/31/2024	7,756.25		
3/31/2023	3/31/2023	1,060,000.00	91282CAM3	US TREASURY NOTES	0.25%	9/30/2025	1,325.00		
<b>Total INTEREST</b>		<b>33,598,578.75</b>					<b>182,789.12</b>		<b>0.00</b>
<b>MATURITY</b>									
2/1/2023	2/1/2023	745,000.00	06742TG34	BARCLAYS BANK PLC NY CERT DEPOS	1.05%	2/1/2023	752,887.69		
2/17/2023	2/17/2023	775,000.00	3130AJ7E3	FEDERAL HOME LOAN BANKS NOTES	1.37%	2/17/2023	780,328.13		
2/22/2023	2/22/2023	675,000.00	023135AW6	AMAZON INC BONDS (CALLABLE)	2.40%	2/22/2023	683,100.00		
2/23/2023	2/23/2023	780,000.00	912796T33	US TREASURY BILL	0.00%	2/23/2023	780,000.00		
3/1/2023	3/1/2023	985,000.00	30231GAR3	EXXON MOBIL CORPORATION CORP NOTES (CALL	2.72%	3/1/2023	998,425.55		



## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>MATURITY</b>									
3/2/2023	3/2/2023	680,000.00	912796YB9	US TREASURY BILL	0.00%	3/2/2023	680,000.00		
3/17/2023	3/17/2023	435,000.00	22552G3C2	CREDIT SUISSE NEW YORK CERT DEPOS	0.59%	3/17/2023	437,602.15		
3/31/2023	3/31/2023	675,000.00	912828Q29	US TREASURY NOTES	1.50%	3/31/2023	680,062.50		
3/31/2023	3/31/2023	435,000.00	912828Q29	US TREASURY NOTES	1.50%	3/31/2023	438,262.50		
3/31/2023	3/31/2023	175,000.00	912828Q29	US TREASURY NOTES	1.50%	3/31/2023	176,312.50		
<b>Total MATURITY</b>		<b>6,360,000.00</b>					<b>6,406,981.02</b>		<b>0.00</b>
<b>PAYDOWNS</b>									
1/15/2023	1/15/2023	3,831.68	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/2025	3,831.68		
1/15/2023	1/15/2023	6,959.32	44933LAC7	HART 2021-A A3	0.38%	9/15/2025	6,959.32		
1/15/2023	1/15/2023	9,734.08	14314QAC8	CARMX 2021-2 A3	0.52%	2/17/2026	9,734.08		
1/15/2023	1/15/2023	16,909.72	89232HAC9	TAOT 2020-A A3	1.66%	5/15/2024	16,909.72		
1/15/2023	1/15/2023	7,014.59	14315XAC2	CARMX 2020-1 A3	1.89%	12/16/2024	7,014.59		
1/21/2023	1/21/2023	7,840.77	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/2025	7,840.77		
1/21/2023	1/21/2023	12,325.31	43813RAC1	HAROT 2020-1 A3	1.61%	4/22/2024	12,325.31		
2/15/2023	2/15/2023	6,733.60	14315XAC2	CARMX 2020-1 A3	1.89%	12/16/2024	6,733.60		
2/15/2023	2/15/2023	7,039.08	44933LAC7	HART 2021-A A3	0.38%	9/15/2025	7,039.08		
2/15/2023	2/15/2023	9,103.74	14314QAC8	CARMX 2021-2 A3	0.52%	2/17/2026	9,103.74		

## Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>PAYDOWNS</b>									
2/15/2023	2/15/2023	16,574.09	89232HAC9	TAOT 2020-A A3	1.66%	5/15/2024	16,574.09		
2/15/2023	2/15/2023	3,705.00	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/2025	3,705.00		
2/21/2023	2/21/2023	7,691.39	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/2025	7,691.39		
2/21/2023	2/21/2023	12,024.54	43813RAC1	HAROT 2020-1 A3	1.61%	4/22/2024	12,024.54		
3/15/2023	3/15/2023	6,406.65	14315XAC2	CARMX 2020-1 A3	1.89%	12/16/2024	6,406.65		
3/15/2023	3/15/2023	8,763.20	14314QAC8	CARMX 2021-2 A3	0.52%	2/17/2026	8,763.20		
3/15/2023	3/15/2023	15,544.01	89232HAC9	TAOT 2020-A A3	1.66%	5/15/2024	15,544.01		
3/15/2023	3/15/2023	3,549.77	14316NAC3	CARMX 2021-1 A3	0.34%	12/15/2025	3,549.77		
3/15/2023	3/15/2023	6,723.65	44933LAC7	HART 2021-A A3	0.38%	9/15/2025	6,723.65		
3/21/2023	3/21/2023	7,260.05	43813GAC5	HAROT 2021-1 A3	0.27%	4/21/2025	7,260.05		
3/21/2023	3/21/2023	11,536.01	43813RAC1	HAROT 2020-1 A3	1.61%	4/22/2024	11,536.01		
<b>Total PAYDOWNS</b>		<b>187,270.25</b>					<b>187,270.25</b>		<b>0.00</b>
<b>SELL</b>									
1/23/2023	1/25/2023	500,000.00	06053FAA7	BANK OF AMERICA CORP NOTES	4.10%	7/24/2023	498,246.94		-4,127.29
1/26/2023	1/30/2023	710,000.00	9128284U1	US TREASURY NOTES	2.62%	6/30/2023	705,609.38		-12,036.22

### Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
<b>SELL</b>									
2/1/2023	2/3/2023	753,000.00	912796ZT9	CASH MGMT BILL BILLS	0.00%	2/7/2023	752,649.66		0.71
<b>Total SELL</b>		<b>1,963,000.00</b>					<b>1,956,505.98</b>		<b>-16,162.80</b>

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- 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.
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- MBS maturities are represented by expected average life.

## Glossary

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

## Glossary

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



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

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

Karen W. Murphy  
*Attorney*

**JUNE 26, 2023  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 8**

**TITLE:** **Public Hearing to Consider Collection of Sewer Service Charges on the Tax Rolls for Fiscal Year 2024 and Adoption of a Resolution Electing to Collect Sewer Service Charges on the Tax Rolls (This is a Motion Item)**

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

**Recommendation**

Conduct a public hearing and receive oral or written protests to the proposal to collect sewer service charges on the tax rolls, and if a majority protest is not received, adopt a Resolution Electing to Collect Sewer Service Charges on the Tax Rolls for FY 2024.

**Discussion**

The District has collected sewer service charges on the general Alameda County tax rolls for many years; however, the Board must hold a public hearing annually to consider and authorize collection of the sewer service charges on the tax rolls. The procedures required for the collection of sewer service charges on the tax rolls are set forth in California Health and Safety Code sections 5473 et seq. Pursuant to these procedures, the District may authorize the collection of sewer service charges for fiscal year 2024 to be collected on the tax rolls, consistent with past practices, by:

1. Creating a report setting forth the sewer service charges to be assessed on each parcel in the District and filing the report with the Board Clerk.
2. Scheduling a public hearing for the Board to hear objections and protests to the report, if any.
3. Publishing notice of the filing of the report and the public hearing.
4. Holding the public hearing and considering any objections and protests to the report.
5. If there is no majority protest, adopting the report and authorizing the collection of the sewer service charges on the tax rolls in accordance with the report.

Staff prepared the report setting forth the sewer service charges to be assessed on each parcel in the District for fiscal year 2024. The report is available for public inspection at the Districts



offices, and staff published notice of the report and the public hearing to consider the report in the Argus newspaper on June 16, 2023, and June 23, 2023, and in the Tri-City Voice on June 13, 2023 and June 20, 2023. Once available, a Proof of Publication from both newspapers will be filed with the Board Clerk. After considering any objection and protests to the report, the Board has the option of revising, changing, or modifying any charge specified in the report or overruling any objections and adopting the report. As of the publishing of this staff report, the District has not received any protests.

Staff recommends the Board take the following actions:

1. Conduct a public hearing to receive written and oral comments on the proposal to collect sewer service charges via the property tax rolls; and
2. Unless there is a majority protest, overrule any objections to the report and adopt a Resolution Electing to Collect Sewer Service Charges on Tax Rolls

### **Background**

On May 08, 2023, the Board directed staff to schedule a public hearing on June 26, 2023 regarding collection of sewer service charges on the tax rolls and to publish the required public notices.

### **Previous Board Action**

May 08, 2023 Board Meeting - Scheduling Public Hearing to Consider Collection of Sewer Service Charges on the Tax Roll for Fiscal Year 2024

### **Attachments**

Attachment 1 – Copy of Public Notice

Attachment 2 - Resolution

## UNION SANITARY DISTRICT

### NOTICE OF FILING REPORT AND PUBLIC HEARING IN CONNECTION WITH THE COLLECTION OF FISCAL YEAR 2024 SEWER SERVICE CHARGES ON THE PROPERTY TAX ROLL

**NOTICE IS HEREBY GIVEN** that pursuant to Sections 5471 and 5473, et seq. of the Health and Safety Code of the State of California and Union Sanitary District Ordinance No. 31, the Board of Directors of Union Sanitary District will consider whether to collect its charges for sewer services for fiscal year 2024 on the tax roll, in the same manner as general taxes, consistent with past practices.

The District has filed a written report with the Secretary of the Board of Directors describing each parcel of real property subject to the charges and the amount of the charges against that parcel for fiscal year 2024. The District's report is on file and available for public inspection at the District Offices.

For reference, the charges for a single-family homeowner (the majority of USD's customers) and all other rates for individual customers can be found by contacting the District at (510) 477-7500 or on the Districts website [www.unionsanitary.com/rates/sewer-service-charges](http://www.unionsanitary.com/rates/sewer-service-charges)

**NOTICE IS FURTHER GIVEN** that on Monday, the 26th day of June 2023, at the hour of 4:00 p.m. or as soon thereafter as the matter may be heard, during the Board meeting to be held at the Union Sanitary District Boardroom, 5072 Benson Road, Union City, California, in said District, the Board will hold a hearing to consider the report and whether to collect the sewer service charges for fiscal year 2024 on the property tax roll. At the hearing, the Board of Directors will hear and consider all objections or protests, if any, to the District's report. Any questions regarding the charges may be directed to Mark Carlson, CFO, Business Services Manager.

Publish dates: June 13, 2023 – Tri-City Voice  
June 20, 2023 – Tri-City Voice  
June 16, 2023 – Argus  
June 23, 2023– Argus

By order of the Board of Directors of Union Sanitary District.

RESOLUTION NO. \_\_\_\_\_

**RESOLUTION OF THE UNION SANITARY DISTRICT BOARD OF DIRECTORS ELECTING TO COLLECT SEWER SERVICE CHARGES ON TAX ROLLS FOR FISCAL YEAR 2024**

WHEREAS, the Union Sanitary District (“District”) has duly adopted Ordinance No. 31.40 which sets the sewer service charges for fiscal years 2021 through 2025; and

WHEREAS, California Health & Safety Code section 5473 provides that the District may elect to have such sewer service charges collected on the County property tax rolls; and

WHEREAS, the District Board of Directors directed the preparation of a written report on Sewer Service Charges for Collection on Tax Rolls for Fiscal Year 2024 (the “Report”); and

WHEREAS, the Board appointed the time and place of hearing for protests to the Report and notice was given in the manner provided by law as it appears by the Affidavits of Publication on file in the office of the Board Clerk; and

WHEREAS, the District Board of Directors, at its regular meeting of June 26, 2023, held a hearing, where the Board heard and considered all objections or protests, and protests from a majority of owners of separate parcels was not received.

NOW, THEREFORE, IT IS RESOLVED AS FOLLOWS:

1. All recitals above are true and incorporated by reference herein.
2. The Board finds that objections to and protests against the Report were not made by the owners of a majority of the separate parcels of property within the District against which sewer service charges for the services and facilities provided by the District were fixed.
3. The Board further finds that all objections to and protests have been heard by this Board and that any objections and protests are hereby overruled.
4. The Report is hereby adopted, and sewer service charges based upon these rates and the sewer service charges for fiscal year 2024 shall be collected on the tax roll of the County of Alameda in the manner provided by law.
5. The Board Clerk is hereby directed to file with the County Auditor of Alameda County a certified copy of the Report and this Resolution stating that the Report has been adopted by the District Board of Directors.
6. The Auditor Controller of the County of Alameda shall, upon receipt of a copy of the Report showing the amounts of the charges based upon adopted rates, enter the amounts of the charges against the respective lots or parcels as they appear on the current assessment roll for fiscal year 2024.

I hereby certify that the foregoing Resolution was duly and regularly adopted and passed by at least a two-thirds vote of the Board of Directors of the UNION SANITARY DISTRICT, Alameda County, California, at a meeting thereof held on the 26th day of June, 2023.

AYES:

NOES:

ABSENT:

ABSTAIN:

---

Manny Fernandez, President  
Board of Directors Union Sanitary District

ATTEST:

---

Tom Handley, Secretary  
Board of Directors Union Sanitary District



**USD** TREAT  
PROTECT  
PRESERVE  
est. 1918  
**TRI-CITY WASTEWATER**

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

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

Karen W. Murphy  
*Attorney*

**JUNE 26, 2023  
BOARD OF DIRECTORS  
MEETING AGENDA ITEM #9**

**TITLE:** Consider Approving Proposed Operating and CIP Budget for Fiscal Year 2024  
*(This is a Motion Item)*

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

**Recommendation**

Review and consider adoption of the Proposed Operating and CIP Budget for Fiscal Year 2024.

**Discussion**

Attached is the proposed Operating and CIP Budget for FY 2024. This budget reflects the Board's input and revisions made after the Budget Workshop on April 27, 2023, and the Draft Budget presented to the Board at the meeting on May 22, 2023. There are two proposed changes to the budget document since the draft was presented at the May 22, 2022 Board meeting:

1. Increasing the Sewer Service Charge revenue by \$600,000 from \$83.6 million to \$84.2 million. This increase is based upon an updated analysis of the supporting data since the last presentation to the Board. Specifically, the number of estimated residential connections decreased resulting in a revenue reduction of \$300,000 and the commercial/industrial flow and strength and charges increased by \$900,000.
2. Increasing the Treatment and Disposal miscellaneous budget by \$175,000. The cleaning of digester six was originally scheduled to be completed in FY 23 at an estimated cost of \$150,000. Staff is now anticipating that approximately \$75,000 of that cost will not be completed until mid to late summer of FY 24. In addition, due to additional debris in the digester, the cost is expected to increase by approximately \$100,000 for a total digester six cleaning cost of \$250,000 (\$75,000 in FY 23 and \$175,000 in FY 24). A staff report regarding the project increase will be brought to the Board for discussion and consideration.

**Background**

The Board met in a budget workshop on April 27, 2023, to discuss the proposed FY 2024 budget. Feedback from that meeting was then incorporated into a budget presentation at the May 22, 2023 Board meeting to which there was no further budget modifications recommended by the Board.

**Previous Board Action**

- April 27, 2023 – Board Budget Workshop
- May 22, 2023 – Budgeted presented to Board

**Attachments**

Attachment 1 – Budget Document



**USD** TREAT  
PROTECT  
PRESERVE  
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TRI-CITY WASTEWATER

# Union Sanitary District

Union City, California

Draft Operating and CIP Budget  
FY 2024



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# INTRODUCTION



Placement of the Topping Beam on the New Campus Building  
Cover Picture: ETSU Aeration Basin Construction

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## Board of Directors



Jennifer Toy



Anjali Lathi



Manny Fernandez



Tom Handley



Pat Kite



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

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

Karen W. Murphy  
*Attorney*

**MEMO TO:** Board of Directors - Union Sanitary District

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

**SUBJECT:** Fiscal Year 2023/2024 Proposed Operating and CIP Budget

Union Sanitary District (USD) staff is pleased to present the proposed annual budget for Fiscal Year (FY) 2024 to the Board of Directors. This budget, covering the period from July 1, 2023 through June 30, 2024, was developed based on direction provided by the Board of Directors.

### **District Highlights**

The District continues to focus on the operation and maintenance of its infrastructure and assets, capital project construction, planning, and effective use of technology. The District reports the following notable items that will be part of the budget for FY 2024:

**Enhanced Treatment & Site Upgrade Project** – The District embarked on the ETSU Phase 1 Group of Projects in FY 2023 as part of an overall Program to support the next 20 to 40 years of operation. The key drivers for ETSU Phase 1 projects include addressing aging infrastructure, improving water quality in the San Francisco Bay through nutrient removal upgrades, and hardening of infrastructure to support resiliency efforts to manage wet weather events and continuing to provide USD’s critical services without interruption. These include improvements to the aeration basins and relocation of operations, maintenance, and administrative facilities. Construction of the first group of the phase 1 projects are underway and are approximately 15% complete. Design of Phases 1B and 1C are ongoing. It is currently anticipated that construction will continue through 2028 for the various phases.

**Project Financing** – As part of the ETSU Phase 1 program mentioned above, the District was able to secure \$249 million in low cost EPA Water Infrastructure Finance and Innovation Act (WIFIA) financing in December of 2021. These funds will account for 49% of the total project costs. In addition to the WIFIA financing, the District issued the 2021A bonds for \$110 million in October of

2021. The District's is currently waiting to hear if it will be successful in its application to the State for SRF financing to cover the balance of the ETSU Phase 1 project.

Standby Power Project – The District began the Standby Power project in FY 2023. The Standby Power Generation System Upgrade Project will replace the current emergency power system at the Alvarado Wastewater Treatment Plant. The new equipment will include three emergency power generators and space for one future generator, generator controls, electrical switchgear, above ground diesel fuel storage tank, and other support equipment.

Stewardship and Service - The District continued its record of outstanding stewardship and service. Once again, USD received the Platinum Award from the National Association of Clean Water Agencies for Peak Performance for operating without exceeding the limits or conditions of the District's permit. This is a tribute to the outstanding work by District Operations and Maintenance teams. The District continues to average less than one spill per hundred miles of pipeline per year, ranking the District among the best in the State, while doing so in a very cost-effective manner.

### **Financial State of the District**

The District continues to exercise fiscal prudence when considering how to best manage increasing expenses with the least impact possible on the rate payers. A complex financial model is utilized to run a multitude of "what if" scenarios. Scenario-based modeling allows the District to analyze different financing plan scenarios to assist the District in making sound financial decisions on future operating and infrastructure needs and the long-term sustainability of prospective policies and programs. It is because of this cautionary approach that the District has continued to keep its rates as low as possible and remain financially stable.

Revenue - Sewer Service Charges (SSC) are expected to increase by \$7.2 million in FY 2024 to \$84.2 million and interest earnings are budgeted to increase \$3.0 million to \$4.5 million.

Expenditures - Total District expenditures for the coming fiscal year are projected to increase by \$25.0 million or 18.1%. Operating expenses are anticipated to increase by \$4.7 million or 9.4%. Within the operating category, Salaries and Benefits are expected to increase \$1.2 million or 3.6%. The salary and benefit increases are primarily due to the addition of two new positions in the Treatment and Disposal Department and negotiated increases to salaries. The first is a Limited Duration Plant Operator 3 Trainee to assist with the impacts of the ETSU project on plant operations and the second position is a QA Chemist.

For FY 2024 the District is seeing increases in chemicals, insurance costs, utilities, bio-solids disposal, and District wide parts and materials. The District continues to find ways to reduce costs through planning partnerships and strict fiscal prudence.

The Capital Improvement Program is budgeted to increase \$15.7 million or 22.8% over FY 2023. This is the third year of increased capital expenditures as the District enters into a ten year \$802 million capital program. Capital project spending will continue to focus on rehabilitation and replacement of key elements of the wastewater treatment plant, transport, and collections system.

In keeping with the District's continued efforts toward prudent fiscal planning, the creation of a 115 Pension Trust was adopted by the Board in FY 2022 with an initial contribution of \$3.0 million. The proposed budget plans for a \$6.4 million contribution in FY 2024. This includes the budgeted contribution from FY 2023 of \$3.0 million, that was held in the District's investment pool until the investment market stabilizes, \$3.0 million for FY 2024, and an estimated \$400,000 of accumulated interest earnings on those funds.

Special Projects Fund expenditures will increase by \$916,384 from FY 2023. Some of the more significant special projects are the continued set aside of \$1.5 million for property acquisitions as opportunities become available, approximately \$1.5 million for potential election costs, \$365,000 for the Alvarado Basin study, \$300,000 for a Digester Efficiency Evaluation, and \$150,000 for the Control Box No. 1 grit removal evaluation.

### **Balanced Budget, Reserves and Rates**

USD has long operated with a balanced budget and FY 2024 is no exception. District reserves continue to be stable. Although funds will be taken from both the Sewer Service Fund and Capacity Fund reserves in FY 2024, these are planned capital activities and are part of the long term capital investment strategy of the District.

### **Conclusion**

Given the past fiscal stewardship practiced by the District's Board and staff, the District is well poised to take on the proposed 20 year capital plan that will continue to make Union Sanitary District a leader in wastewater management.

I would like to express my appreciation to all the employees of the District whose hard work is not taken for granted and whose dedication is reflected in the daily delivery of services to the District's customers. The District is firmly committed to meeting every challenge brought forth through innovative and creative problem-solving and embracing continual improvement in all that it does.

Respectfully Submitted,

---

Paul R. Eldredge, P.E.  
General Manager, District Engineer  
Union Sanitary District

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# FINANCIAL SECTION



ETSU Aeration Basin Construction

## Budget Summary – All Funds

	Actual * FY 20/21	Actual * FY 21/22	Budget FY 22/23	Projected FY 22/23	Proposed Budget FY 23/24	Variance to 22/23 Budget	% Change
<b>Revenues</b>							
Sewer Service Charge	\$ 62,142,806	\$ 73,822,317	\$ 76,965,000	\$ 77,548,864	\$ 84,200,000	\$ 7,235,000	9.4%
Capacity Fees	9,358,209	11,145,152	7,467,000	8,701,518	8,420,000	953,000	12.8%
Work Group Revenues	1,315,019	1,307,546	1,234,500	1,362,903	1,353,500	119,000	9.6%
Interest	1,263,164	1,520,644	1,531,000	5,712,990	4,530,000	2,999,000	195.9%
Other Revenues	17,720	1,607,370	-	40,887	11,276	11,276	-
Net Loan Proceeds	-	110,317,768	-	-	-	-	-
SRF Funds Draw Down (Standby Power)	-	-	-	-	12,296,700	12,296,700	-
<b>Total Revenues</b>	<b>74,096,918</b>	<b>199,720,798</b>	<b>87,197,500</b>	<b>93,367,162</b>	<b>110,811,476</b>	<b>23,613,976</b>	<b>27.1%</b>
<b>Expenditures by Type</b>							
Operating	42,762,626	45,075,325	50,622,850	49,472,794	55,370,877	4,748,027	9.4%
Internal Service (1)	2,010,132	5,113,529	6,178,500	2,683,662	9,662,100	3,483,600	56.4%
Debt Service	4,387,915	7,231,990	9,017,480	8,981,016	9,134,080	116,600	1.3%
Special Projects	714,462	1,002,174	3,238,000	1,084,742	4,154,384	916,384	28.3%
Capital Projects	33,118,927	26,561,708	68,830,200	65,653,064	84,554,100	15,723,900	22.8%
<b>Total Expenditures</b>	<b>82,994,062</b>	<b>84,984,726</b>	<b>137,887,030</b>	<b>127,875,279</b>	<b>162,875,541</b>	<b>24,988,511</b>	<b>18.1%</b>
<b>Revenues Over (under) Expenditures</b>	<b>\$ (8,897,144)</b>	<b>\$ 114,736,071</b>	<b>\$ (50,689,530)</b>	<b>\$ (34,508,117)</b>	<b>\$ (52,064,065)</b>	<b>\$ (1,374,535)</b>	<b>2.7%</b>
<b>EXPENDITURES BY OPERATING GROUP</b>							
Board of Directors	\$ 141,163	\$ 146,070	\$ 189,942	\$ 169,045	\$ 229,861	\$ 39,919	21.0%
General Manager	991,836	1,044,864	1,522,281	1,320,704	1,336,767	(185,514)	-12.2%
Business Services (2)	10,163,040	17,268,385	18,662,225	15,441,472	22,557,717	3,895,492	20.9%
Collection Services	7,643,479	7,528,445	8,910,580	8,826,397	8,931,936	21,356	0.2%
Technical Services	6,771,336	6,578,316	7,361,274	7,381,721	7,724,288	363,014	4.9%
Treatment & Disposal Services	13,937,436	15,123,376	17,837,232	17,325,429	21,468,508	3,631,276	20.4%
Fabrication, Maint & Construction	9,512,383	9,731,388	11,335,296	10,672,705	11,917,980	582,684	5.1%
Capital Projects (3)	33,118,927	26,561,708	68,830,200	65,653,064	84,554,100	15,723,900	22.8%
Special Projects (3)	714,462	1,002,174	3,238,000	1,084,742	4,154,384	916,384	28.3%
<b>Total by Operating Group</b>	<b>\$82,994,062</b>	<b>\$ 84,984,726</b>	<b>\$ 137,887,030</b>	<b>\$ 127,875,279</b>	<b>\$ 162,875,541</b>	<b>\$ 24,988,511</b>	<b>18.1%</b>

\* Actual numbers based on modified accrual basis to reflect budget accounting.

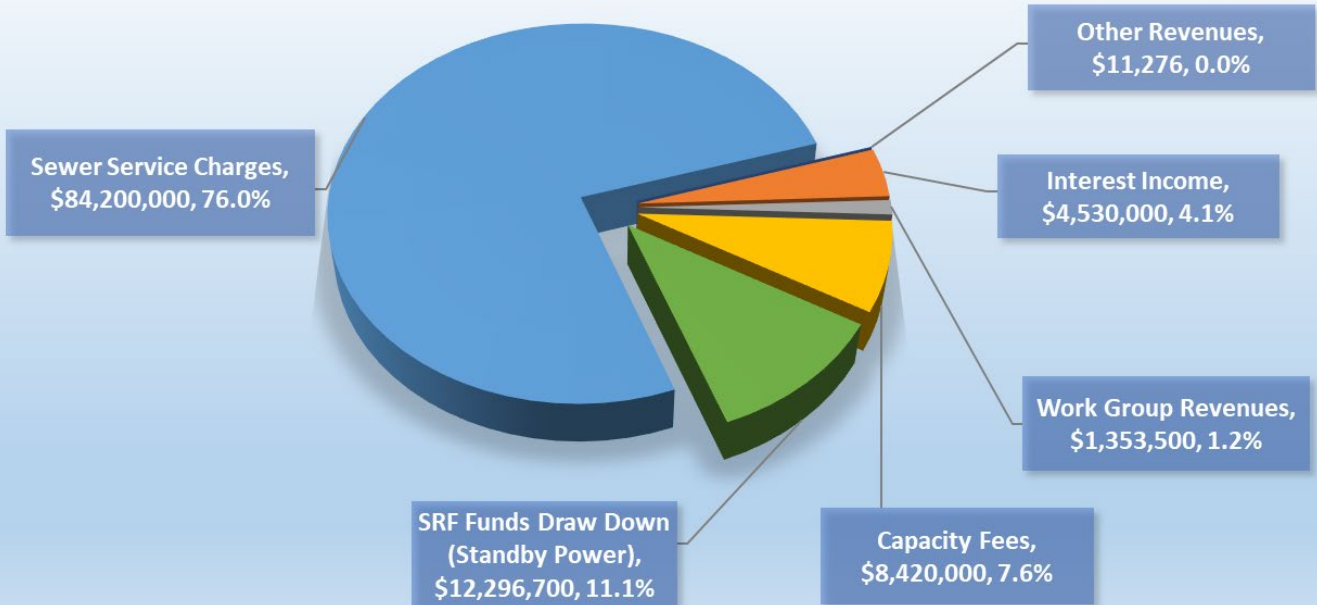
(1) Includes funds 40, 45, 50, 60, and 70.

(2) Business Services handles debt payments and pension management.

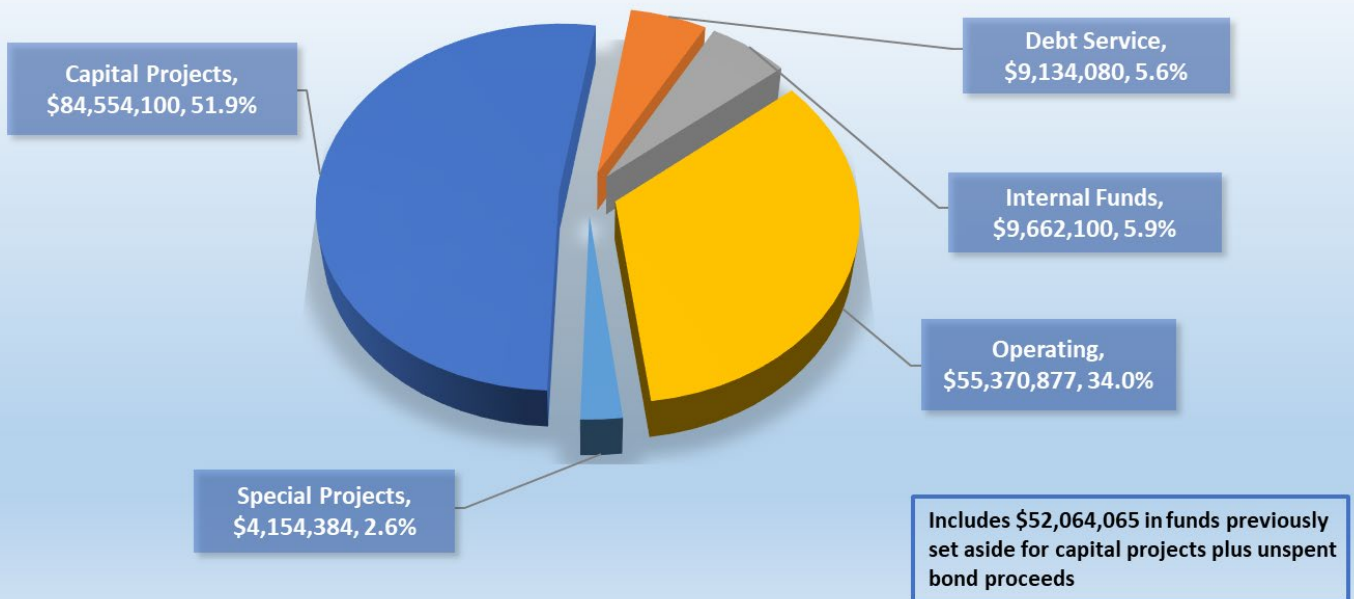
(3) Capital Projects and Special Projects are managed by multiple departments on a collaborative basis.

## District Wide Revenue & Expenditures

### Total Revenues \$110,811,476



### Total Expenditures \$162,875,541



## Combined Budget by Fund Sewer Service & Capacity Funds

	Sewer Service Fund	Capacity Fund	Total
<b>Revenues</b>			
Sewer Service Charge	\$ 84,200,000	\$ -	\$ 84,200,000
Capacity Fees	-	8,420,000	8,420,000
Work Group Revenues	1,353,500	-	1,353,500
Interest	2,605,000	1,925,000	4,530,000
Other Revenues	11,276	-	11,276
SRF Funds Draw Down (Standby Power)	12,296,700	-	12,296,700
<b>Total Revenues</b>	100,466,476	10,345,000	110,811,476
<b>Expenditures</b>			
Operating	55,370,877	-	55,370,877
Internal Funds (1)	9,662,100	-	9,662,100
Debt Service	4,943,833	4,190,247	9,134,080
Special Projects	4,154,384	-	4,154,384
Capital Projects	70,605,900	13,948,200	84,554,100
<b>Total Expenditures</b>	144,737,094	18,138,447	162,875,541
<b>Revenues Over (less than) Expenditures</b>	\$ (44,270,618)	\$ (7,793,447)	\$ (52,064,065)
<b>EXPENDITURES BY OPERATING GROUP</b>			
Board of Directors	\$ 229,861	\$ -	\$ 229,861
General Manager	1,336,767	-	1,336,767
Business Services (2)	18,367,470	4,190,247	22,557,717
Collection Services	8,931,936	-	8,931,936
Technical Services	7,724,288	-	7,724,288
Treatment & Disposal Services	21,468,508	-	21,468,508
Fabrication, Maint & Construction	11,917,980	-	11,917,980
Capital Projects (3)	70,605,900	13,948,200	84,554,100
Special Projects (3)	4,154,384	-	4,154,384
<b>Total by Operating Group</b>	\$ 144,737,094	\$ 18,138,447	\$ 162,875,541

(1) Includes funds 40, 45, 50, 60, and 70.

(2) Business Services handles debt payments and pension management.

(3) Capital Projects and Special Projects are managed by multiple departments on a collaborative basis.

# REVENUES

	Actual *	Actual *	Budget	Projected	Proposed	Variance to	
	FY 20/21	FY 21/22	FY 22/23	FY 22/23	Budget	22/23 Budget	% Change
<b>Revenues</b>							
Sewer Service Charge	\$62,142,806	\$ 73,822,317	\$ 76,965,000	\$ 77,548,864	\$ 84,200,000	\$ 7,235,000	9.4%
Capacity Fees	9,358,209	11,145,152	7,467,000	8,701,518	8,420,000	953,000	12.8%
Work Group Revenues	1,315,019	1,307,546	1,234,500	1,362,903	1,353,500	119,000	9.6%
Interest	1,263,164	1,520,644	1,531,000	5,712,990	4,530,000	2,999,000	195.9%
Other Revenues	17,720	1,607,370	-	40,887	11,276	11,276	-
Net Loan Proceeds	-	110,317,768	-	-	-	-	-
SRF Funds Draw Down (Standby Power)	-	-	-	-	12,296,700	12,296,700	-
<b>Total Revenues</b>	<b>\$74,096,918</b>	<b>\$ 199,720,798</b>	<b>\$ 87,197,500</b>	<b>\$ 93,367,162</b>	<b>\$ 110,811,476</b>	<b>\$ 23,613,976</b>	<b>27.1%</b>

\* Actual numbers based on modified accrual basis to reflect budget accounting.

**Sewer Service Charges** - The principal revenue source for the Sewer Service Fund is the annual Sewer Service Charges (SSC), which are projected to increase over the prior year budget by \$7,235,000. Single Family Dwelling (SFD) rates will increase from \$530.21 in FY 2023 to \$569.97 in FY 2024. Similarly, the annual Multi-family Dwelling rate will increase from \$467.24 in FY 2023 to \$502.28 in FY 2024. Residential rates account for approximately 74% of total sewer service charge revenues. For non-residential customers, rates are calculated annually using flow based on water usage and sewage strength.

The District collects 97% of the sewer service charge revenue on the Teeter plan through the Alameda County property tax bill.

**Capacity Fees** - The revenue source for the Capacity Fund is Capacity Fees, which are expected to increase by \$953,000 or 12.8% from the prior year’s budget. These revenues vary depending on development in the service area. These fees are collected in accordance with the provisions of California Assembly Bill (AB) 1600 and are intended to mitigate the impacts of new developments. In the case of the District, these fees are collected from new developments as a requirement of connecting to the sewer system. As such, they can only be used for capital projects that preserve or increase the system’s capacity.

**Work Group Revenues** - These revenues consist of field inspection fees, plan check fees, permits, external work orders, and services provided under contract to the City of Fremont’s Urban Runoff program. Because these items tend to vary based on external demands, anticipated revenues are typically estimated in a conservative manner. For FY 2024 the total of all of these revenues are expected to increase \$119,000 or 9.6% compared to the prior year’s budget.

**Interest Revenues** – Investment earnings are expected to increase by \$2,999,000 or 195.9% to the prior year’s budget. This increase reflects the significant increase in interest rates that have increased the District’s returns on investments and deposits.

SRF Loan Proceeds – The District expects to draw down \$12,296,700 in previously approved State Revolving Funds (SRF) to pay FY 2024 project expenditures for the Standby Power Generation System project.

## EXPENDITURES

<b>ALL FUNDS SUMMARY</b>							
	Actual *	Actual *	Budget	Projected	Proposed	Variance to	%
	FY 20/21	FY 21/22	FY 22/23	FY 22/23	Budget	22/23 Budget	Change
<b>Expenditures by Type</b>							
Operating	\$ 42,762,626	\$ 45,075,325	\$ 50,622,850	\$ 49,472,794	\$ 55,370,877	\$ 4,748,027	9.4%
Internal Service (1)	2,010,132	5,113,529	6,178,500	2,683,662	9,662,100	3,483,600	56.4%
Debt Service	4,387,915	7,231,990	9,017,480	8,981,016	9,134,080	116,600	1.3%
Special Projects	714,462	1,002,174	3,238,000	1,084,742	4,154,384	916,384	28.3%
Capital Projects	33,118,927	26,561,708	68,830,200	65,653,064	84,554,100	15,723,900	22.8%
<b>Total Expenditures</b>	<b>82,994,062</b>	<b>84,984,726</b>	<b>137,887,030</b>	<b>127,875,279</b>	<b>162,875,541</b>	<b>24,988,511</b>	<b>18.1%</b>
<b>EXPENDITURES BY OPERATING GROUP</b>							
Board of Directors	\$ 141,163	\$ 146,070	\$ 189,942	\$ 169,045	\$ 229,861	\$ 39,919	21.0%
General Manager	991,836	1,044,864	1,522,281	1,320,704	1,336,767	(185,514)	-12.2%
Business Services (2)	10,163,040	17,268,385	18,662,225	15,441,472	22,557,717	3,895,492	20.9%
Collection Services	7,643,479	7,528,445	8,910,580	8,826,397	8,931,936	21,356	0.2%
Technical Services	6,771,336	6,578,316	7,361,274	7,381,721	7,724,288	363,014	4.9%
Treatment & Disposal Services	13,937,436	15,123,376	17,837,232	17,325,429	21,468,508	3,631,276	20.4%
Fabrication, Maint & Construction	9,512,383	9,731,388	11,335,296	10,672,705	11,917,980	582,684	5.1%
Capital Projects (3)	33,118,927	26,561,708	68,830,200	65,653,064	84,554,100	15,723,900	22.8%
Special Projects (3)	714,462	1,002,174	3,238,000	1,084,742	4,154,384	916,384	28.3%
<b>Total by Operating Group</b>	<b>\$ 82,994,062</b>	<b>\$ 84,984,726</b>	<b>\$ 137,887,030</b>	<b>\$ 127,875,279</b>	<b>\$ 162,875,541</b>	<b>\$ 24,988,511</b>	<b>18.1%</b>

\* Actual numbers based on modified accrual basis to reflect budget accounting.

(1) Includes funds 40, 45, 50, 60, and 70.

(2) Business Services handles debt payments and pension management.

(3) Capital Projects and Special Projects are managed by multiple departments on a collaborative basis.

Overall, District expenditures are expected to increase by \$24,988,511 or 18.1%. The following pages discuss the significant change in expenditures for FY 2024, primarily due to increases in capital spending.

Operating Expenses							
	Actual FY 20/21	Actual FY 21/22	Budget FY 22/23	Projected FY 22/23	Proposed Budget FY 23/24	Variance to 22/23 Budget	% Change
<b>Salaries &amp; Benefits</b>							
Salaries	\$ 20,223,882	\$ 20,218,245	\$ 20,895,024	\$ 20,917,405	\$ 21,588,146	\$ 693,122	3.3%
Pension	5,679,202	6,290,913	7,477,754	7,477,754	7,750,977	273,223	3.7%
Health Care Benefits	3,127,675	3,157,951	4,091,352	4,091,352	4,231,292	139,940	3.4%
Workers Compensation	377,256	361,129	417,708	417,708	427,008	9,300	2.2%
Training	64,292	99,358	317,350	223,300	371,250	53,900	17.0%
Other	494,385	514,046	637,384	600,371	680,521	43,137	6.8%
<b>Subtotal Salaries and Benefits</b>	29,966,692	30,641,642	33,836,572	33,727,890	35,049,194	1,212,622	3.6%
Utilities	2,515,024	2,504,057	2,656,950	2,851,400	3,360,200	703,250	26.5%
Biosolids	1,055,800	1,248,141	1,450,000	1,377,800	1,588,000	138,000	9.5%
Supplies	1,710,078	2,177,299	2,314,610	2,226,419	2,398,540	83,930	3.6%
Chemicals	2,483,194	2,715,699	4,011,360	3,905,958	6,176,712	2,165,352	54.0%
Repair & Maintenance	3,490,397	3,553,463	3,830,498	3,266,292	4,279,871	449,373	11.7%
Other	1,541,441	2,235,024	2,522,860	2,117,035	2,518,360	(4,500)	-0.2%
<b>Subtotal Other Operating</b>	12,795,934	14,433,683	16,786,278	15,744,904	20,321,683	3,535,405	21.1%
<b>Total Operating Expenditures</b>	\$ 42,762,626	\$ 45,075,325	\$ 50,622,850	\$ 49,472,794	\$ 55,370,877	\$ 4,748,027	9.4%

### **Salaries and Benefits**

District wide, personnel expenses are budgeted to increase \$1,212,622 or 3.6% over the prior year budget. The major items are discussed below:

- Salaries are budgeted to increase \$693,122 or 3.3%. The increase results from prior year wage agreements, classified scheduled step increases, and the addition of a Limited Duration Plant Operator 3 Trainee to assist with the impacts of the ETSU project on plant operations and the second position is a QA Chemist.
- Pension expenses are budgeted to increase of \$273,223 or 3.7% to the prior year budget based upon rates provided by CalPERS. The District prepays the annual Unfunded Actuarial Liability payment in July of each year, rather than paying in 12 monthly installments, generating an annual cost savings of \$153,000.
- Health Care Benefit costs will increase by \$139,940 or 3.4% over the prior year budget based on premium information provided by the District's health insurance provider.
- Workers' Compensation costs will increase \$9,300 or 2.2%. The District's experience modification (x-mod) factor decreased from .83 to .78. This reflects the significant efforts that have been undertaken by the District to not only maintain, but to improve safety awareness.

- Training will increase by \$53,900 or 17.0% which is largely due to the ending of Covid-19 restrictions which will allow District employees to resume participating in group training and conferences.
- Other salary and benefits costs will increase by \$43,137 or 6.8% to the prior year budget. Other salary and benefit costs consist of Medicare and unemployment taxes, membership fees and certain safety program expenditures.

**Other Operating Expenditures**

Other Operating expenses are budgeted, in total, to increase \$3,535,405 to the prior year budget. The major items are discussed below:

- Utilities are increasing \$703,250 or 26.5%. This reflects the across the board rate impacts being seen in utilities nationwide.
- Biosolids disposal is increasing \$138,000 or 9.5%.
- Supplies are increasing \$83,930 or 3.6%. Costs of supplies and operating parts have been impacted by recent inflationary pressures, resulting in increases in most categories across the District.
- Chemicals are budgeted to increase \$2,165,352 or 54.0%. The main increases are for Hypochlorite, Polymers and Hydrogen Peroxide. These chemicals are critical to the effective and reliable treatment of wastewater.
- Repair and Maintenance costs are increasing by \$449,373 or 11.7% compared to FY 2023. This account varies year over year depending on the anticipated need of plant and equipment maintenance, but also reflects the increase in costs of parts and materials.
- Other expenditures, which consists of rents, professional fees, permits, insurance costs and small asset purchases are budgeted to decrease \$4,500 or 0.2%.

**INTERNAL FUNDS**

<b>Fund Description</b>	<b>Actual FY 20/21</b>	<b>Actual FY 21/22</b>	<b>Budget FY 22/23</b>	<b>Projected FY 22/23</b>	<b>Proposed Budget FY 23/24</b>	<b>Variance to 22/23 Budget</b>	<b>% Change</b>
Other Post Employment Benefits - Fund 40	\$ 1,201,193	\$ 1,430,142	\$1,400,000	\$1,400,000	\$ 1,475,000	\$ 75,000	5.4%
115 Pension Trust - Fund 45	-	3,000,000	3,000,000	-	6,400,000	3,400,000	113.3%
Vehicles & Equip Replacement - Fund 50	144,181	-	171,000	176,662	187,300	16,300	9.5%
Information Systems Replacement - Fund 60	502,358	356,115	1,207,500	857,000	1,199,800	(7,700)	-0.6%
Plant and Pump Station Replacement - Fund 70	162,400	327,272	400,000	250,000	400,000	-	0.0%
<b>Total</b>	<b>\$ 2,010,132</b>	<b>\$ 5,113,529</b>	<b>\$6,178,500</b>	<b>\$2,683,662</b>	<b>\$9,662,100</b>	<b>\$3,483,600</b>	<b>56.4%</b>

The following two pages discuss the changes to internal funds shown above.



<b>Other Post Employment Benefits (OPEB) and Pension 115 Expenditures</b>	
115 Pension Trust Contribution	\$ 6,400,000
115 OPEB Retiree Medical Trust Contribution	900,000
Retiree Reimbursement	575,000
<b>Total</b>	<b>\$ 7,875,000</b>

OPEB expenditures for the District are increasing \$75,000 or 5.4% compared to the prior year. The total expenditure consists of two parts. The first is \$575,000 towards the District’s annual ongoing normal costs. The second is a planned \$900,000 contribution to the District’s 115 OPEB Trust. In 2021 the District adopted Pension and OPEB Policy 2095, which in part sets a goal of maintaining the funding percentage of the plan between 90% and 100%. These additional funds will work toward achieving that policy goal.

Fund 45, (115 Pension Trust), was established in FY 2022 to facilitate the policy discussed in the paragraph above. Similar to OPEB, the long term goal is to increase the percent funded of the District pension plan. Annually, the Board determines an amount to contribute into a qualified 115 Trust. This Trust accumulates funds, along with the related investment income, to be used for paying future qualified pension expenses. The goal of the 115 Trust is to pay off the District’s unfunded liabilities within 12 years.

During FY 2023, the Board directed to hold back the budgeted \$3.0 million trust contribution until FY 2024 when the investment environment is expected to improve based upon the best information available in June of 2023. The current budget anticipates a contribution of \$6.4 million to the Trust in FY 2024. This represents \$3.0 million from FY 2023, \$3.0 million budgeted in FY 2024, plus interest earned on those funds while held in the District’s accounts.

<b>Renewal &amp; Replacement - Vehicles and Equipment</b>	
<b>Vehicles</b>	
(2) Pool Vehicles - Pick-up Trucks	\$ 162,300
TPO Cart	25,000
<b>Equipment</b>	
No Equipment in FY24	-
<b>Total</b>	<b>\$ 187,300</b>

For FY 2024 the District is planning on purchasing two pick-up trucks for \$162,300. One of these trucks was budgeted and ordered in FY 2023 but will not arrive until FY 2024. In addition, this budget line item includes \$25,000 for the purchase of an electric utility cart to be used at the plant property.

<b>Renewal &amp; Replacement - Information Systems</b>	
<b>Project/System</b>	<b>Amount</b>
Small Equipment (Hardware, Switches, Routers, Computers)	\$ 585,300
SCADA HMI Upgrade	150,000
Permit Tracking System Replacement	100,000
Enterprise Content Management and Records Management Plan	75,000
GIS Improvement Project	65,000
Cyber Security Plan Update	50,000
NIST Projects	50,000
GIS Vertical Assets	30,000
CMMS Upgrade	30,000
Kronos Upgrade	29,500
Control Logging	20,000
HR Software Upgrade	15,000
<b>Total</b>	<b>\$ 1,199,800</b>

The schedule above details the budgeted expenditures for Information Systems. This list changes from year to year depending on the projects and equipment needs of the District.

<b>Renewal &amp; Replacement - Plant and Pump Station</b>	
New Assets (EBDA Variable Frequency Drive Inverter, Spare Hydraulic Ram for Newark Pump Station (NPS), Blower Replacement, Generator Repair NPS, Building Mounted Gas Detector System Replacement in All Locations)	\$ 337,000
Unplanned Maintenance	63,000
<b>Total</b>	<b>\$ 400,000</b>

The schedule above details the budgeted expenditures for the Plant and Pump Stations. These expenditures are determined based on plant wide assessments conducted each year.

<b>Debt</b>	<b>Status</b>	<b>FY Issued</b>	<b>Maturity</b>	<b>Payments FY Start</b>	<b>FY 23/24 Principal &amp; Interest</b>		
					<b>Payment Fund 80</b>	<b>Payment Fund 90</b>	<b>Total Payment</b>
2020A Revenue Bonds	Issued	19/20	2050	19/20	\$ 1,934,016	\$ 2,564,150	\$ 4,498,166
2021A Revenue Bonds	Issued	21/22	2051	21/22	2,937,294	1,581,620	4,518,914
					<b>\$ 4,871,310</b>	<b>\$ 4,145,770</b>	<b>\$ 9,017,080</b>

**2020A Revenue Bonds** – The District issued the 2020A revenue bonds in the amount of \$74 million dollars at an average interest rate of 2.30%. The issuance refinanced \$37 million dollars in previously issued higher interest rate debt, provided \$37 million dollars for capital construction projects, and saved the District’s ratepayers \$2.2 million dollars in future interest costs.

**2021A Revenue Bonds** – The District issued the 2021A revenue bonds in the amount of \$110 million dollars at an average interest rate of 2.02% to fund District capital construction projects.

Water Infrastructure Finance and Innovation Act (WIFIA) Loan – In the fall of 2021 the District received a \$249 million dollar WIFIA loan to fund a portion of the ETSU project. The District will have eight years to fully draw down the loan at which time the principal and any capitalized interest will begin repayment.

State Revolving Fund (SRF) Loan – During FY 2022 the District was approved for an SRF loan in the amount of \$33.5 million to fund the Standby Power Generation System Upgrade Project. Construction began in FY 2022 and is expected to be completed in FY 2025 with the loan repayment beginning upon completion.

### SPECIAL PROJECT EXPENDITURES

DESCRIPTION	Adopted Budget FY23	Estimated Actual FY23	Estimated Carryover	New \$ (Provision)	Proposed Budget FY24
<b>Administrative &amp; Regulatory</b>					
Anticipated Biosolids Coalition Membership Dues	\$ 17,000	\$ 17,000	\$ -	\$ -	\$ -
Anticipated Election Costs (181,798 Reg Voters at \$8 Per Voter)	-	-	-	1,454,384	1,454,384
GIS JPA	30,000	13,000	-	-	-
Property Acquisition	1,500,000	-	1,500,000	-	1,500,000
Public Information Program	65,000	65,000	-	-	-
Public Outreach Programs	125,000	110,000	-	-	-
Regional Purified Water Pilot Program Outreach	20,000	20,000	-	-	-
<b>Subtotal Administrative &amp; Regulatory</b>	<b>\$ 1,757,000</b>	<b>\$ 225,000</b>	<b>\$ 1,500,000</b>	<b>\$ 1,454,384</b>	<b>\$ 2,954,384</b>
<b>Studies &amp; Other</b>					
Alvarado Basin Capacity and Condition Assessment	\$ 55,000	\$ 40,000	\$ 15,000	\$ 350,000	\$ 365,000
Alvarado Sub-Surface Investigation (Groundwater Monitoring)	10,000	10,000	-	10,000	10,000
Co-Digestion Feasibility Study	-	-	-	125,000	125,000
Cogen Replacement and Ventilation Study	15,000	39,015	-	-	-
Control Box No. 1 Grit Removal Evaluation	150,000	-	150,000	-	150,000
Digester 8 Feasibility Study	65,000	98,042	-	-	-
Digester Efficiency Evaluation (Heat Loop and Gas Lance)	350,000	110,000	240,000	60,000	300,000
Energy Resiliency Study	205,000	173,525	-	-	-
Forcemain Condition Assessment	10,000	10,000	-	50,000	50,000
Forcemain Geotech Investigation at Alameda Creek	30,000	-	-	-	-
Headworks Degritting	90,000	90,000	-	-	-
Local Limits Study	65,000	45,000	-	-	-
Odor Control Alternatives Study	10,000	-	-	-	-
Plant Site Security Improvements	-	-	-	100,000	100,000
Project Cost Estimate Evaluation	150,000	-	100,000	-	100,000
Pump Station Asset Condition Assessment	75,000	83,920	-	-	-
Sea Level Rise Study Update	100,000	125,486	-	-	-
Solids Building Potable Water Conversion	70,000	-	-	-	-
Thermal Dryer Feasibility Study	31,000	34,754	-	-	-
<b>Subtotal Studies &amp; Other</b>	<b>\$ 1,481,000</b>	<b>\$ 859,742</b>	<b>\$ 505,000</b>	<b>\$ 695,000</b>	<b>\$ 1,200,000</b>
<b>Total Special Projects</b>	<b>\$ 3,238,000</b>	<b>\$ 1,084,742</b>	<b>\$ 2,005,000</b>	<b>\$ 2,149,384</b>	<b>\$ 4,154,384</b>

The special projects fund accounts for expenditures that are outside the year over year operating costs of the District and also do not meet the definition of a capital project. Many of the items are assessments of plant and system conditions or feasibility studies for future capital projects. A discussion of some of the major items follows:

Property Acquisition - Each year the District sets aside funds for property acquisition should one or more properties of interest become available. The primary purpose of property acquisition is for future plant or pump station expansion.

Anticipated Election Costs – These funds represent the anticipated costs for an election in FY 2024.

Control Box No. 1 Grit Removal Evaluation - This study will evaluate technologies and modifications for Control Box No. 1 to facilitate a more efficient way to remove grit that is deposited inside the control box.

Digester Efficiency Evaluation (Heat Loop and Gas Lance) - This study will assess the existing primary digester heat loop system and evaluate improvements to the system to increase its reliability in providing heat to the primary digestion process. The study will also evaluate the implementation of a gas lance sludge mixing system, incorporated in Primary Digester No. 7, at Primary Digester Nos. 4, 5, and 6, and prepare cost estimates to modify the structural, mechanical, electrical, and instrumentation systems accordingly.

Co-Digestion Feasibility Study - This study will evaluate the feasibility of implementing co-digestion at the treatment plant that will include an assessment of the infrastructure and equipment that will be needed, available space, personnel support, and other operation and maintenance requirements.

Project Cost Estimate Evaluation – This study will evaluate the scope of some of the projects identified in the 20-year Capital Improvement Program at an high-level predesign phase and provide updated project budgets that are more in line with the current construction economy.

Plant Site Security Improvements – This project is part of an ongoing effort to enhance plant site security.

**Annual Contract Purchases of Supplies, Services and Projects Renewal/Replacement  
Over \$100,000  
for Fiscal Year 23/24**

<b>Supplies:</b>	<b><i>Estimated Expenditure</i></b>
Sodium Hypochlorite, 1-Year Contract	\$ 2,960,000
Polymer, Emulsion, 2-Year Contract with 3 Optional 1-Year Renewals	930,000
Ferrous Chloride, 1-Year Contract	750,000
Hydrogen Peroxide, 1-Year Contract	728,000
Polymer, Mannich, 2-Year Contract with 3 Optional 1-Year Renewals	250,000
Root Control	108,336
<b>Total Supplies</b>	<b>\$ 5,726,336</b>
<b>Services:</b>	
CalPERS Retirement	\$ 7,670,977
115 Pension Trust Contribution	6,400,000
Series 2021A - Annual Debt Service on Bonds	4,518,914
Series 2020A - Annual Debt Service on Bonds	4,498,166
CalPERS Medical	4,231,292
PG&E - Alvarado Site (\$2,500,000), Newark P.S. (\$265,000) and Irvington P.S. (\$150,000)	2,915,000
EBDA	2,004,931
Biosolids Contract	1,588,000
115 OPEB Retiree Medical Trust Contribution	900,000
Insurance (Property & Contents, Fleet, General Liability, Bonding)	874,470
OPEB Retiree Reimbursement	575,000
Gas Media, 2-Year Contract with 3 Optional 1-Year Renewals	312,712
Contractual Services for Digester Cleaning	225,000
DGS Natural Gas Service, PG&E Billed Through DGS	200,000
Newark P.S. Generator Repair	125,000
Insurance (Retro Workers' Comp)	114,950
Grit & Screening Disposal	100,000
<b>Total Services</b>	<b>\$ 37,254,412</b>
<b>Information Systems Projects:</b>	
HMI Upgrades Per Standards	150,000
Permit Tracking System (PTS) Replacement	100,000
<b>Total Information Systems Projects</b>	<b>\$ 250,000</b>

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# FUND BALANCE



Structural Steel for the New Campus Building

<b>Reserve/Allocation Balances</b>	
Operating Cash Flow	\$ 27,685,439
Structural Renewal & Replacement	59,185,200
Emergency	8,750,000
Short Term Liquidity	5,000,000
Parity Debt	2,887,200
Risk Management	1,000,000
Industrial Customer Stabilization	1,400,000
EBDA Emergency	388,899
<b>Total Restricted/Allocated Balances</b>	<b>\$ 106,296,738</b>

Anticipated reserves balances at 06/30/24 listed above are discussed below:

Operating Cash Flow – Sewer Service Charge revenues are collected by the Alameda County Tax Collector’s Office and remitted to the District in two major installments in December and April of each year. For the District to pay its ongoing expenditures throughout the year, it reserves between three and six months (25-50%) of gross operating expenditures at the start of each fiscal year.

Structural Renewal & Replacement – To maintain the ability to renew and replace infrastructure, this reserve is funded on a forward looking process that is based on anticipated future capital project expenditures.

Emergency – In order to help mitigate the financial impacts of an emergency or catastrophic event, the District has an Emergency Reserve. Reserves will increase by \$750,000 annually until reaching 25% of the operating budget.

Short Term Liquidity – The District maintains a minimum amount of immediately available funds, to cover the rolling 6-month average monthly payroll, plus a rolling 6-month average of the monthly accounts payable.

Parity Debt Reserve- This fund was recently established to cover debt covenants associated with the Series 2020A bond issuance.

Risk Management - The District is a member of and purchases liability insurance from the California Sanitation Risk Management Association (CSRMA). The deductible of \$500,000 reduces the amount of premiums charged to the District. To account for an event that is either not covered by insurance or under the deductible amount, the District reserves two times the annual deductible amount, which is based on claims history.



Industrial Customer Stabilization - The District has several Significant Industrial Users (SIUs). This reserve allows the District to implement appropriate responses and actions should one or more of these SIUs significantly scale back or cease operations unexpectedly, resulting in a rapid loss of revenue to the District.

EBDA Emergency Reserve – In order to help mitigate the financial impacts of an emergency or catastrophic event, the East Bay Discharge Authority (EBDA), of which the District is a member, has established a policy to set aside \$1,250,000. The policy further stipulates that each member agency will set aside their proportionate share of the reserve in their financial statements. The District's share of the reserve is \$388,899.

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# CAPITAL IMPROVEMENT PLAN



New Standby Power Building

# Capital Improvement Plan

Capital improvements are construction or renovation activities that add value to the District's fixed assets (pipelines, buildings, facilities, and equipment) or significantly extend their useful life. Each year, the District reviews its 20 year Capital Improvement Program (CIP) based on factors such as growth, regulatory requirements, planning documents, and existing asset management needs. The rehabilitation, replacement, improvement, and expansion of the District's facilities continue to be the key drivers for the proposed Fiscal Year 2024 CIP. The District funds an extensive CIP plan that is designed to preserve, maintain, and enhance assets, meet regulatory requirements, accommodate the community's needs, and protect public health and the environment.

In the next 12 to 24 months the District expects to have over thirty-five individual capital projects underway with project total expenditures currently estimated at \$626 million dollars. The following pages provide a description of those projects followed by a breakout summary of the CIP projects for the next five years. The appendix contains a detailed summary of the entire 20 year CIP budget.

The following are some of the major design projects that are currently underway:

- WAS Thickeners
- Field Operations Building (Space Needs Assessment)
- ETSU Phase 1B and 1C
- Newark and Irvington PS Chemical
- Switchboard 3 and Motor Control Center 25
- Digester 6 and Secondary Digester 1 Condition Assessment and Rehabilitation

The following represent some of the significant projects that will be under construction:

- ETSU Phase 1A – Aeration Basins
- ETSU Phase 1A - Campus
- Plant Miscellaneous Improvements
- Standby Power Generation System Upgrade
- Digester 6 Cleaning
- Force Main Corrosion Repairs – Phase 4

The balance of this section of the budget provides a summary of the 20 year CIP budget. Documents include the 20 year forecast summary of CIP projects followed by a brief description of each project. The appendix contains a more detailed CIP project forecast showing projected spending for each of the years in the forecast.

**UNION SANITARY DISTRICT CIP FY 24 to FY 43 - 20 YEAR FORECAST SUMMARY (in millions)**

Project Name	% Fund 80	% Fund 90	Rank	Total Project Cost	Spent in Prior Years	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29 to FY 33	FY 34 to FY 38	FY 39 to FY 43	Total
<b>Admin Facilities</b>														
Additional CS (Vehicle) Storage	100%	0%	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,823	\$ -	\$ -	\$ 1,823
Cathodic Protection Improvements	100%	0%	2	500	-	100	400	-	310	-	1,061	831	1,467	4,169
ETSU - 1A - Campus Building	100%	0%	1	90,526	20,674	37,000	32,852	-	-	-	-	-	-	69,852
Field Ops Bldg. Seismic Upgrade and Leak Repairs	100%	0%	1	5,798	-	134	535	3,590	1,539	-	-	-	-	5,798
FMC Storage	100%	0%	3	-	-	-	-	320	-	-	-	-	-	320
Plant Paving	100%	0%	3	-	-	-	-	-	-	750	400	600	400	2,150
Radio Repeater Antenna Replacement	100%	0%	2	-	-	-	-	-	-	-	150	-	-	150
Solar Panels/Inverters Replacement at Alvarado	50%	50%	3	-	-	-	-	-	-	-	-	394	-	394
Solar Panels/Inverters Replacement at Carport	50%	50%	2	-	-	-	100	-	-	-	670	-	278	1,048
Solar Panels/Inverters Replacement at Irvington	50%	50%	2	2,802	30	1,386	1,386	-	-	-	-	1,838	-	4,610
				99,626	20,704	38,620	35,273	3,910	1,849	750	4,104	3,663	2,145	90,314
<b>Collection System</b>														
Cast Iron/Pipe Lining	100%	0%	2	-	-	-	-	587	-	626	1,381	2,439	1,911	6,945
Central Avenue Sanitary Sewer Relocation	100%	0%	1	2,500	-	150	2,350	-	-	-	-	-	-	2,500
FY 23 Cast Iron/Piping Lining	100%	0%	2	550	-	520	30	-	-	-	-	-	-	550
Gravity Sewer Rehab/Replacement	100%	0%	2	2,158	-	216	1,942	-	1,883	-	6,441	5,046	8,910	24,437
RCP Sewer Rehab (Alvarado Basin)	100%	0%	1	-	-	-	200	2,200	2,500	-	-	-	-	4,900
RCP Sewer Rehab (Irvington Basin)	100%	0%	1	-	-	-	100	800	900	-	5,000	-	-	6,800
RCP Sewer Rehab (Newark Basin)	100%	0%	1	-	-	-	-	-	250	2,200	2,550	-	-	5,000
				5,208	-	886	4,622	3,587	5,533	2,826	15,372	7,485	10,822	51,133
<b>Transport System</b>														
Alameda Creek Crossing Lift Station	50%	50%	2	-	-	-	-	-	-	-	-	-	21,866	21,866
Cherry St. PS	0%	100%	1	250	150	100	-	-	-	-	-	-	-	100
Equalization Storage @ Newark	0%	100%	2	-	-	-	-	-	-	-	-	34,424	-	34,424
Forcemain Corrosion Repairs - Phase 3	100%	0%	1	1,438	1,383	55	-	-	-	-	-	-	-	55
Forcemain Corrosion Repairs - Phase 4	100%	0%	1	2,368	68	2,200	100	-	-	-	-	-	-	2,300
Forcemain Stabilization at Alameda Creek	100%	0%	2	-	-	100	-	-	-	-	-	-	-	100
Forcemain Rehabilitation	100%	0%	3	-	-	-	-	-	-	-	-	900	49,100	50,000
Irvington PS Pumps and VFDs	50%	50%	2	-	-	-	-	2,050	9,226	9,226	-	-	-	20,502
Irvington PS Rehabilitation	50%	50%	3	-	-	-	-	-	-	-	-	11,792	-	11,792
Lift Station Rehabilitation	50%	50%	3	-	-	-	-	-	-	-	990	-	14,854	15,844
Newark PS/Irvington PS Portable VFD	50%	50%	2	248	30	218	-	-	-	-	-	-	-	218
Newark and Irvington PS Chemical System Improve	45%	55%	2	12,566	784	838	9,216	1,728	-	-	-	-	-	11,782
Newark PS Pumps and VFDs	50%	50%	2	-	-	-	-	-	-	-	21,782	-	-	21,782
Newark PS Rehabilitation	50%	50%	3	-	-	-	-	-	-	-	-	5,510	4,508	10,018
Stevenson Blvd. Lift Station	0%	100%	2	3,000	-	100	200	1,350	1,350	-	-	-	-	3,000
Transport System Misc. Projects	100%	0%	3	-	-	-	-	250	250	250	1,250	1,250	1,250	4,500
				19,870	2,415	3,611	9,516	5,378	10,826	9,476	24,022	53,876	91,578	208,283
<b>Treatment Plant</b>														
Alvarado Influent PS Improvements	50%	50%	2	10,948	10,428	520	-	-	-	-	-	-	-	520
Alvarado Influent Valve Box Gate Valves 1-2	100%	0%	2	550	-	50	500	-	-	-	-	-	-	550
Centrifuge Replacement	50%	50%	2	-	-	-	-	1,166	2,650	10,342	5,170	-	-	19,328
Centrifuge System Equipment Replacement	100%	0%	2	-	-	-	-	927	1,263	7,666	4,472	-	-	14,328
Cogen Engine No. 1 60K Block Replacement	50%	50%	1	-	-	-	800	-	-	-	1,050	-	1,350	3,200
Cogen Engine No. 2 60K Block Replacement	50%	50%	1	750	-	750	-	-	-	-	950	1,250	-	2,950

**UNION SANITARY DISTRICT CIP FY 24 to FY 43 - 20 YEAR FORECAST SUMMARY (in millions)**

Project Name	% Fund	% Fund	Rank	Total Project Cost	Spent in Prior Years	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 34	FY 39	Total
	80	90									to FY 33	to FY 38	to FY 43	
Cogen Retrofit	50%	50%	2	-	-	-	-	-	-	-	3,002	-	-	3,002
Control Box No. 1 Improvements	100%	0%	2	-	-	-	-	-	622	4,425	1,896	-	-	6,943
Degritter Building Roof (Seismic) Replacement	100%	0%	2	-	-	-	-	-	-	-	-	6,614	-	6,614
Degritting at Headworks and Improvements	50%	50%	2	-	-	-	-	-	-	-	3,748	43,568	-	47,316
Diffuser Replacement	100%	0%	3	-	-	-	-	-	-	-	-	2,092	-	2,092
Digester Additional Capacity	0%	100%	3	-	-	-	-	-	-	-	-	-	-	-
Digester No. 1 Insp & Rehab	100%	0%	2	-	-	-	-	358	1,998	1,332	-	732	5,992	10,412
Digester No. 2 Insp & Rehab	100%	0%	2	-	-	-	-	-	-	-	-	6,106	-	6,106
Digester No. 3 Insp & Rehab	100%	0%	2	-	-	-	-	-	-	-	3,532	2,007	-	5,539
Digester No. 4 Insp & Rehab	100%	0%	2	-	-	-	-	430	2,398	1,599	-	740	7,112	12,279
Digester No. 5 Insp & Rehab	100%	0%	2	-	-	-	-	-	-	-	5,025	-	5,863	10,888
Digester No. 6 Insp & Rehab	100%	0%	1	7,657	160	668	4,781	2,049	-	-	5,114	4,109	-	16,720
Digester No. 7 Insp & Rehab	100%	0%	3	-	-	-	-	-	-	-	-	14,232	-	14,232
Digester No. 7	0%	100%	1	28,643	28,443	200	-	-	-	-	-	-	-	200
ETSU - 1A - Aeration Basin Modifications	60%	40%	1	107,806	33,432	10,000	34,302	30,072	-	-	-	-	-	74,374
ETSU - 1A - Aeration Basin No. 8	40%	60%	1	18,722	3,443	8,000	7,279	-	-	-	-	-	-	15,279
ETSU - 1A - Aeration Internal Lift Pumps	60%	40%	1	4,050	150	2,000	1,900	-	-	-	-	-	-	3,900
ETSU - 1A - Blower 7-10 Replacement	60%	40%	1	4,580	3,113	1,000	467	-	-	-	-	-	-	1,467
ETSU - 1A - Plant 12kV Switchgear (SWGR-SE)	100%	0%	1	9,329	1,398	2,000	5,931	-	-	-	-	-	-	7,931
ETSU - 1A - Site Drainage Improvements	50%	50%	1	6,614	422	4,000	2,192	-	-	-	-	-	-	6,192
ETSU - 1B - Secondary Clarifiers	60%	40%	1	150,518	3,727	3,000	14,800	66,000	47,577	15,414	-	-	-	146,791
ETSU - 1B - Switchboard 4 Replacement	60%	40%	1	1,990	-	-	600	1,390	-	-	-	-	-	1,990
ETSU - 1B - Effluent Facilities	60%	40%	1	48,239	-	-	9,862	16,100	14,200	8,077	-	-	-	48,239
ETSU - 1C - Plant Equalization Storage	25%	75%	1	39,618	-	-	-	1,200	1,800	31,418	5,200	-	-	39,618
ETSU - 2 - Nutrient Removal (Level 2 Year-round)	50%	50%	3	-	-	-	-	-	-	-	-	5,548	265,120	270,668
Flares Replacement	100%	0%	2	-	-	-	-	753	4,357	1,867	-	-	-	6,978
MCC Replacement	100%	0%	2	-	-	-	-	-	-	50	491	-	-	541
Miscellaneous Improvements	100%	0%	2	7,089	589	3,500	3,000	-	-	-	-	-	-	6,500
Odor Scrubber Replacements (HW & West PCs)	100%	0%	2	-	-	-	428	1,767	7,528	10,540	-	-	-	20,263
Odor Scrubber Replacements (East PCs)	100%	0%	2	-	-	-	-	-	-	255	12,532	-	-	12,787
Odor Scrubber System Improvements	100%	0%	2	-	-	-	-	-	-	-	11,673	20,029	6,326	38,028
Plant 1 and 2 Water System Improvements	100%	0%	2	-	-	-	-	105	1,069	-	-	-	-	1,174
Plant 5kV Switchgear	100%	0%	2	-	-	-	392	2,803	1,201	-	-	-	-	4,395
Plant 12kV Switchgear	100%	0%	2	-	-	-	1,068	4,722	4,722	-	-	-	-	10,512
Plant Additional Power Source	50%	50%	3	-	-	-	-	-	-	-	-	4,500	5,500	10,000
Plant Asset Condition Assessment R&R	100%	0%	2	-	-	-	4,934	497	-	979	17,046	3,697	54,497	81,650
Plant Fiber Optic Network	50%	50%	2	-	-	-	-	-	-	-	1,800	800	-	2,600
Plant Mechanical and Electrical Projects	100%	0%	2	-	-	-	-	380	500	500	2,500	2,500	2,500	8,880
PLC Replacement	100%	0%	2	250	-	250	-	-	-	300	350	400	450	1,750
Primary Clarifier (1 - 4) Seismic Upgrade	100%	0%	1	-	-	-	134	556	2,367	3,314	-	-	-	6,371
Primary Clarifier Rehab (5-6)	75%	25%	2	-	-	-	-	-	-	686	33,694	-	-	34,380
Reclaimed Water	100%	0%	3	-	-	-	-	-	-	-	-	-	-	-
Secondary Digester No. 1 Insp & Rehab	100%	0%	1	1,209	25	130	702	351	-	-	-	5,231	-	6,415
Secondary Digester No. 2 Insp & Rehab	100%	0%	3	-	-	-	-	367	3,413	-	-	5,581	-	9,361
Seismic Retrofit of Conc. Structures	100%	0%	2	-	-	-	-	300	-	300	600	900	600	2,700
Standby Power Generation System Upgrade	100%	0%	1	27,754	11,006	13,663	1,985	1,100	-	-	-	-	-	16,748
Standby Power Generator No. 4	0%	100%	3	-	-	-	-	-	-	-	-	23,971	-	23,971

**UNION SANITARY DISTRICT CIP FY 24 to FY 43 - 20 YEAR FORECAST SUMMARY (in millions)**

Project Name	% Fund 80	% Fund 90	Rank	Total Project Cost	Spent in Prior Years	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29 to FY 33	FY 34 to FY 38	FY 39 to FY 43	Total
Switchboard 3 and MCC 25 Replacement	100%	0%	2	2,690	105	851	1,734	-	-	-	-	-	-	2,585
Thickeners 1 and 2 Rehabilitation	100%	0%	2	-	-	-	221	1,783	764	-	-	-	-	2,768
Thickeners 3 and 4 Rehabilitation	100%	0%	3	-	-	-	-	-	-	-	-	3,708	-	3,708
WAS Thickeners	100%	0%	1	22,442	1,312	250	6,315	8,250	6,315	-	-	-	-	21,130
				\$ 501,448	\$ 97,753	\$ 50,832	\$ 104,327	\$ 143,426	\$ 104,745	\$ 99,065	\$ 119,845	\$ 158,315	\$ 355,310	\$ 1,135,863

Total Administrative	\$ 99,626	\$ 20,704	\$ 38,620	\$ 35,273	\$ 3,910	\$ 1,849	\$ 750	\$ 4,104	\$ 3,663	\$ 2,145	\$ 90,314
Total Collection System	5,208	-	886	4,622	3,587	5,533	2,826	15,372	7,485	10,822	51,133
Total Transport	19,870	2,415	3,611	9,516	5,378	10,826	9,476	24,022	53,876	91,578	208,283
Total Treatment Plant	501,448	97,753	50,832	104,327	143,426	104,745	99,065	119,845	158,315	355,310	1,135,863
Grand Total	\$ 626,152	\$ 120,872	\$ 93,949	\$ 153,738	\$ 156,300	\$ 122,952	\$ 112,117	\$ 163,343	\$ 223,339	\$ 459,855	\$ 1,485,593
Repair & Replacement (Fund 800) Total	\$ 408,847	\$ 68,158	\$ 78,451	\$ 117,090	\$ 106,067	\$ 89,603	\$ 69,201	\$ 131,438	\$ 127,344	\$ 303,117	\$ 1,022,313
Capacity (Fund 900) Totals	217,305	52,714	15,498	36,648	50,233	33,349	42,915	31,905	95,995	156,738	463,280
	\$ 626,152	\$ 120,872	\$ 93,949	\$ 153,738	\$ 156,300	\$ 122,952	\$ 112,117	\$ 163,343	\$ 223,339	\$ 459,855	\$ 1,485,593
Repair & Replacement (Fund 800) Total - 90% to FY 24 Budget			\$ 70,606								
Capacity (Fund 900) Totals - 90% to FY 24 Budget			13,948								
			\$ 84,554								

Priority 1 Administrative	\$ 96,324	\$ 20,674	\$ 37,134	\$ 33,387	\$ 3,590	\$ 1,539	\$ -	\$ -	\$ -	\$ -	\$ 75,650
Priority 1 Collection System	2,500	-	150	2,650	3,000	3,650	2,200	7,550	-	-	19,200
Priority 1 Transport	4,056	1,601	2,355	100	-	-	-	-	-	-	2,455
Priority 1 Treatment & Disposal	479,921	86,631	45,661	92,051	127,068	72,259	58,223	12,314	10,590	1,350	419,515
Total Priority 1	582,801	108,906	85,300	128,188	133,658	77,448	60,423	19,864	10,590	1,350	516,820
Priority 2 Administrative	3,302	30	1,486	1,886	-	310	-	1,881	2,669	1,745	9,977
Priority 2 Collection System	2,708	-	736	1,972	587	1,883	626	7,822	7,485	10,822	31,933
Priority 2 Transport	15,814	814	1,256	9,416	5,128	10,576	9,226	21,782	34,424	21,866	113,674
Priority 2 Treatment & Disposal	21,527	11,122	5,171	12,277	15,991	29,072	40,841	107,531	88,093	83,340	382,316
Total Priority 2	43,351	11,966	8,649	25,551	21,706	41,841	50,694	139,016	132,671	117,773	537,900
Priority 3 Administrative	-	-	-	-	320	-	750	2,223	994	400	4,687
Priority 3 Collection System	-	-	-	-	-	-	-	-	-	-	-
Priority 3 Transport	-	-	-	-	250	250	250	2,240	19,452	69,712	92,154
Priority 3 Treatment & Disposal	-	-	-	-	367	3,413	-	-	59,632	270,620	334,032
Total Priority 3	-	-	-	-	937	3,663	1,000	4,463	80,078	340,732	430,873
Grand Total	\$ 626,152	\$ 120,872	\$ 93,949	\$ 153,738	\$ 156,300	\$ 122,952	\$ 112,117	\$ 163,343	\$ 223,339	\$ 459,855	\$ 1,485,593

## CIP Projects Description

Project Name	Project Description
Additional CS (Vehicle) Storage	This project will provide additional vehicle storage for the Collection Services Work Group.
Cathodic Protection Improvements	The Cathodic Protection Improvements project will replace the existing cathodic protection systems at the Plant, pump stations, and force mains. The purpose of the cathodic protection systems is to prevent the corrosion of buried steel, ductile iron, and cast iron pipelines, fittings, and other structures. District staff surveys and tests all of the cathodic protection systems annually and will hire a consultant to determine if any of the systems need to be replaced.
ETSU - 1A - Campus Building	This project will replace the Operating & Administration, Control, and Facilities maintenance buildings with one combined campus building.
Field Ops Bldg. Seismic Upgrade and Leak Repairs	This project will include seismic retrofits, leak repairs, and internal floor plan updating to the Field Operations Building.
FMC Storage	This project will provide equipment and materials storage for the FMC Work Group.
Plant Paving	The Plant Paving project will repair and/or replace the asphalt pavement at the Plant. This project will be based on the condition of the existing asphalt pavement and in coordination with other construction projects. District staff can hire a consultant to conduct a condition assessment of the existing asphalt pavement every 5 to 10 years to determine the remaining useful life and recommend a repair/replacement schedule.
Radio Repeater Antenna Replacement	This project will replace the District's radio repeater antenna located on Mt. Allison in Fremont, CA.
Solar Panels/Inverters Replacement at Alvarado	This project will replace the solar panels and/or power inverters for the future photovoltaic system(s) (other than those at the Carport) that are yet to be constructed at the Plant. The schedule of replacement is based on a 20-year useful life for the solar panels and a 10-year useful life for the power inverters.
Solar Panels/Inverters Replacement at Carport	This project will replace the solar panels and/or power inverters of the Solar Carport System located at the Plant. The schedule of replacement is based on a 20-year useful life for the solar panels and a 10-year useful life for the power inverters.
Solar Panels/Inverters Replacement at Irvington	This project will replace the solar panels and power inverters for the photovoltaic system located at the Irvington Pump Station. The schedule of replacement is based on a 20-year useful life for the solar panels and a 10-year useful life for the power inverters.
Cast Iron/Pipe Lining	This project will install cured-in-place pipe (CIPP) inside existing aged cast iron sewer mains without trenching. District staff will review the CCTV inspection of the sewer mains and identify the mains that are candidates for CIPP rehabilitation. This includes budgets for multiple phases of work.
Central Avenue Sanitary Sewer Relocation	This project will relocate an existing sewer main on Central Avenue in the City of Newark to accommodate the City's plans to construct an overpass above the railroad crossing.
FY 2023 Cast Iron/Piping Lining	The FY 2023 Cast Iron/Piping Lining Project is the next project that will install cured-in-place pipe (CIPP) inside existing aged cast iron sewer mains. District staff will design the project in 2022 with construction anticipated to begin by early 2023.



Gravity Sewer Rehab/Replacement	This project will rehabilitate and/or replace existing deteriorated sewer mains by open cut trenching. District staff will review the CCTV inspection of the sewer mains and identify the mains that are candidates for rehabilitation/replacement by the open cut trenching method. This includes budgets for multiple phases of work. It is currently anticipated the FY 2024 Gravity Sewer Rehabilitation/Replacement Project will begin design in FY 2024 and be constructed in FY 2025.
RCP Sewer Rehab (Alvarado Basin)	This project will rehabilitate deteriorated sewer trunk mains located in the Alvarado Basin that are primarily reinforced concrete pipe (RCP) by the CIPP method. The project timing will correspond with the completion of the Alvarado Basin Capacity and Condition Assessment.
RCP Sewer Rehab (Irvington Basin)	The construction of the Irvington Basin Reinforced Concrete Pipe Rehabilitation Project will be completed in FY 2023 with retention release in FY 2024. Some of the project scope was postponed to a later project due to the challenging bypass piping setup that would be needed. This other scope could be combined with any recommended rehabilitation from the Alvarado Basin Capacity and Condition Assessment.
RCP Sewer Rehab (Newark Basin)	This project will rehabilitate deteriorated sewer trunk mains located in the Newark Basin that are primarily reinforced concrete pipe (RCP) by the CIPP method. The project timing will correspond with the completion of the Newark Basin Capacity and Condition Assessment.
Alameda Creek Crossing Lift Station	This project will construct a new lift station south of the Alameda Creek (near Paseo Padre Parkway and Ardenwood Boulevard) to transport wastewater from south to north over the Alameda Creek crossing on Paseo Padre Parkway.
Cherry St PS	This project will include electrical improvements to the Cherry Street Pump Station.
Equalization @ Newark	This project will construct equalization storage at the Newark Pump Station.
Forcemain Corrosion Repairs - Phase 3	The Force Main Corrosion Repairs Project - Phase 3 will repair or replace corroded steel fittings, pipes, and valves in the manholes along the west force main between Irvington Pump Station and Newark Pump Station. It is currently anticipated the construction of this project will be completed in FY 2023 with retention release in FY 2024.
Forcemain Corrosion Repairs - Phase 4	This is the fourth of four phases to repair or replace corroded steel fittings, pipes, and valves in the manholes along the east force main between Irvington Pump Station and Newark Pump Station.
Forcemain Stabilization at Alameda Creek	This project will include improvements to protect the forcemain pipelines at the Alameda Creek crossing from damage during significant seismic events in the region. The improvements will allow USD to maintain operation of the pipelines.
Forcemain Rehabilitation	This project will install liners in the force mains when the reinforced concrete pipes show signs of corrosion and deterioration.
Irvington PS Pumps and VFDs	The scope of this project includes the replacement of the wastewater pumps, variable frequency drives, and backup generator at the Irvington Pump Station.
Irvington PS Rehabilitation	The scope of this project includes the replacement of major electrical equipment, fuel and hydropneumatic tank, and pumps/pipes/valves that serve the washdown booster pumps and equalization basin at Irvington Pump Station.
Lift Station Rehabilitation	The scope of this project includes rehabilitation/replacement of assets that are approaching the end of their useful lives within the next 10 years and performing arc flash study of all electrical equipment at Boyce Lift Station, Fremont Lift Station, and Paseo Padre Lift Station.

Newark PS/Irvington PS Portable VFD	This project will purchase a portable VFD that can be used at either Newark Pump Station or Irvington Pump Station if an existing VFD fail. The existing VFDs are obsolete as replacement parts are no longer available from the manufacturer.
Newark and Irvington PS Chemical System Improvements	This project will replace the odor control systems, chemical storage and pumping systems, and other miscellaneous work at Newark Pump Station and Irvington Pump Station.
Newark PS Pumps and VFDs	The scope of this project includes the replacement of the wastewater pumps, variable frequency drives, and backup generator at the Newark Pump Station.
Newark PS Rehabilitation	The scope of this project includes the replacement of major electrical equipment at the dry well and wet well, fuel tank and valve box rehabilitation at the Newark Pump Station.
Stevenson Blvd. Lift Station	The developer of the Sanctuary West development will design and construct the new Stevenson Blvd. Lift Station to replace Cherry Street Pump Station. The new station will handle the new flows from the Sanctuary West development, the current flows to Cherry Street Pump Station, and other future flows of the City of Newark's Area 4 as identified in their general plan.
Transport System Misc. Projects	These budget amounts are for making miscellaneous improvements to transport system, which includes the pump stations, lift stations, and force mains.
Alvarado Influent PS Improvements	This project will replace the wastewater pumps, variable frequency drives, piping, valves, electrical switchboard, and other miscellaneous improvements to the Alvarado Influent Pump Station.
Alvarado Influent Valve Box Gate Valves 1-2	This project will replace the force main knife gate valves at the Alvarado Influent Valve Box and the Headworks Valve Box.
Centrifuge Replacement	This project will replace the centrifuges in the Centrifuge Building.
Centrifuge System Equipment Replacement	This project will replace pumps, conveyors, piping, and electrical equipment in the Centrifuge Building.
Cogen Engine No. 1 60K Block Replacement	This project will replace the engine block after the current engine block on Cogen No. 1 has operated for 60,000 hours.
Cogen Engine No. 2 60K Block Replacement	This project will replace the engine block after the current engine block on Cogen No. 2 has operated for 60,000 hours.
Cogen Retrofit	This project will install Selective Catalytic Reduction or other required emissions control systems for the existing cogen units if the Bay Area Air Quality Management District's permit reduces the nitrogen oxide emissions limit.
Control Box No. 1 Improvements	This project will rehabilitate or replace structural and mechanical components at Control Box No. 1, Headworks Valve Box, Maintenance Shop Building chemical storage area, and Odor Control Building chemical storage area.
Degritter Building Roof (Seismic) Replacement	This project will replace the precast concrete roof panels of the Degritter Building to address seismic deficiencies identified in the 2016 Seismic Study.
Degritting at Headworks and Improvements	This project will construct new equipment to remove grit from the influent wastewater at the Headworks Building.

Diffuser Replacement	This project will replace the aeration diffusers in the aeration basins.
Digester Additional Capacity	This project will review the need to construct additional primary digesters before the plant's solids process capacity is exceeded.
Digester No. 1 Insp & Rehab	This project will conduct a condition assessment and rehabilitate Primary Digester No. 1 and its associated equipment, piping, and valves.
Digester No. 2 Insp & Rehab	This project will conduct a condition assessment and rehabilitate Primary Digester No. 2 and its associated equipment, piping, and valves.
Digester No. 3 Insp & Rehab	This project will conduct a condition assessment and rehabilitate Primary Digester No. 3 and its associated equipment, piping, and valves.
Digester No. 4 Insp & Rehab	This project will conduct a condition assessment and rehabilitate Primary Digester No. 4 and its associated equipment, piping, and valves.
Digester No. 5 Insp & Rehab	This project will conduct a condition assessment and rehabilitate Primary Digester No. 5 and its associated equipment, piping, and valves.
Digester No. 6 Insp & Rehab	This project will conduct a condition assessment and rehabilitate Primary Digester No. 6 and its associated equipment, piping, and valves.
Digester No. 7	This project will construct new Primary Digester No. 7, hot water boiler, and iron salt chemical storage and feed system.
Digester No. 7 Insp & Rehab	This project will conduct a condition assessment and rehabilitate Primary Digester No. 7 and its associated equipment, piping, and valves.
ETSU - 1A - Aeration Basin Modifications	This project will modify Aeration Basins 1 through 7 to improve the plant's activated sludge system.
ETSU - 1A - Aeration Basin No. 8	This project will construct new Aeration Basin 8 to increase the plant's activated sludge system's capacity.
ETSU - 1A - Aeration Internal Lift Pumps	This project will replace the three carbon steel lift pumps at Lift Station 2.
ETSU - 1A - Blower 7-10 Replacement	This project will replace Blowers 7 through 10 with high speed aeration blowers.
ETSU - 1A - Plant 12kV Switchgear	This project will construct a new 12,000-volt utility switchgear located near the Veasy Street entrance.
ETSU - 1A - Site Drainage Improvements	This project will construct a new site drainage pump station located on the north side of the treatment plant property. This station will supplement the site drainage capacity of the existing Site Waste Pump Station.
ETSU - 1B - Effluent Facilities	This project will replace the chlorine contact tank, final effluent pump station, and reclaimed water pump station.
ETSU - 1B - Secondary Clarifiers	This project will construct four new secondary clarifiers.
ETSU - 1B - Switchboard 4 Replacement	This project will replace the 480-volt Switchboard 4.
ETSU - 1C - Plant Equalization Storage	This project will construct primary effluent equalization storage at the existing Secondary Clarifiers 1 through 4 structures.
ETSU - 2 - Nutrient Removal (Level 2 Year-round)	This project will design and construct Phase 2 of the Enhanced Treatment and Site Upgrade Program's projects to provide nutrient removal that meets future nutrient removal limits from the RWQCB.

Flares Replacement	This project will replace the digester gas flare system when required by future regulations.
MCC Replacement	This project will replace electrical motor control centers that have reached the end of their useful life.
Miscellaneous Improvements	This project will rehabilitate or replace miscellaneous structural and electrical improvements at various facilities at the plant.
Odor Scrubber Replacements (HW & West PCs)	This project will replace the existing odor control system at the Headworks Building and Primary Clarifiers 1-4 Building.
Odor Scrubber Replacements (East PCs)	This project will replace the existing odor control system at the Primary Clarifiers 5-6 Building.
Odor Scrubber System Improvements	This project will replace the odor control systems at the Alvarado Influent Pump Station, Centrifuge Building, WAS Thickening Building, Gravity Thickeners, and Degritter Building.
Plant 1 and 2 Water System Improvements	This project will construct a booster pump station to improve the capacity and pressure of the plant's 1 and 2 water systems.
Plant 12kV Switchgear	This project will replace the plant's existing 12,000-Volt utility switchgear located in the Main Electrical Building.
Plant 5kV Switchgear	This project will replace the plant's 4,160-volt switchgear located in the Main Electrical Building.
Plant Additional Power Source	This is for a project to install a secondary electrical feed from PG&E to accommodate anticipated future higher power demand at the plant.
Plant Asset Condition Assessment R&R	These are for replacing equipment at the plant based on recommendations from the 2018 Plant Asset Condition Assessment Study, and any subsequent updates.
Plant Fiber Optic Network	These are for construction of the infrastructure for the plant's fiber optic communication system.
Plant Mechanical and Electrical Projects	These are for the mechanical and electrical assets at the plant.
PLC Replacement	These are to replace the processor modules in the plant's programmable logic controllers located at all process areas.
Primary Clarifier (1 - 4) Seismic Upgrade	This project will upgrade the Primary Clarifiers 1 through 4 Building's structure to address seismic deficiencies identified in the 2016 Seismic Study.
Primary Clarifier Rehab (5-6)	This project will replace the clarifier mechanisms, modify the ventilation system, and rehabilitate the structural components of the Primary Clarifiers 5 and 6 Building, including Sludge Pump Room 3.
Reclaimed Water	This is for the construction of a reclaimed water fill station and other reclaimed water projects that could be developed in the future.
Secondary Digester No. 1 Insp & Rehab	This project will conduct a condition assessment and rehabilitate Secondary Digester No. 1 and its associated equipment, piping, and valves.
Secondary Digester No. 2 Insp & Rehab	This project will conduct a condition assessment and rehabilitate Secondary Digester No. 2 and its associated equipment, piping, and valves.
Seismic Retrofit of Conc. Structures	These are for the seismic retrofit of concrete structures at the plant.

Standby Power Generation System Upgrade	This project will replace the plant's standby generators, Substation 2, and the Odor Control Building's switchgear.
Standby Power Generator No. 4	This project will install a fourth standby generator in the new Standby Power Building if the plant's power demand increases in the future.
Switchboard 3 and MCC 25 Replacement	This project will replace Switchboard 3 and Motor Control Center (MCC) 25 located in the Main Electrical Building.
Thickeners 1 and 2 Rehabilitation	This project will replace the thickener mechanism and rehabilitate the concrete at Thickeners 1 and 2.
Thickeners 3 and 4 Rehabilitation	This project will replace the thickener mechanism and rehabilitate the concrete at Thickeners 3 and 4.
WAS Thickeners	This project will replace the gravity belt thickeners, pumps, motor control center, and programmable logic controller in the WAS Thickener Building.

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# ABOUT USD



Pouring Concrete for the New Campus Building

## About USD

Union Sanitary District is a California Independent Special District. USD was formed in 1918 to protect public health and the environment by providing the services of collecting, treating, and disposing of wastewater from residences, businesses and industries. We're proud to deliver this very complex, highly regulated service to the communities we serve.

In the District's founding year of 1918, USD's boundaries encompassed 3,300 acres in what was known as Southern Alameda County. The area was primarily farm and ranch land well into the twentieth century, and septic tanks were typically used for wastewater disposal.

Today, USD's service area covers over 60 square miles (about 38,400 acres) and serves over 348,000 residents in the cities of Fremont, Newark, and Union City, with over 120,000 residential, commercial, and industrial connections. Total flow to the Alvarado Treatment Plant in Union City was over 8.1 billion gallons in 2022, and averages between 21 and 23 million gallons every day with a permitted capacity of up to 33 million gallons per day.

USD is a member of the East Bay Discharge Authority (EBDA). Founded in 1974, EBDA is a five-member Joint Powers Authority (JPA) formed to plan, design, construct, and operate regional facilities to collect, transport and discharge treated effluent to deep waters of San Francisco Bay. Treated effluent from the District's Alvarado Wastewater Treatment Plant is pumped to the EBDA System and discharged into the Bay southwest of Oakland International Airport. Frequent testing of the treated wastewater confirms compliance with regional permit requirements. The other member agencies are Castro Valley Sanitary District, Oro Loma Sanitary District, City of Hayward, and City of San Leandro.

## The Communities We Serve

The District provides wastewater collection, treatment and disposal services to the residents and businesses of the cities of Fremont, Newark, and Union City, commonly referred to as the Tri-City Area, with a combined population of over 348,000. Information obtained from each city is presented below.

### The City of Fremont

Located on the southeast side of the San Francisco Bay, Fremont is a city of approximately 230,000 people and 75,000 households, with an area of 92-square miles. Fremont remains the fourth most populous city in the Bay Area and California's 16th largest city. With its moderate climate and its proximity to major universities, shopping areas, recreation and cultural activities, employment centers, major airports, and the Bay Area Rapid Transit system, Fremont captures metropolitan living at its best.

Fremont is conveniently served by Interstates 680 and 880, as well as rail transport lines including Altamont Commuter Express (ACE), Amtrak Capitol Corridor, and the Bay Area Rapid Transit (BART)



system. Fremont also has easy access to the San Jose Airport, Oakland Airport, San Francisco Airport, and the Port of Oakland. Fremont is home to a broad variety of innovative firms including over 1,200 high tech, life science, and clean technology firms. The city has a broad range of quality, affordable business locations; a superior workforce; and a wide variety of tax benefits and incentive programs for businesses.

Fremont is one of the most ethnically and culturally diverse cities in the Bay Area. Residents are attracted to Fremont for its nationally recognized high-ranking public schools, its numerous well-kept parks, and a variety of recreational amenities, including beautiful Lake Elizabeth, Central Park, and Mission San José (California's 14th mission). Fremont is described as a wonderful community to live, work, and play.

### The City of Newark

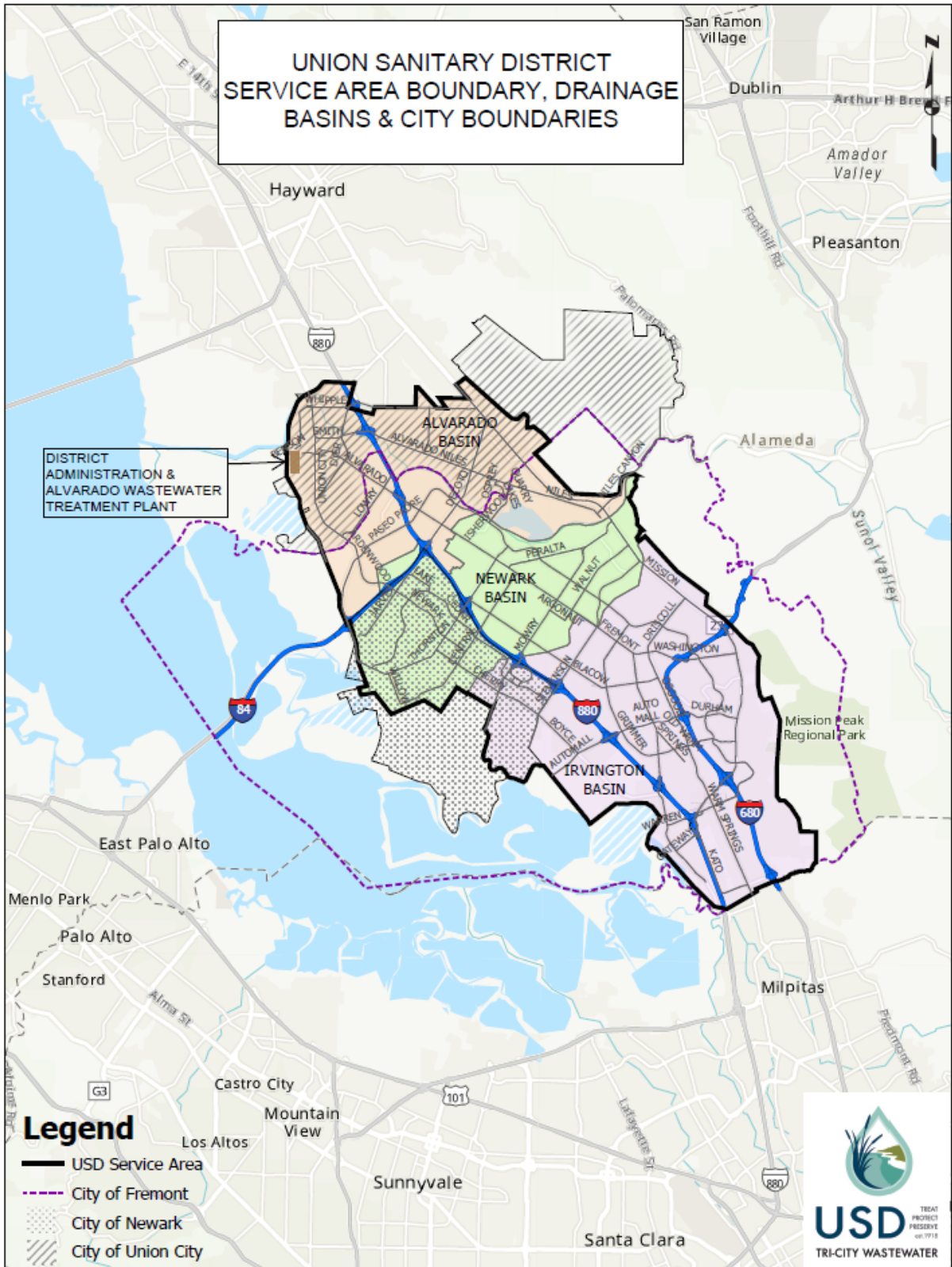
Newark has an area of 14 square miles, and a population of approximately 48,000. Newark was incorporated in 1955 and is located 35 miles south of San Francisco and next to many high-tech hubs, including easy access to highways 880, 580, 680, and the Dumbarton Corridor. This makes Newark an ideal location to live or do business. Newark has evolved throughout the years from its days enriched in agriculture, manufacturing, and railroad to today's expansion of high-tech, biotech, and the health sciences.

Although Newark has grown significantly, it still manages to keep a small, hometown community charm which is what citizens say they love about the city. The City of Newark has a wide variety of programs and services to meet the community's needs.

### The City of Union City

Union City is 18 square miles in area, boasting a diverse and unified people, excellent educational institutions, unsurpassed quality of life, strong economy, and world-renowned location in the San Francisco Bay Area. Incorporated in 1959, the city proudly maintains a small-town feel despite being in the center of the Bay Area, with San Francisco and Silicon Valley just minutes away. Union City has grown into an ethnically diverse community of approximately 70,000 residents, and the highly regarded New Haven Unified School District serves about 13,000 K-12 students. The community offers a variety of housing, with affordable and upscale homes available in many charming neighborhoods throughout the city. The transit-oriented Station District, located around the Union City BART station, boasts housing and business development opportunities with easy, convenient access to major public transit running throughout the Bay Area. Union City also offers 33 wonderful parks, sports fields, community centers, and a variety of recreation programs and social services for residents of all ages.

# SERVICE AREA MAP



# BUDGET DOCUMENT & PROCESS



ETSU Aeration Basin Construction

# BUDGET PROCESS

The fiscal year budget is one of the most important documents prepared by the District. Through the process of planning and preparing the budget, the District is given the opportunity to determine how best to utilize its resources for the coming fiscal year. The budget document also provides direction for management and staff on a number of fiscal issues.

Union Sanitary District adopts an annual budget. The budget document contains information on revenues and expenditure appropriations for the Fiscal Year beginning July 1 and ending June 30. In addition to the operating budget, the Board adopts an annual Capital Improvement Plan (CIP), which is part of a larger 20 year plan. These projects become an integral part of the proposed operating/capital budget.

The budget is prepared in accordance with fiscal policies/guidelines and objectives as established by the Board in Policy #2015. The time frames provided in the budget calendar reflect early involvement of District staff and the Board in review and discussion of policy direction, goals and objectives concurrent with development of financial projections and service level requirements. With this approach, the necessary components that guide the process are incorporated into the proposed budget prior to formal submission to the Board.

Key budget dates are shown below:

Date	Process
Early January 2023	Budget discussions begin with all departments including FY 2022/2023 midyear and year end projections
March 16, 2023	Midyear presentation to Board with discussions on FY 2023/2024 budget drivers
April 27, 2023	Budget workshop held with Board
May 22, 2023	Presentation of the FY 2023/2024 proposed budget to the Board
June 26, 2023	Consideration of the FY 2023/2024 final budget by the Board

## BUDGET REPORTING

For budgetary reporting purposes, Union Sanitary District uses the modified accrual basis of accounting. Under the modified accrual basis of accounting, revenues are recognized when they become measurable and available. “Measurable” means the amount of the transaction can be determined and “available” means collectible within the current period or soon enough thereafter to be used to pay liabilities of the current period. Expenditures are recognized in the accounting period in which the liability is incurred. Non-cash expense items such as depreciation expense for fixed assets and accrued compensated absences are excluded from the budget. Principal payments for District debt are included in the budget.

The District operates under two funds for budgetary purposes. Those funds are:

Sewer Service Fund (fund 80) – This fund accounts for the general operations, maintenance, and administration of Union Sanitary District. For purposes of internal accounting only, the District maintains separate funds within the Sewer Service Fund to track revenue and expenditures as they relate to operations; special projects; Other Post-Employment Benefits (OPEB); 115 Pension Trust contributions; vehicle, equipment, and information systems acquisitions; and maintenance of plant, pump, and structural components.

Capacity Fund (fund 90) – This fund accounts for capacity related fees collected by the District and their related expenditures. Capacity fees are charged by the District to assure that development customers that connect to the system pay their proportional share of the sewer and treatment plant required to convey and treat their wastewater. Sewer capacity charges are governed by California Government Code Section 66013.

## FINANCIAL STATEMENT REPORTING

The District operates as a proprietary fund-type and uses the modified accrual basis of accounting. All proprietary fund-types are accounted for on a flow of economic resources measurement focus. Under this measurement focus, all assets and liabilities associated with the operation of these funds are included on the statement of net position. Where appropriate, net total assets (i.e. fund equity) are segregated into contributed capital and retained earnings. Proprietary fund-type operating statements present increases (revenues) and decreases (expenses) in net position.

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# OTHER INFORMATION

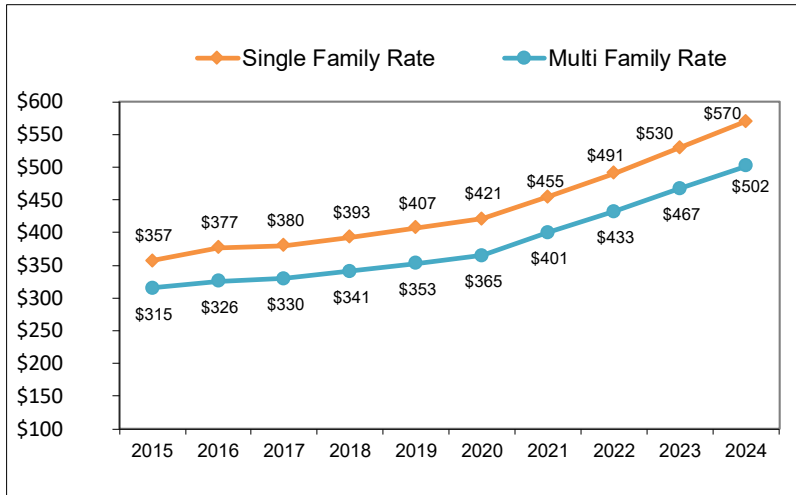


New Standby Power Building

**UNION SANITARY DISTRICT**  
**Current and Historical Fees**  
 As of June 30, 2024  
 Last Ten Years

**Sewer Service Charge Rates**

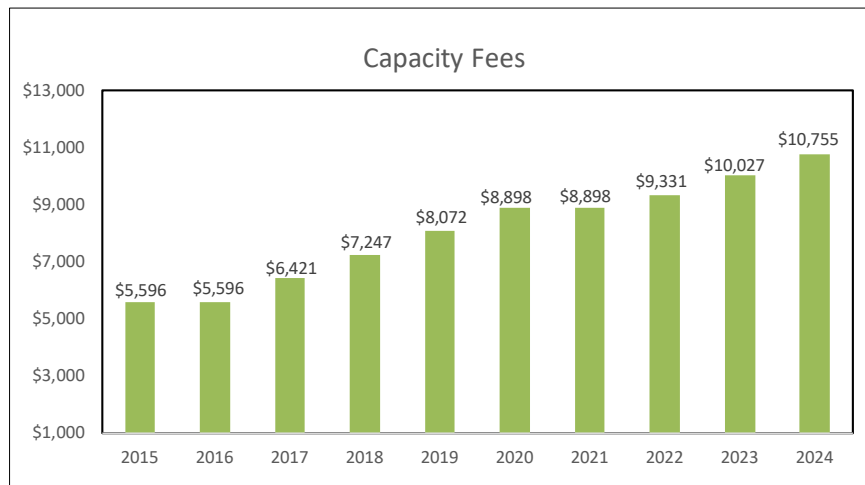
	Single Family Rate	Multi - Family Rate	Single Family Rate Percentage Change
FY 2024	\$569.97	\$502.28	7.5%
FY 2023	530.21	467.24	8.0%
FY 2022	490.93	432.63	8.0%
FY 2021	454.57	400.58	7.9%
FY 2020	421.37	365.32	3.5%
FY 2019	407.12	352.97	1.0%
FY 2018	393.35	341.03	3.5%
FY 2017	380.05	329.50	0.8%
FY 2016	377.00	326.00	5.6%
FY 2015	357.02	315.25	5.0%



The fees above are for Single and Multi-Family units. A property with multiple housing units such as an apartment complex is charged \$502.28 for each dwelling unit on the property. Fees for commercial and industrial customers are based on the volume and strength of the wastewater being treated.

**Capacity Fee Rates**

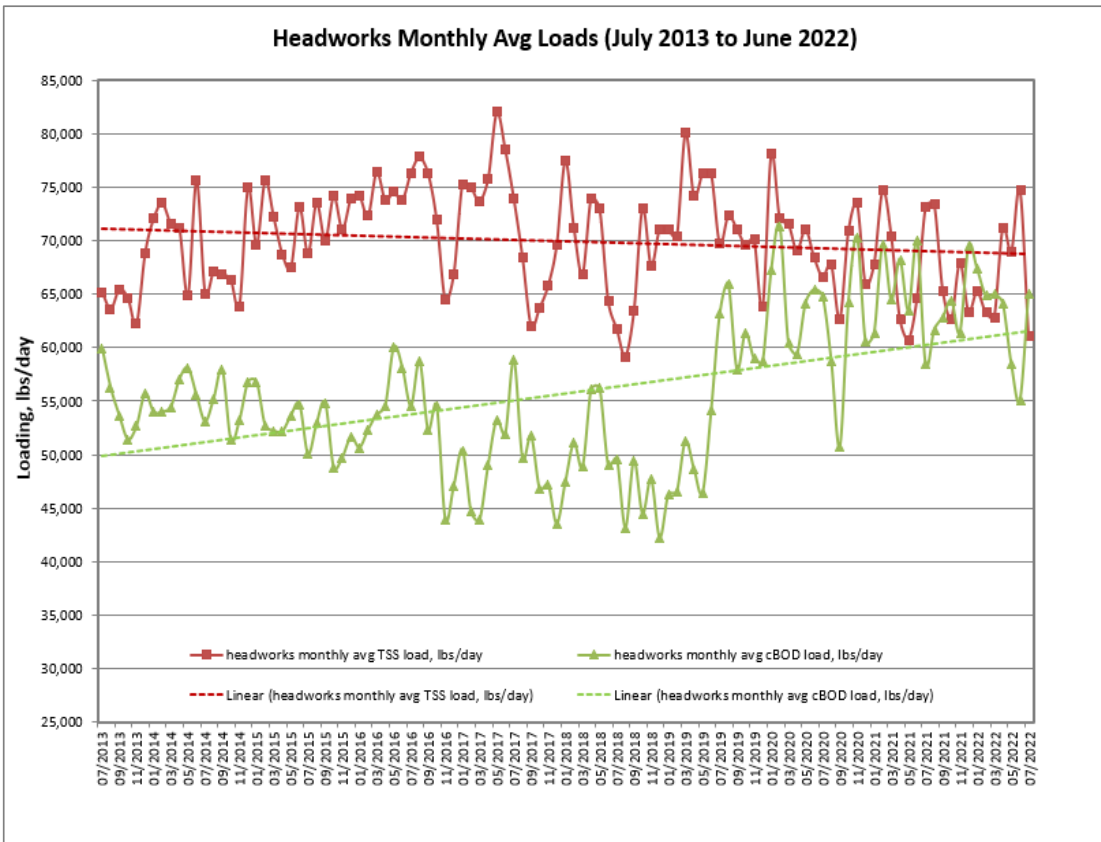
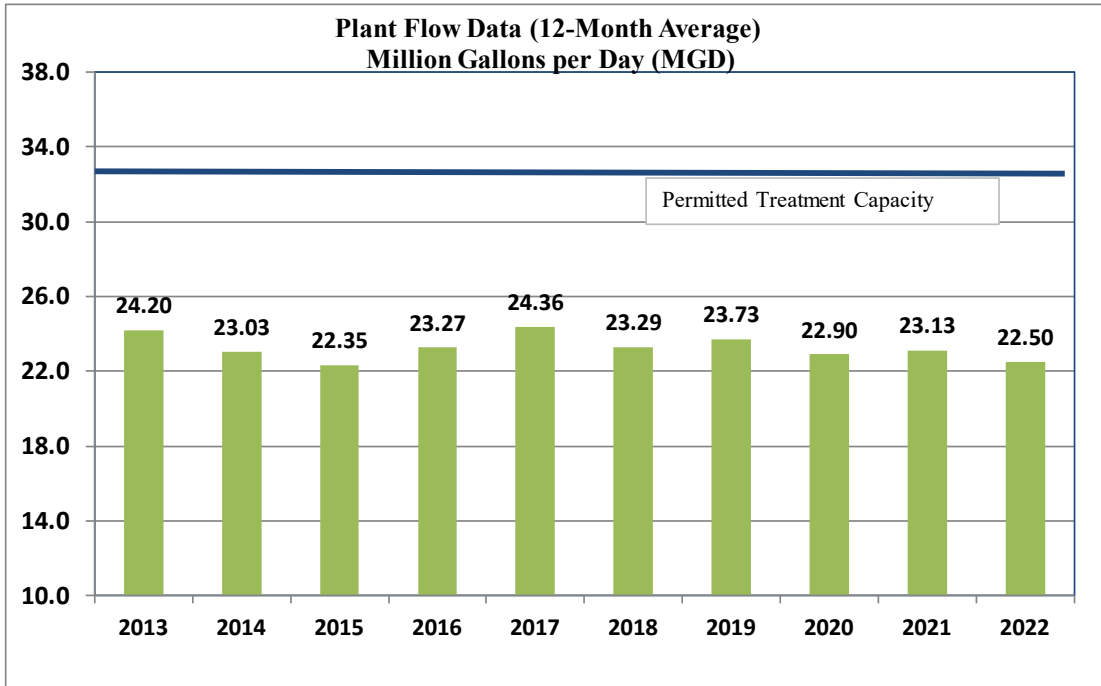
		Percentage Change
FY 2024	\$10,755.00	7.3%
FY 2023	10,027.00	7.5%
FY 2022	9,331.00	4.9%
FY 2021	8,897.71	0.0%
FY 2020	8,897.71	10.2%
FY 2019	8,072.20	11.4%
FY 2018	7,246.69	12.9%
FY 2017	6,421.17	14.8%
FY 2016	5,595.66	0.0%
FY 2015	5,595.66	5.0%



The capacity fees shown are per dwelling unit. Other categories such as restaurants, warehouses, and mixed-use commercial facilities are based on square footage and other factors as per the Capacity Fee Ordinance.



**UNION SANITARY DISTRICT**  
 Operating Indicators by Function/Program  
 Average Daily Flow



Source: USD Treatment and Disposal Work Group

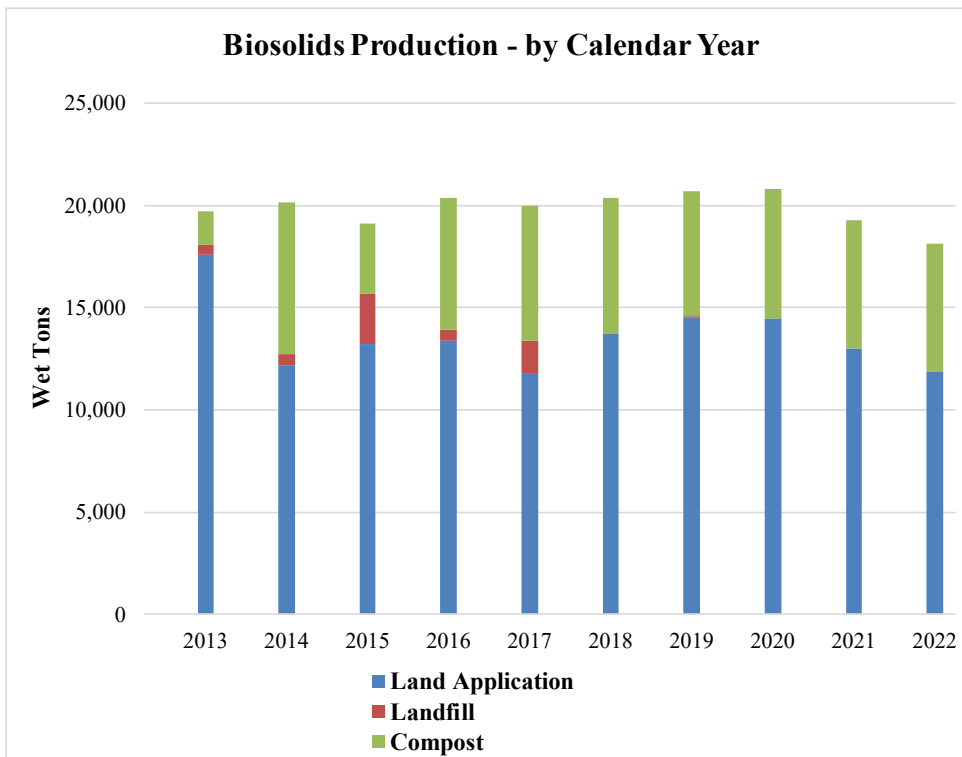
**UNION SANITARY DISTRICT**

Operating Indicators - Biosolids  
Last Ten Calendar Years

**Function/Program**

**Biosolids**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Land Application	17,597	12,212	13,212	13,395	11,784	13,733	14,529	14,452	12,995	11,847
Landfill	501	545	2,450	563	1,624	0	72	0	0	0
Compost	1,642	7,414	3,470	6,399	6,584	6,615	6,103	6,342	6,262	6,271
<b>Total (in Wet Tons)</b>	<b>19,741</b>	<b>20,171</b>	<b>19,132</b>	<b>20,357</b>	<b>19,992</b>	<b>20,347</b>	<b>20,704</b>	<b>20,793</b>	<b>19,257</b>	<b>18,117</b>



**UNION SANITARY DISTRICT**

Full-time Equivalent District Employees by Function/Program (as measured at June 30)  
Last 10 Fiscal Years

Function/Program	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
System operations and maint (CS Support, FMC, T&D, Whse Engineering and construction (CIP, ETSU)	51.45	50.45	53.45	53.45	52.45	55.45	54.45	53.45	54.45	53.45
Collections System Maintenance (CS)	7.00	8.00	8.00	10.00	9.00	8.00	9.00	11.00	13.00	12.00
Office of the General Manager (GM)	24.00	23.00	23.00	25.00	25.00	25.00	25.00	26.00	25.00	23.00
Finance (FAST)	2.00	1.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Information systems (IT)	5.00	5.00	5.00	5.00	3.00	5.00	6.00	5.00	5.00	5.00
Admin department (Adm Specialist, Purchasing, non-HR OST)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Customer and community services (Rest of TS)	15.00	14.00	13.00	14.00	13.00	13.00	12.00	15.00	14.00	14.00
Human resources (HR)	19.00	19.00	18.00	20.00	20.00	21.00	21.00	20.00	20.00	20.00
	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
<b>Total # of Employees</b>	<b>131.45</b>	<b>128.45</b>	<b>131.45</b>	<b>136.45</b>	<b>131.45</b>	<b>136.45</b>	<b>136.45</b>	<b>139.45</b>	<b>140.45</b>	<b>136.45</b>
<b>Average years of service of employees as of June 30:</b>	<b>11.70</b>	<b>11.97</b>	<b>11.25</b>	<b>10.54</b>	<b>10.60</b>	<b>10.41</b>	<b>10.20</b>	<b>10.20</b>	<b>10.76</b>	<b>10.10</b>

CIP = Capital Improvements Projects Team  
ETSU = Enhanced Treatment & Site Upgrade  
FAST = Finance & Acquisition Services Team  
FMC = Fabrication, Maintenance and Construction  
OST = Organizational Support Team  
T&D = Treatment & Disposal Work Group  
TS = Technical Services Work Group

**UNION SANITARY DISTRICT**  
 Ten Principal Industrial Rate Payers by Levy  
 June 30, 2022

Rate Payer	2021-22			Rate Payer	2020-21		
	Total Annual Billing	Rank	% of Total Annual Billings		Total Annual Billing	Rank	% of Total Annual Billings
Tesla	\$ 1,446,020	1	1.96%	Tesla	\$1,176,212	1	1.59%
Lam Research	300,980	2	0.41%	Mission Linen Supply	243,523	2	0.33%
Western Digital	257,391	3	0.35%	Western Digital	224,028	3	0.30%
Washington Hospital	204,834	4	0.28%	Washington Hospital	213,400	4	0.29%
Boehringer Ingeheim	183,299	5	0.25%	Ranch 99/Warm Springs Shopping Center	213,196	5	0.29%
Mission Linen Supply	182,382	6	0.25%	Union Square Shopping Center	212,278	6	0.29%
Safety-Kleen	176,505	7	0.24%	Lam Research	204,684	7	0.28%
US Pipe	168,193	8	0.23%	US Pipe	194,164	8	0.26%
Archstone Center Apartments	151,118	9	0.20%	Ranch 99/Newark	181,779	9	0.25%
Union Square Shopping Center	142,673	10	0.19%	Boehringer Ingeheim	168,826	10	0.23%
Total annual billing largest ten:	<u>\$3,213,396</u>		<u>4.35%</u>	Total annual billing largest ten:	<u>\$3,032,089</u>		<u>4.11%</u>
Total ALL annual billings	<u>\$73,822,317</u>			Total ALL annual billings	<u>\$62,142,806</u>		

Rate Payer	2019-20			Rate Payer	2018-19		
	Total Annual Billing	Rank	% of Total Annual Billings		Total Annual Billing	Rank	% of Total Annual Billings
Tesla	\$1,381,023	1	2.22%	Tesla	\$1,228,862	1	2.04%
Washington Hospital	314,394	2	0.51%	Washington Hospital	221,799	2	0.37%
US Pipe	244,663	3	0.39%	US Pipe	216,296	3	0.36%
Western Digital	187,814	4	0.30%	Western Digital	174,219	4	0.29%
Ranch 99/Warm Springs Shopping Center	161,740	5	0.26%	Ranch 99/Warm Springs Shopping Center	157,421	5	0.26%
Union Square Shopping Center/ Market Place	161,271	6	0.26%	Ranch 99/Newark	152,401	6	0.25%
Lam Research	160,087	7	0.26%	Marriott Hotel	141,572	7	0.24%
Ranch 99/Newark	148,835	8	0.24%	Union Square Shopping Center	138,482	8	0.23%
Marriott Hotel	133,716	9	0.22%	Lam Research	125,330	9	0.21%
Sterling Foods	127,508	10	0.21%	Gateway Plaza Shopping Center	125,202	10	0.21%
Total annual billing largest ten:	<u>\$3,021,050</u>		<u>4.86%</u>	Total annual billing largest ten:	<u>\$2,681,584</u>		<u>4.45%</u>
Total ALL annual billings	<u>\$60,216,149</u>			Total ALL annual billings	<u>\$57,330,651</u>		

Rate Payer	2017-18			Rate Payer	2016-17		
	Total Annual Billing	Rank	% of Total Annual Billings		Total Annual Billing	Rank	% of Total Annual Billings
Tesla	\$817,848	1	1.51%	Tesla	\$1,141,868	1	2.18%
Western Digital	141,806	2	0.26%	Washington Hospital	206,132	2	0.39%
Solar City	172,276	3	0.32%	Western Digital	176,435	3	0.34%
US Pipe	135,774	4	0.25%	Ranch 99/Warm Springs Shopping Center	161,772	4	0.31%
Seagate Magnetics	156,718	5	0.29%	Marriott Hotel	142,229	5	0.27%
Lam Research	122,934	6	0.23%	Ranch 99/Newark	133,807	6	0.26%
Washington Hospital	173,057	7	0.32%	US Pipe	130,685	7	0.25%
Kaiser Hospital	106,337	8	0.20%	Kaiser Hospital	125,907	8	0.24%
Boehringer Ingeheim	87,678	9	0.16%	Gateway Plaza	124,269	9	0.24%
Seagate Technology #3	69,384	10	0.13%	Pacific Commons (Area 4-Asian Pearl, Kinders)	119,920	10	0.23%
Total annual billing largest ten:	<u>\$1,983,813</u>		<u>3.66%</u>	Total annual billing largest ten:	<u>\$2,463,022</u>		<u>4.70%</u>
Total ALL annual billings	<u>\$54,260,096</u>			Total ALL annual billings	<u>\$52,384,709</u>		

## UNION SANITARY DISTRICT

### Miscellaneous Statistics

As of June 30, 2022

Governing Body:	Elected 5-Member Board of Directors Fremont - 3 Members Newark - 1 Member Union City - 1 Member
Governmental Structure:	Established in 1918 and reorganized in 1923 under the Sanitary District Act
Staff:	136.45 full-time equivalent employees
CEO:	General Manager
CFO:	Business Services Manager
Authority:	California Health and Safety Code Section 4700 et. Seq.
Services:	Wastewater collection, treatment and disposal
Service Area:	60.2 square miles (Annexed areas - Fremont, Newark and Union City)
Total Population Served:	344,855
Number of Parcels	101,931 (91,095 Residential; 3,115 Non-Residential; 7,721 Other (vacant land))
Collection & Transport System:	Total miles of pipeline - 839, including the force main and all gravity sewers (including trunk mains) Number of pumping stations - 7 Pump Stations: Irvington, Newark, Alvarado Lift Stations: Fremont, Boyce, Paseo Padre, Cherry Street 17,300 manholes
Permitted Plant Treatment Capacity (ADWF)	33 million gallons per day (mgd)
Type of Treatment:	Secondary
Sewer Service Charge:	\$490.93 annually per single family residential dwelling unit

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# APPENDIX



Easterly View from USD – San Francisco Bay and Estuary



# Principal Officials

<b>Board Member</b>	<b>Position</b>	<b>City Represented</b>	<b>Year Elected</b>	<b>Term Expires</b>
Manny Fernandez	President	Union City, Ward 1	2011	2024
Jennifer Toy	Vice President	Fremont, Ward 3	1998	2026
Tom Handley	Secretary	Fremont, Ward 3	2007	2026
Pat Kite	Director	Newark, Ward 2	1991	2024
Anjali Lathi	Director	Fremont, Ward 3	2002	2024

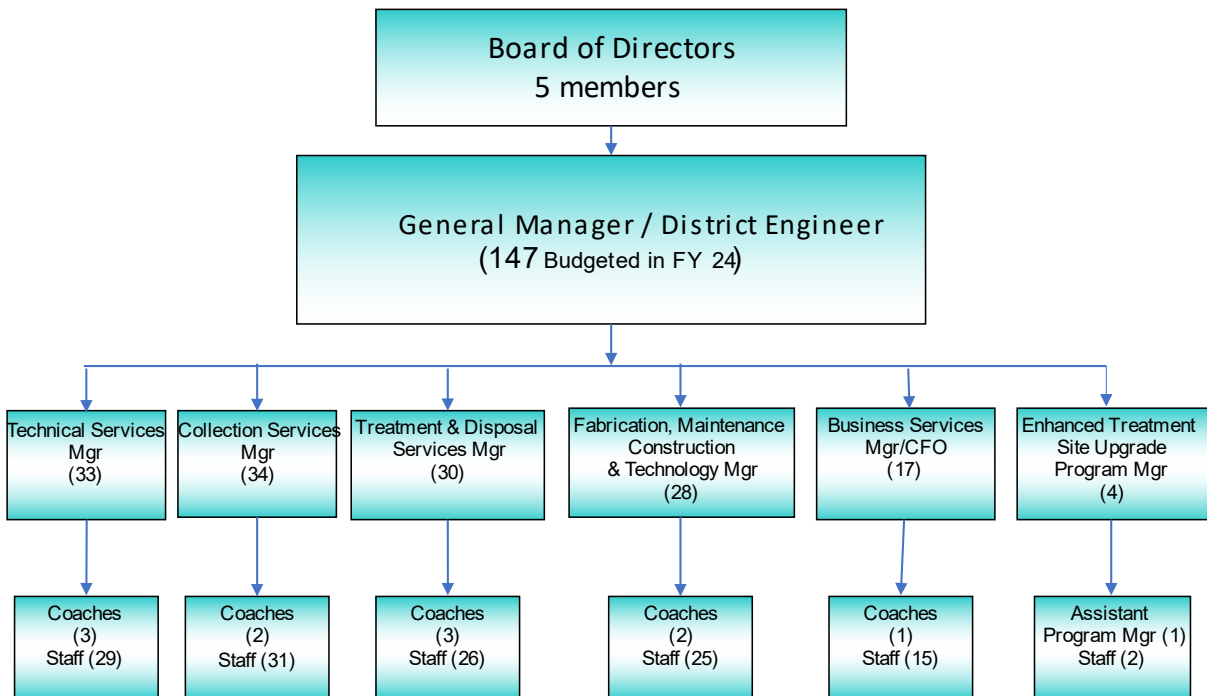
Board positions effective 05/09/23

Staff

Paul Eldredge	General Manager/District Engineer
Armando Lopez	Treatment & Disposal Services Manager
Robert Simonich	Maintenance & Technology Services Manager
Mark Carlson	Business Services Manager/Chief Financial Officer
Raymond Chau	Technical Services Manager
Jose Rodrigues	Collection Services Manager

Karen W. Murphy - General Counsel







## VISION/MISSION STATEMENT

April 10, 2017

To safely and responsibly collect and treat wastewater, and to recover resources from process waste streams, while protecting human health and improving the environment in a way that benefits the Tri-Cities and all USD stakeholders.

How we continue to accomplish our Vision:

Commitment to safety:

- Continually reviewing our safety program for opportunities to improve
- Focusing on protecting employees and the community in all our activities
- Allocating resources to ensure safe operations (equipment, training, staff)
- Collaboratively promoting a safe work environment

Responsibility:

- Being accountable for our actions and decisions
- Being fiscally prudent
- Maintaining and upgrading infrastructure
- Anticipating and meeting future District and stakeholder needs
- Compliance with laws and regulations (local, state, federal)
- Effective asset management
- Effective use of technology
- Looking for innovative ways to reduce or reuse our waste streams

Collect, treat, and recover/reuse wastewater:

- Providing capacity in the collection system and plant
- Regulating connections
- Increasing efforts for resource recovery (biogas, biosolids, etc.)
- Exploring ways to maximize water reclamation and reuse potential

Human health and environmental stewardship

- Preventing sewer spills and back-ups
- Limiting health risks through treatment of wastewater
- Responding to emergencies
- Enhancing water quality in the San Francisco Bay estuary
- Meeting or exceeding all water and air quality standards
- Promoting pollution prevention and pretreatment through outreach and educational programs
- Maximizing use of green energy sources when feasible
- Working towards energy neutrality



## VISION/MISSION STATEMENT April 10, 2017

We benefit our stakeholders by:

### Community

- Complying with all local, state, and federal regulations, protecting the environment and controlling odors
- Communicating with the public and bringing awareness about wastewater issues
- Responding to emergencies and providing mutual aid
- Participating in community outreach activities
- Contributing to the wastewater treatment profession by participating in professional associations, partnering with other agencies and organizations, and sharing best practices
- Working cooperatively with cities and other government agencies

### Customer

- Providing award-winning, reliable service
- Being fiscally responsible and cost effective, and providing value
- Promptly responding to customers' needs
- Being professional and courteous
- Proactively and creatively meeting customer needs
- Supporting businesses through permitting, education and by providing capacity

### Employees

- Providing a safe work environment
- Recognizing employee contributions
- Encouraging cooperation and collaboration
- Demonstrating equality and fairness
- Valuing employee input, and offering opportunities for involvement and creativity
- Providing training and resources
- Providing competitive wages and benefits in a stable work environment
- Communicating and sharing information openly and honestly

**Union Sanitary District**  
**Draft FY 2024 - FY 2043 CIP Budget**  
**(All Figures x \$1,000)**

Fund	%	Rank	Status	Project Name	Total Project Budget	Spent in Prior Years	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	10-Year Total	FY 34	FY 35	FY 36	FY 37	FY 38	FY 39	FY 40	FY 41	FY 42	FY 43	20-Year Total	
<b>ADMINISTRATIVE FACILITIES</b>																													
80		3		Additional CS (Vehicle) Storage								200	1,623				1,823											1,823	
80		2	Design	Cathodic Protection Improvements	500	0	100	400		310		331		353		377	1,871		402		429		458		488		521	4,169	
80		1	Constr	ETSU - 1A - Campus Building	90,526	20,674	37,000	32,852									69,852											69,852	
80		1	Program	Field Ops Bldg. Sesmic Upgrade and Leak Repairs	5,798	0	134	535	3,590	1,539							5,798											5,798	
80		3		FMC Storage					320								320											320	
80		3		Plant Paving						750			200		200		1,150	200		200		200		200		200		2,150	
80		2		Radio Repeater Antenna Replacement								150					150											150	
80	50	3		Solar Panels/Inverters Replacement at Alvarado													0			197								197	
90	50	3		Solar Panels/Inverters Replacement at Alvarado													0			197								197	
80	50	2		Solar Panels/Inverters Replacement at Carport				50						335			385								139			524	
90	50	2		Solar Panels/Inverters Replacement at Carport				50						335			385								139			524	
80	50	2	Design	Solar Panels/Inverters Replacement at Irvington	1,401	15	693	693									1,386			919								2,305	
90	50	2	Design	Solar Panels/Inverters Replacement at Irvington	1,401	15	693	693									1,386			919								2,305	
<b>Total for ADMINISTRATIVE FACILITIES</b>					<b>99,626</b>	<b>20,704</b>	<b>38,620</b>	<b>35,273</b>	<b>3,910</b>	<b>1,849</b>	<b>750</b>	<b>681</b>	<b>1,823</b>	<b>1,023</b>	<b>200</b>	<b>377</b>	<b>84,506</b>	<b>200</b>	<b>402</b>	<b>2,432</b>	<b>429</b>	<b>200</b>	<b>458</b>	<b>200</b>	<b>766</b>	<b>200</b>	<b>521</b>	<b>90,314</b>	
<b>Total Priority 1 Administrative Facilities</b>					<b>96,324</b>	<b>20,674</b>	<b>37,134</b>	<b>33,387</b>	<b>3,590</b>	<b>1,539</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>75,650</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>75,650</b>	
<b>Total Priority 2 Administrative Facilities</b>					<b>3,302</b>	<b>30</b>	<b>1,486</b>	<b>1,886</b>	<b>0</b>	<b>310</b>	<b>0</b>	<b>481</b>	<b>0</b>	<b>1,023</b>	<b>0</b>	<b>377</b>	<b>5,563</b>	<b>0</b>	<b>402</b>	<b>1,838</b>	<b>429</b>	<b>0</b>	<b>458</b>	<b>0</b>	<b>766</b>	<b>0</b>	<b>521</b>	<b>9,977</b>	
<b>Total Priority 3 Administrative Facilities</b>					<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>320</b>	<b>0</b>	<b>750</b>	<b>200</b>	<b>1,823</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>3,293</b>	<b>200</b>	<b>0</b>	<b>594</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>4,687</b>	
<b>Total Fund 80 - Administrative Facilities</b>					<b>98,225</b>	<b>20,689</b>	<b>37,927</b>	<b>34,530</b>	<b>3,910</b>	<b>1,849</b>	<b>750</b>	<b>681</b>	<b>1,823</b>	<b>688</b>	<b>200</b>	<b>377</b>	<b>82,735</b>	<b>200</b>	<b>402</b>	<b>1,316</b>	<b>429</b>	<b>200</b>	<b>458</b>	<b>200</b>	<b>627</b>	<b>200</b>	<b>521</b>	<b>87,288</b>	
<b>Total Fund 90 - Administrative Facilities</b>					<b>1,401</b>	<b>15</b>	<b>693</b>	<b>743</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>335</b>	<b>0</b>	<b>0</b>	<b>1,771</b>	<b>0</b>	<b>0</b>	<b>1,116</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>139</b>	<b>0</b>	<b>0</b>	<b>3,026</b>

Fund	%	Rank	Status	Project Name	Total Project Budget	Spent in Prior Years	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	10-Year Total	FY 34	FY 35	FY 36	FY 37	FY 38	FY 39	FY 40	FY 41	FY 42	FY 43	20-Year Total
<b>COLLECTION SYSTEM</b>																												
80		2		Cast Iron/Pipe Lining					587		626		668		713		2,595	761		812		866		925		987		6,945
80		1	Design	Central Avenue Sanitary Sewer Relocation	2,500	0	150	2,350									2,500											2,500
80		2	Constr	FY 23 Cast Iron/Piping Lining	550	0	520	30									550											550
80		2	Design	Gravity Sewer Rehab/Replacement	2,158	0	216	1,942		1,883		2,009		2,144		2,288	10,481		2,441		2,605		2,779		2,966		3,165	24,437
80		1		RCP Sewer Rehab (Alvarado Basin)				200	2,200	2,500							4,900											4,900
80		1		RCP Sewer Rehab (Irvington Basin)				100	800	900		250	2,200	2,550			6,800											6,800

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Fund	%	Rank	Status	Project Name	Total Project Budget	Spent in Prior Years	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	10-Year Total	FY 34	FY 35	FY 36	FY 37	FY 38	FY 39	FY 40	FY 41	FY 42	FY 43	20-Year Total
80		1		RCP Sewer Rehab (Newark Basin)						250	2,200	2,550					5,000											5,000
<b>Total for COLLECTION SYSTEM</b>					<b>5,208</b>	<b>0</b>	<b>886</b>	<b>4,622</b>	<b>3,587</b>	<b>5,533</b>	<b>2,826</b>	<b>4,809</b>	<b>2,868</b>	<b>4,694</b>	<b>713</b>	<b>2,288</b>	<b>32,826</b>	<b>761</b>	<b>2,441</b>	<b>812</b>	<b>2,605</b>	<b>866</b>	<b>2,779</b>	<b>925</b>	<b>2,966</b>	<b>987</b>	<b>3,165</b>	<b>51,133</b>
Total Priority 1 Collection System					2,500	0	150	2,650	3,000	3,650	2,200	2,800	2,200	2,550	0	0	19,200	0	0	0	0	0	0	0	0	0	0	19,200
Total Priority 2 Collection System					2,708	0	736	1,972	587	1,883	626	2,009	668	2,144	713	2,288	13,626	761	2,441	812	2,605	866	2,779	925	2,966	987	3,165	31,933
Total Priority 3 Collection System					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Fund 80 - Collection System</b>					<b>5,208</b>	<b>0</b>	<b>886</b>	<b>4,622</b>	<b>3,587</b>	<b>5,533</b>	<b>2,826</b>	<b>4,809</b>	<b>2,868</b>	<b>4,694</b>	<b>713</b>	<b>2,288</b>	<b>32,826</b>	<b>761</b>	<b>2,441</b>	<b>812</b>	<b>2,605</b>	<b>866</b>	<b>2,779</b>	<b>925</b>	<b>2,966</b>	<b>987</b>	<b>3,165</b>	<b>51,133</b>
<b>Total Fund 90 - Collection System</b>					<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Fund	%	Rank	Status	Project Name	Total Project Budget	Spent in Prior Years	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	10-Year Total	FY 34	FY 35	FY 36	FY 37	FY 38	FY 39	FY 40	FY 41	FY 42	FY 43	20-Year Total
<b>TRANSPORT SYSTEM</b>																												
80	50	2		Alameda Creek Crossing Lift Station													0						768	4,574	5,591		10,933	
90	50	2		Alameda Creek Crossing Lift Station													0						768	4,574	5,591		10,933	
90		1	Constr	Cherry St. PS	250	150	100										100											100
90		2		Equalization Storage @ Newark													0		3,066	9,407	21,951							34,424
80		1	Constr	Forcemain Corrosion Repairs - Phase 3	1,438	1,383	55										55											55
80		1	Constr	Forcemain Corrosion Repairs - Phase 4	2,368	68	2,200	100									2,300											2,300
80		2	Design	Forcemain Stabilization at Alameda Creek	0	0	100										100											100
80		3		Forcemain Rehabilitation													0					900	12,275	12,275	12,275	12,275		50,000
80	50	2		Irvington PS Pumps and VFDs					1,025	4,613	4,613						10,251											10,251
90	50	2		Irvington PS Pumps and VFDs					1,025	4,613	4,613						10,251											10,251
80	50	3		Irvington PS Rehabilitation													0	590	2,653	2,653								5,896
90	50	3		Irvington PS Rehabilitation													0	590	2,653	2,653								5,896
80	50	3		Lift Station Rehabilitation											50	445	495							743	3,342	3,342		7,922
90	50	3		Lift Station Rehabilitation											50	445	495							743	3,342	3,342		7,922
80	50	2	Constr	Newark PS/Irvington PS Portable VFD	124	15	109										109											109
90	50	2	Constr	Newark PS/Irvington PS Portable VFD	124	15	109										109											109
80	45	2	Des/Constr	Newark and Irvington PS Chemical System Improve	5,655	353	377	4,147	778								5,302											5,302
90	55	2	Des/Constr	Newark and Irvington PS Chemical System Improve	6,911	431	461	5,069	950								6,480											6,480
80	50	2		Newark PS Pumps and VFDs								1,089	4,901	4,901			10,891											10,891
90	50	2		Newark PS Pumps and VFDs								1,089	4,901	4,901			10,891											10,891
80	50	3		Newark PS Rehabilitation													0			501	2,254	2,254						5,009
90	50	3		Newark PS Rehabilitation													0			501	2,254	2,254						5,009

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Fund	%	Rank	Status	Project Name	Total Project Budget	Spent in Prior Years	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	10-Year Total	FY 34	FY 35	FY 36	FY 37	FY 38	FY 39	FY 40	FY 41	FY 42	FY 43	20-Year Total
90		2		Stevenson Blvd. Lift Station	3,000	0	100	200	1,350	1,350							3,000											3,000
80		3		Transport System Misc. Projects					250	250	250	250	250	250	250	2,000	250	250	250	250	250	250	250	250	250	250	250	4,500
<b>Total for TRANSPORT SYSTEM</b>					<b>19,870</b>	<b>2,415</b>	<b>3,611</b>	<b>9,516</b>	<b>5,378</b>	<b>10,826</b>	<b>9,476</b>	<b>2,428</b>	<b>10,052</b>	<b>10,052</b>	<b>350</b>	<b>1,140</b>	<b>62,829</b>	<b>1,430</b>	<b>5,556</b>	<b>8,622</b>	<b>10,659</b>	<b>27,609</b>	<b>18,569</b>	<b>14,011</b>	<b>28,357</b>	<b>30,391</b>	<b>250</b>	<b>208,283</b>
				<b>Total Priority 1 Transport System</b>	<b>4,056</b>	<b>1,601</b>	<b>2,355</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,455</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,455</b>
				<b>Total Priority 2 Transport System</b>	<b>15,814</b>	<b>814</b>	<b>1,256</b>	<b>9,416</b>	<b>5,128</b>	<b>10,576</b>	<b>9,226</b>	<b>2,178</b>	<b>9,802</b>	<b>9,802</b>	<b>0</b>	<b>0</b>	<b>57,384</b>	<b>0</b>	<b>0</b>	<b>3,066</b>	<b>9,407</b>	<b>21,951</b>	<b>1,536</b>	<b>0</b>	<b>9,148</b>	<b>11,182</b>	<b>0</b>	<b>113,674</b>
				<b>Total Priority 3 Transport System</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>350</b>	<b>1,140</b>	<b>2,990</b>	<b>1,430</b>	<b>5,556</b>	<b>5,556</b>	<b>1,252</b>	<b>5,658</b>	<b>17,033</b>	<b>14,011</b>	<b>19,209</b>	<b>19,209</b>	<b>250</b>	<b>92,154</b>	
				<b>Total Fund 80 - Transport System</b>	<b>9,585</b>	<b>1,819</b>	<b>2,841</b>	<b>4,247</b>	<b>2,053</b>	<b>4,863</b>	<b>4,863</b>	<b>1,339</b>	<b>5,151</b>	<b>5,151</b>	<b>300</b>	<b>695</b>	<b>31,503</b>	<b>840</b>	<b>2,903</b>	<b>2,903</b>	<b>751</b>	<b>3,404</b>	<b>15,547</b>	<b>13,268</b>	<b>20,441</b>	<b>21,458</b>	<b>250</b>	<b>113,268</b>
				<b>Total Fund 90 - Transport System</b>	<b>10,285</b>	<b>596</b>	<b>770</b>	<b>5,269</b>	<b>3,325</b>	<b>5,963</b>	<b>4,613</b>	<b>1,089</b>	<b>4,901</b>	<b>4,901</b>	<b>50</b>	<b>445</b>	<b>31,326</b>	<b>590</b>	<b>2,653</b>	<b>5,719</b>	<b>9,908</b>	<b>24,205</b>	<b>3,022</b>	<b>743</b>	<b>7,916</b>	<b>8,933</b>	<b>0</b>	<b>95,015</b>

Fund	%	Rank	Status	Project Name	Total Project Budget	Spent in Prior Years	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	10-Year Total	FY 34	FY 35	FY 36	FY 37	FY 38	FY 39	FY 40	FY 41	FY 42	FY 43	20-Year Total	
<b>TREATMENT PLANT</b>																													
80	50	2	Constr	Alvarado Influent PS Improvements	5,474	5,214	260										260											260	
90	50	2	Constr	Alvarado Influent PS Improvements	5,474	5,214	260										260											260	
80		2	Design	Alvarado Influent Valve Box Gate Valves 1-2	550	0	50	500									550											550	
80	50	2		Centrifuge Replacement					583	1,325	5,171	2,585					9,664											9,664	
90	50	2		Centrifuge Replacement					583	1,325	5,171	2,585					9,664											9,664	
80		2		Centrifuge System Equipment Replacement					927	1,263	7,666	4,472					14,328											14,328	
80	50	1		Cogen Engine No. 1 60K Block Replacement				400								525	925									675		1,600	
90	50	1		Cogen Engine No. 1 60K Block Replacement				400								525	925								675		1,600		
80	50	1	Constr	Cogen Engine No. 2 60K Block Replacement	375	0	375						475				850					625						1,475	
90	50	1	Constr	Cogen Engine No. 2 60K Block Replacement	375	0	375						475				850					625						1,475	
80	50	2		Cogen Retrofit										271	1,230		1,501											1,501	
90	50	2		Cogen Retrofit										271	1,230		1,501											1,501	
80		2		Control Box No. 1 Improvements						622	4,425	1,896					6,943											6,943	
80		2		Degritter Building Roof (Seismic) Replacement													0			741	4,112	1,761						6,614	
80	50	2		Degritting at Headworks and Improvements											499	1,375	1,874	4,907	8,439	8,438								23,658	
90	50	2		Degritting at Headworks and Improvements											499	1,375	1,874	4,907	8,439	8,438								23,658	
80		3		Diffuser Replacement													0	504	781	807								2,092	
90		3		Digester Additional Capacity													0											0	
80		2		Digester No. 1 Insp & Rehab					358	1,998	1,332						3,688					732	2,996	2,996				10,412	

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Fund	%	Rank	Status	Project Name	Total Project Budget	Spent in Prior Years	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	10-Year Total	FY 34	FY 35	FY 36	FY 37	FY 38	FY 39	FY 40	FY 41	FY 42	FY 43	20-Year Total
80		2		Digester No. 2 Insp & Rehab													0		576	3,318	2,212							6,106
80		2		Digester No. 3 Insp & Rehab											522	3,010	3,532	2,007										5,539
80		2		Digester No. 4 Insp & Rehab					430	2,398	1,599						4,427				740	4,267	2,845				12,279	
80		2		Digester No. 5 Insp & Rehab								474	2,731	1,820			5,025							553	3,186	2,124	10,888	
80		1	Design	Digester No. 6 Insp & Rehab	7,657	160	668	4,781	2,049						1,005	4,109	12,611	4,109										16,720
80		3		Digester No. 7 Insp & Rehab													0		1,550	6,341	6,341						14,232	
90		1	Constr	Digester No. 7	28,643	28,443	200										200										200	
80	60	1	Constr	ETSU - 1A - Aeration Basin Modifications	64,683	20,059	6,000	20,581	18,043								44,624											44,624
90	40	1	Constr	ETSU - 1A - Aeration Basin Modifications	43,123	13,373	4,000	13,721	12,029								29,750											29,750
80	40	1	Constr	ETSU - 1A - Aeration Basin No. 8	7,489	1,377	3,200	2,912									6,112											6,112
90	60	1	Constr	ETSU - 1A - Aeration Basin No. 8	11,233	2,066	4,800	4,367									9,167											9,167
80	60	1	Constr	ETSU - 1A - Aeration Internal Lift Pumps	2,430	90	1,200	1,140									2,340											2,340
90	40	1	Constr	ETSU - 1A - Aeration Internal Lift Pumps	1,620	60	800	760									1,560											1,560
80	60	1	Constr	ETSU - 1A - Blower 7-10 Replacement	2,748	1,868	600	280									880											880
90	40	1	Constr	ETSU - 1A - Blower 7-10 Replacement	1,832	1,245	400	187									587											587
80		1	Constr	ETSU - 1A - Plant 12kV Switchgear (SWGR-SE)	9,329	1,398	2,000	5,931									7,931											7,931
80	50	1	Constr	ETSU - 1A - Site Drainage Improvements	3,307	211	2,000	1,096									3,096											3,096
90	50	1	Constr	ETSU - 1A - Site Drainage Improvements	3,307	211	2,000	1,096									3,096											3,096
80	60	1	Design	ETSU - 1B - Secondary Clarifiers	90,311	2,236	1,800	8,880	39,600	28,546	9,249						88,075											88,075
90	40	1	Design	ETSU - 1B - Secondary Clarifiers	60,207	1,491	1,200	5,920	26,400	19,031	6,165						58,716											58,716
80	60	1	Design	ETSU - 1B - Switchboard 4 Replacement	1,194	0		360	834								1,194											1,194
90	40	1	Design	ETSU - 1B - Switchboard 4 Replacement	796	0		240	556								796											796
80	60	1	Design	ETSU - 1B - Effluent Facilities	28,943	0		5,917	9,660	8,520	4,846						28,943											28,943
90	40	1	Design	ETSU - 1B - Effluent Facilities	19,296	0		3,945	6,440	5,680	3,231						19,296											19,296
80	25	1	Design	ETSU - 1C - Plant Equalization Storage	9,905	0			300	450	7,855	1,300					9,905											9,905
90	75	1	Design	ETSU - 1C - Plant Equalization Storage	29,713	0			900	1,350	23,563	3,900					29,713											29,713
80	50	3		ETSU - 2 - Nutrient Removal (Level 2 Year-round)													0				2,774	11,463	36,329	48,439	36,329		135,334	
90	50	3		ETSU - 2 - Nutrient Removal (Level 2 Year-round)													0				2,774	11,463	36,329	48,439	36,329		135,334	
80		2		Flares Replacement					753	4,357	1,867						6,978										6,978	
80		2		MCC Replacement							50	491					541										541	

**Union Sanitary District  
Draft FY 2024 - FY 2043 CIP Budget  
(All Figures x \$1,000)**

Fund	%	Rank	Status	Project Name	Total Project Budget	Spent in Prior Years	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	10-Year Total	FY 34	FY 35	FY 36	FY 37	FY 38	FY 39	FY 40	FY 41	FY 42	FY 43	20-Year Total
80		2	Constr	Miscellaneous Improvements	7,089	589	3,500	3,000									6,500											6,500
80		2		Odor Scrubber Replacements (HW & West PCs)			428	1,767	7,528	10,540							20,263											20,263
80		2		Odor Scrubber Replacements (East PCs)						255	701	2,264	3,827	3,827	1,913		12,787											12,787
80		2		Odor Scrubber System Improvements								370	2,927	1,280	7,096		11,673	4,407	7,572	3,694	3,557	799	6,326					38,028
80		2		Plant 1 and 2 Water System Improvements				105	1,069								1,174											1,174
80		2		Plant 5kV Switchgear			392	2,803	1,201								4,395											4,395
80		2		Plant 12kV Switchgear			1,068	4,722	4,722								10,512											10,512
80	50	3		Plant Additional Power Source													0			250	2,000	2,750						5,000
90	50	3		Plant Additional Power Source													0			250	2,000	2,750						5,000
80		2		Plant Asset Condition Assessment R&R			4,934	497		979	827	3,562	3,648	7,877	1,132		23,456	2,646	406	247		398		1,062	4,403	24,516	24,516	81,650
80	50	2		Plant Fiber Optic Network										300	300	300	900	400										1,300
90	50	2		Plant Fiber Optic Network										300	300	300	900	400										1,300
80		2		Plant Mechanical and Electrical Projects				380	500	500	500	500	500	500	500		3,880	500	500	500	500	500	500	500	500	500	500	8,880
80		2	Constr	PLC Replacement	250	0	250				300						900			400				450				1,750
80		1		Primary Clarifier (1 - 4) Seismic Upgrade			134	556	2,367	3,314							6,371											6,371
80	75	2		Primary Clarifier Rehab (5-6)							514	2,121	2,105	8,418	8,418	4,209	25,785											25,785
90	25	2		Primary Clarifier Rehab (5-6)							172	707	701	2,806	2,806	1,403	8,595											8,595
80		3		Reclaimed Water													0											0
90		3		Reclaimed Water													0											0
80		1	Design	Secondary Digester No. 1 Insp & Rehab	1,209	25	130	702	351								1,184		508	4,723								6,415
80		3		Secondary Digester No. 2 Insp & Rehab				367	3,413								3,780				542	5,039						9,361
80		2		Seismic Retrofit of Conc. Structures				300		300		300		300			1,200	300		300		300		300		300		2,700
80		1	Constr	Standby Power Generation System Upgrade	27,754	11,006	13,663	1,985	1,100								16,748											16,748
90		3		Standby Power Generator No. 4													0			2,269	14,468	7,234						23,971
80		2	Des/Constr	Switchboard 3 and MCC 25 Replacement	2,690	105	851	1,734									2,585											2,585
80		2		Thickeners 1 and 2 Rehabilitation			221	1,783	764								2,768											2,768
80		3		Thickeners 3 and 4 Rehabilitation													0	638	3,070									3,708







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Anjali Lathi  
Jennifer Toy

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

Karen W. Murphy  
Attorney

**JUNE 26, 2023**  
**BOARD OF DIRECTORS MEETING**  
**AGENDA ITEM # 10**

**TITLE:** Consider a Resolution to Accept the Construction of the Force Main Corrosion Repairs Project – Phase 3 from Power Engineering Construction Co. *(This is a Motion Item)*

**SUBMITTED:** Paul R. Eldredge, General Manager/District Engineer  
Raymond Chau, Technical Services Work Group Manager  
Curtis Bosick, CIP Team Coach  
Andrew Baile, Assistant Engineer

**Recommendation**

Staff recommends the Board consider a resolution to accept the construction of the Force Main Corrosion Repairs Project – Phase 3 (Project) from Power Engineering Construction Co. (Power Engineering) and authorize recordation of a Notice of Completion.

**Discussion**

On April 11, 2022, the Board awarded the construction contract for the Project to Power Engineering in the amount of \$1,063,672. Staff issued the Notice to Proceed to Power Engineering on May 2, 2022. The 160-day project was scheduled to be completed on October 8, 2022. The Project experienced a delivery delay of new valves that were prepurchased by the District. Power Engineering completed the Project on November 29, 2022.

Contract Change Orders

The Project included 6 contract change orders (CCOs) in the amount of \$48,825.69 which is approximately 4.6% of the original contract amount. A list of the CCOs is included in the attached Table 1. A summary of the notable CCOs is provided below:

1. CCO No. 2 was in the amount of \$20,421. The purpose of this CCO was to have the contractor inject chemical grout under the manhole bases of the Cherry Street and Stevenson Boulevard force main manholes. The chemical grout was necessary to control the groundwater infiltration that was not observed during design.

2. CCO No. 4 was in the amount of \$20,421. The purpose of this CCO was to have the contractor inject chemical grout behind the wall of the Stevenson Boulevard force main manhole. The chemical grout was necessary to control the groundwater infiltration that was not observed during design.
3. CCO No. 6 provided a non-compensable time extension of 52 calendar days which covers the period between the scheduled and actual completion dates.

The Project's scope included the replacement of 24 valves inside the force main manholes. Due to supply chain challenges, the valve manufacturers quoted delivery times that could have delayed replacing the valves and returning the force main to service until well into the wet weather season. During design, staff decided to delete the valve procurement from the construction contract and to prepurchase the valves to ensure they were delivered on time for replacement. All the valves arrived on time except for 3 gate valves, which arrived 2 months later than anticipated. Despite the late delivery, the contractor was able to complete the work required to return the force main to service at the beginning of the wet weather season.

Figures 3 through 6 include photos of some of the repairs and valve replacement completed during the Project.

### **Background**

The District operates and maintains the transport system that consists of three pump stations and three lift stations and approximately 12½ miles of twin force main pipelines. The transport system conveys wastewater from the Irvington and Newark drainage basins to the Alvarado Wastewater Treatment Plant.

Force main facilities include 78 manholes along the pipeline alignment. The attached Figures 1 and 2 show the pipeline alignment from the Irvington Pump Station to the Newark Pump Station, and from the Newark Pump Station to the Plant, respectively. Of the 78 manholes, 46 of them provide access into the force main pipelines via a manway inside the manholes, and each manway is sealed with a blind flange. At the other 32 manholes, appurtenances such as air release valves or blow off valves are connected to the blind flanges.

The air release valves are located at the higher elevations of the force main pipelines to allow air from the pipelines to vent to maintain the full hydraulic capacity of the pipelines. The blow off valves are located at the lower elevations of the force main pipelines to allow staff to drain the wastewater from the pipelines when there is a need to remove as much wastewater as possible, typically for a long-term outage for maintenance or construction activities. This doesn't happen very often but if there is a need to do so, staff will need to set up pumps and hoses to connect the blow off valves to the closest sanitary sewer manhole.

These facilities were installed over 40 years ago, as part of the original force main construction. Over time, the presence of groundwater, moisture, and the buildup of hydrogen sulfide gas in these force main manholes have caused many of the manways, blind flanges, and appurtenances to become corroded. This corrosion is of primary concern, as failure of any single element could precipitate a leak from the force main pipeline.

In 2011, the District conducted a condition assessment of the force main equipment located in the Irvington Valve Box, Newark Influent and Effluent Valve Boxes, and Alvarado Influent Valve Box. These valve boxes are part of the transport system that delivers wastewater to the Plant and primarily house large diameter cement mortar coated steel piping, knife gate valves, and flanged coupling adaptors (FCAs). The assessment found the existing FCAs were experiencing corrosion and recommended them for replacement. The assessment also recommended refurbishment or replacement of the valves. In 2012, the District completed two phases of the Force Main Improvements Project to replace corroded FCAs, and to rehabilitate and replace knife gate valves on the force main pipelines located within the valve boxes.

In 2004, the District's Force Main Study included a condition assessment of the interior and exterior of the buried force main piping that was constructed of reinforced concrete pipe. The study found the piping to be in good condition and recommended an internal inspection every 10 years and an external inspection every 20 years. In 2016, the District hired Woodard & Curran (formerly RMC Water and Environment) to conduct the internal inspection of the force main piping as it is taken out of service for the District's Force Main Corrosion Repairs Project.

#### Force Main Corrosion Repairs Projects

During the summer of 2015, staff performed visual inspection inside all 78 force main manholes, and conducted non-destructive testing on elements with the worst corrosion conditions. In the fall of 2015 through the spring of 2016, staff hired Carollo Engineers to review and evaluate the data collected during the inspections and testing; as a result, they recommended that all corroded elements within the 78 manholes be rehabilitated or replaced. Staff hired West Yost Associates to complete preliminary design services in the fall of 2016, and West Yost completed this work while outlining a plan to accomplish the repairs in several phases.

Phase 1 of the Force Main Corrosion Repairs Project addressed repairs in the manholes on the eastern force main between the Newark Pump Station and the Plant, and construction was completed in October 2017.

Phase 2 of the Force Main Corrosion Repairs Project addressed repairs in the manholes on the western force main between the Newark Pump Station and the Plant, and construction was completed in August 2018.

Phase 3 of the Force Main Corrosion Repairs Project addressed repairs in the manholes on the western force main between the Irvington Pump Station and the Newark Pump Station. The Project also included repairs to the concrete structure of an access manhole located on the Cargill Salt property.

**Previous Board Action**

January 23, 2017, the Board authorized the General Manager to execute Task Order No. 2 with West Yost Associates in the amount of \$113,464 to provide design services for the Force Main Corrosion Repairs Project – Phase 1.

June 12, 2017, the Board awarded the construction contract for the Force Main Corrosion Repairs Project – Phase 1 to Cratus, Inc. in the amount of \$821,000.

July 10, 2017, the Board authorized the General Manager to execute Task Order No. 3 with West Yost Associates in the amount of \$33,085 to provide design support services during the construction of the Force Main Corrosion Repairs Project – Phase 1.

October 9, 2017, the Board authorized the General Manager to execute Task Order No. 4 with West Yost Associates in the amount of \$62,248 to provide design services for the Force Main Corrosion Repairs Project – Phase 2.

December 4, 2017, the Board accepted the construction of the Force Main Corrosion Repairs Project – Phase 1 from Cratus, Inc.

March 26, 2018, the Board awarded the contract for the Force Main Corrosion Repairs Project – Phase 2 to Cratus, Inc in the amount of \$931,800.

October 8, 2018, the Board accepted the construction of the Force Main Corrosion Repairs Project – Phase 2 from Cratus, Inc.

October 22, 2018, the Board authorized the General Manager to execute Task Order No. 6 with West Yost Associates in the amount of \$59,533 to provide engineering services during construction of the Force Main Corrosion Repairs Project – Phase 3.

April 11, 2022, the Board awarded the construction contract for the Force Main Corrosion Repairs Project – Phase 3 to Power Engineering Construction Co. in the amount of \$1,063,672.

April 25, 2022, the Board authorized the General Manager to execute an Agreement and Task Order No. 1 with Quincy Engineers, Inc. in the amount of \$494,790 to provide construction

management and inspection services for the Irvington Basin Reinforced Concrete Pipe Rehabilitation Project and Force Main Corrosion Repairs Project – Phase 3.

December 12, 2022, the Board authorized the General Manager to execute an Amendment No. 1 to Task Order No. 1 with Quincy Engineers, Inc. in the amount of \$117,187 to provide additional construction management and inspection services for the Irvington Basin Reinforced Concrete Pipe Rehabilitation Project and the Force Main Corrosion Repairs Project – Phase 3.

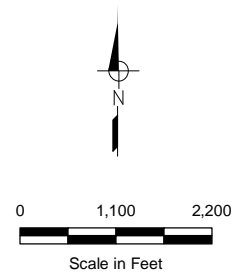
Attachments:      Figures 1 and 2 – Force Main Alignment  
                         Figures 3 through 6 – Photos  
                         Table 1 – CCO Summary  
                         Resolution  
                         Notice of Completion



Last Saved: 12/6/2016 3:06:21 PM. N:\Clients\256 USD\14-16-48 FM Corrosion Repairs\GIS\MXD\Figure1\_ConditionRatings\_SouthEast.mxd .mxd

- Legend**
- ⊕ Access Manhole
  - ⊕ Access/Blow Off Combination
  - △ ARV
  - Blow Off
  - Rating 1
  - Rating 2
  - Rating 3
  - Not Inspected
  - LS Lift Station
  - PS Pump Station
  - Twin 33" Force Mains
  - Twin 39" Force Mains

Notes:  
 1. Rating 1 requires immediate attention.  
 2. Rating 2 requires repair in 2-3 years.  
 3. Rating 3 requires repair after 3 years or place on PM schedule.

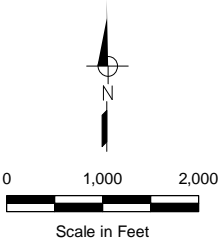


**Figure 1**  
**Irvington Pump Station to Newark Pump Station**  
**Manhole Condition Ratings**  
 Union Sanitary District  
 Force Main Manhole Corrosion Repairs



Notes:  
 1. Rating 1 requires immediate attention.  
 2. Rating 2 requires repair in 2-3 years.  
 3. Rating 3 requires repair after 3 years or place on PM schedule.

- Legend**
- ⊕ Access Manhole
  - ⊕ Access/Blow Off Combination
  - △ ARV
  - Blow Off
  - Rating 1
  - Rating 2
  - Rating 3
  - Not Inspected
  - LS Lift Station
  - PS Pump Station
  - WWTP Alvarado Treatment Plant
  - Twin 33" Force Mains
  - Twin 39" Force Mains



**Figure 2**  
**Newark Pump Station to Alvarado Treatment Plant Manhole Condition Ratings**  
 Union Sanitary District  
 Force Main Manhole Corrosion Repairs





Figure 3 – Before and after photos of the new valve and pipe flange cover at the Boyce Road Access Manhole



Figure 4 – Before and after photos of the new pipe connection and valve at the Cherry Street Blow Off Manhole



Figure 5 – Before and after photos of the new valves and pipe flange cover at the Auto Mall ARV Manhole



Figure 6 – Before and after photos of the new access cover and hatch at the Cargill Salt Fields North Access Manhole

**Table 1**  
**Force Main Corrosion Repairs Project – Phase 3**  
**Contract Change Order Summary**

<b>No.</b>	<b>Change Order Description</b>	<b>Contract Time Adjustment, Calendar Days</b>	<b>Cost of Change</b>
1	Additional Sewage Force Main Dewatering	0	\$4,324.59
2	Additional Chemical Injection Grout Quantity	0	\$20,421.00
3	Route Hatch Drain Outside Manhole Structure	0	\$9,430.35
4	Additional Chemical Injection Grout Bid Item #13 Quantity	0	\$20,421.00
5	Bid Item #10 Reconciliation	0	(\$5,771.25)
6	Project Closeout Change Order	52	\$0
	<b>Total</b>	<b>52</b>	<b>\$48,825.69</b>

**RESOLUTION NO. \_\_\_\_**

**ACCEPT CONSTRUCTION OF THE  
FORCE MAIN CORROSION REPAIRS PROJECT – PHASE 3  
LOCATED IN THE CITY OF FREMONT AND CITY OF NEWARK, CALIFORNIA  
FROM POWER ENGINEERING CONSTRUCTION CO.**

RESOLVED, by the Board of Directors of the UNION SANITARY DISTRICT that it hereby accepts the Force Main Corrosion Repairs Project – Phase 3 from Power Engineering Construction Co., effective June 26, 2023.

FURTHER RESOLVED: That the Board of Directors of the UNION SANITARY DISTRICT authorize the General Manager/District Engineer, or his designee, to execute and record a “Notice of Completion” for the Project.

On motion duly made and seconded, this resolution was adopted by the following vote on June 26, 2023:

AYES:

NOES:

ABSENT:

ABSTAIN:

---

MANNY FERNANDEZ  
President, Board of Directors  
Union Sanitary District

Attest:

---

TOM HANDLEY  
Secretary, Board of Directors  
Union Sanitary District



**RECORDING REQUESTED BY  
AND WHEN RECORDED  
RETURN TO:**

**Regina McEvoy  
Union Sanitary District  
5072 Benson Road  
Union City, CA 94587**

NO RECORDING FEE – PER GOVERNMENT CODE SECTIONS 6103 & 27283 (R&T Code 11911)

---

**NOTICE OF COMPLETION**

**NOTICE IS HEREBY GIVEN** by the **UNION SANITARY DISTRICT**, Alameda County, California, that the work hereinafter described, the contract for the construction of which was entered into on April 12, 2022, by said District and **POWER ENGINEERING CONSTRUCTION CO.**, 1501 Viking Street, Suite 200, Alameda, CA 94501, Contractor for the Project, “Force Main Corrosion Repairs Project – Phase 3,” was substantially completed on November 29, 2022, and accepted by said District on June 26, 2023.

The name and address of the owner is the **UNION SANITARY DISTRICT**, at 5072 Benson Road, Union City, CA 94587.

The estate or interest of the owner is: FEE SIMPLE ABSOLUTE.

The description of the site where said work was performed and completed is the Union Sanitary District’s Alvarado Wastewater Treatment Plant, located at 5072 Benson Road, City of Union City, County of Alameda, State of California.

The undersigned declares under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_ at UNION CITY, CALIFORNIA.

\_\_\_\_\_  
PAUL R. ELDREDGE, P.E.  
GENERAL MANAGER/DISTRICT ENGINEER  
UNION SANITARY DISTRICT



**JUNE 26, 2023  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 11**

**TITLE:** **Authorize the General Manager to Execute Contract Change Order No. 1 with Wastewater Solids Management for the Cleaning of Primary Digester No. 6 Contract. *(This is a Motion Item)***

**SUBMITTED:** Paul R. Eldredge, General Manager/District Engineer  
Armando Lopez, Treatment and Disposal Services Work Group Manager  
Mitchell Costello, Treatment Plant Operations Coach

**Recommendation**

Staff recommends the Board authorize the General Manager to execute Contract Change Order No. 1 with Wastewater Solids Management in the amount up to \$100,000.00 for the Cleaning of Primary Digester No. 6.

**Discussion**

District staff made every effort to dewater what they could from Primary Digester No. 6, unfortunately efforts did not remove the anticipated amount of sludge and debris detailed in the bid proposal. Digester No. 6 was last cleaned in 2006. It has accumulated more grit, rags, and debris than expected. Refer to attached Figure 1 interior pictures and dimensions of Primary Digester No. 6. The original contracted amount of sludge and debris was estimated by staff to be 170,000 gallons. Staff now estimates an additional 100,000 gallons, for a total of 270,000 gallons.

District staff utilized all available District resources to remove sludge and debris but had limited results due to the nature of debris in the tank.

The Change Order for the Cleaning of Primary Digester No. 6 Contract's scope is to:

- Dewater the additional 100,000 gallons (approximate amount) of primary digested sludge. Included in this work is the separation of grit, sand, and rags from the sludge.
- Hauling and disposing of dewatered sludge, grit, sand, and rags.



## Background

On November 8, 2022, the District issued an Invitation for Bid to the public for the Cleaning of Primary Digester No. 6. Bids were due on December 1, 2022, and three bids were received:

<b>Contractor</b>	<b>Total Bid Amount</b>
Wastewater Solids Management	\$136,960.00
Pipe and Plant Solutions	\$374,000.00
American Process Group	\$399,740.00

Wastewater Solids Management was the lowest, responsive, and responsible bidder for the project and Wastewater Solids Management had successfully completed the cleaning of Secondary Digester No. 1 in 2021 for the District for \$54,690.00, Primary Digester No. 2 in 2019 for \$112,690.00, and Primary Digester No. 5 in 2014 for \$118,669.00 with no change orders.

Despite the change order request, the cost to dewater Primary Digester No. 6 is still well below the other original bid amounts proposed by the other bidders. District staff do not recommend rebidding this contract for that reason as well as not delaying the upcoming rehabilitation Project work for Primary Digester No. 6 scheduled to be completed in FY24.

The District currently has seven primary and two secondary digesters located at the treatment plant that require periodic cleaning to remove accumulated debris. Cleaning of the digesters is required to maintain the treatment capacity of each digester. Typically, one primary digester is removed from service each year for cleaning and Primary Digester No. 6 was originally anticipated to be cleaned in Fiscal Year 2017, but this work was delayed until Primary Digester No. 7 could be put in service due to minimum digestion capacity required for compliance as noted in the 2018 Solids Capacity Study.

### Previous Board Action

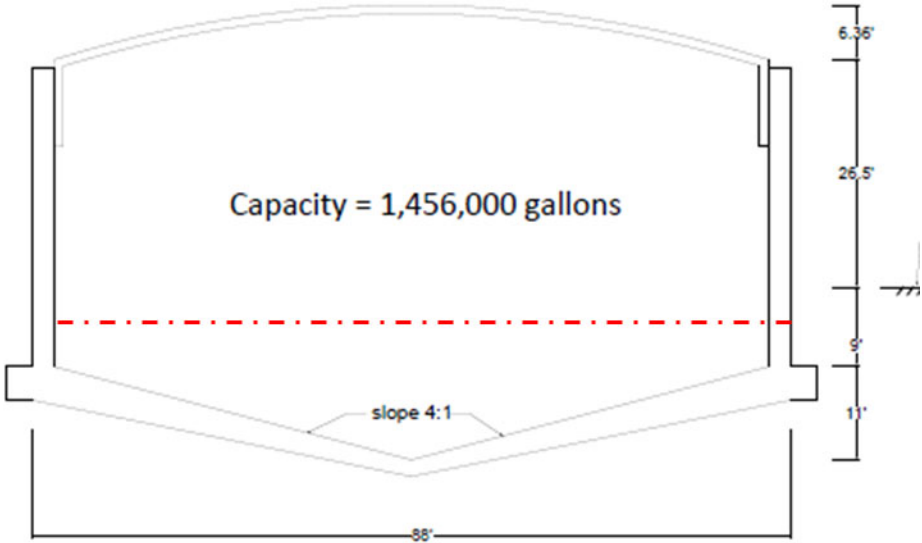
April 25, 2005 – The Board awarded the Construction Contract for the Digesters No. 5 and 6 Mixing Pumps and Heat Loop Improvements project. The scope of work included cleaning of Digester 6 for \$99,000.

April 24, 2006 – The Board authorized the General Manager to execute Change Order No. 9 with Monterey Mechanical for Digesters No. 5 and 6 Mixing Pumps and Heat Loop Improvements project. This included additional costs of \$150,746 to clean Digester No. 6 for a total of \$249,746.

January 23, 2023 – The Board awarded the Contract for the Cleaning of Primary Digester No. 6 to Wastewater Solids Management for a total of \$136,960.00 to dewater approximately 170,000 gallons of primary digested sludge.

Attachments: Figure 1 –Interior Pictures and Dimensions of Primary Digester No. 6

Figure 1 –Interior Pictures and Dimensions of Primary Digester No. 6





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

Karen W. Murphy  
*Attorney*

**JUNE 26, 2023  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 12**

**TITLE:** **Discuss and Provide Direction on the District’s Strategic Communication Plan  
(This is a Direction Item)**

**SUBMITTED:** Paul R. Eldredge, General Manager/District Engineer  
Raymond Chau, Technical Services Work Group Manager  
Michelle Powell, Communications & Intergovernmental Relations Coordinator

**Recommendation**

Staff recommends the Board discuss the District’s Strategic Communication Plan and provide direction.

**Discussion**

The District’s Strategic Communication Plan was approved by the Board at its March 13, 2017 meeting. The plan includes communication tools and potential activities to support the District’s goal of increasing opportunities for public awareness of USD’s value as a member of the Tri-City community and recognition of the USD brand. Staff utilized the plan to guide communication activities over subsequent years.

A request was recently received regarding revisiting the Strategic Communication Plan.

The Board may wish to consider such options as:

- The full Board providing input into revisiting the plan via a series of workshops
- Formation of an ad-hoc committee to revisit the plan

**Background**

In February 2016, the Board of Directors formed an ad-hoc committee for USD’s Communications Strategy to discuss and provide direction to staff regarding development of a comprehensive communication strategy that includes social media. A draft Strategic Communication Plan was developed with input and review by the committee over a 12-month period and was presented

to the full Board at a workshop on January 31, 2017. On March 13, 2017, the Board approved the Strategic Communication Plan.

**Previous Board Action**

February 8, 2016 – The Board formed an ad-hoc committee to discuss and provide direction to staff regarding development of a comprehensive communication strategy that includes social media.

March 13, 2017 – The Board approved the Strategic Communication Plan

February 10, 2020 – The Board approved Policy 2970, Social Media Communications Policy

June 12, 2023 – The Board approved updated Policy 2970, Social Media Communications Policy



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*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

**JUNE 26, 2023  
BOARD OF DIRECTORS MEETING  
AGENDA ITEM # 13**

**TITLE:** Residential FOG (Fats, Oils, and Grease) Outreach (*This is an Information Item*)

**SUBMITTED:** Paul R. Eldredge, General Manager/District Engineer  
Raymond Chau, Technical Services Work Group Manager  
Michael Dunning, Environmental Compliance Team Coach  
Alicia Dutrow, Environmental Outreach Representative

**Recommendation**

Information only.

**Discussion**

During the May 23, 2023 Board workshop on FOG (Fats, Oils, and Grease) advertisement concepts, a question was asked about how Environmental Compliance (EC) determines locations to provide FOG outreach to residents.

Collection Services (CS) cleans and televises all sewer mains in the District's service area on a 7-year cycle. CS identifies the sewer mains that require more frequent cleaning due to excessive FOG accumulation, excessive root intrusion, and low wastewater flow velocity. These sewer mains are selected to be cleaned more frequently based on the severity of problems identified in the mains.

Each year, CS provides an updated report showing the sewer mains that are selected for more frequent cleaning. CS reviews the latest CCTV inspections and maintenance history of the sewer mains and determines whether to adjust the cleaning frequency or to recommend the mains for repairs to address any structural deficiencies. The repairs could include spot repairs, line replacement, or CIPP lining.

EC reviews the updated information and determines areas that are impacted specifically by FOG. EC staff reviews past outreach locations and sorts the data using the following criteria to develop a workplan for each summer:

- FOG impact (vs. roots or low flow velocity)
- Cleaning frequency
- High-density vs. low-density housing
- Area of impact, how large an area or number of residents

Figures 1 and 2 include USD's GIS maps that show a couple of residential neighborhoods with sewer mains that were selected for 6- or 12-month cleaning cycle. Figure 3 shows the locations of some of the more critical sewer mains that were selected for more frequent cleaning.

The implementation of the plan usually begins in July. For condominiums and apartment complexes, the EC Outreach Representative will contact the homeowner associations or apartment managers to determine how many individual units there are and notify them of our plans to provide information on FOG. Staff is usually welcomed by the site representatives, as sewer back-ups and blockages are common and expensive problems for multi-tenant housing. For single-family neighborhoods, the EC Outreach Representative will drop off a grease scraper and outreach materials at the front door. This past year, EC contacted over 650 residents throughout the district.

The EC team supports CS by requiring commercial restaurants and food service facilities to install appropriate grease removal equipment following Best Management Practices such as proper oil disposal and scraping pans prior to washing. In addition, EC reaches out to tri-cities residents on the proper disposal of FOG. Figure 4 shows the benefits of these programs and the cooperative and cohesive working relationship between Collections and EC staff.

### **Background**

This direct residential FOG public outreach campaign was launched in 2016 with the primary intent of reaching out to targeted residential neighborhoods in which FOG "hot spots" were found in USD's mains. The outreach materials contained messages about actions customers could take to help control FOG in sewers, with the effect of protecting property and the environment.

Beginning in 2018, USD has run two versions of a holiday FOG ad in a local newspaper during the weeks prior to the Thanksgiving and Christmas holidays. The ads encourage customers to appropriately dispose of residential FOG. The Board created an ad hoc committee to update residential FOG outreach. Subsequently, the board decided to convene a Board Workshop on May 23<sup>rd</sup> to review and provide guidance on the updated outreach materials.

**Previous Board Action**

None.

Attachments:           Figure 1- Area of Union City (116 Homes)  
                              Figure 2- Area of Fremont (Over 25 Homes)  
                              Figure 3 – Critical Selective Line Locations  
                              Figure 4 – USD Stoppages and SSOs Caused by FOG Chart

# Twelve Month Cleaning Schedule in Union City (116 Homes)



Figure 1



# Six Month Cleaning Schedule in Fremont (Over 25 Homes)

Sewer Mains Selected for 6-Month Cleaning Cycle

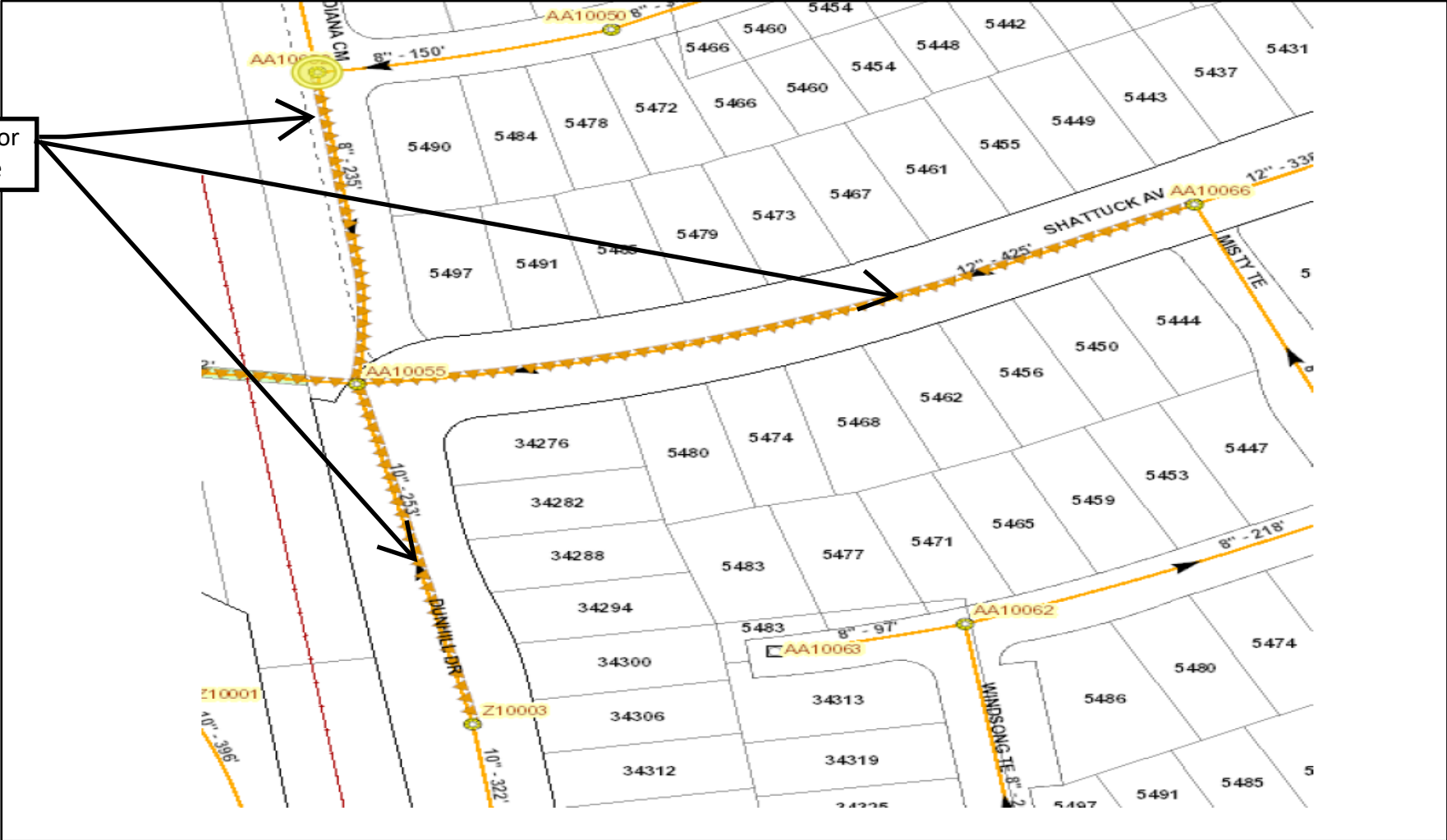


Figure 2

# COLLECTION SERVICES CRITICAL SELECTIVE LINE LOCATIONS

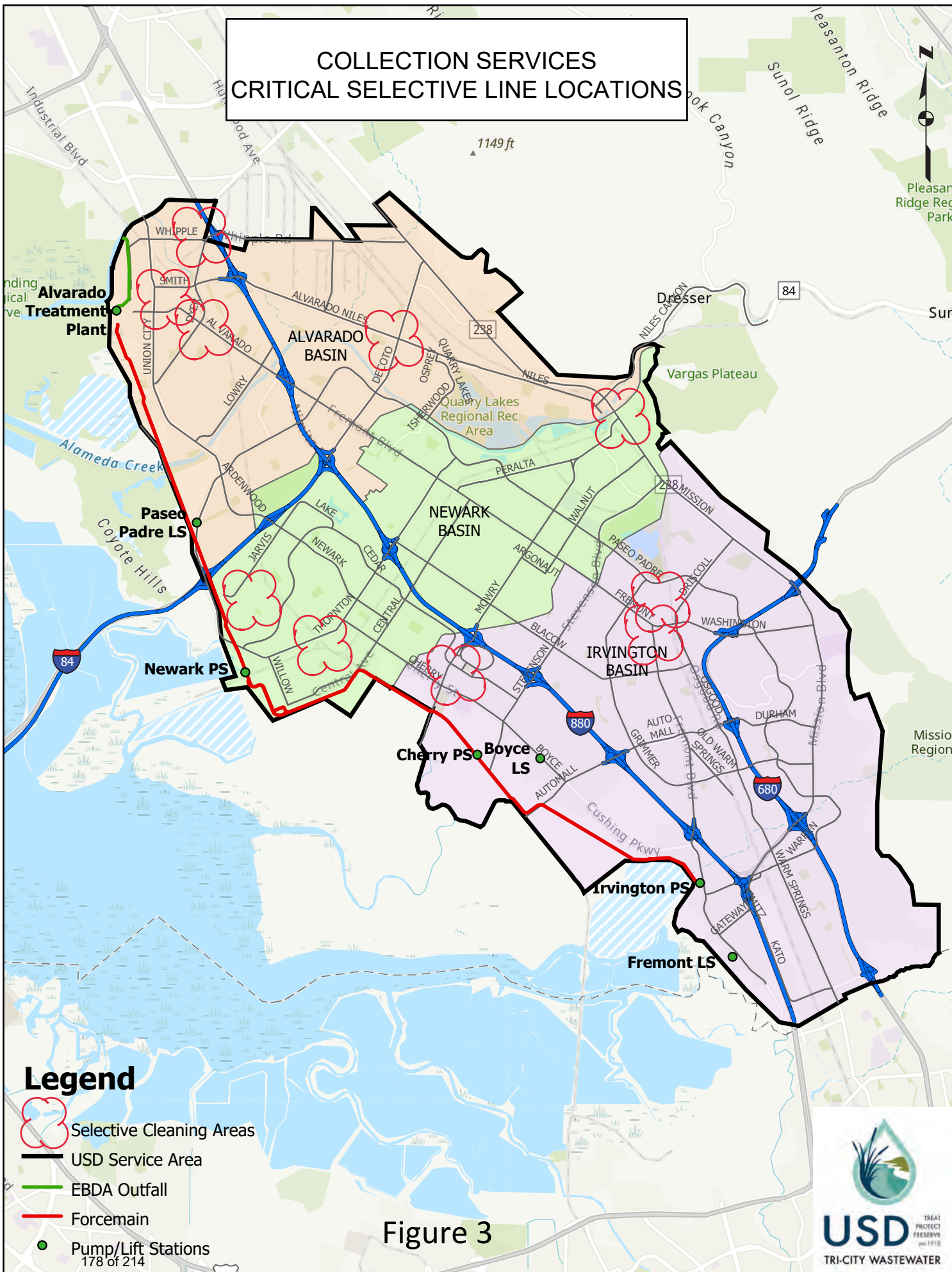
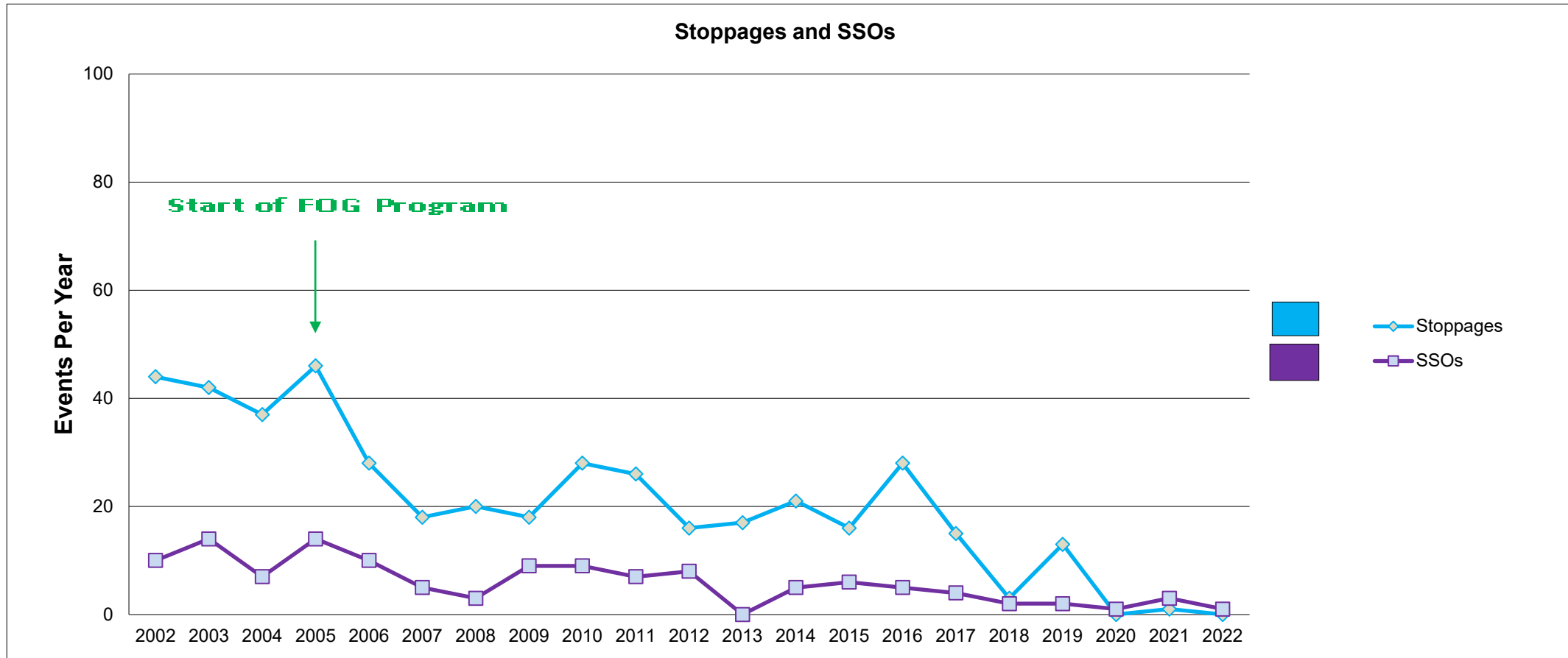


Figure 3

Figure 4

# USD Stoppages and Sanitary Sewer Overflows (SSOs) Caused by FOG

USD Pollution Prevention Report 2022



**UNION SANITARY DISTRICT  
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Check No.	Date	Dept	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
184411	6/8/2023	114	800545.7	ZOVICH CONSTRUCTION	CAMPUS BUILDINGS (ADMIN, FMC, OPS)	\$2,252,218.09	\$2,252,218.09
184474	6/15/2023	114	800532.12	W.M. LYLES CO	MP - AERATION BASIN MODIFICATIONS	\$1,146,975.71	\$1,146,975.71
184364	6/8/2023	114	2011800427	HAZEN AND SAWYER	ETSU PHASE 1B PROJECT	\$49,143.53	\$350,778.94
	6/8/2023	143	2011800617		THERMAL DRYER FEASIBILITY STUDY	\$1,355.00	
	6/8/2023	114	2011801014		MP - AERATION BASIN MODIFICATIONS	\$122,936.20	
	6/8/2023	114	201180119		CAMPUS BUILDINGS (ADMIN, FMC, OPS)	\$177,344.21	
184389	6/8/2023	114	195960	PSOMAS CORP	AERATION BASIN MODIFICATIONS	\$239,375.10	\$239,375.10
184412	6/8/2023	114	800545.7E	ZOVICH CONSTRUCTION	CAMPUS BUILDINGS (ADMIN, FMC, OPS) - ESCROW	\$118,537.79	\$118,537.79
184382	6/8/2023	171	46206	METROMOBILE COMMUNICATIONS INC	RADIO REPLACEMENT FOR FMC, TPO & CS	\$101,807.08	\$101,807.08
184457	6/15/2023	110	170120230601	PACIFIC GAS AND ELECTRIC	SERV TO 04/20/2023 PLANT	\$71,650.00	\$93,411.09
	6/15/2023	170	761520230601		SERV TO 05/24/23 NEWARK PS	\$21,761.09	
184387	6/8/2023	110	1739435	POLYDYNE INC	45,160 LBS CLARIFLOC C-6267	\$90,591.63	\$90,591.63
184475	6/15/2023	114	800532.12E	W.M. LYLES CO	MP - AERATION BASIN MODIFICATIONS - ESCROW	\$60,367.14	\$60,367.14
184433	6/15/2023	143	22346601.8	CONSOR NORTH AMERICA INC	FORCE MAIN CORROSION REPAIRS PROJECT PHASE 3 & IRVINGTC	\$44,862.21	\$44,862.21
184360	6/8/2023	122	510319101	GOLDEN GATE TRUCK CENTER	REPAIRS VACTOR T3346	\$44,718.22	\$44,718.22
184356	6/8/2023	173	10669323537	DELL MARKETING LP C/O DELL USA	DELL LAPTOP AND DESKTOP REPLACEMENT	\$40,364.48	\$40,364.48

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184403	6/8/2023	110	51152425	UNIVAR SOLUTIONS USA INC	4903.4 GALS SODIUM HYPOCHLORITE		
						\$7,777.62	\$31,085.42
	6/8/2023	110	51156080		4800.3 GALS SODIUM HYPOCHLORITE		
						\$7,614.08	
	6/8/2023	110	51159622		4987.7 GALS SODIUM HYPOCHLORITE		
						\$7,911.34	
	6/8/2023	110	51166625		4906.4 GALS SODIUM HYPOCHLORITE		
						\$7,782.38	
184393	6/8/2023	170	3105	ROCKWELL SOLUTIONS INC	1 SUBMERSIBLE CHOPPER PUMP		
						\$24,813.73	\$24,813.73
184476	6/15/2023	173	66522	WUNDERLICH-MALEC SYSTEMS INC	SCADA UPGRADE		
						\$23,217.90	\$23,217.90
184409	6/8/2023	122	839347	WESTERN STATES OIL CO	5994 GAL DYED CARB ULTRA LOW SULFUR DIESEL		
						\$23,212.78	\$23,212.78
184348	6/8/2023	170	330608103	BUCKLES SMITH ELECTRIC	1 HEATSINK FAN KIT		
						\$89.31	\$19,746.29
	6/8/2023	143	330919502		PLC REPLACEMENT		
						\$19,111.06	
	6/8/2023	143	331587600		PLC REPLACEMENT		
						\$545.92	
184342	6/8/2023		B0969P	BENEFIT COORDINATORS CORP	DELTA DENTAL CLAIMS - MAY 2023		
						\$19,592.46	\$19,592.46
184410	6/8/2023	173	66015	WUNDERLICH-MALEC SYSTEMS INC	SCADA UPGRADE		
						\$17,464.40	\$17,464.40
184431	6/15/2023	173	82943	CDW GOVERNMENT LLC	1 PC		
						\$4,988.75	\$16,786.42
	6/15/2023	173	JQ68843		BACKUP SOFTWARE		
						\$11,797.67	
184473	6/15/2023	122	158598	VALLEY OIL COMPANY	3,969 GALS UNLEADED 10% ETHANOL GAS		
						\$16,304.93	\$16,304.93
184436	6/15/2023	110	1425080	DEPARTMENT OF GENERAL SERVICES	SERV: APR 2023 PLANT		
						\$15,989.45	\$15,989.45
184471	6/15/2023	110	51177326	UNIVAR SOLUTIONS USA INC	4896.8 GALS SODIUM HYPOCHLORITE		
						\$7,767.15	\$15,537.47
	6/15/2023	110	51181274		4898.8 GALS SODIUM HYPOCHLORITE		
						\$7,770.32	
184432	6/15/2023	120	3877	COMMERCIAL TRANSPORTATION SVCS	COMMERCIAL DRIVERS TRAINING 2023		
						\$15,224.50	\$15,224.50

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Check No.	Date	Dept	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
184372	6/8/2023	110	9017791142	KEMIRA WATER SOLUTIONS INC	40,480 LBS FERROUS CHLORIDE		
	6/8/2023	110	9017791762		41,600 LBS FERROUS CHLORIDE	\$7,042.24	\$14,561.39
						\$7,519.15	
184443	6/15/2023	143	2011800717	HAZEN AND SAWYER	PUMP STATION ASSET CONDITION ASSESSMENT		
	6/15/2023	143	2011800916		HEADWORKS DEGRITTING STUDY	\$10,022.50	\$13,917.50
						\$3,895.00	
184400	6/8/2023	170	6746	THORNTON ENVIRONMENTAL CONST	REPAIR: NPS DIESEL TANK SUMP VAULT LEAK		
	6/8/2023	123	6793		REPLACE VEEDER-ROOT VALVE AT FUEL ISLAND	\$1,927.00	\$13,080.15
	6/8/2023	170	6815		TLS 350 ANNUAL CERTIFICATIONS 2023	\$4,336.00	
						\$6,817.15	
184351	6/8/2023		19930	CDW GOVERNMENT LLC	1 SWITCH	\$5,275.68	\$12,839.85
	6/8/2023	173	4827		1 SWITCH	\$6,511.54	
	6/8/2023	173	67987		1 SWITCH	\$730.59	
	6/8/2023	173	74561		1 SWITCH	\$2,048.60	
	6/8/2023	173	8189		1 SWITCH	\$135.20	
	6/8/2023	173	86527		CREDIT: 2 APC UPS	\$-1,861.76	
184353	6/8/2023		261902	CIVICPLUS, LLC	AGENDA MGMT SYSTEM	\$12,087.00	\$12,087.00
184346	6/8/2023	143	11481916	BROWN & CALDWELL CONSULTANTS	DIGESTER EFFICIENCY EVALUATION	\$11,947.82	\$11,947.82
184438	6/15/2023	170	251370	FRANK A OLSEN COMPANY	1 ROTORK	\$10,086.39	\$10,086.39
184373	6/8/2023		374322230601	LINCOLN NATIONAL LIFE INS COMP	LIFE & DISABILITY INSURANCE - JUN 2023	\$9,506.67	\$9,506.67
184349	6/8/2023	150	288810	BURKE, WILLIAMS & SORENSON LLP	GENERAL LEGAL - JUL 2022	\$8,197.28	\$9,262.24
	6/8/2023	150	288812		ETSU - JUL 2022	\$1,064.96	

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Check No.	Date	Dept	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
184459	6/15/2023	110	1740921	POLYDYNE INC	42,260 LBS CLARIFLOC WE-539	\$9,206.14	\$9,206.14
184466	6/15/2023		5538391	SEMITORR GROUP, LLC	ASTD PARTS & MATERIALS	\$1,509.63	\$8,765.92
	6/15/2023	170	5551165		DIGESTER 4 AND 5 PRESSURE RELIEF VALVE	\$7,256.29	
184370	6/8/2023	172	606392	ISA	ELECTRICAL INSTUMENT TRAINING: RUIZ & GUERRERO	\$8,010.00	\$8,010.00
184446	6/15/2023	110	9017792608	KEMIRA WATER SOLUTIONS INC	42,700 LBS FERROUS CHLORIDE	\$7,427.82	\$7,427.82
184374	6/8/2023	173	27684HW	LOOKINGPOINT INC	DATAROOM COMM CABLES	\$4,183.07	\$7,398.57
	6/8/2023		28122FF		SQL SERVER AZURE HIGH AVAILABILITY	\$3,215.50	
184376	6/8/2023		502163	LUBRICATION ENGINEERS INC	4 DR OIL	\$7,293.57	\$7,293.57
184414	6/15/2023	120	4111993720230601	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 05/31/23-MTR HYD B34041339	\$782.55	\$7,248.48
	6/15/2023	120	4111994020230601		SERV TO: 05/31/23-MTR HYD B15000283	\$782.55	
	6/15/2023	120	4111994120230601		SERV TO: 05/31/23-MTR HYD B16583493	\$782.55	
	6/15/2023	120	4111994220230601		SERV TO: 05/31/23-MTR HYD B16583492	\$1,131.49	
	6/15/2023	120	4111994320230601		SERV TO: 05/31/23-MTR HYD B15072357	\$777.55	
	6/15/2023	120	4111996820230601		SERV TO: 05/31/23-MTR HYD B19329007	\$787.11	
	6/15/2023	120	4111996920230601		SERV TO: 05/31/23-MTR HYD B29454468	\$1,552.13	
	6/15/2023	120	4112871220230601		SERV TO: 05/31/23-MTR HYD B18105181	\$652.55	
184345	6/8/2023	121	330510	BRENNTAG PACIFIC INC	1276 LBS SODIUM HYDROXIDE	\$1,161.77	\$6,857.67
	6/8/2023	121	330511		2552 LBS SODIUM HYDROXIDE	\$2,313.06	
	6/8/2023	121	331796		3828 LBS SODIUM HYDROXIDE	\$3,382.84	

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184391	6/8/2023		73826	R.D. KINCAIDE INC	9 PATCH KITS	\$6,060.24	\$6,060.24
184407	6/8/2023	170	4481338	WESTERN ENERGY SYSTEMS	COGEN 1 VIBRATION	\$5,433.03	\$5,433.03
184383	6/8/2023	123	1073810	MISSION COMMUNICATIONS LLC	ANNUAL MANHOLE MONITORING SERVICE	\$4,929.60	\$4,929.60
184429	6/15/2023		20230614	STATE OF CALIFORNIA	SALES & USE TAX 05/01/23 - 05/31/2023	\$4,925.33	\$4,925.33
184344	6/8/2023	170	78804	BRAND SAFWAY SERVICES LLC	RENTAL: SUSPENDED SCAFFOLDING BREAKDOWN	\$2,538.00	\$4,814.00
	6/8/2023	170	78805		RENTAL: SUSPENDED SCAFFOLDING BREAKDOWN	\$2,276.00	
184450	6/15/2023	143	800576.2	MCGUIRE & HESTER	EMERGENCY SEWER MAIN REPAIRS IN FREMONT	\$4,539.83	\$4,539.83
184405	6/8/2023		9935396936	VERIZON WIRELESS	WIRELESS SERV 04/21/23-05/20/23	\$925.73	\$3,784.14
	6/8/2023		9935396937		WIRELESS SERV 04/21/23-05/20/23	\$2,858.41	
184408	6/8/2023	170	19675	WESTERN MACHINE & FAB INC	4 CENTRIFUGE CONVEYOR COUPLING	\$3,765.50	\$3,765.50
184439	6/15/2023	143	328936	CITY OF FREMONT	PERMIT: IRVINGTON BASIN RCP REHABILITATION	\$3,707.04	\$3,707.04
184337	6/8/2023	173	104630	AQUATIC INFORMATICS INC	WIMS UPGRADE	\$3,500.00	\$3,500.00
184463	6/15/2023	120	916005301520	REPUBLIC SERVICES #916	RECYCLE & ROLL OFF - JUN 2023	\$3,476.42	\$3,476.42
184469	6/15/2023	122	3007220291	TK ELEVATOR CORPORATION	ANNUAL ELEVATOR SERVICE	\$3,465.00	\$3,465.00
184421	6/15/2023		19976111	AT&T	SERV: 04/20/23 - 05/19/23	\$24.29	\$3,395.17
	6/15/2023		19976113		SERV: 04/20/23 - 05/19/23	\$3,190.31	
	6/15/2023		19976135		SERV: 04/20/23 - 05/19/23	\$180.57	



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184449	6/15/2023	113	2305906 REV	MCCAMPBELL ANALYTICAL	LAB SAMPLE ANALYSIS	\$1,055.00	\$3,358.00
	6/15/2023	113	2305A32 REV		LAB SAMPLE ANALYSIS	\$393.00	
	6/15/2023	113	2305B82		LAB SAMPLE ANALYSIS	\$241.00	
	6/15/2023	113	2305D75		LAB SAMPLE ANALYSIS	\$663.00	
	6/15/2023	113	2305E11		LAB SAMPLE ANALYSIS	\$735.00	
	6/15/2023	113	2305E17		LAB SAMPLE ANALYSIS	\$271.00	
184444	6/15/2023	170	619852	INSTRUMART	1 PRESSURE TRANSMITTER	\$3,243.60	
184378	6/8/2023	113	2305071A	MCCAMPBELL ANALYTICAL	LAB SAMPLE ANALYSIS	\$105.00	\$3,152.00
	6/8/2023	113	2305076		LAB SAMPLE ANALYSIS	\$442.00	
	6/8/2023	113	2305442		LAB SAMPLE ANALYSIS	\$1,680.00	
	6/8/2023	113	2305646 REV		LAB SAMPLE ANALYSIS	\$276.00	
	6/8/2023	113	2305660		LAB SAMPLE ANALYSIS	\$649.00	
184465	6/15/2023	110	23051604	S&S TRUCKING	GRIT HAULING 05/15 AND 05/17/2023	\$1,973.09	\$2,942.11
	6/15/2023	110	23052405		GRIT HAULING 05/22/2023	\$969.02	
184341	6/8/2023	121	30435	BAYSCAPE LANDSCAPE MANAGEMENT	LANDSCAPE MAINTENANCE SERVICES - JUN 2023	\$2,925.00	\$2,925.00
184435	6/15/2023		20230525	DALE HARDWARE INC	05/23 - ASTD PARTS & MATERIALS	\$2,915.69	\$2,915.69

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184440	6/15/2023	170	9698018687	GRAINGER INC	ASTD PARTS & MATERIALS		
						\$1,226.82	\$2,806.24
	6/15/2023	170	9699528817		ASTD PARTS & MATERIALS	\$20.02	
	6/15/2023	170	9699687829		ASTD PARTS & MATERIALS	\$151.77	
	6/15/2023	111	9700823140		ASTD PARTS & MATERIALS	\$44.90	
	6/15/2023		9701926843		ASTD PARTS & MATERIALS	\$1,206.18	
	6/15/2023	122	9702923484		ASTD PARTS & MATERIALS	\$72.07	
	6/15/2023		9704355057		ASTD PARTS & MATERIALS	\$34.19	
	6/15/2023	170	9704606632		ASTD PARTS & MATERIALS	\$50.29	
184328	6/8/2023		20230530	AFLAC GROUP	GROUP INSURANCE - MAY 2023	\$2,764.22	\$2,764.22
184381	6/8/2023	123	97979555	MCMASTER SUPPLY INC	ASTD PARTS & MATERIALS	\$843.08	\$2,710.49
	6/8/2023	123	97979606		ASTD PARTS & MATERIALS	\$679.36	
	6/8/2023	170	97982334		ASTD PARTS & MATERIALS	\$747.78	
	6/8/2023		98436899		CREDIT FOR INV 97979555 - ASTD PARTS & MATERIALS	-\$417.48	
	6/8/2023	170	98606871		ASTD PARTS & MATERIALS	\$150.55	
	6/8/2023	170	98669296		ASTD PARTS & MATERIALS	\$40.34	
	6/8/2023	170	98674143		ASTD PARTS & MATERIALS	\$74.33	
	6/8/2023	170	98820732		ASTD PARTS & MATERIALS	\$494.56	
	6/8/2023		98821246		ASTD PARTS & MATERIALS	\$97.97	

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184362	6/8/2023	111	9692133227	GRAINGER INC	ASTD PARTS & MATERIALS	\$71.58	\$2,612.86
	6/8/2023	122	9692199764		ASTD PARTS & MATERIALS	\$69.04	
	6/8/2023	170	9693976152		ASTD PARTS & MATERIALS	\$19.00	
	6/8/2023		9693976160		ASTD PARTS & MATERIALS	\$1,556.38	
	6/8/2023		9695697400		ASTD PARTS & MATERIALS	\$659.79	
	6/8/2023	170	9696947945		ASTD PARTS & MATERIALS	\$161.89	
	6/8/2023	170	9697305333		ASTD PARTS & MATERIALS	\$75.18	
						\$2,555.59	
184385	6/8/2023	170	142559	NEW IMAGE LANDSCAPING CO	LANDSCAPE MAINTENANCE - FMC - MAY	\$2,555.59	\$2,555.59

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184335	6/8/2023	143	11VHRXGRGGJW	AMAZON.COM LLC	ASTD OFFICE SUPPLIES	\$141.44	\$2,546.04
	6/8/2023	171	13PVXTRFF6HM		ASTD OFFICE SUPPLIES	\$104.71	
	6/8/2023	132	141YR3QQG6VN		ASTD OFFICE SUPPLIES	\$101.91	
	6/8/2023	132	1CXPX7JX7MQY		ASTD OFFICE SUPPLIES	\$88.70	
	6/8/2023	171	1DTG3FNLFVNP		ASTD OFFICE SUPPLIES	\$495.43	
	6/8/2023	143	1F614JWGMPD7		ASTD OFFICE SUPPLIES	\$56.73	
	6/8/2023	130	1FQLVT6RGDVH		ASTD OFFICE SUPPLIES	\$67.28	
	6/8/2023	170	1HFPNKXWKDXK		ASTD OFFICE SUPPLIES	\$662.22	
	6/8/2023	170	1MMK4YLQLLQN		ASTD OFFICE SUPPLIES	\$662.22	
	6/8/2023	144	1PXDPM LN6T4C		ASTD OFFICE SUPPLIES	\$44.83	
	6/8/2023	130	1V1CKQH G7KMX		ASTD OFFICE SUPPLIES	\$47.59	
	6/8/2023	130	1WWQH HJQGFGX		ASTD OFFICE SUPPLIES	\$72.98	
184386	6/8/2023		44124	NEW PIPES INC	REFUND # 59386	\$2,500.00	\$2,500.00
184329	6/8/2023	170	341200	ALAMEDA COUNTY TREASURER	PERMIT: HAZARDOUS WASTE NEWARK PUMP STATION	\$2,340.00	\$2,340.00
184458	6/15/2023		29613552	PAN PACIFIC SUPPLY COMPANY	3 SEAL KITS	\$2,338.26	\$2,338.26
184357	6/8/2023	113	2989873	FISHER SCIENTIFIC	LAB SUPPLIES	\$2,118.76	\$2,118.76
184462	6/15/2023	132	20230613	NASIHA RAHMAN	EXP REIMB: LODGING, AIRFARE, REG - NEOGOV CONF	\$1,967.29	\$1,967.29

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184343	6/8/2023	120	18028600	BLAISDELL'S	ASTD OFFICE SUPPLIES		
	6/8/2023		18046550		ASTD OFFICE SUPPLIES	\$403.40	\$1,953.34
	6/8/2023		18046551		ASTD OFFICE SUPPLIES	\$1,286.29	
	6/8/2023	141	18048750		ASTD OFFICE SUPPLIES	\$74.42	
						\$189.23	
184361	6/8/2023	122	1841098909	GOODYEAR COMM TIRE & SERV CTRS	6 TIRES	\$1,896.08	\$1,896.08
184347	6/8/2023		112877	BRUCE BARTON PUMP SERVICE INC	2 SUMP PUMPS	\$1,887.18	\$1,887.18
184336	6/8/2023	130	16625200	APPLEONE EMPLOYMENT SVCS	TEMP LABOR-LARIOS, WK END 05/13/23	\$1,700.08	\$1,700.08
184350	6/8/2023	113	708625	CALTEST ANALYTICAL LABORATORY	16 LAB SAMPLE ANALYSIS	\$1,467.90	\$1,605.60
	6/8/2023	113	708631		3 LAB SAMPLE ANALYSIS	\$137.70	
184467	6/15/2023		760922569501	STAPLES CONTRACT & COMMERCIAL	JANITORIAL & BREAKROOM SUPPLIES	\$334.88	\$1,557.06
	6/15/2023		760946157201		JANITORIAL & BREAKROOM SUPPLIES	\$155.96	
	6/15/2023		760959692002		JANITORIAL & BREAKROOM SUPPLIES	\$126.20	
	6/15/2023		760959692003		JANITORIAL & BREAKROOM SUPPLIES	\$153.03	
	6/15/2023		760973874701		JANITORIAL & BREAKROOM SUPPLIES	\$786.99	
184339	6/8/2023	136	2522552354	BANK OF NEW YORK	APR 2023 SERVICE FEES	\$1,450.29	\$1,450.29

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Check No.	Date	Dept	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
184406	6/8/2023	113	8812930740	VWR INTERNATIONAL LLC	LAB SUPPLIES		
						\$648.50	\$1,445.30
	6/8/2023	113	8812944717		LAB SUPPLIES	\$11.65	
	6/8/2023		8812965997		LAB SUPPLIES	\$360.71	
	6/8/2023		8812970555		LAB SUPPLIES	\$179.77	
	6/8/2023		8812974647		LAB SUPPLIES	\$244.67	
184413	6/15/2023	170	9138193496	AIRGAS NCN	4 CY ARGON	\$1,408.19	\$1,408.19
184418	6/15/2023	130	16629172	APPLEONE EMPLOYMENT SVCS	TEMP LABOR-LARIOS, WK END 05/20/23	\$1,377.28	\$1,377.28
184401	6/8/2023	114	163734277	ULINE INC	330 GAL IBC TANK	\$1,367.45	\$1,367.45
184416	6/15/2023	170	49246	ALLIED FLUID PRODUCTS CORP	2 HOSES	\$1,253.83	\$1,253.83
184384	6/8/2023		106441	MUNIQUEIP, LLC	1 PULAR TRANSDUCER	\$1,093.20	\$1,093.20
184327	6/8/2023	143	22221162	ABC IMAGING, INC	PLANT MISCELLANEOUS IMPROVEMENTS	\$1,085.92	\$1,085.92
184460	6/15/2023	141	20230606	MICHELLE POWELL	EXP REIMB: LODGING & PER DIEM - CAPIO CONFERENCE 2023	\$1,053.24	\$1,074.59
	6/15/2023	141	20230609		EXP REIMB: TRANSPORT EQUITY WKSP & FREMONT STATE OF CIT	\$21.35	
184455	6/15/2023		106452	MUNIQUEIP, LLC	PUMP PARTS	\$1,042.96	\$1,042.96

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Check No.	Date	Dept	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
184417	6/15/2023	132	13QFNQ11GLV7	AMAZON.COM LLC	EMPLOYEE RECOGNITION ITEMS	\$164.67	\$1,006.59
	6/15/2023	170	16MDFR7MVVFV		ASTD OFFICE SUPPLIES	\$662.22	
	6/15/2023	141	19LV43FF6QR6		ASTD OFFICE SUPPLIES	\$87.71	
	6/15/2023		1H1VFDXFFXKY		CREDIT: ASTD OFFICE SUPPLIES	-\$662.22	
	6/15/2023	171	1HTXHKXYCRT1		ASTD OFFICE SUPPLIES	\$156.50	
	6/15/2023	130	1JVFJ4QQPGGV		ASTD OFFICE SUPPLIES	\$74.01	
	6/15/2023	130	1MVC3PKW7JDH		ASTD OFFICE SUPPLIES	\$46.14	
	6/15/2023		1NHFHJPGHHFC		ASTD OFFICE SUPPLIES	\$344.99	
	6/15/2023	130	1XHQ9LLDCNNR		ASTD OFFICE SUPPLIES	\$72.98	
	6/15/2023	141	1YJVPTDD9DKK		ASTD OFFICE SUPPLIES	\$59.59	
184451	6/15/2023	143	20230606	MCGUIRE & HESTER	EMERGENCY STANDBY RETAINER	\$1,000.00	\$1,000.00
184394	6/8/2023	110	23051716	S&S TRUCKING	GRIT HAULING 05/12/2023	\$951.18	\$951.18
184388	6/8/2023	170	104923	PRIME MECHANICAL SERVICE INC	MONTHLY MAINTENANCE - APR 23	\$945.00	\$945.00
184338	6/8/2023		5110223673	ARAMARK	UNIFORM LAUNDERING & RUGS	\$430.66	\$897.87
	6/8/2023		5110223674		UNIFORM LAUNDERING SERVICE	\$467.21	
184470	6/15/2023		13022763	TRIMBLE INC	6 BATTERIES	\$887.87	\$887.87
184422	6/15/2023		9989658708	AT&T	SERV: 04/11/23 - 05/10/23	\$872.58	\$872.58

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Check No.	Date	Dept	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
184420	6/15/2023		5110227968	ARAMARK	ASTD DUST MOPS, WET MOPS & TERRY	\$81.66	\$860.70
	6/15/2023		5180204746		UNIFORM LAUNDERING & RUGS	\$367.96	
	6/15/2023		5180204757		UNIFORM LAUNDERING SERVICE	\$411.08	
184425	6/15/2023	143	52349	BEECHER ENGINEERING	ALVARADO INFLUENT PS PUMPS AND VFDS & CHERRY ST. PS	\$800.00	\$800.00
184461	6/15/2023	111	287281	PRESTIGE LENS LAB	SAFETY GLASSES - SOTH	\$274.66	\$673.36
	6/15/2023	111	287399		SAFETY GLASSES - FARSAI, M	\$398.70	
184354	6/8/2023	132	278451	CLAREMONT BEHAVIORAL SERVICES	JUN 2023 EAP PREMIUMS	\$667.00	\$667.00
184371	6/8/2023	113	20230602	DANIEL JACKSON	EXP REIMB: CWEA CONF EXPENSES	\$664.00	\$664.00
184427	6/15/2023	143	20230614	CURTIS BOSICK	EXP REIMB: CIP TEAM SAFETY	\$565.00	\$565.00
184368	6/8/2023	173	46426	INFOR PUBLIC SECTOR, INC	HANSEN CONSULTING SERVICES	\$555.00	\$555.00
184365	6/8/2023	170	768520230528	HOME DEPOT CREDIT SERVICES	MONTHLY HARDWARE STMT - MAY 2023	\$509.13	\$509.13
184333	6/8/2023		45151	ALL STAR PLUMBING	REFUND # 59391	\$500.00	\$500.00
184340	6/8/2023		46217	BAY BUILDERS & REMODELING INC	REFUND # 59393	\$500.00	\$500.00
184352	6/8/2023		37895	JOHN CHAN	REFUND # 56194	\$500.00	\$500.00
184392	6/8/2023		43099	AMERICAN RESIDENTIAL SVCS RESCUE	ROOTREFUND # 59390	\$500.00	\$500.00
184396	6/8/2023		45149	STREAMLINE PLUMBING & DRAIN	REFUND # 59392	\$500.00	\$500.00
184464	6/15/2023		47246	ROOTER HERO	REFUND # 59401	\$500.00	\$500.00
184477	6/15/2023		30562	PREM YELIGATI	REFUND # 59405	\$500.00	\$500.00
184434	6/15/2023	144	3697546	DAILY JOURNAL CORPORATION	AD: PUBLIC NOTICE	\$488.24	\$488.24



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Check No.	Date	Dept	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
184442	6/15/2023		3S8204	HARRINGTON INDUSTRIAL PLASTICS	ASTD PARTS & MATERIALS	\$479.93	\$479.93
184448	6/15/2023		5640731	MALLORY SAFETY AND SUPPLY LLC	CALIBRATION GAS	\$426.06	\$426.06
184419	6/15/2023		46700	APPLIED AIR FILTERS INC	50 FILTERS	\$390.61	\$390.61
184452	6/15/2023		97915802	MCMASTER SUPPLY INC	ASTD PARTS & MATERIALS	\$381.56	\$381.56
184399	6/8/2023	170	90001273	TFORCE FREIGHT	FREIGHT - CONTROLWORX	\$378.35	\$378.35
184332	6/8/2023	170	5289807	ALL INDUSTRIAL ELECTRIC SUPPLY	ASTD PARTS & MATERIALS	\$298.24	\$298.24
184468	6/15/2023	111	20230608	SWRCB - STATE WATER RESOURCES	GRADE V WATERWATER EXAM - FULKERSON	\$295.00	\$295.00
184454	6/15/2023		9367	MUNICIPAL MAINT EQUIPMENT INC	6 TIGER TAILS	\$274.42	\$274.42
184358	6/8/2023		200297	FITGUARD INC	PREVENTATIVE MAINTENANCE - EXERCISE CLUB EQUIPMENT	\$259.00	\$259.00
184445	6/15/2023	173	6074149	INTRADO LIFE & SAFETY INC	E911 ANNUAL SUBSCRIPTION	\$250.00	\$250.00
184428	6/15/2023	170	330608105	BUCKLES SMITH ELECTRIC	1 HEATSINK FAN KIT	\$240.42	\$240.42
184426	6/15/2023	111	18051150	BLAISDELL'S	ASTD OFFICE SUPPLIES	\$137.53	\$233.95
	6/15/2023	144	18055180		ASTD OFFICE SUPPLIES	\$67.49	
	6/15/2023	144	18055181		ASTD OFFICE SUPPLIES	\$28.93	
184453	6/15/2023	170	2401013736	MOTION INDUSTRIES INC	ASTD PARTS & MATERIALS	\$228.21	\$228.21
184375	6/8/2023	121	20230605	MATTHEW LUBINA	EXP REIMB: SAFETY BOOTS	\$210.37	\$210.37
184424	6/15/2023	121	26754300	BECK'S SHOES	SAFETY SHOES: S. BULLIS	\$208.02	\$208.02
184398	6/8/2023	173	20230602	RUFUS TAI	EXP REIMB: CISCO MODELING LAB SUBSCRIPTIONS	\$199.00	\$199.00
184379	6/8/2023	150	20230524	REGINA MCEVOY	EXP REIMB: SAFETY BOOTS	\$190.00	\$190.00

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184397	6/8/2023	111	20230531	SWRCB - STATE WATER RESOURCES	GRADE IV OPERATOR CERTIFICATE EXAM - GALLEGO	\$190.00	\$190.00
184437	6/15/2023		1000740831	ENVIRONMENTAL EXPRESS	LAB SUPPLIES	\$183.92	\$183.92
184367	6/8/2023	132	39722	ICE SAFETY SOLUTIONS INC	FIRST AID KIT & AED SERVICING	\$142.50	\$181.51
	6/8/2023	132	39723		FIRST AID & AED SUPPLIES	\$39.01	
184472	6/15/2023	136	98XW53203	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 05/20/23	\$175.30	\$175.30
184430	6/15/2023	113	708785	CALTEST ANALYTICAL LABORATORY	3 LAB SAMPLE ANALYSIS	\$137.70	\$137.70
184441	6/15/2023	144	172404	HANIGAN COMPANY INC	BUSINESS CARDS - M. DUNNING, J. SOTO	\$136.31	\$136.31
184366	6/8/2023	111	20230601	TIM HUGHES	EXP REIMB: TPO SAFETY RECOGNITION 4TH QTR	\$85.49	\$136.09
	6/8/2023	111	20230601.1		EXP REIMB: TPO SAFETY RECOGNITION 3RD QTR	\$50.60	
184402	6/8/2023	141	439225	ULTRAEX LLC	COURIER SVCS: 1 BOARDMEMBER DELIVERY - 04/19/23	\$56.30	\$112.60
	6/8/2023	141	439439		COURIER SVCS: 1 BOARDMEMBER DELIVERY - 05/03/23	\$56.30	
184395	6/8/2023	170	2305278S	SGS NORTH AMERICA INC	6 ANALYSIS	\$110.00	\$110.00
184415	6/15/2023	170	5290028	ALL INDUSTRIAL ELECTRIC SUPPLY	ASTD PARTS & MATERIALS	\$106.32	\$106.32
184359	6/8/2023	143	251313	FRANK A OLSEN COMPANY	ROTATE GEAR	\$100.00	\$100.00
184377	6/8/2023	121	20230605	ANTHONY MARTINEZ	EXP REIMB: STUDY GUIDE	\$100.00	\$100.00
184355	6/8/2023	110	20230601	MITCHELL COSTELLO	EXP REIMB: RECOGNITION	\$89.97	\$89.97
184447	6/15/2023	141	20230613	ELIZABETH LEDOAN	EXP REIMB: TEAM MTG SNACKS	\$87.17	\$87.17
184456	6/15/2023	120	20230608	SHAWN NESGIS	EXP REIMB: ANNUAL COMMERCIAL DRIVER MEDICAL EXAM	\$80.00	\$80.00
184363	6/8/2023		3S8031	HARRINGTON INDUSTRIAL PLASTICS	ASTD PARTS & MATERIALS	\$74.18	\$74.18

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184330	6/8/2023	141	1648	ALAMEDA COUNTY TREASURER	24 ASSESSOR MAPS	\$72.00	\$72.00
184423	6/15/2023	111	20230607	RAMANJOT BAINS	EXP REIMB: EDUCATION VERIFICATION FOR OIT CERTIFICATE	\$59.00	\$59.00
184404	6/8/2023	136	98XW53193	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 05/13/23	\$51.09	\$51.09
184331	6/8/2023	143	20230606	ALAMEDA COUNTY TREASURER	FILING FEE: FORCE MAIN CORROSION REPAIRS - PHASE 4	\$50.00	\$50.00
184390	6/8/2023	132	20230601	SONNY QUACH	EXP REIMB: LIVESCAN FEE PRE-EMPLOYMENT	\$36.00	\$36.00
184369	6/8/2023	143	20230605	REBECCA INGALLS	EXP REIMB: PIE FOR CIP MAY BIRTHDAYS	\$29.00	\$29.00
184334	6/8/2023	160	6102408	ALPINE AWARDS INC	1 NAMEBADGE	\$27.69	\$27.69

**Invoices:**

<b>Credit Memos :</b>	<b>3</b>	<b>-2,941.46</b>
<b>\$0 - \$1,000 :</b>	<b>150</b>	<b>46,647.41</b>
<b>\$1,000 - \$10,000 :</b>	<b>77</b>	<b>283,151.70</b>
<b>\$10,000 - \$100,000 :</b>	<b>22</b>	<b>654,330.89</b>
<b>Over \$100,000 :</b>	<b>7</b>	<b>4,159,194.18</b>
<b>Total:</b>	<b>259</b>	<b>5,140,382.72</b>

**Checks:**

<b>\$0 - \$1,000 :</b>	<b>62</b>	<b>22,105.92</b>
<b>\$1,000 - \$10,000 :</b>	<b>57</b>	<b>206,773.47</b>
<b>\$10,000 - \$100,000 :</b>	<b>25</b>	<b>701,810.62</b>
<b>Over \$100,000 :</b>	<b>6</b>	<b>4,209,692.71</b>
<b>Total:</b>	<b>150</b>	<b>5,140,382.72</b>

Greeting U.S.D. & public

My name is Leonard Ancona. I am here on behalf of my Mom and the offer by Mr. Jose Rodriguez to comment on an incredible event or a miracle of sorts.

My Mom of 93 years wore a wedding ring for 74 years. The ring accidentally went down the the toilet.

Mom called her daughter in Law. Karen said a prayer to St. Anthony. "Please help us find the ring"

The next day I went to work on Mom's yard. U.S.D. had a crew with equipment hard at work. I asked no questions. They had worked for hours. Their skill sets were truly put to the test.

A worker was heard saying "Bingo". Mom answered the door. "Is this your ring"? If not, I'll have it for my wife.

Mom was reunited with her ring of 74 years

Thank you U.S.D. Crew and Mr. Jose Rodriguez for going beyond and above. An incredible find or a miracle. was truly witnessed.

Best Regards to all.

Sincerely

Leonard Ancona on behalf of my Mom  
Bonhellita Ancona

**ITEM NO. RA5 BACWA KEY REGULATORY ISSUES MATRIX**

**Recommendation**

For the Committee's information only; no action is required.

**Background**

Periodically, BACWA's Regulatory Program Manager updates a Key Regulatory Issues Summary that contains succinct information on regulatory issues of interest to Bay Area wastewater agencies. The Summary matrix contains background, challenges and recent updates, next steps for BACWA, and links to key resources and documents.

**Discussion**

The most recent issue summary is attached. This latest version highlights updates made in purple. Previous versions are available at <https://bacwa.org/regulatory-issues-summaries/>.



## KEY REGULATORY ISSUE SUMMARY

### Updated May 2, 2023

Action items for member agencies are in **bold**

<b>Contents</b>	<b>Page</b>		
Nutrients in San Francisco Bay	1	Sanitary Sewer Systems General Order	10
SF Bay Nutrient Watershed Permit	2	Laboratory Accreditation	11
Chlorine Residual Compliance	3	Phase-Out of Biosolids as Alternative Daily Cover	12
Pesticides	4	Climate Change Mitigation	13
Mercury and PCBs	5	Climate Change Adaptation	14
State Water Board Toxicity Provisions	6	Toxic Air Contaminants	15
Compounds of Emerging Concern (CECs)	7	Recycled Water	16
Microplastics	8	Acronyms	17
Per- and Polyfluoroalkyl Substances (PFAS)	9		

New updates in this version are shown in Purple highlighting

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>NUTRIENTS IN SAN FRANCISCO BAY</b>			
<ul style="list-style-type: none"> <li>San Francisco Bay receives some of the highest nitrogen loads among estuaries worldwide, yet has not historically experienced the water quality problems typical of other nutrient-enriched estuaries. It is not known whether this level of nitrogen loading, which will continue to increase in proportion to human population increase, is sustainable over the long term.</li> <li>Because of the complexity of the science behind nutrient impacts in SF Bay, stakeholders in the region are participating in the Nutrient Management Strategy (NMS) steering committee to prioritize scientific studies and ensure that all science to be used for policy decisions is conducted under one umbrella.</li> </ul>	<ul style="list-style-type: none"> <li>For FY23, BACWA is contributing \$1.8M to fund scientific research needed to make management decisions for the 3<sup>rd</sup> Watershed Permit. This funding is required by the 2<sup>nd</sup> Watershed Permit.</li> <li>The focus of current scientific efforts is improving model representation of biogeochemistry, light attenuation, dissolved oxygen, and Harmful Algal Bloom dynamics. Field and lab observations are supporting these improvements.</li> <li>The science team is developing an Assessment Framework for Open Bay habitats and Lower South Bay sloughs.</li> <li>In summer 2022, a harmful algae bloom in San Francisco Bay brought increased public attention to this topic. The NMS science team is assisting with data interpretation, and has revised the science plan accordingly.</li> </ul>	<ul style="list-style-type: none"> <li><b>Continue to participate in NMS steering committee, Nutrient Technical Workgroup, and planning subcommittee meetings, and provide funding for scientific studies.</b></li> <li><b>Working with NMS stakeholders, identify preliminary scenarios for nutrient modeling of the Bay.</b></li> <li>Continue to assist with preparation of a brief “State of the Science” document summarizing the scientific accomplishments of the NMS team for public use.</li> <li>Continue to engage with Nutrient Technical Team and BACWA’s Nutrient Management Strategy technical consultant, Mike Connor, to provide review of recent work products and charge questions for the science team.</li> </ul>	<p>BACWA Nutrients Page: <a href="https://bacwa.org/nutrients/">https://bacwa.org/nutrients/</a></p> <p>NMS FY23 Program Plan (Revised Dec. 2022) <a href="https://docs.google.com/document/d/11WlrDMpUw_OBQ6Lj-qj67sOLwl490lk_RWW431e9nuU">https://docs.google.com/document/d/11WlrDMpUw_OBQ6Lj-qj67sOLwl490lk_RWW431e9nuU</a></p> <p>NMS Work Products <a href="https://sfbaynutrients.sfei.org/books/reports-and-work-products">https://sfbaynutrients.sfei.org/books/reports-and-work-products</a></p> <p>SFEI Presentation on Science of 2022 Bloom <a href="https://docs.google.com/presentation/d/1R468fFPMfq1d1xY6cHFU-uta9aMCynx5/">https://docs.google.com/presentation/d/1R468fFPMfq1d1xY6cHFU-uta9aMCynx5/</a></p> <p>BACWA Nutrient FAQ <a href="https://bacwa.org/wp-content/uploads/2023/01/BACWA-Nutrient-Fact-Sheet.pdf">https://bacwa.org/wp-content/uploads/2023/01/BACWA-Nutrient-Fact-Sheet.pdf</a></p>

## SF BAY NUTRIENT WATERSHED PERMIT

<ul style="list-style-type: none"> <li>• The 1<sup>st</sup> Nutrient Watershed Permit was adopted in 2014, and required a regional study on Nutrient Treatment by Optimization and Upgrades, completed in 2018.</li> <li>• The 2<sup>nd</sup> Nutrient Watershed Permit was adopted in 2019. It includes: <ul style="list-style-type: none"> <li>○ Continued individual POTW nutrient monitoring and reporting;</li> <li>○ Continued group annual reporting;</li> <li>○ Significantly increased funding for science;</li> <li>○ Regional assessment of the feasibility and cost for reducing nutrients through nature-based systems and recycled water;</li> <li>○ Establishing current performance for Total Inorganic Nitrogen (TIN), and “load targets” for nutrient loads based on 2014 to 2017 load data plus a 15% buffer for growth and variability</li> <li>○ Recognition of “early actors” who are planning projects that will substantially decrease TIN loads.</li> </ul> </li> <li>• Through the nutrient surcharge levied on permittees, BACWA funds compliance with the following provisions on behalf of its members: <ul style="list-style-type: none"> <li>○ Group Annual Reporting</li> <li>○ Regional Studies on Nature-Based Systems and Recycled Water</li> <li>○ Support of scientific studies through the Regional Monitoring Program (RMP) with \$11M over the five-year permit term.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Studies related to Recycled Water and Nature-Based Systems are underway, and will be completed by the due date of July 1, 2023.</li> <li>• Each year by February 1, BACWA submits a Group Annual Report on behalf of its members. The report summarizes trends in nutrient concentrations and loading for each agency, and for all the agencies as a whole. The annual reporting period in the 2<sup>nd</sup> Watershed Permit is based on a water year (Oct. 1 – Sept. 30). In the dry season of 2022, TIN loads were the second lowest since monitoring began in July 2012 (only 2021 was lower).</li> <li>• In response to the summer 2022 algae bloom, Regional Water Board staff have signaled that the 3<sup>rd</sup> Watershed Permit is likely to include nutrient load reduction requirements (see presentation at right). The magnitude, timing, and format of these reductions have yet to be determined.</li> <li>• BACWA staff met with the 18 largest wastewater treatment plants (representing 95% of the regional TIN load from POTWs) to identify projects that could reduce nutrient loads during the term of the 3<sup>rd</sup> Watershed Permit and beyond.</li> </ul>	<ul style="list-style-type: none"> <li>• BACWA continues to convene a Nutrient Strategy Team to develop BACWA’s key tenets for the 3<sup>rd</sup> Watershed Permit, and <b>members are encouraged to participate</b>. The Nutrient Strategy Team is actively engaging with the Regional Water Board to expand upon the key tenets and discuss implementation details for the 3<sup>rd</sup> Watershed Permit, such as how and when load reductions would be required.</li> <li>• Review draft reports by consultant teams from HDR and SFEI for the Nutrient Removal by Recycled Water Evaluation and the Nature-Based Solutions study. Individual agency reports have been drafted, and draft summary reports will be available by May 2023. <b>Agency sign-off on the final reports will be required.</b></li> <li>• Agencies will continue to report nutrient monitoring data both through CIWQS and directly to BACWA.</li> </ul>	<p>2nd Nutrient Watershed Permit:  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2019/R2-2019-0017.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2019/R2-2019-0017.pdf</a></p> <p>Special Studies of Recycled Water and Nature-Based Solutions:  <a href="https://bacwa.org/document-category/2nd-watershed-permit-studies/">https://bacwa.org/document-category/2nd-watershed-permit-studies/</a></p> <p>Optimization/Upgrade Study Information:  <a href="https://bacwa.org/document-category/optimization-and-upgrade-studies/">https://bacwa.org/document-category/optimization-and-upgrade-studies/</a></p> <p>BACWA Group Nutrient Annual Reports:  <a href="http://bacwa.org/document-category/nutrient-annual-reports/">http://bacwa.org/document-category/nutrient-annual-reports/</a></p> <p>Presentations to SF Board of Supervisors Land Use and Transportation Committee (October 2022)  <a href="https://sfgov.legistar.com/View.ashx?M=F&amp;ID=11339273&amp;GUID=863B565D-6662-419D-B519-87D5FBB4BAE3">https://sfgov.legistar.com/View.ashx?M=F&amp;ID=11339273&amp;GUID=863B565D-6662-419D-B519-87D5FBB4BAE3</a></p> <p>BACWA Presentation to East Bay Leadership Council  <a href="https://bacwa.org/document/sf-bay-nutrient-management-presentation-to-eblc-2023-04-18/">https://bacwa.org/document/sf-bay-nutrient-management-presentation-to-eblc-2023-04-18/</a></p>
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**CHLORINE RESIDUAL COMPLIANCE**

<ul style="list-style-type: none"> <li>• The Basin Plan chlorine residual effluent limit is 0.0 mg/L. Chlorine residual is the most frequent parameter for violations for Region 2 POTWs. Because there are 24 hourly reporting events each day, the “opportunities” for violations are enormous. However, the actual violation rates are infinitesimal (~0.001%).</li> <li>• Agencies are overdosing their effluent with the dechlorination agent, sodium bisulfite, to prevent chlorine violations, a practice which costs more than \$1 million regionally each year.</li> <li>• The Regional Water Board worked with BACWA to develop a Basin Plan Amendment modifying the effluent limit for chlorine residual.</li> </ul>	<ul style="list-style-type: none"> <li>• The Basin Plan Amendment includes: <ul style="list-style-type: none"> <li>○ A 0.013 mg/L Water Quality Objective in marine and estuarine waters, which will be applied as a WQBEL in permits and calculated incorporating dilution. The WQBEL will be applied as a 1-hour average.</li> <li>○ A Minimum Level (ML), or Reporting Limit of 0.05 mg/L for online continuous monitoring system.</li> </ul> </li> <li>• The Basin Plan Amendment was adopted by the Regional Water Board in 2020, and approved by the State Water Board and Office of Administrative Law in 2021. Unfortunately, the EPA does <u>not</u> plan to approve the Basin Plan Amendment due to concerns expressed by federal natural resource agencies about potential chlorine toxicity to fish.</li> <li>• Sections of the Basin Plan Amendment related to removal of Oil &amp; Grease effluent limits are in effect. This change is being implemented in reissued NPDES permits. The blanket permit amendment for Oil &amp; Grease that was meant to implement the change region-wide will not go into effect.</li> </ul>	<ul style="list-style-type: none"> <li>• Engage with Regional Water Board staff to identify an alternative regulatory strategy for modifying chlorine effluent limits. Regional Water Board staff are currently exploring regulatory options.</li> </ul>	<p>Background and Status information about Basin Plan Amendment: <a href="https://www.waterboards.ca.gov/sanfranciscobay/water_issue/programs/planningtmdls/amendments/chlorinebpa.html">https://www.waterboards.ca.gov/sanfranciscobay/water_issue/programs/planningtmdls/amendments/chlorinebpa.html</a></p> <p>Final Basin Plan Amendment adopted by Regional Water Board: <a href="https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/amendments/chlorinebpa/2_Chlorine_Resolution_R2-2020-0031.pdf">https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/amendments/chlorinebpa/2_Chlorine_Resolution_R2-2020-0031.pdf</a></p>
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Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>PESTICIDES</b>			
<ul style="list-style-type: none"> <li>• Pesticides are regulated via FIFRA, and not the Clean Water Act. POTWs do not have the authority to regulate pesticide use in their service area, but may be responsible for pesticide impacts to their treatment processes or to surface water.</li> <li>• Through BAPPG, BACWA aims to proactively support a scientific and regulatory advocacy program so that pesticides will not impact POTWs' primary functions of collecting and treating wastewater, recycling water, and managing biosolids, or impact receiving waters via the "down the drain" route.</li> </ul>	<ul style="list-style-type: none"> <li>• EPA reviews all registered pesticides at least once every 15 years. Each review allows opportunity for public comment.</li> <li>• BACWA continues to fund consultant support to write comment letters advocating for the consideration of POTW and surface water issues by EPA and the California Department of Pesticide Registration (CalDPR). Funding for pesticide regulatory outreach in FY23 is \$60K. The pesticides regulatory team also supports the California Stormwater Quality Association (CASQA) on outreach work related to urban pesticide use.</li> <li>• The Regional Water Board leverages BACWA's efforts to provide their own comment letters.</li> <li>• With chronic toxicity limits likely in the near term, POTWs will be in compliance jeopardy if pesticides contribute to toxicity.</li> <li>• Baywise.org has launched webpages on flea and tick control messaging to pet owners and veterinarians.</li> <li>• In January 2023, CalDPR released a Sustainable Pest Management Roadmap. The Roadmap identifies actions that would enhance understanding of pesticide use in urban areas and enhance outreach to urban pesticide users.</li> </ul>	<ul style="list-style-type: none"> <li>• Advocate for implementation of specific actions from the Sustainable Pesticide Management Roadmap, and for additional resources to be directed to CalDPR to support implementation.</li> <li>• Continue to comment on EPA pesticide re-registrations and CalDPR actions.</li> <li>• Engage with EPA on proposed changes to the regulatory approval process for pesticides (see comment letter at right).</li> <li>• Work with veterinary associations on messaging with respect to flea and tick control alternatives.</li> <li>• Continue to develop summaries of EPA actions on pesticides.</li> <li>• Look for opportunities to work with CalDPR on pesticides research.</li> <li>• Work with other regional associations, such as the CASQA to collaborate on funding pesticide regulatory outreach.</li> </ul>	<p>BACWA Pesticide Regulatory Support Page: <a href="https://bacwa.org/bappg-pesticides/">https://bacwa.org/bappg-pesticides/</a></p> <p>Baywise flea and tick pages: <a href="https://baywise.org/residential/pets/keep-pets-free-of-fleas-and-ticks/">https://baywise.org/residential/pets/keep-pets-free-of-fleas-and-ticks/</a></p> <p><a href="https://baywise.org/residential/pets/">https://baywise.org/residential/pets/</a></p> <p>BACWA-CASQA Urban Pesticides Collaboration Fact Sheet: <a href="https://bacwa.org/wp-content/uploads/2022/08/CASQA-BACWA-Factsheet-July2022.pdf">https://bacwa.org/wp-content/uploads/2022/08/CASQA-BACWA-Factsheet-July2022.pdf</a></p> <p>CalDPR Sustainable Pest Management Roadmap <a href="https://www.cdpr.ca.gov/docs/pressrls/2023/012623.htm">https://www.cdpr.ca.gov/docs/pressrls/2023/012623.htm</a></p> <p>BACWA coalition letter on modernizing the pesticide approval process <a href="https://bacwa.org/document/bacwa-nacwa-coalition-comments-on-fda-epa-pesticide-modernization-2023-04-25/">https://bacwa.org/document/bacwa-nacwa-coalition-comments-on-fda-epa-pesticide-modernization-2023-04-25/</a></p>

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>MERCURY AND PCBs</b>			
<ul style="list-style-type: none"> <li>• The Mercury &amp; PCBs Watershed Permit was reissued by the Regional Water Board in December 2022. The Watershed Permit is based on the TMDLs for each of these pollutants.</li> <li>• Aggregate mercury and PCBs loads have been well below waste load allocations through 2021, the last year for which data have been compiled.</li> <li>• Method 1668C for measuring PCB congeners has not been promulgated by EPA. Data collected during the first permit term varied widely depending on which laboratory performed the analyses. BACWA Laboratory Committee developed an updated PCB Protocol to reduce variability between laboratories running Method 1668C, effective January 1, 2014. Data have been more consistent since the distribution of this document.</li> <li>• In 2017, EPA adopted federal pretreatment program rules requiring dental offices to install dental amalgam separators. The rule is intended to reduce dental office discharge of mercury. The compliance date was July 14, 2020.</li> </ul>	<ul style="list-style-type: none"> <li>• The Mercury &amp; PCBs Watershed Permit requires risk reduction program funding. For FY24, BACWA has budgeted \$12,500 to support risk reduction activities related to fish consumption.</li> <li>• In January 2022, monitoring requirements for mercury were reduced for most dischargers by a blanket NPDES Permit amendment (Order R2-2021-0028) (see link at right). Revised monitoring frequencies are also reflected in the reissued permit.</li> <li>• As part of the 2021 Triennial Review of the Basin Plan, the Regional Water Board has prioritized designation of three new beneficial uses: Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB) and Subsistence Fishing (SUB). Water bodies designated with these beneficial uses could also be assigned lower mercury objectives.</li> <li>• The Mercury &amp; PCBs Watershed Permit reissued in December 2022 is very similar to the 2017 Permit. Effluent limitations are unchanged. The only significant difference is a reduction in the monitoring frequency for PCB Congeners for some agencies.</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate with local community-based organizations and Water Boards staff to develop concepts for risk reduction activities that BACWA could support during the term of the reissued permit. Later in FY24, BACWA may solicit proposals to support risk reduction activities during the term of the reissued permit.</li> <li>• Continue outreach to dentists BAPPG and BACWA's pretreatment committee. Per federal rules, all dental facilities were required to submit one-time compliance reports by October 2020.</li> <li>• Schedule risk reduction presentations by the current grantees to the Regional Water Board in 2023.</li> <li>• Track potential Basin Plan Amendments resulting from the Triennial Review project related to new beneficial use designations. The new designations are not expected to impact the bay-wide mercury TMDL in the near term, but there could be localized or longer-term impacts.</li> </ul>	<p>2022 Mercury &amp; PCBs Watershed Permit (Effective Feb. 1, 2023)  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0038.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0038.pdf</a></p> <p>Risk Reduction Materials:  <a href="https://bacwa.org/mercurypcb-risk-reduction-materials/">https://bacwa.org/mercurypcb-risk-reduction-materials/</a></p> <p>BACWA PCBs Protocol:  <a href="https://bacwa.org/wp-content/uploads/2014/02/PCBs-Sampling-Analysis-and-Reporting-Protocols-Dec13.pdf">https://bacwa.org/wp-content/uploads/2014/02/PCBs-Sampling-Analysis-and-Reporting-Protocols-Dec13.pdf</a></p> <p>One-Time Compliance Report for Dental Offices:  <a href="https://www.waterboards.ca.gov/water_issues/programs/npdes/docs/drinkingwater/one-time_compliance_report_for_dental_offices.pdf">https://www.waterboards.ca.gov/water_issues/programs/npdes/docs/drinkingwater/one-time_compliance_report_for_dental_offices.pdf</a></p> <p>NPDES Permit Amendment for Monitoring and Reporting  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2021/R2-2021-0028.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2021/R2-2021-0028.pdf</a></p>

## STATE WATER BOARD TOXICITY PROVISIONS

<ul style="list-style-type: none"> <li>• The State Water Board has been working since before 2012 to establish Toxicity Provisions in the SIP that would introduce uniform Whole Effluent Toxicity Requirements for the state.</li> <li>• During individual permit reissuances since 2015, the Regional Water Board has been performing RPAs for chronic toxicity and giving chronic toxicity limits to agencies with Reasonable Potential.</li> <li>• Proposed Final Statewide Toxicity Provisions were released in October 2020, incorporating revisions to previous versions from 2018 to 2020. The Provisions establish: <ul style="list-style-type: none"> <li>○ Use of Test of Significant Toxicity (TST) as statistical method to determine toxicity replacing EC25/IC25 (with concerns it will lead to more false positive results);</li> <li>○ Numeric limits for chronic toxicity for POTWs &gt;5 MGD and with a pretreatment program; smaller POTWs would receive effluent targets and only receive limits if Reasonable Potential is established;</li> <li>○ Regional Water Board discretion on whether to require RPAs for acute toxicity;</li> <li>○ For POTWs with <i>Ceriodaphnia dubia</i> as most sensitive species, numeric targets rather than limits until after completion of state-wide study on lab/ testing issues (Dec. 31, 2023).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The State Water Board first adopted the Statewide Toxicity Provisions in December 2020. In October 2021, the State Water Board affirmed that the Statewide Toxicity Provisions were adopted as state policy for water quality control for all inland surface waters and estuaries.</li> <li>• USEPA approved the Statewide Toxicity Provisions on May 1, 2023.</li> <li>• Since 2016, agencies have had the option to skip sensitive species screening upon permit reissuance and pay the avoided funds to the RMP to be used for CECs studies. Under the Toxicity Provisions, agencies will be required by the provisions to do sensitive species screening once every 15 years.</li> <li>• BACWA joined SCAP, CVCWA and NACWA in a lawsuit alleging EPA did not follow proper procedure in requiring use of the TST, which has not been officially promulgated. The lawsuit was dismissed. POTWs' only recourse is to challenge individual permits that include the procedure.</li> <li>• The State Water Board is collaborating with stakeholders on a special study to improve the quality of <i>Ceriodaphnia dubia</i> testing. The first phase of this multi-laboratory study of toxicity testing has been completed, and a second intercalibration round of testing will be conducted in late spring and summer 2023.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Begin conducting toxicity testing using the Statewide Toxicity Provisions.</b> Member agencies with individual NPDES permits reissued after August 2022 will automatically transition to new toxicity testing requirements on June 1, 2023.</li> <li>• <b>Plan to conduct a species sensitivity screening</b> to comply with the Toxicity Provisions, which require a study no more than 10 years old be used to determine a "Tier I" species for use in compliance monitoring.</li> <li>• <b>Continue to review draft NPDES permits implementing the Toxicity Provisions.</b> As of August 2022, all reissued individual NPDES permits contain language implementing the Toxicity Provisions. Regional Water Board staff developed this language with BACWA member input. Although the new language is mostly standardized, small changes may be necessary to clarify details of the new provisions.</li> <li>• Share information on the special study on the <i>Ceriodaphnia dubia</i> test method with agencies who have that species in their permits.</li> </ul>	<p>SWRCB Toxicity Page: <a href="http://www.swrcb.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.shtml">http://www.swrcb.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.shtml</a></p> <p>Toxicity Workshop Presentations from 2017 BACWA Workshop: <a href="https://bacwa.org/bacwa-toxicity-workshop-september-18-2017/">https://bacwa.org/bacwa-toxicity-workshop-september-18-2017/</a></p> <p>Regional Water Board presentation on implementation of Statewide Toxicity Provisions from December 2020: <a href="https://bacwa.org/wp-content/uploads/2021/01/Slides-from-RWQCB-Regarding-R2-Tox-Language-in-NPDES-Permits-2020-12-08.pdf">https://bacwa.org/wp-content/uploads/2021/01/Slides-from-RWQCB-Regarding-R2-Tox-Language-in-NPDES-Permits-2020-12-08.pdf</a></p> <p><i>Ceriodaphnia</i> Quality Assurance Study <a href="https://www.sccwrp.org/about/research-areas/additional-research-areas/ceriodaphnia-toxicity-testing-quality-assurance/">https://www.sccwrp.org/about/research-areas/additional-research-areas/ceriodaphnia-toxicity-testing-quality-assurance/</a></p> <p>USEPA Approval of Statewide Toxicity Provisions <a href="https://bacwa.org/wp-content/uploads/2023/05/05.01.2023-EPA-CWA-303c-Approval-of-California-Toxicity-Provisions.pdf">https://bacwa.org/wp-content/uploads/2023/05/05.01.2023-EPA-CWA-303c-Approval-of-California-Toxicity-Provisions.pdf</a></p>
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**COMPOUNDS OF EMERGING CONCERN (CECS)**

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| <ul style="list-style-type: none"> <li>• Pharmaceuticals and other trace compounds of emerging concern (CECs) are ubiquitous in wastewater at low concentrations and have unknown effects on aquatic organisms.</li> <li>• The State Water Board has formed a Pretreatment and CECs Unit.</li> <li>• Region 2's CEC strategy focuses on monitoring/tracking concentrations of constituents with high occurrence and high potential toxicity. Much of what the State Water Board is considering for its monitoring program is already being implemented in Region 2 through the RMP.</li> </ul> | <ul style="list-style-type: none"> <li>• The Regional Water Board has stated that voluntary and representative participation in RMP CECs studies is key to avoiding regulatory mandates for CECs monitoring. These studies are informational and not for compliance purposes. BACWA developed a White Paper on representative participation to support facility selection for these studies.</li> <li>• Bay dischargers are continuing to provide supplemental funding for RMP CECs studies through the NPDES Permit Amendment adopted in December 2021 by the Regional Water Board.</li> <li>• The State Water Board has recently increased its focus on CECs. In November 2022, a State Water Board Science Advisory Panel released a report identifying risk-based and occurrence-based monitoring strategies in aquatic ecosystems. Similar approaches are already in use in the Bay Area by the RMP.</li> </ul> | <ul style="list-style-type: none"> <li>• Continue to participate in the RMP Emerging Contaminants Workgroup.</li> <li>• Participate in RMP studies by collecting wastewater samples at member facilities. Studies in FY23 include ethoxylated surfactants and quaternary ammonia compounds, in addition to the Regional PFAS Study and OPC-funded microplastic study (see next page).</li> <li>• Update the 2020 White Paper created for use by the RMP or others in selecting representative POTWs for participation in CEC studies. The 2020 White Paper will be updated to note recently completed and ongoing studies of CECs in Bay Area wastewater.</li> </ul> | <p>RMP Emerging Contaminant Workgroup:<br/> <a href="http://www.sfei.org/rmp/ecwg#ab-1-4">http://www.sfei.org/rmp/ecwg#ab-1-4</a></p> <p>BACWA CECs White Paper:<br/> <a href="https://bacwa.org/document/bacwa-cec-white-paper-updated-june-2020/">https://bacwa.org/document/bacwa-cec-white-paper-updated-june-2020/</a></p> <p>NPDES Permit Amendment for Monitoring and Reporting<br/> <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2021/R2-2021-0028.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2021/R2-2021-0028.pdf</a></p> <p>State Water Board CECs webpage:<br/> <a href="https://www.waterboards.ca.gov/water_issues/programs/cec/index.html">https://www.waterboards.ca.gov/water_issues/programs/cec/index.html</a></p> |
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Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>MICROPLASTICS</b>			
<ul style="list-style-type: none"> <li>• Microplastic pollution is an environmental threat with the potential to impact wastewater disposal and reuse, as well as biosolids end uses.</li> <li>• Microplastics have been a focus of the RMP in recent years. BACWA has participated in the Workgroup and developed a POTW Fact Sheet. One conclusion of the RMP work is that POTWs contribute much lower microplastic loads than stormwater. As a result, the RMP is focusing future microplastics sampling efforts on stormwater pathways.</li> </ul>	<ul style="list-style-type: none"> <li>• In February 2022, the Ocean Protection Council (OPC) adopted a Statewide Microplastics Strategy that calls for increased water recycling, additional monitoring of wastewater, source control in wastewater, and additional scientific research.</li> <li>• In 2021, the OPC funded a study investigating microplastic removal through wastewater treatment processes. The study is being carried out by SCCWRP. The study commenced in 2021 with a pilot study involving BACWA member agency participation. Full-scale sampling and analysis of influent, effluent, and biosolids is planned to be completed in 2023.</li> <li>• The Draft 2024 California Integrated Report (303(d) List) notes that San Francisco Bay is “potentially threatened” by microplastics. Due to data limitations, the Bay is <u>not</u> proposed to be listed as an impaired water body during this listing cycle.</li> <li>• Additional research to improve scientific understanding of microplastics in aquatic ecosystems will be needed to support a future impairment determination for San Francisco Bay. The Water Boards and Ocean Protection Council are supporting allocation of funding towards these research efforts.</li> <li>• Ongoing microplastics investigations by the RMP are focused on tire particles in stormwater.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to participate in the RMP Microplastics Workgroup.</li> <li>• Three BACWA member agencies are participating in the OPC-funded microplastic study. As of May 2023, sampling efforts are ongoing.</li> <li>• Continue tracking State Water Board and Ocean Protection Council actions via the CASA Microplastics Workgroup. CASA is working with SCCWRP to provide additional funding for testing of new sample collection and/or analysis methods.</li> </ul>	<p>BACWA Microplastics Fact Sheet:  <a href="https://bacwa.org/wp-content/uploads/2019/09/BACWA-Microplastics-flyer.pdf">https://bacwa.org/wp-content/uploads/2019/09/BACWA-Microplastics-flyer.pdf</a></p> <p>SFEI Microplastics project:  <a href="https://www.sfei.org/projects/microplastics">https://www.sfei.org/projects/microplastics</a></p> <p>Ocean Protection Council Microplastics Strategy:  <a href="https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/2022_0223/Item_6_Exhibit_A_Statewide_Microplastics_Strategy.pdf">https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/2022_0223/Item_6_Exhibit_A_Statewide_Microplastics_Strategy.pdf</a></p> <p>2024 California Integrated Report / 303(d) List  <a href="https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024-integrated-report.html">https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024-integrated-report.html</a></p>

**PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)**

<ul style="list-style-type: none"> <li>• Per- and polyfluoroalkyl substances (PFAS) are a group of human-made substances that are very resistant to heat, water, and oil. PFAS have been used in surface coating and protectant formulations. Common PFAS-containing products are non-stick cookware, cardboard/paper food packaging, water-resistant clothing, carpets, and fire-fighting foam.</li> <li>• Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are two types of PFAS no longer manufactured in the US; however, other types of PFAS are still produced and used in the US.</li> <li>• All PFAS are persistent in the environment, can accumulate within the human body, and have demonstrated toxicity at relatively low concentrations.</li> <li>• Potential regulatory efforts to address PFAS focus on drinking water in order to minimize human ingestion of these chemicals, although regulators have also expressed concern about uptake into food from biosolids.</li> <li>• In July 2020, the SWRCB issued an investigative order for POTWs. At that time, BACWA obtained SWRCB approval to fund and conduct a Regional PFAS Study in lieu of the investigative order.</li> <li>• In April 2021, the formation of an “EPA Council on PFAS” was announced.</li> </ul>	<ul style="list-style-type: none"> <li>• The EPA and State of California are developing drinking water standards for PFAS compounds. <ul style="list-style-type: none"> <li>○ DDW has developed drinking water notification levels (NLs) and response levels for PFOA, PFOS, and Perfluorobutane Sulfonic Acid (PFBS), Perfluorohexane Sulfonic Acid (PFHxS).</li> <li>○ EPA has released final health advisories for PFOA (0.004 ng/L) and PFOS (0.02 ng/L).</li> <li>○ In February 2023, EPA proposed Maximum Contaminant Levels for PFOA and PFOS as individual contaminants, and PFHxS, PFNA, PFBS, and HFPO-DA (commonly referred to as GenX Chemicals) as a PFAS mixture. By design, these MCLs are very close to the current limits of quantification.</li> </ul> </li> <li>• EPA is conducting pretreatment standards rulemaking for three types of industrial users: Metal Finishing, Organic Chemicals, Plastics and Synthetic Fibers, and landfills.</li> <li>• EPA is developing a new analytical method for PFAS in complex matrices like wastewater. Draft Method 1633 is expected to be finalized later in 2023.</li> <li>• In August 2022, EPA proposed a rule designating PFOA and PFOS as hazardous substances under CERCLA (the Superfund law). BACWA submitted a comment letter on the proposal (link at right).</li> <li>• In late 2022, EPA issued permitting guidance for pretreatment programs and NPDES permits. It recommends use of Draft Method 1633.</li> </ul>	<ul style="list-style-type: none"> <li>• BACWA’s Regional PFAS Study is being conducted by SFEI in two phases: <ul style="list-style-type: none"> <li>○ In Phase 1, fourteen representative facilities collected samples in Q4 2020 for influent, effluent, RO concentrate, and biosolids. BACWA prepared a Fact Sheet regarding Phase 1 results (see link at right).</li> <li>○ Sample collection for Phase 2 of the PFAS Regional Study was completed in mid-2022 and included sampling of influent, effluent, and biosolids; residential sewersheds, commercial and industrial users; hauled organic waste used as digester feed; and groundwater. Phase 2 study results will be shared with members in May 2023 once QA/QC is complete.</li> </ul> </li> <li>• BACWA’s Phase 2 study results could support new legislative efforts in 2023. For example, BAPPG submitted comments on legislation banning PFAS in menstrual products (AB246).</li> <li>• BACWA will continue tracking developments at the federal, state and regional level, in particular to understand the impact of the CERCLA designation on biosolids reporting.</li> </ul>	<p>BACWA PFAS Documents: <a href="https://bacwa.org/pfas-links/">https://bacwa.org/pfas-links/</a></p> <p>SWRCB PFAS Resources: <a href="https://www.waterboards.ca.gov/pfas/">https://www.waterboards.ca.gov/pfas/</a></p> <p>EPA PFAS Resources <a href="https://www.epa.gov/pfas">https://www.epa.gov/pfas</a></p> <p>EPA PFAS Strategic Roadmap <a href="https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024">https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024</a></p> <p>EPA Proposed Drinking Water Regulations <a href="https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024">https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024</a></p> <p>2022 PFAS Legislation Outcomes for CA: <a href="https://www.cwea.org/news/pfas-legislation-we-have-seen-in-2022/">https://www.cwea.org/news/pfas-legislation-we-have-seen-in-2022/</a></p> <p>BACWA Comment Letter on CERCLA Designation: <a href="https://bacwa.org/wp-content/uploads/2022/11/BACWA-PFAS-CERCLA-Ltr-2022-11-07.pdf">https://bacwa.org/wp-content/uploads/2022/11/BACWA-PFAS-CERCLA-Ltr-2022-11-07.pdf</a></p> <p>EPA NPDES Permitting Guidance (Dec. 2022) <a href="https://www.epa.gov/system/files/documents/2022-12/NPDES_PFAS_State%20Me mo_December_2022.pdf">https://www.epa.gov/system/files/documents/2022-12/NPDES_PFAS_State%20Me mo_December_2022.pdf</a></p>
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**SANITARY SEWER SYSTEMS GENERAL ORDER**

<ul style="list-style-type: none"> <li>• In 2022, the State Water Board reissued the statewide Sanitary Sewer Systems General Order (SSS-WDR). The reissued order replaces the 2006 Order and the 2013 Monitoring and Reporting Program. BACWA and partner organizations were successful in working with the State Water Board to make many favorable modifications to the draft prior to its final adoption.</li> <li>• The State Water Board's goals for the update were: <ul style="list-style-type: none"> <li>○ Updating the 2006 Order</li> <li>○ Clarifying compliance expectations and enhancing enforceability</li> <li>○ Addressing system resiliency, including climate change impacts</li> <li>○ Identifying valuable data and eliminating non-valuable reporting requirements</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The reissued order effective date is June 5, 2023.</li> <li>• The reissued SSS-WDR contains numerous new and modified requirements, such as: <ul style="list-style-type: none"> <li>○ A prohibition on discharges to groundwater;</li> <li>○ Reduced spill reporting requirements for small spills (spills from laterals or &lt;50 gallons);</li> <li>○ New spill monitoring requirements such as photo documentation and faster water quality sampling;</li> <li>○ New requirements for preparation of Sewer System Management Plans (SSMPs), including a focus on system resiliency, prioritizing corrective actions, and coordinating with stormwater agencies;</li> <li>○ Modified annual reporting requirements;</li> <li>○ New mapping requirements; and</li> <li>○ Modified timelines for preparation of audits and SSMPs. The State Water Board has prepared an online tool to assist agencies in determining compliance dates (at right).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Sanitary Sewer System Agencies must certify continuing coverage in the reissued WDR by June 4th.</b> Other key deadlines before June 5<sup>th</sup> order effective date include: <ul style="list-style-type: none"> <li>○ Uploading existing SSMPs to CIWQS</li> <li>○ Updating Spill Emergency Response Plans</li> <li>○ Identifying an appropriate Legally Responsible Official</li> </ul> </li> <li>• Work with the Collection System committee and CASA to identify and fulfill member needs for guidance and templates materials, such as guidance for Sewer System Management Plans.</li> <li>• Continue to coordinate with CASA and CWEA on training opportunities for members as they transition to enrollment under the new SSS-WDR.</li> </ul>	<p>State Water Board SSS-WDR page: (includes training video on certifying continued coverage by June 4th)  <a href="https://www.waterboards.ca.gov/water_issues/programs/ssol/">https://www.waterboards.ca.gov/water_issues/programs/ssol/</a></p> <p>Reissued SSS-WDR (General Order 2022-0103-DWQ), Effective June 5, 2023  <a href="https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0103-dwq.pdf">https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0103-dwq.pdf</a></p> <p>Materials from Clean Water Summit Partners Webinars on Reissued SSS-WDR  <a href="https://casaweb.org/resources/speaker-presentations/">https://casaweb.org/resources/speaker-presentations/</a></p> <p>SSMP and Audit Due Dates Lookup Tool from State Water Board  <a href="https://www.waterboards.ca.gov/water_issues/programs/ssol/lookup/">https://www.waterboards.ca.gov/water_issues/programs/ssol/lookup/</a></p>
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Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>LABORATORY ACCREDITATION</b>			
<ul style="list-style-type: none"> <li>• In May 2020, the State Water Board adopted new comprehensive regulations for the Environmental Laboratory Accreditation Program.</li> <li>• Adoption of the new regulations was required by AB 1438, legislation that became effective in 2018.</li> <li>• The new ELAP regulations are replacing the current state-specific accreditation standards with a national laboratory standard established by The NELAC Institute (TNI).</li> </ul>	<ul style="list-style-type: none"> <li>• The new ELAP regulations became effective as of <b>January 1, 2021</b>. Compliance with TNI standards is required beginning <b>January 1, 2024</b>.</li> <li>• Adoption of TNI standards poses a challenge since there are more than 1,000 individual requirements. Setup costs may include: <ul style="list-style-type: none"> <li>○ Hiring and/or training staff;</li> <li>○ Hiring consultants to set up the TNI documentation framework;</li> <li>○ Purchasing Laboratory Information Management System (LIMS) software;</li> <li>○ Purchasing documents and training material from TNI, etc.</li> </ul> </li> <li>• The new standards will be a particular burden on small laboratories, which may choose to close if they cannot economically meet the new standards.</li> <li>• ELAP's "Roadmap to ELAP Accreditation" Program is the outreach and training component of the new regulations. ELAP staff have presented to the Lab Committee in June 2020, February 2021, April 2021, June 2022, and April 2023.</li> <li>• The BACWA Lab Committee began providing monthly TNI training sessions beginning in July 2021. BACWA has provided funding for the TNI training sessions to continue through FY23.</li> </ul>	<ul style="list-style-type: none"> <li>• Offer monthly training sessions to BACWA members. The free virtual training sessions are open to BACWA members holding a valid copy of the 2016 TNI Standard, and are occurring on the 3<sup>rd</sup> Tuesday of each month. Training is provided by Diane Lawver of Quality Assurance Solutions, LLC, and other subject matter experts. BACWA's TNI training sessions are recorded, and a link is available upon request.</li> <li>• Communicate with ELAP staff on behalf of BACWA's Laboratory Committee as new guidance and training materials are developed for TNI implementation and methods updates.</li> <li>• Continue to work through BACWA's Laboratory Committee to support members as they navigate laboratory accreditation under the new TNI standards.</li> <li>• Publicize training opportunities offered by consultants, ELAP, and others.</li> <li>• Provide a forum for BACWA laboratories to share experiences and lessons learned from various approaches to TNI implementation.</li> </ul>	<p>State Water Board's 'Roadmap to ELAP Accreditation' page:  <a href="https://www.waterboards.ca.gov/drinking_water/certlic/labs/roadmap_to_elap_accreditation.html">https://www.waterboards.ca.gov/drinking_water/certlic/labs/roadmap_to_elap_accreditation.html</a></p> <p>Roadmap to Accreditation Presentation to BACWA Lab Committee:  <a href="https://bacwa.org/wp-content/uploads/2020/06/California-ELAP-Regulations-BACWA_06092020.pdf">https://bacwa.org/wp-content/uploads/2020/06/California-ELAP-Regulations-BACWA_06092020.pdf</a></p> <p>State Water Board's ELAP regulations page:  <a href="http://www.waterboards.ca.gov/drinking_water/certlic/labs/elap_regulations.shtml">http://www.waterboards.ca.gov/drinking_water/certlic/labs/elap_regulations.shtml</a></p> <p>Monthly Training Session flyer:  <a href="https://bacwa.org/wp-content/uploads/2021/07/BACWA-Lab-TNI-Training-Series-Flyer.pdf">https://bacwa.org/wp-content/uploads/2021/07/BACWA-Lab-TNI-Training-Series-Flyer.pdf</a></p> <p>ELAP Timeline Guidance Tool:  <a href="https://www.waterboards.ca.gov/drinking_water/certlic/labs/docs/2022/elap-scheduler-1-1.xlsx">https://www.waterboards.ca.gov/drinking_water/certlic/labs/docs/2022/elap-scheduler-1-1.xlsx</a></p>



## PHASE-OUT OF BIOSOLIDS AS ALTERNATIVE DAILY COVER

<ul style="list-style-type: none"> <li>Regulatory drivers are indicating that biosolids used as alternative daily cover (ADC) or disposed in landfills will be phased out. SB 1383, adopted in September 2016 requires organics diversion: <ul style="list-style-type: none"> <li>-50% by 2020 (relative to 2014)</li> <li>-75% by 2025 (relative to 2014)</li> </ul> CalRecycle is the state agency responsible for implementation. </li> <li>Regulations implementing SB 1383 went into effect in 2022. Jurisdictions can begin local enforcement January 1, 2024, and compliance is required by January 1, 2025. Requirements include: <ul style="list-style-type: none"> <li>Diverted biosolids must be anaerobically digested and/or composted to qualify as landfill reduction.</li> <li>CalRecycle is accepting applications to qualify other specific treatment technologies as landfill reduction (per Article 2 of SB 1383).</li> <li>Local ordinances restricting land application are disallowed.</li> </ul> </li> <li>While the regulations implementing SB 1383 do not explicitly forbid biosolids disposal/reuse in landfills, it is assumed that since biosolids are a relatively "clean" waste stream that can be easily diverted, landfills will stop accepting biosolids.</li> <li>The Bay Area Biosolids Coalition (BABC) was formed to find sustainable, cost-effective, all-weather options for biosolids management. BABC is a BACWA Project of Special Benefit.</li> </ul>	<ul style="list-style-type: none"> <li>BACWA's 2021 Biosolids Trends Survey Report compiles member agency activities in 2018-2020, as well as survey responses regarding SB 1383 implementation.</li> <li>Jurisdictions that divert organic waste must also procure the end products of diversion, such as biogas, biomethane, and compost (but not biosolids). Procurement rules are being phased in over three years (2023 to 2025) and there are interim rules regarding procurement of biogas from POTWs.</li> <li>Currently, some County ordinances restrict the beneficial use of biosolids. CalRecycle considers bans on land application to be unenforceable and has agreed to approach counties with restrictive ordinances to conduct outreach and assess compliance.</li> <li>AB 1857, signed in 2022, removes a diversion credit for municipal solid waste incinerators. CalRecycle will soon prepare draft regulations implementing the law, which could be applicable to biosolids treated using pyrolysis.</li> <li>The <i>Biosolids in the Baylands</i> white paper was released in 2022 by the San Francisco Bay Joint Venture. The white paper identifies data gaps that need to be filled. Studies funded by BACWA and BABC (e.g., PFAS) and other current studies will be considered to help fill remaining data gaps before identifying new monitoring requirements at land applications sites.</li> </ul>	<ul style="list-style-type: none"> <li>Engage through CASA and BABC to follow development of regulations implementing AB 1857, with the goal of avoiding limits on POTWs using pyrolysis for organic waste management.</li> <li>Continue to engage with the Regional Water Board regarding supplemental monitoring requirements for biosolids land application sites in the Baylands.</li> <li>Actively work through CASA with California Air Resource Board, CalRecycle, State Water Board, and California Department of Food and Agriculture to develop sustainable long-term options for biosolids beneficial use.</li> <li>Meet with BAAQMD regularly in 2023 to discuss alignment of state and local regulations.</li> </ul>	<p>BACWA 2021 Biosolids Trends Survey Report: <a href="https://bacwa.org/wp-content/uploads/2021/12/BACWA-2021-Biosolids-Trends-Survey-Report.pdf">https://bacwa.org/wp-content/uploads/2021/12/BACWA-2021-Biosolids-Trends-Survey-Report.pdf</a></p> <p>BABC website: <a href="http://www.bayareabiosolids.com/">http://www.bayareabiosolids.com/</a></p> <p>CASA White Paper on SB 1383 Implementation: <a href="https://bacwa.org/document/summary-of-sb-1383-and-its-implementation-casa-2020/">https://bacwa.org/document/summary-of-sb-1383-and-its-implementation-casa-2020/</a></p> <p>CalRecycle website for California Short-Lived Climate Pollutant Reduction Strategy <a href="https://www.calrecycle.ca.gov/organics/slcp">https://www.calrecycle.ca.gov/organics/slcp</a></p> <p>CalRecycle Procurement FAQ (Updated per AB 1985) <a href="https://calrecycle.ca.gov/organics/slcp/faq/recycledproducts/">https://calrecycle.ca.gov/organics/slcp/faq/recycledproducts/</a></p> <p><i>Biosolids in the Baylands</i> White Paper <a href="https://bacwa.org/wp-content/uploads/2022/07/Biosolids-in-the-Baylands-White-Paper-March-2022.pdf">https://bacwa.org/wp-content/uploads/2022/07/Biosolids-in-the-Baylands-White-Paper-March-2022.pdf</a></p> <p>Viewpoint Video <a href="https://www.viewpointproject.com/ptv-segments-biosolids/">https://www.viewpointproject.com/ptv-segments-biosolids/</a></p>
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## CLIMATE CHANGE MITIGATION

<ul style="list-style-type: none"> <li>• CARB's Climate Change Scoping Plan Update lays out the approach for the State to meet its greenhouse gas (GHG) emissions reduction targets through 2030. The latest Scoping Plan was updated in 2022 targeting carbon neutrality by 2045, including policies addressing: <ul style="list-style-type: none"> <li>○ Short-lived climate pollutants</li> <li>○ Carbon sequestration on Natural and Working Lands</li> <li>○ Largest emitters (transportation, electricity, and industrial sectors)</li> </ul> </li> <li>• SB 1383 (Short-Lived Climate Pollutant Reduction) calls for: <ul style="list-style-type: none"> <li>○ 40% methane reduction by 2030</li> <li>○ 75% diversion of organic waste from landfills by January 1, 2025</li> <li>○ Policy / regulatory development encouraging production/use of biogas</li> </ul> </li> <li>• BAAQMD developed a Clean Air Plan requiring GHG emissions supporting CARB's 2050 target (80% below 1990 levels).</li> <li>• BAAQMD proposed the development of Regulation 13 (climate pollutants) targeting methane and nitrous oxide reductions related to organics diversion and management. After a pause of several years, BAAQMD may revisit Regulation 13 later in 2023.</li> <li>• CARB states POTWs are part of the solution for reducing fugitive methane and encourages diversion of organics to POTWs to use available digester capacity and produce biogas.</li> </ul>	<ul style="list-style-type: none"> <li>• CARB is pursuing rapid fleet conversion to zero-emission vehicles (ZEVs), including medium and heavy-duty vehicles, through the Advanced Clean Fleet rule. The proposed regulations will allow organizations to opt into one of two programs: <ul style="list-style-type: none"> <li>○ <b>Public Fleets:</b> With exceptions, requiring 50% of vehicles added to be ZEV by 2024, and 100% by 2027.</li> <li>○ <b>High Priority Fleet (Group 3):</b> With exceptions, requiring 10% of vehicles added to be ZEV by 2030 and 100% by 2042.</li> </ul> </li> <li>• Complete conversion will be difficult for heavy-duty specialty trucks, and will remove a potential market for biogas. CASA is engaging to request continued allowance of biogas as a sustainable transportation fuel.</li> <li>• In addition to pushing for ZEVs, CARB is proposing changes to the Low Carbon Fuel Standard that reflect increasing emphasis on hydrogen as a transportation fuel. Conversion of biogas into hydrogen is currently in research &amp; development stage.</li> <li>• Many POTWs are exploring energy generation, but BAAQMD air toxics regulations could make such programs more difficult to implement. Direct injection of biogas to PG&amp;E's pipelines or use as a transportation fuel may be more efficient.</li> <li>• In late 2022, EPA released a draft proposal for apportionment of renewable fuel credits (RINs) for food waste-based and sludge-based biogas.</li> </ul>	<ul style="list-style-type: none"> <li>• Closely follow rule development of Regulation 13 (climate pollutants), which BAAQMD plans to revisit later in 2023.</li> <li>• The Advanced Clean Fleet rule was adopted April 28, 2023 with a Board Resolution directing staff to work with CASA to implement SB 1383 and preserve multiple uses of biomethane. BACWA is supporting CASA's enhanced advocacy to CARB to preserve existing pathways that allow biogas to be used for fueling vehicles. The outreach is required so that biogas produced at treatment plants continues to have a permissible and economical end use, and so utilities have reliable power for heavy-duty vehicles.</li> <li>• Look for ways to inform BAAQMD on opportunities and challenges for climate change mitigation by Bay Area POTWs, including education about anaerobic digesters and POTW operations.</li> <li>• Work with PG&amp;E and BAAQMD to explore options for POTWs to inject biogas into PG&amp;E pipelines. In February 2022, the CPUC approved a mandatory biomethane procurement program for CA's four large gas IOUs (including PG&amp;E) under SB 1440. CASA has been discussing the barriers to pipeline injection with CPUC and CalOSHA staff.</li> </ul>	<p>Climate Change Scoping Plan, including 2022 Update:  <a href="https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan">https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan</a></p> <p>CARB Low Carbon Fuel Standard:  <a href="https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard">https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard</a></p> <p>CARB Advanced Clean Fleet Rule:  <a href="https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets">https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets</a></p> <p>SB 1383:  <a href="https://www.calrecycle.ca.gov/organics/slcp">https://www.calrecycle.ca.gov/organics/slcp</a></p> <p>BAAQMD Clean Air Plan:  <a href="http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans">http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans</a></p> <p>BAAQMD Regulation 13  <a href="http://www.baaqmd.gov/rules-and-compliance/rules/regulation-13-climate-pollutants">http://www.baaqmd.gov/rules-and-compliance/rules/regulation-13-climate-pollutants</a></p> <p>EPA Renewable Fuel Standards  <a href="https://www.epa.gov/renewable-fuel-standard-program/proposed-renewable-fuel-standards-2023-2024-and-2025">https://www.epa.gov/renewable-fuel-standard-program/proposed-renewable-fuel-standards-2023-2024-and-2025</a></p>
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Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>CLIMATE CHANGE ADAPTATION</b>			
<ul style="list-style-type: none"> <li>Climate change and water resilience are a strategic priority of both the State Water Board and Regional Water Board.</li> <li>In April 2019, Governor Newsom signed Executive Order N-10-19 directing State Agencies to recommend a suite of priorities and actions to build a climate-resilient water system and ensure healthy waterways through the 21st century.</li> <li>Bay Area coordination occurs through Bay Adapt, the Bay Area Climate Adaptation Network (BayCAN), and other venues. BACWA has signed a letter of support for the Bay Adapt Joint Platform.</li> <li>In April 2022, the State released a Climate Adaptation Strategy, including an updated climate change assessment for the Bay Area region.</li> <li>The California Coastal Commission's November 2021 <i>Sea Level Rise Planning Guidance</i> recommends that agencies "understand and plan" for 2.7 feet of sea level rise by 2050.</li> <li>The Regional Water Board is modifying the Basin Plan to address climate change and wetland policy. The changes will occur through multiple Basin Plan amendments.</li> </ul>	<ul style="list-style-type: none"> <li>In 2022, the Regional Water Board adopted a Climate Change Basin Plan amendment addressing dredge and fill procedures near the region's shorelines, especially for climate adaptation projects.</li> <li>Separately from the Basin Plan amendment, the NDPES division has released information regarding NPDES permitting of nature-based solutions.</li> <li>Shallow groundwater response to Sea Level Rise is a concern in low-lying Bay Area communities. Information about current and future depth-to-groundwater maps is summarized in a January 2023 report now available from Pathways Climate Institute and SFEI.</li> <li>In 2023, the Bay Conservation and Development Commission (BCDC) plans to develop "Regional Shoreline Adaptation Guidance" and standards for the Bay Area.</li> </ul>	<ul style="list-style-type: none"> <li>Follow up with members regarding sea level rise planning, as discussed at a member agency roundtable in August 2022. Prepare for engagement with the Regional Water Board on expectations for sea level rise planning</li> <li>Work with members to identify a suitable way to track sea level rise adaptation plans, per the request of Regional Water Board staff.</li> <li>Engage with BCDC during the agency's development of Regional Shoreline Adaptation Plan guidance, which will likely impact most BACWA member agencies. BACWA is participating in an advisory group for the Regional Shoreline Adaptation Plan.</li> <li>Continue to work with Regional Water Board and other resource agencies to look for regulatory solutions to encourage wetlands projects for shoreline resiliency.</li> </ul>	<p>California Coastal Commission's <i>Critical Infrastructure at Risk</i>  <a href="https://documents.coastal.ca.gov/assets/slr/SLR%20Guidance_Critical%20Infrastructure_12.6.2021.pdf">https://documents.coastal.ca.gov/assets/slr/SLR%20Guidance_Critical%20Infrastructure_12.6.2021.pdf</a></p> <p>OPC Sea Level Rise Action Plan – August 2022  <a href="https://www.opc.ca.gov/webmaster/media_library/2022/08/SLR-Action-Plan-2022-508.pdf">https://www.opc.ca.gov/webmaster/media_library/2022/08/SLR-Action-Plan-2022-508.pdf</a></p> <p>Climate Change Basin Plan Amendment  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2022/July/7_ssr.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2022/July/7_ssr.pdf</a></p> <p>California Climate Adaptation Strategy  <a href="https://climateresilience.ca.gov">https://climateresilience.ca.gov</a></p> <p>BayCAN Funding Tracker  <a href="https://www.baycanadapt.org/">https://www.baycanadapt.org/</a></p> <p>Bay Adapt Joint Platform  <a href="https://www.bayadapt.org/">https://www.bayadapt.org/</a></p> <p>NPDES Permitting for Nature-Based Solutions  <a href="https://bacwa.org/wp-content/uploads/2022/08/NPD-ES-Permitting-for-Nature-Based-Solutions-5.pdf">https://bacwa.org/wp-content/uploads/2022/08/NPD-ES-Permitting-for-Nature-Based-Solutions-5.pdf</a></p> <p>2023 Report on Shallow Groundwater Response  <a href="https://www.sfei.org/projects/shallow-groundwater-response-sea-level-rise">https://www.sfei.org/projects/shallow-groundwater-response-sea-level-rise</a></p>

## TOXIC AIR CONTAMINANTS

<ul style="list-style-type: none"> <li>• Regulation 11, Rule 18 (Rule 11-18), adopted in 2017, is BAAQMD's local effort to protect public health from toxic air pollution from existing facilities, including POTWs.</li> <li>• Per the Rule, BAAQMD will conduct site-specific Health Risk Screening Analyses (HRSAs) and determine each facility's prioritization score (PS). BAAQMD will conduct Health Risk Assessments (HRAs) for all facilities with a cancer PS&gt;10 or non-cancer PS&gt;1.0. After verifying the model inputs, if the facility still has PS above that threshold, that facility would need to develop and implement a Risk Reduction Plan that may include employing Best Available Retrofit Control Technology for Toxics (TBARCT).</li> <li>• AB 617 (Community Air Protection Program) – requires CARB to harmonize community air monitoring, reporting, &amp; local emissions reduction programs for air toxics and GHGs). POTWs within communities already impacted by air pollution may have to accelerate implementation of risk reduction measures.</li> <li>• AB 2588 (Air Toxics “Hot Spots” Program) - Establishes a statewide program for the inventory of air toxics emissions from individual facilities, as well as requirements for risk assessment and public notification of potential health risks. 2020 updates expanded compound list from &gt;500 to &gt;1,700.</li> </ul>	<ul style="list-style-type: none"> <li>• BACWA developed a White Paper on BAAQMD Rule 11-18 to describe its potential impacts on the POTW community.</li> <li>• In response to planning and budgeting challenges identified by the AIR Committee, BAAQMD moved all POTWs to Phase 2 to give sufficient time to update the model's inputs, and plan for emissions reduction or TBARCT, as needed.</li> <li>• AIR Committee gathered data on proximity factors from each facility and submitted to BAAQMD for updating prioritization scores, which will be use in HRA development.</li> <li>• In the <i>Final Statement of Reasons</i> for rulemaking on AB 617 and AB 2588, CARB provided the wastewater sector time to develop a short-list of relevant compounds and perform a pooled emissions estimating effort to update outdated default emission factors (through 2028).</li> <li>• In December 2021, BAAQMD amended Rule 2-5 to reduce allowable levels of toxic air contaminants in new source permitting. In March 2022, BAAQMD and BACWA convened a working group to address concerns related to toxic air contaminants and rule-making, which is meeting quarterly. BACWA is coordinating with BAAQMD about implementation of the two-step process and its timing relative to BAAQMD Rule 11-18 and 2-5.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue participating in the BAAQMD working group to discuss toxic air contaminants, rule development, and related air quality regulatory issues.</li> <li>• <b>Report “business as usual” for air toxics through 2028 (for year 2027 data).</b> If BAAQMD requests additional monitoring of air toxics, member agencies should refer to the one-page handout on this topic prepared by CASA. The wastewater sector has until 2028 to perform a statewide “two-step process” to determine a shortlist of compounds relevant to the wastewater sector to report.</li> <li>• Continue to Participate in CASA Subgroup meetings to plan the "two-step process" study.</li> <li>• <b>For budget planning purposes, BACWA members with permitted capacity &gt; 5 MGD should expect the study to cost approximately \$2,300 per MGD of permitted average dry weather flow.</b> Study costs will be refined and spread over four fiscal years. BACWA will assist CASA in collecting funds for this effort from participants who are BACWA's members. BACWA members should anticipate budgeting for this process beginning in FY25.</li> </ul>	<p>BAAQMD Rule 11-18 page: <a href="https://www.baaqmd.gov/rules-and-compliance/rules/regulation-11-rule-18-reduction-of-risk-from-air-toxic-emissions-at-existing-facilities">https://www.baaqmd.gov/rules-and-compliance/rules/regulation-11-rule-18-reduction-of-risk-from-air-toxic-emissions-at-existing-facilities</a></p> <p>BAAQMD Rule 2-5 <a href="https://www.baaqmd.gov/rules-and-compliance/rules/reg-2-permits?rule_version=2021%20Amendments">https://www.baaqmd.gov/rules-and-compliance/rules/reg-2-permits?rule_version=2021%20Amendments</a></p> <p>Rule 11-18 Process Flowchart: <a href="https://bacwa.org/document/baaqmd-11-18-process-flowchart-08-17-17/">https://bacwa.org/document/baaqmd-11-18-process-flowchart-08-17-17/</a></p> <p>CARB page on AB 617 and AB 2588: <a href="https://ww2.arb.ca.gov/our-work/programs/criteria-and-toxics-reporting">https://ww2.arb.ca.gov/our-work/programs/criteria-and-toxics-reporting</a> <i>Final Statement of Reasons</i> <a href="https://ww3.arb.ca.gov/board/15day/ctr/fsor.pdf">https://ww3.arb.ca.gov/board/15day/ctr/fsor.pdf</a></p> <p>CASA One-Page Handout on Air Toxics Reporting <a href="https://bacwa.org/wp-content/uploads/2022/03/CTR-EICG_CASAOnePageIssue-Approach_March2022.pdf">https://bacwa.org/wp-content/uploads/2022/03/CTR-EICG_CASAOnePageIssue-Approach_March2022.pdf</a></p> <p>Timing of Rule 11-18 vs. Process for AB 617 <a href="https://bacwa.org/document/baaqmd-rule-11-18-vs-carb-two-step-process-for-ab-617-feb-2023/">https://bacwa.org/document/baaqmd-rule-11-18-vs-carb-two-step-process-for-ab-617-feb-2023/</a></p>
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Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>RECYCLED WATER</b>			
<ul style="list-style-type: none"> <li>Approximately 10 percent of the municipal wastewater of Region 2 POTWs is currently recycled. Expansion of recycled water projects is a goal of many BACWA members, but implementation is slowed by high costs, regulatory uncertainty, and administrative requirements.</li> <li>As of 2018, the State Water Board has adopted uniform water recycling criteria for two types of Indirect Potable Reuse: surface water augmentation and groundwater augmentation.</li> <li>As of 2020, virtually all recycled water in Region 2 was produced at centralized facilities using municipal wastewater, and was treated to meet standards for non-potable reuse.</li> <li>The State Water Board is developing regulations for Direct Potable Reuse. Regulations for raw water augmentation must be adopted by December 31, 2023. The State Water Board is pursuing a regulatory path that also includes treated water augmentation. The State Water Board will issue draft regulations for Direct Potable Reuse in spring 2023.</li> </ul>	<ul style="list-style-type: none"> <li>Beginning in 2020, all agencies have been required to report monthly wastewater and recycled water volumes into the State’s Geotracker database. The 2023 survey included new questions about future plans for increased recycled water production.</li> <li>The State Water Board is currently developing standards for onsite treatment and reuse of non-potable water in multi-family, mixed use, and commercial buildings. Draft regulatory concepts for onsite non-potable reuse were released in August 2022. The State Water Board is expected to begin rulemaking for onsite non-potable recycled water by late spring and complete the regulations by the end of 2023.</li> <li>BACWA is currently completing a Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling, as required by the 2<sup>nd</sup> Nutrient Watershed Permit.</li> <li>The State Water Board is launching a “Strike Team” to assess how California will meet new recycled water goals listed in California’s Water Supply Strategy (August 2022). The new goals call for 800,000 acre-feet per year of recycled water by 2030 and 1.8 million acre-feet per year by 2040. The Strike Team will also document challenges to meeting these goals, including but not limited to funding.</li> </ul>	<ul style="list-style-type: none"> <li><b>This spring, BACWA members should plan to sign off on individual facility reports and review the draft overall report for the Regional Evaluation of Potential Nutrient Discharge Reduction.</b> The consultant team has completed most individual reports, and will produce the overall draft report by May 2023. The overall report, including individual facility reports, must be submitted by July 1, 2023.</li> <li>Review draft regulations for Direct Potable Reuse and Onsite Non-potable Reuse and work through Recycled Water committee to develop comments, as needed.</li> <li>Track California legislation with potential impacts on recycled water funding, mandates, or regulations.</li> </ul>	<p>Water Boards Recycled Water Policy and Regulations  <a href="https://www.waterboards.ca.gov/water_issues/programs/recycled_water/">https://www.waterboards.ca.gov/water_issues/programs/recycled_water/</a></p> <p>Direct Potable Reuse framework documents  <a href="https://www.waterboards.ca.gov/drinking_water/certlic/drinkinwater/direct_potable_reuse.html">https://www.waterboards.ca.gov/drinking_water/certlic/drinkinwater/direct_potable_reuse.html</a></p> <p>Volumetric Annual Reporting Data:  <a href="https://www.waterboards.ca.gov/water_issues/programs/recycled_water/volumetric_annual_reporting.html">https://www.waterboards.ca.gov/water_issues/programs/recycled_water/volumetric_annual_reporting.html</a></p> <p>Special Studies of Recycled Water and Nature-Based Systems:  <a href="https://bacwa.org/document-category/2nd-watershed-permit-studies/">https://bacwa.org/document-category/2nd-watershed-permit-studies/</a></p> <p>California’s Water Supply Strategy (August 2022)  <a href="https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf">https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf</a></p>

Previously covered issues with no updates can be found in previous [BACWA issues summaries](#).

**ACRONYMS**

ADC Alternate Daily Cover  
BAAQMD Bay Area Air Quality Management District  
BACT Best Available Control Technology  
BCDC Bay Conservation and Development Commission  
BTU/SCF British thermal units per standard cubic foot  
CalDPR California Department of Pesticide Registration  
CARB California Air Resources Board  
CASA California Association of Sanitation Agencies  
CAP Criteria Air Pollutant  
CEC Compound of Emerging Concern  
CIWQS California Integrated Water Quality System  
CVCWA Central Valley Clean Water Agencies  
CWEA California Water Environment Association  
DDW Division of Drinking Water, State Water Resources Control Board  
EC25/IC25 25% Effect Concentration/25% Inhibition Concentration  
ELAP Environmental Laboratory Accreditation Program  
ELTAC Environmental Laboratory Technical Advisory Committee  
EPA United States Environmental Protection Agency  
FIFRA Federal Insecticide, Fungicide, and Rodenticide Act  
FY Fiscal Year  
GHG Greenhouse Gas  
HRSA Health Risk Screening Analyses  
HRA Health Risk Assessment  
MCL Minimum Contaminant Level (Drinking Water)  
MGD Million Gallons per Day  
NACWA National Association of Clean Water Agencies  
NELAC National Environmental Laboratory Accreditation Conference  
NMS Nutrient Management Strategy  
OEHHA Office of Environmental Health Hazard Assessment  
OPC Ocean Protection Council

PCB Polychlorinated Biphenyl  
PFAS Per- and Polyfluoroalkyl Substances  
PFBS Perfluorobutane Sulfonic Acid  
PFHxS Perfluorohexane Sulfonic Acid  
PFOA Perfluorooctanoic Acid  
PFOS Perfluorooctane Sulfonic Acid  
POTW Publicly Owned Treatment Works  
PS Prioritization Score  
RMP Regional Monitoring Program  
RPA Reasonable Potential Analysis  
SCAP Southern California Alliance of POTWs  
SF Bay San Francisco Bay  
SFEI San Francisco Estuary Institute  
SSMP Sewer System Management Plan  
TMDL Total Maximum Daily Load  
TIN Total Inorganic Nitrogen  
TNI The NELAC Institute  
TST Test of Significant Toxicity  
WQBEL Water Quality Based Effluent Limitation  
WQO Water Quality Objective  
ZEV Zero-Emission Vehicle