



**BOARD MEETING AGENDA**  
**Monday, January 8, 2018**  
**Regular Meeting - 7:00 P.M.**

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

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

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

Karen W. Murphy  
*Attorney*

1. Call to Order.

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2. Pledge of Allegiance.

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3. Roll Call.

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- Motion 4. Approve Minutes of the Special Meeting of December 12, 2017.

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- Motion 5. Approve Minutes of the Special Meeting of December 18, 2017.

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- Information 6. November 2017 Monthly Operations Report *(to be reviewed by the Budget & Finance and Legal/Community Affairs Committee)*.

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7. Written Communications.

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8. Oral Communications.  
*The public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District office at least one working day prior to the meeting). This portion of the agenda is where a member of the public may address and ask questions of the Board relating to any matter within the Board's jurisdiction that is not on the agenda. If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. Oral comments are limited to three minutes per individuals, with a maximum of 30 minutes per subject. Speaker's cards will be available in the Boardroom and are to be completed prior to discussion.*

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- Motion 9. Consider a Resolution to Approve Revised Policy No. 2760, Standardized Equipment *(to be reviewed by the Engineering and Information Technology Committee)*.

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- Motion 10. Consider Approval of Updated Policy No. 2080, Project Expenditures *(to be reviewed by the Engineering and Information Technology Committee)*.

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- Motion 11. Consider a Resolution to Accept the Construction of the Thickener Control Building Improvements Project from GSE Construction Company, Inc. and Authorize Recordation of a Notice of Completion *(to be reviewed by the Engineering and Information Technology Committee)*.

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- Motion 12. Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Carollo Engineers for the Plant Asset Condition Assessment Update Study *(to be reviewed by the Engineering and Information Technology Committee)*.

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- Information 13. Check Register.

Information

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14. Committee Meeting Reports. *(No Board action is taken at Committee meetings):*
- a. Engineering and Information Technology Committee – Thursday, January 4, 2018, at 9:15 a.m.
    - Director Fernandez and Director Kite
  - b. Legal/Community Affairs Committee – Thursday, January 4, 2018, at 1:30 p.m.
    - Director Handley and Director Lathi
  - c. Budget & Finance Committee – Friday, January 5, 2018, at 11:00 a.m.
    - Director Handley and Director Kite
  - d. Audit Committee – will not meet.
  - e. Legislative Committee – will not meet.
  - f. Personnel Committee – will not meet.
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Information

15. General Manager’s Report. *(Information on recent issues of interest to the Board).*
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16. Other Business:
- a. Comments and questions. *Directors can share information relating to District business and are welcome to request information from staff.*
  - b. Scheduling matters for future consideration.
- 
17. Adjournment – The Board will adjourn to the next Special Meeting in the Boardroom on Monday, January 22, 2018, at 7:00 p.m.
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<p>The Public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District at least one working day prior to the meeting).</p> <p>If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. If the subject is within the Board’s jurisdiction but not on the agenda, the speaker will be heard at the time “Oral Communications” is calendared. Oral comments are limited to three minutes per individual, with a maximum of 30 minutes per subject. Speaker’s cards will be available in the Boardroom and are to be completed prior to discussion of the agenda item.</p>
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The facilities at the District Offices are wheelchair accessible. Any attendee requiring special accommodations at the meeting should contact the General Manager’s office at (510) 477-7503 at least 24 hours in advance of the meeting. THE PUBLIC IS INVITED TO ATTEND



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

**ENGINEERING & INFORMATION TECHNOLOGY  
COMMITTEE MEETING**  
Committee Members: Director Fernandez and Director Kite

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

**AGENDA**  
**Thursday, January 4, 2018**  
**9:15 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.**

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 January 8, 2018:
  - Consider a Resolution to Approve Revised Policy No. 2760, Standardized Equipment
  - Consider Approval of Updated Policy No. 2080, Project Expenditures
  - Consider a Resolution to Accept the Construction of the Thickeners Control Building Improvements Project from GSE Construction Company, Inc. and Authorize Recordation of a Notice of Completion
  - Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Carollo Engineers for the Plant Asset Condition Assessment Update Study

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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 Public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District at least one working day prior to the meeting). If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. If the subject is within the Board's jurisdiction but not on the agenda, the speaker will be heard at the time "Public Comment" is calendared. Oral comments are limited to three minutes per individual, with a maximum of 30 minutes per subject. Speaker's cards will be available and are to be completed prior to discussion of the agenda item.

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THE PUBLIC IS INVITED TO ATTEND



**LEGAL/COMMUNITY AFFAIRS COMMITTEE MEETING**  
Committee Members: Director Fernandez and Director Lathi

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

**AGENDA**  
**Thursday, January 4, 2018**  
**1:30 p.m.**

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

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

Karen W. Murphy  
*Attorney*

1. Call to Order

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2. Roll Call

---
3. Public Comment

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4. Items to be reviewed for the Regular Board meeting of January 8, 2018:
  - November 2017 Monthly Operations Report – Odor Report and Work Group Reports

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5. Adjournment

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

The Public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District at least one working day prior to the meeting).

If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. If the subject is within the Board's jurisdiction but not on the agenda, the speaker will be heard at the time "Public Comment" is calendared. Oral comments are limited to three minutes per individual, with a maximum of 30 minutes per subject. Speaker's cards will be available and are to be completed prior to discussion of the agenda item.

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THE PUBLIC IS INVITED TO ATTEND

# REVISED



## BUDGET & FINANCE COMMITTEE MEETING

Committee Members: Director Handley and ~~Director Toy~~  
Director Kite

### Directors

Manny Fernandez  
Tom Handley  
Pat Kite  
Anjali Lathi  
Jennifer Toy

### AGENDA

Friday, January 5, 2018  
11:00 a.m.

Alvarado Conference Room  
5072 Benson Road  
Union City, CA 94587

### Officers

Paul R. Eldredge  
*General Manager/  
District Engineer*

Karen W. Murphy  
*Attorney*

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 January 8, 2018:

- November 2017 Monthly Operations Report – Financial Reports

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5. Adjournment

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

The Public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District at least one working day prior to the meeting).

If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. If the subject is within the Board's jurisdiction but not on the agenda, the speaker will be heard at the time "Public Comment" is calendared. Oral comments are limited to three minutes per individual, with a maximum of 30 minutes per subject. Speaker's cards will be available and are to be completed prior to discussion of the agenda item.

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.

THE PUBLIC IS INVITED TO ATTEND

**MINUTES OF THE SPECIAL MEETING OF THE  
BOARD OF DIRECTORS OF  
UNION SANITARY DISTRICT  
December 12, 2017**

**CALL TO ORDER**

President Kite called the special meeting to order at 5:40 p.m.

**ROLL CALL**

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

STAFF: Paul Eldredge, General Manager  
Leah Castella, Special Counsel

**ORAL COMMUNICATIONS**

There were no oral communications.

**CLOSED SESSION**

The Board adjourned to Closed Session for the following matters:

**CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION**

Initiation of litigation pursuant to paragraph (4) of subdivision (d) of Section 54956.9: One potential case

The Board reconvened to Open Session. President Kite reported there was no reportable action.

**ADJOURNMENT:**

The special meeting was adjourned at approximately 6:15 p.m. to the next Special Board Meeting in the Boardroom on Monday, December 18, 2017, at 7:00 p.m.

SUBMITTED:

ATTEST:

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REGINA McEVOY  
BOARD CLERK

\_\_\_\_\_  
MANNY FERNANDEZ  
SECRETARY

APPROVED:

\_\_\_\_\_  
PAT KITE  
PRESIDENT

Adopted this 8<sup>th</sup> day of January, 2018

**MINUTES OF THE SPECIAL MEETING OF THE  
BOARD OF DIRECTORS OF  
UNION SANITARY DISTRICT  
December 18, 2017**

**CALL TO ORDER**

President Kite called the meeting to order at 7:00 p.m.

**PLEDGE OF ALLEGIANCE**

**ROLL CALL**

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

ABSENT: Tom Handley, Director

STAFF: Paul Eldredge, General Manager  
Karen Murphy, District Counsel  
James Schofield, Collection Services Manager  
Armando Lopez, Treatment and Disposal Services Manager  
Sami Ghossain, Technical Services Manager  
Robert Simonich, Fabrication, Maintenance, and Construction Manager  
Laurie Brenner, Business Services Team Coach  
Michelle Powell, Communications and Intergovernmental Relations Coordinator  
Regina McEvoy, Executive Assistant to the General Manager/Board Clerk

VISITORS: Alice Johnson, League of Women Voters  
Roelle Balan, Tri-City Voice Newspaper  
Grace Chow, Brown and Caldwell Vice President  
Mallika Ramanathan, Brown and Caldwell Managing Engineer

**APPROVAL OF THE MINUTES OF THE SPECIAL MEETING OF DECEMBER 4, 2017**

It was moved by Secretary Fernandez, seconded by Vice President Lathi, to approve the Minutes of the Special Meeting of December 4, 2017. Motion carried with the following vote:

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

## **BALANCED SCORECARD**

This item was reviewed by the Legal/Community Affairs Committee.

- a. First Quarter Fiscal Year 18 District-wide Balanced Scorecard Measures
  - Business Services Coach Brenner presented the report that summarized the District's progress toward strategic objectives for the first quarter of fiscal year 2017-18, which ran from July 1 through September 30, 2017.
- b. Collection Services Work Group Process Scorecard
  - Collection Services Work Group Manager Schofield presented the Collection Services Process Scorecard.

## **WRITTEN COMMUNICATIONS**

There were no written communications.

## **ORAL COMMUNICATIONS**

There were no oral communications.

## **AUTHORIZE THE GENERAL MANAGER TO EXECUTE TASK ORDER NO. 2 WITH BROWN AND CALDWELL FOR THE PRIMARY DIGESTER NO. 7 PROJECT**

This item was reviewed by the Engineering and Information Technology Committee. Technical Services Manager Ghossain stated the Board authorized execution of an Agreement and Task Order No. 1 with Brown and Caldwell for predesign services on November 14, 2016. The Preliminary Design Report that summarized findings and recommendations was submitted October 9, 2017. Based on the results of the Report, staff identified major scope items to be included in the Project's final design including construction of Primary Digester No. 7. Staff anticipate Brown and Caldwell will complete design of the Project by July 2018, and estimate the Project will be bid in September 2018 with construction to begin November 2018. Staff recommended the Board authorize the General Manager to execute Task Order No. 2 with Brown and Caldwell in the amount of \$1,476,301 for providing final design services for the Primary Digester No. 7 Project.

It was moved by Secretary Fernandez, seconded by Director Toy, to Authorize the General Manager to Execute Task Order No. 2 with Brown and Caldwell in the amount of \$1,476,301 for Providing Final Design Services for the Primary Digester No. 7 Project. Motion carried with the following vote:

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

## **REVIEW AND APPROVE PUBLICLY AVAILABLE PAY SCHEDULE**

This item was reviewed by the Personnel Committee. General Manager Eldredge stated the Publicly Available Pay Schedule, revised September 1, 2017, reflects the General Manager's new salary. Staff recommended the Board review and approve the Publicly Available Pay Schedule revised September 1, 2017.

It was moved by Vice President Lathi, seconded by Director Toy, to Approve the Publicly Available Pay Schedule Revised September 1, 2017. Motion carried with the following vote:

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

## **RECEIVE CENTENNIAL OPEN HOUSE PLANNING UPDATE AND PROVIDE DIRECTION**

Executive Assistant to the General Manager/Board Clerk McEvoy provided an overview of Centennial Open House planning efforts outlined in the Board packet. Staff requested the Board consider options for involvement during the event, and provide direction.

The Board directed staff to plan for a Board of Directors table at the Centennial Open House.

### **INFORMATION ITEMS:**

#### **Legislative Update on Regional, State, and National Issues of Interest to the Board**

This item was reviewed by the Legislative Committee. General Manager Eldredge stated the Board last received a legislative update at its meeting held May 8, 2017. General Manager Eldredge provided an overview of the legislative update report included in the Board meeting packet.

#### **California Association of Sanitation Agencies (CASA) 2017 Annual Conference**

General Manager Eldredge provided an overview of the sessions he attended at the CASA 2017 Annual Conference.

#### **Consultant Shortlists for Capital Improvement Projects**

This item was reviewed by the Engineering and Information Technology Committee. Technical Services Manager Ghossain stated the District utilizes consultant shortlists to assist with selection of consultants for future Capital Improvements Program projects. Consultants on the shortlists have been pre-qualified by the District, and the shortlists are reviewed and updated every three years. The shortlists were last updated December 2014.

#### **Check Register**

All questions were answered to the Board's satisfaction.

**COMMITTEE MEETING REPORTS:**

The Personnel, Engineering and Information Technology, and Legislative Committees met.

The Legal/Community Affairs Committee did not meet; staff conducted individual briefings with Boardmembers.

General Manager Eldredge asked if the Board would like to have CASA Conference updates reviewed by a Board Committee. The Board directed staff to present future CASA Conference updates for review by the Legislative Committee.

**GENERAL MANAGER'S REPORT:**

General Manager Eldredge reported the following:

- District offices will be closed December 25 and 26, 2017, as well as January 1 and 2, 2018.

**OTHER BUSINESS:**

There was no other business.

**ADJOURNMENT:**

The meeting was adjourned at 7:50 p.m. to the next Board Meeting in the Boardroom on Monday, January 8, 2018, at 7:00 p.m.

SUBMITTED:

ATTEST:

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

\_\_\_\_\_  
MANNY FERNANDEZ  
SECRETARY

APPROVED:

\_\_\_\_\_  
PAT KITE  
PRESIDENT

Adopted this 8<sup>th</sup> day of January 2018



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2018

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

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

**SUBJECT:** Agenda Item No. 6 - Meeting of January 8, 2018  
Information Item: **Monthly Operations Report for November 2017**

### **Background**

Attached are Monthly Operations Reports for November 2017. Staff is available to answer questions regarding information contained in the report.

### **Work Group Managers**

General Manager/Administration	Paul Eldredge	GM
Collection Services	James Schofield	CS
Technical Support	Sami Ghossain	TS
Treatment and Disposal Services	Armando Lopez	T&D
Fabrication, Maintenance, and Construction	Robert Simonich	FMC

### **ODOR COMPLAINTS:**

During the month of November 2017, there were two odor complaints received by the Treatment Plant. Details regarding the odor complaints are included in the November 2017 Odor Report.

### **SAFETY:**

- No injuries were reported during November.
- We had two near misses reported. Neither one had an injury or serious equipment damage. First an employee slipped and fell in the lobby on the wet floor. The second was where a contractor core drilled through a conduit and put water into an electrical panel.
- We had a State Water Board inspection of our underground tanks. A few minor corrections were made in our recordkeeping.

- Fremont Fire Department inspected Irvington and Fremont pump stations. No violations were identified.

**STAFFING & PERSONNEL:**

**Completed Recruitments Resulting in Promotions:**

- Administrative Specialist I – FMC – Rica Agbuya, effective 11/12/17
- Treatment Plant Operator Trainer – Wade Coggins (Position offered and accepted in November 2017, will transition in January 2018.)

**Other Completed Recruitments:**

- Administrative Specialist I – CIP – Danielle Lemos, date of hire 11/27/17
- Collection Services Worker I – Stuart Bullis, date of hire 11/13/17
- Lab Director – Dan Jackson, date of hire 11/13/17
- Receptionist – As Needed – Sharon Anderson, date of hire 11/28/17

**Recruitments Opened:**

- Purchasing Agent
- Receptionist
- Treatment Plant Operator Trainer

**Continuing Recruitments:**

- Certified Financial Officer
- Engineering Technician II/III
- Operational Performance Program Manager
- Plant Operator III Trainee
- Plant Operator III

**Other Accomplishments:**

Contract negotiations on-going

**G.M. ACTIVITIES:** For the month of November, the General Manager was involved in the following:

- Attended the Manager’s Roundtable meeting hosted by USD
- Attended the East Bay Dischargers Authority Managers Advisory Committee meeting
- Attended the East Bay Dischargers Authority meeting
- Attended the California Association of Sanitation Agencies (CASA) Federal Legislative Committee Planning Session

**Attachments:** Odor Report and Map  
 Hours Worked and Leave Time by Work Group  
 Business Services  
 Technical Services  
 Collection Services  
 Fabrication, Maintenance, and Construction  
 Treatment and Disposal Services



## ODOR REPORT November 2017

During the recording period from November 01, 2017 through November 30, 2017, there were a total of two odor related service requests received by the District.

### Treatment Plant (Union City)

During the recording period from November 01, 2017 through November 30, 2017, there were two odor related service requests received by the Treatment Plant.

#### 1. Complaint Details:

Date: 11/5/2017	Time: 4:41 pm
Location: MACKINAW ST	Reported By: Sam Dua
Wind (from): West	Wind Speed: 7 mph
Temperature: 56 Degrees F	Weather: Clear
Tide Information:	
High Tide Reading: 6.9 FT/Time	Low Tide Reading: -0.3 FT/Time
High Tide Time: 12:30 PM	Low Tide Time: 8:33 PM

#### Response and Follow-up:

- USD Staff dispatched to complaint location? Yes
- Was any odor detected at the complaint location? Yes
  - If yes, was odor attributed to USD? A wetland/salt pond odor was detected in the resident's neighborhood. Not related to USD.
- Were any odors detected at the Plant? No
  - If yes, what odors were found? N/A
- Additional Information: N/A

#### 2. Complaint Details:

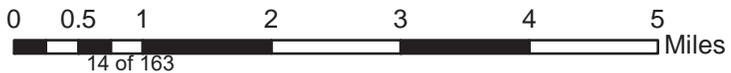
Date: 11/23/2017	Time: 12:30 pm
Location: MACKINAW ST	Reported By: Sam Dua
Wind (from): West	Wind Speed: 3 mph
Temperature: 65 Degrees F	Weather: Clear
Tide Information:	
High Tide Reading: 4.7 FT/Time	Low Tide Reading: 0.9 FT/Time
High Tide Time: 4:26:00 AM	Low Tide Time: 10:34 AM

#### Response and Follow-up:

- USD Staff dispatched to complaint location? No
- Was any odor detected at the complaint location? N/A
  - If yes, was odor attributed to USD? N/A
- Were any odors detected at the Plant? No
  - If yes, what odors were found? N/A
- Additional Information: All scrubbers were inspected and working properly.



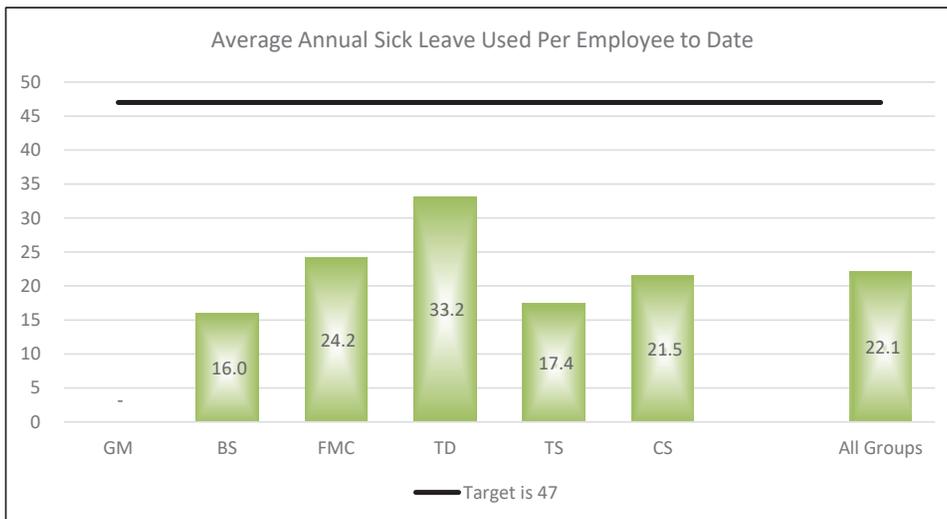
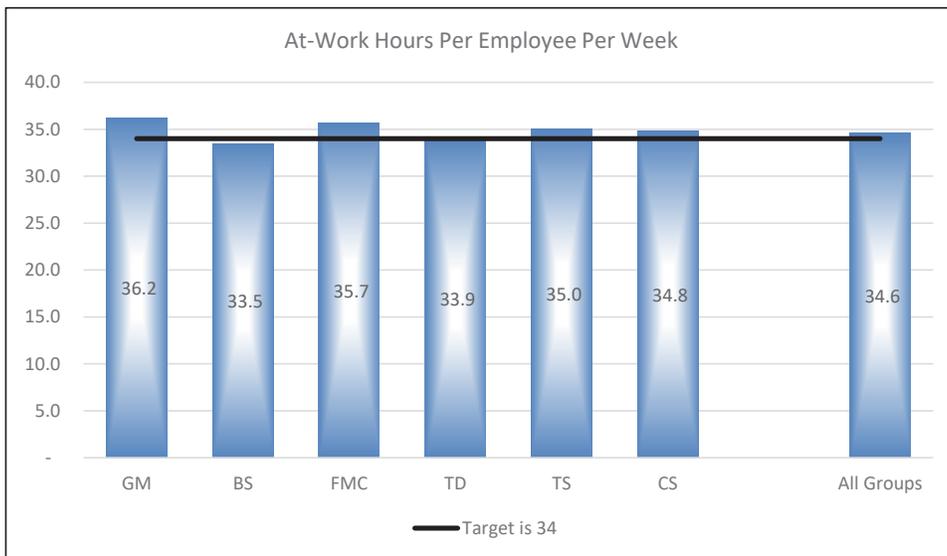
**Location of Odor Reports  
December 2016 to November 2017**



**HOURS WORKED AND LEAVE TIME BY WORK GROUP**

June 29, 2017 through November 29, 2017

Weeks to Date: 22 out of 52 (42.31%)



**NOTES**

- (1) Regular hours does not include hours worked by part-time or temporary employees.
- (2) Overtime hours includes call outs.
- (3) Discretionary Leave includes Vacation, HEC, Holiday, MAL, FLEX, Funeral, Jury Duty, Military, OT Banked Use, Paid Admin., SLIP, VRIP, Holiday Banked Use leaves.
- (4) Sick Leave includes sick and catastrophic sick leaves as well as protected time off, of which the District has no discretion.

An employee using 15 vacation, 11 holiday, 2 HEC, and 5 sick days will work an average of 34.9 hours per week over the course of a year; with 20 vacation days, 34.2 hours per week.

**HOURS WORKED AND LEAVE TIME BY WORK GROUP**

June 29, 2017 through November 29, 2017

Weeks to Date: 22 out of 52 (42.31%)

Group	Average Number of Employees	AT-WORK HOURS		At-Work Hours Per Employee Per Week	LEAVE HOURS				Average Annual Sick Leave Used Per Employee To Date	FY17		
		Regular (1)	Overtime (2)		Discretionary (3)	Short Term Disability	Workers Comp	Sick (4)		Average Number of Employees	At-Work Hours Per Week Per Employee	Annual Sick Leave Used
GM	2	1,563.00	31.50	36.2	197.00	-	-	-	0.0	2	35.7	34.6
BS	21	15,438.08	31.66	33.5	2,124.10	-	-	335.75	16.0	21	34.2	33.5
FMC	22	16,850.25	413.17	35.7	2,115.50	98.50	-	531.50	24.2	23	34.2	48.4
TD	26	18,669.33	705.60	33.9	2,713.65	707.77	-	862.25	33.2	27	34.7	39.1
TS	31	23,767.78	122.07	35.0	3,046.14	126.25	-	539.83	17.4	32	34.9	47.3
CS	30	21,951.16	1,039.58	34.8	3,700.24	5.93	-	646.07	21.5	31	34.1	77.6
<b>All Groups</b>	<b>132</b>	<b>98,239.60</b>	<b>2,343.58</b>	<b>34.6</b>	<b>13,896.63</b>	<b>938.45</b>	<b>-</b>	<b>2,915.40</b>	<b>22.1</b>	<b>136</b>	<b>35.1</b>	<b>44.5</b>

**SICK LEAVE INCENTIVE PROGRAM TARGETS**

**≥34**

**≤47**

The Sick Leave Incentive Program target goals are 47 or less hours of sick leave per employee annually, and 34 or more hours of at-work time per week per employee.

**NOTES**

(1) Regular hours does not include hours worked by part-time or temporary employees.

(2) Overtime hours includes call outs.

(3) Discretionary Leave includes Vacation, HEC, Holiday, MAL, FLEX, Funeral, Jury Duty, Military, OT Banked Use, Paid Admin., SLIP, VRIP, Holiday Banked Use leaves.

(4) Sick Leave includes sick and catastrophic sick leaves, as well as protected time off, of which the District has no discretion.

An employee using 15 vacation, 11 holiday, 2 HEC, and 5 sick days will work an average of **34.9** hours per week over the course of a year; with 20 vacation days, **34.2** hours per week.

**BUDGET AND FINANCE REPORT**

FY 2018

**Year-to-date as of 11/30/17**

41.7% of year elapsed

**Revenues**

	<b>Budget</b>	<b>Actual</b>	<b>% of Budget Rec'd</b>	<b>Audited Last Year Actuals 6/30/17</b>
Capacity Fees	\$7,910,000	\$13,641,960	172%	\$12,595,637
Sewer Service Charges	54,913,920	704,465	1%	52,384,710
Operating (Work Groups)	1,300,000	523,154	40%	1,575,480
Interest	625,000	683,641	109%	482,342
Misc. (LAVWMA pymnt, solar, Cogen rebates)	242,000	92,819	38%	561,734
<b>Subtotal Revenues</b>	<b>\$64,990,920</b>	<b>\$15,646,039</b>	<b>24%</b>	<b>\$67,599,903</b>
SRF Loan Proceeds (Thickener Proj.)	0	103,241	#DIV/0!	3,433,448
<b>Total Revenues + SRF Proceeds</b>	<b>\$64,990,920</b>	<b>\$15,749,280</b>	<b>24%</b>	<b>\$71,033,351</b>

**Expenses**

	<b>Budget</b>	<b>Actual</b>	<b>% of Budget Used</b>	<b>Last Year Actuals</b>
Capital Improvement Program:				
Capacity Proj.	\$3,420,000	\$925,114	27%	3,608,815
Renewal & Repl. Proj.	6,660,000	2,404,715	36%	10,185,023
Operating	36,816,878	13,635,561	37%	33,866,972
Special Projects	1,873,523	256,254	14%	945,496
Retiree Medical (ARC)	602,009	150,502	25%	585,832
Vehicle & Equipment	1,139,555	204,294	18%	116,986
Information Systems	600,100	101,618	17%	492,639
Plant & Pump Stat. R&R	250,000	124,978	50%	247,329
Emerg. Fund	0	0	0%	286
Pretreatment Fund	5,000	0	0%	11,611
Cty Fee for SSC Admin.	107,000	0	0%	106,643
Debt Servicing:				
SRF Loans	3,880,441	1,567,246	40%	3,127,110
<b>Total Expenses</b>	<b>\$55,354,506</b>	<b>\$19,370,282</b>	<b>35%</b>	<b>\$53,294,740</b>
<b>Total Revenue &amp; Proceeds less Expenses</b>	<b>\$9,636,414</b>	<b>(\$3,621,002)</b>		<b>\$17,738,611</b>

**Operating (Work Group) Expenses**

	<b>Budget</b>	<b>Actual</b>	<b>% of Budget Used</b>	<b>Last Year Actuals</b>
Board of Directors	\$176,093	\$53,363	30%	\$139,285
General Manager/Admin.	1,082,884	318,828	29%	786,134
Business Services	5,023,943	1,810,991	36%	5,091,870
Collection Services	6,551,768	2,394,041	37%	6,290,826
Technical Services	5,995,655	2,298,514	38%	5,840,942
Treatment & Disposal Services	11,122,285	4,343,714	39%	9,888,969
Fabrication, Maint. & Construction	6,277,170	2,254,037	36%	5,828,946
Non-Departmental	587,080	162,074	28%	
<b>Total</b>	<b>\$36,816,878</b>	<b>\$13,635,561</b>	<b>37%</b>	<b>\$33,866,972</b>

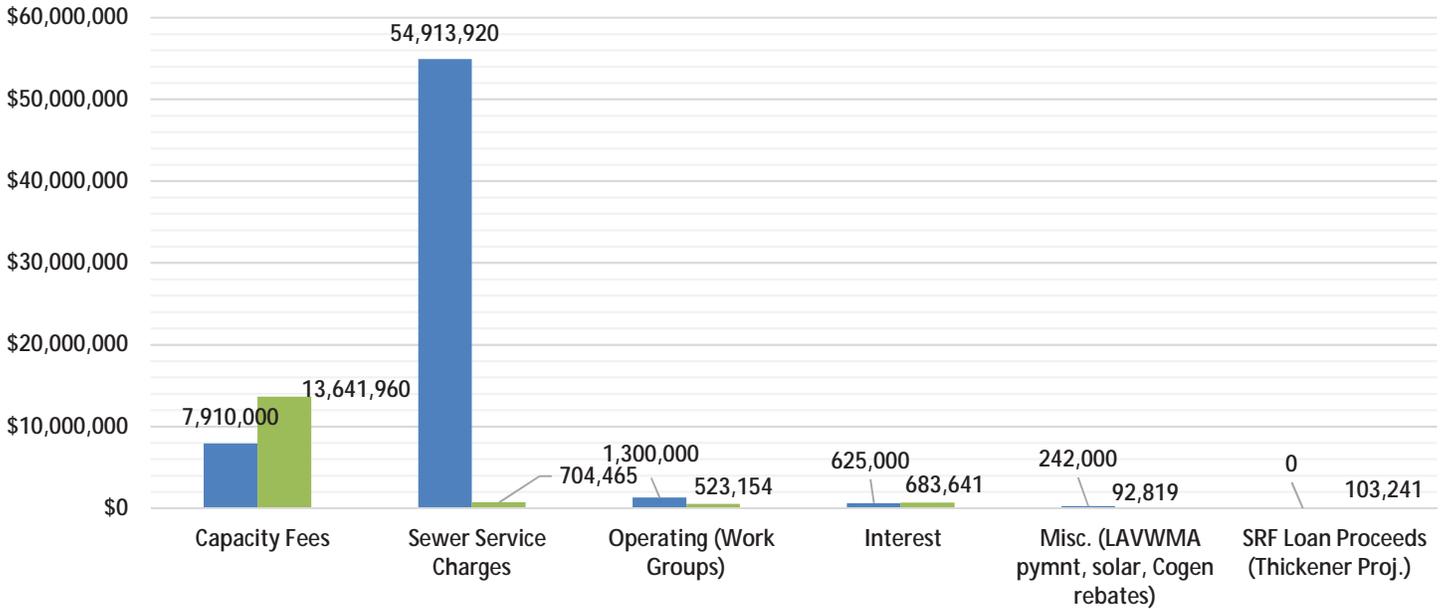
**Operating (Work Group) Expenses by Type**

	<b>Budget</b>	<b>Actual</b>	<b>% of Budget Used</b>	<b>Last Year Actuals</b>
Personnel (incl D&E)	\$25,359,529	\$9,697,550	38%	\$24,278,885
Repairs & Maintenance	2,147,050	637,867	30%	1,998,086
Supplies & Matls (chemicals, small tools)	2,622,250	888,800	34%	2,093,989
Outside Services (utilities, biosolids, legal)	6,353,189	2,399,207	38%	5,417,173
Fixed Assets	334,860	12,138	4%	78,839
<b>Total</b>	<b>\$36,816,878</b>	<b>\$13,635,561</b>	<b>37%</b>	<b>\$33,866,972</b>

**REVENUES AND EXPENSES REPORT**  
as of 11/30/17

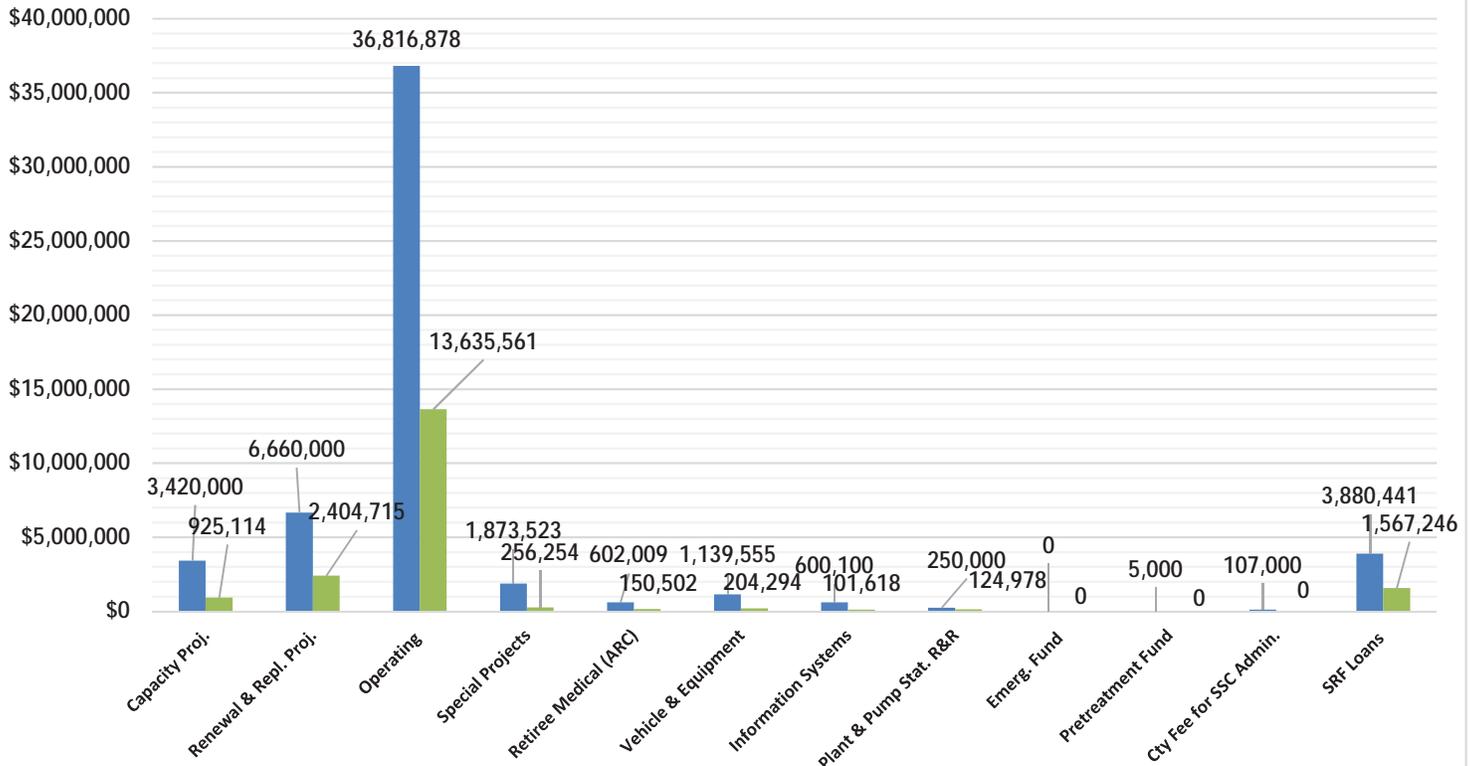
## Total Revenues

■ Budget ■ Actual



## Total Expenses

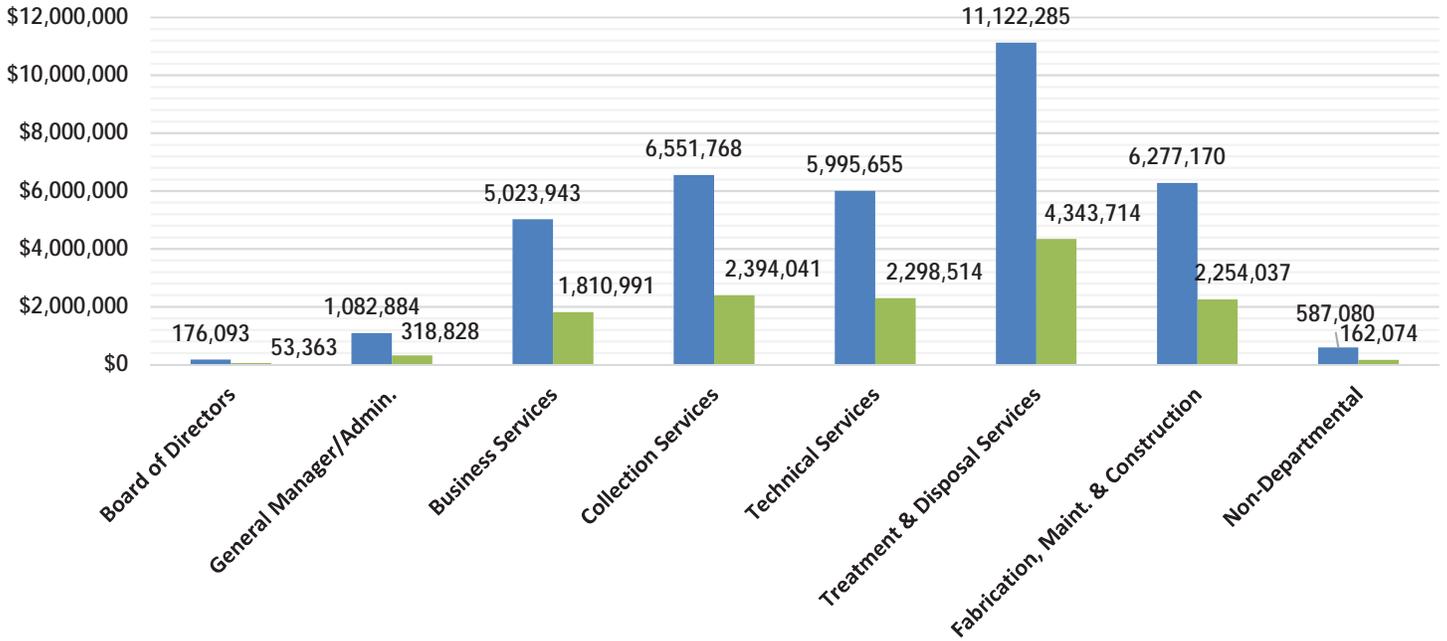
■ Budget ■ Actual



**REVENUES AND EXPENSES REPORT**  
as of 11/30/17

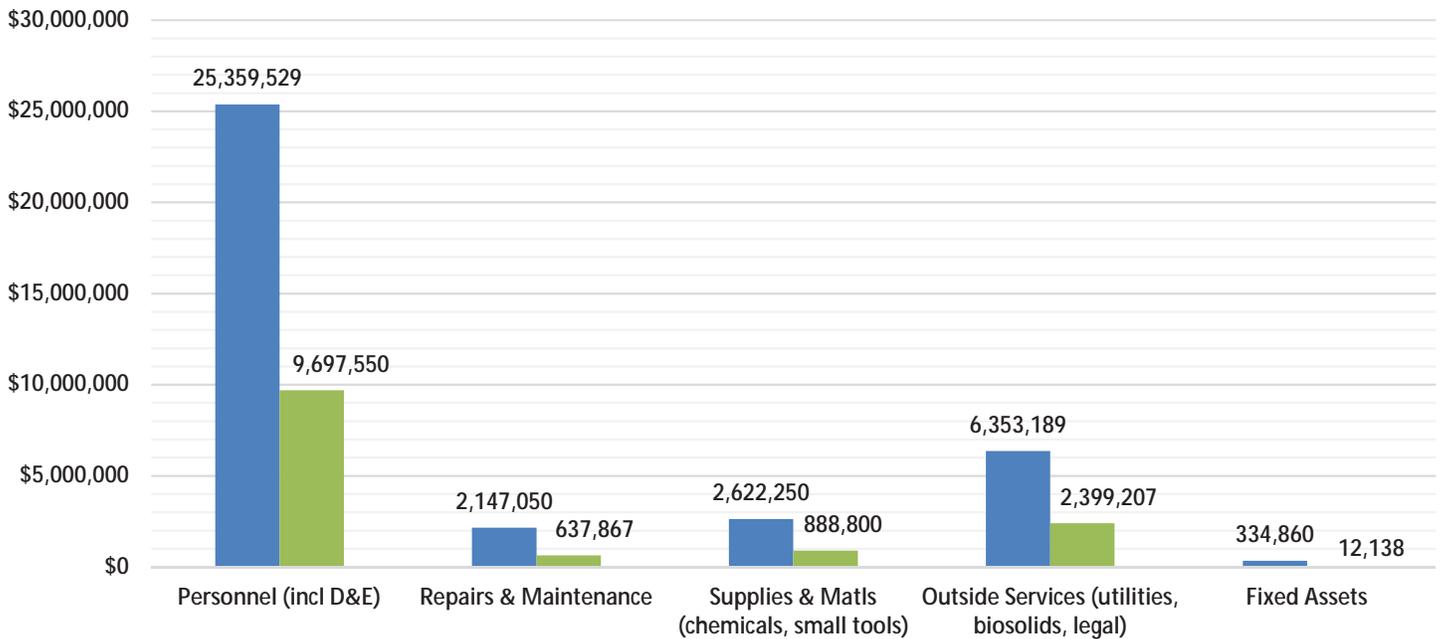
### Operating Expenses by Work Group

■ Budget ■ Actual



### Operating Expenses by Type

■ Budget ■ Actual

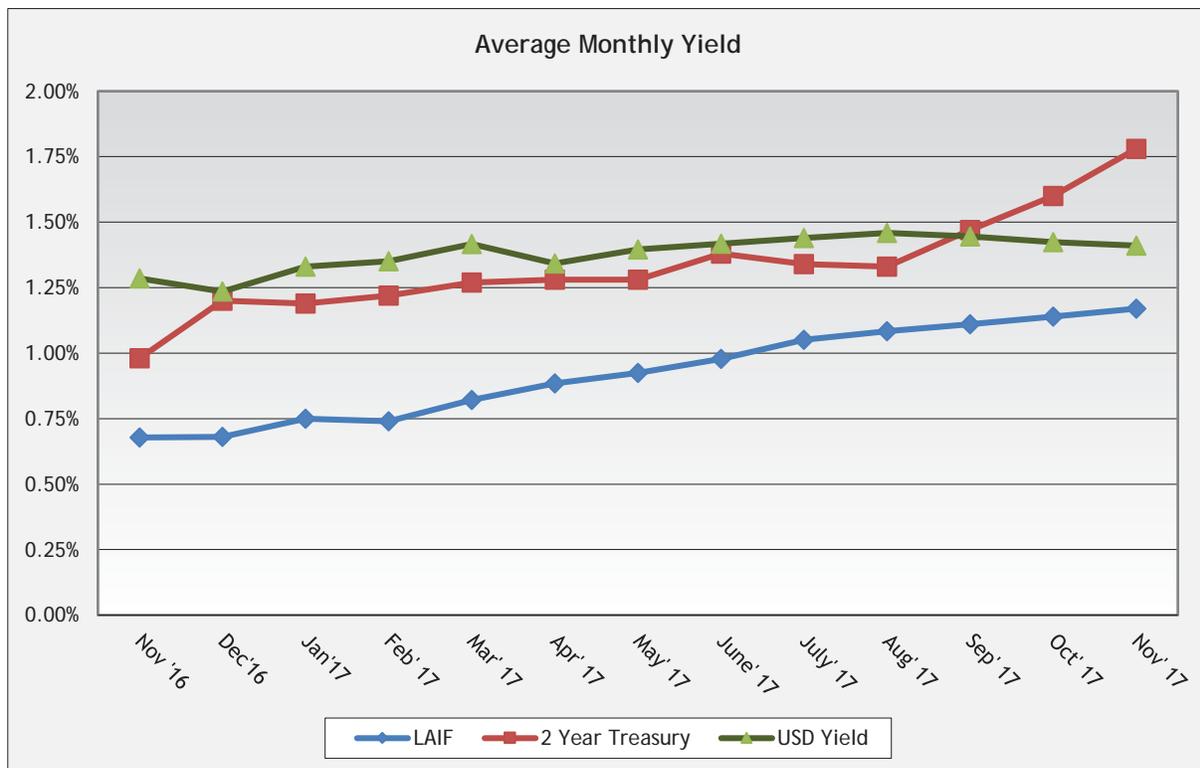


## Business Services Group November 2017

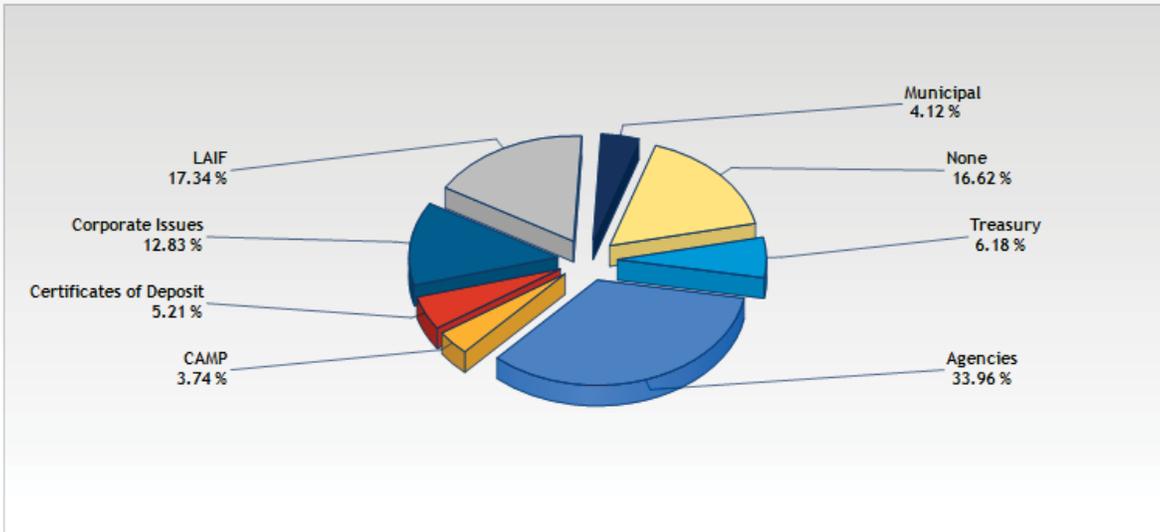
### Accomplishments:

- The recruitment for Laboratory Director was completed; Dan Jackson was hired on 11/13/2017.
- The recruitment for Collection System Worker I was completed; Stuart Bullis was hired on 11/13/2017.
- The recruitment for Administrative Specialist I for CIP completed; Danielle Lemos was hired on 11/27/2017.
- The recruitment for As-Needed Receptionist was completed; Sharon Anderson was hired on 11/28/2017.
- OPPM facilitated GIS JPA Special Meeting with ACWD, City of Fremont, City of Newark and USD representatives.
- OPPM facilitated re-chartering for CS work group MTV and Construction teams.
- OPPM delivered multiple new hire Team and Organizational Orientations.
- Buyer II worked with EHSPM to develop timeline and actions to switch Occupational Health Clinics for the District.
- Completed Certified Annual Financial Report (CAFR) on schedule

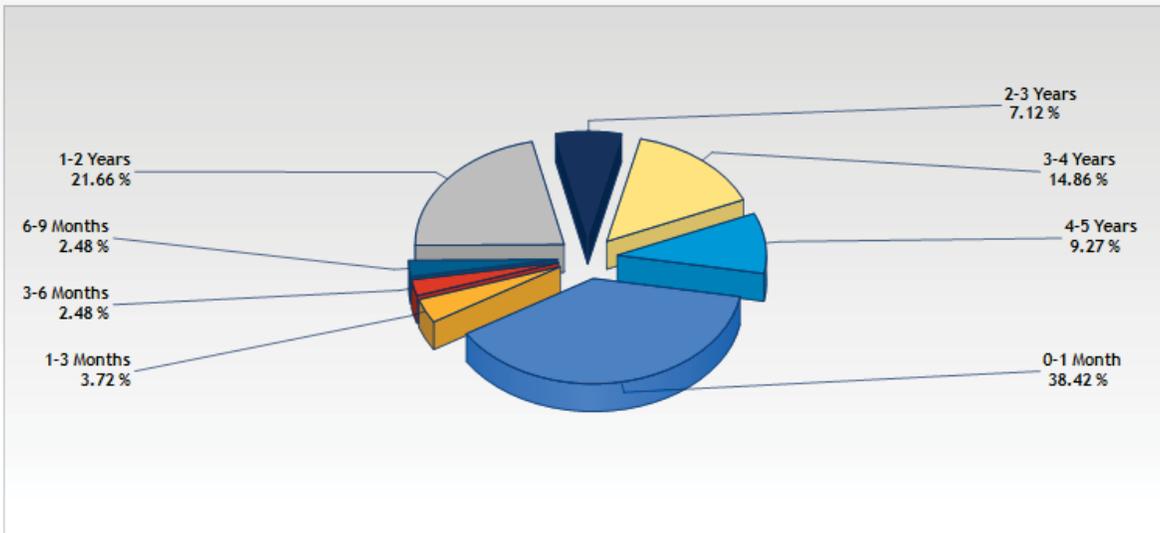
### Performance Measures for the USD Investment Portfolio



### Portfolio Holdings Distribution by Asset Class



### Portfolio Holdings Distribution by Maturity Range



Maturity Range	Face Amount/Shares	YTM @ Cost	Cost Value	Days To Maturity	% of Portfolio	Market Value	Book Value	Duration To Maturity
0-1 Month	31,018,698.04	0.948	31,018,698.04	1	38.42	31,018,645.49	31,018,698.04	0.00
1-3 Months	3,000,000.00	0.875	3,001,180.00	52	3.72	2,998,460.00	3,000,013.95	0.14
3-6 Months	2,000,000.00	1.255	1,999,070.00	127	2.48	1,996,980.00	1,999,618.19	0.35
6-9 Months	2,000,000.00	1.264	2,001,190.00	242	2.48	1,994,740.00	2,000,062.03	0.66
1-2 Years	17,484,000.00	1.373	17,501,986.57	551	21.66	17,368,374.24	17,494,471.31	1.50
2-3 Years	5,746,000.00	1.922	5,947,787.56	939	7.12	5,839,457.90	5,878,926.25	2.49
3-4 Years	11,997,000.00	2.023	11,981,150.00	1,261	14.86	11,838,431.60	11,984,812.51	3.36
4-5 Years	7,483,000.00	2.303	7,506,279.67	1,537	9.27	7,459,245.06	7,503,566.61	4.01
<b>TOTAL / AVERAGE</b>	<b>80,728,698.04</b>	<b>1.408</b>	<b>80,957,341.84</b>	<b>528</b>	<b>100</b>	<b>80,514,334.29</b>	<b>80,880,168.89</b>	<b>1.40</b>

**Union Sanitary District**  
**Board Report - Holdings**  
 Report Format: By Transaction  
 Group By: Asset Class  
 Average By: Cost Value  
**Portfolio / Report Group: All Portfolios**  
**As of 11/30/2017**

Description	CUSIP/Ticker	Credit Rating 1	Settlement Date	Face Amount/Shares	Cost Value	Coupon Rate	Market Value	YTM @ Cost	Next Call Date	Maturity Date	% of Portfolio
<b>Agencies</b>											
FFCB 0.9 1/16/2018-16	3133ECCZ5	Moody-Aaa	12/23/2016	1,000,000.00	1,000,000.00	0.900	999,540.00	0.900		1/16/2018	1.24
FFCB 1.17 5/16/2019-17	3133EF7L5	Moody-Aaa	5/16/2016	1,000,000.00	1,000,000.00	1.170	990,830.00	1.170		5/16/2019	1.24
FFCB 1.3 11/25/2019-16	3133EGBK0	Moody-Aaa	5/25/2016	1,000,000.00	997,950.00	1.300	986,640.00	1.360		11/25/2019	1.23
FFCB 1.35 6/24/2019	3133EEZ60	Moody-Aaa	5/24/2017	1,000,000.00	1,003,480.00	1.350	995,920.00	1.180		6/24/2019	1.24
FFCB 1.37 12/27/2018-17	3133EGZ24	None	12/27/2016	1,000,000.00	1,000,000.00	1.370	994,560.00	1.370	12/27/2017	12/27/2018	1.24
FFCB 1.59 3/23/2020-17	3133EFR25	Moody-Aaa	3/23/2016	1,000,000.00	1,000,000.00	1.590	989,780.00	1.590		3/23/2020	1.24
FFCB 1.7 5/3/2021-17	3133EF5T0	Moody-Aaa	5/3/2016	1,000,000.00	1,000,000.00	1.700	983,460.00	1.700		5/3/2021	1.24
FHLB 1.24 1/23/2019-18	3130AAN20	Moody-Aaa	2/2/2017	1,000,000.00	999,100.00	1.240	993,580.00	1.286	1/23/2018	1/23/2019	1.23
FHLB 1.375 2/28/2019-17	3130ABEH5	Moody-Aaa	5/30/2017	1,000,000.00	1,000,000.00	1.375	994,760.00	1.375		2/28/2019	1.24
FHLB 1.93 12/21/2020-17	3130AADQ8	None	12/21/2016	1,000,000.00	1,000,000.00	1.930	992,480.00	1.930		12/21/2020	1.24
FHLB 2 10/26/2021-19	3130AB3D6	None	4/26/2017	1,000,000.00	1,000,000.00	2.000	990,150.00	2.000	4/26/2019	10/26/2021	1.24
FHLB 2.05 12/29/2021-17	3130AAET1	Moody-Aaa	12/29/2016	1,000,000.00	1,000,000.00	2.050	986,170.00	2.050	12/29/2017	12/29/2021	1.24
FHLB 2.4 12/22/2021-17	3130AAHC5	None	12/22/2016	1,000,000.00	1,000,000.00	2.400	1,000,000.00	2.400		12/22/2021	1.24
FHLB Step 4/28/2021-16	3130A7PR0	Moody-Aaa	4/28/2016	1,000,000.00	1,000,000.00	1.250	992,230.00	2.114	1/28/2018	4/28/2021	1.24
FHLB Step 4/28/2021-16	3130A7QX6	Moody-Aaa	4/28/2016	1,000,000.00	1,000,000.00	1.250	988,950.00	2.021		4/28/2021	1.24
FHLMC 1 8/15/2018-17	3134GABQ6	Moody-Aaa	1/31/2017	1,000,000.00	998,700.00	1.000	995,790.00	1.087		8/15/2018	1.23
FHLMC 1.2 12/14/2018-17	3134GAZU1	None	12/14/2016	1,000,000.00	1,000,000.00	1.200	991,780.00	1.200	12/14/2017	12/14/2018	1.24
FHLMC 1.25 10/28/2019-17	3134G8XQ7	Moody-Aaa	4/28/2016	1,000,000.00	1,000,000.00	1.250	988,540.00	1.250		10/28/2019	1.24
FHLMC 1.4 6/14/2019-17	3134GBRH7		6/14/2017	1,000,000.00	1,000,000.00	1.400	993,020.00	1.400	12/14/2017	6/14/2019	1.24

Description	CUSIP/Ticker	Credit Rating 1	Settlement Date	Face Amount/Shares	Cost Value	Coupon Rate	Market Value	YTM @ Cost	Next Call Date	Maturity Date	% of Portfolio
FHLMC 1.41 4/26/2019-18	3134GBEG3	Moody's-Aaa	4/26/2017	1,000,000.00	1,000,000.00	1.410	994,290.00	1.410	4/26/2018	4/26/2019	1.24
FHLMC 1.5 12/30/2019-17	3134GAYY4	S&P-AA+	12/30/2016	1,000,000.00	1,000,000.00	1.500	990,850.00	1.500	12/30/2017	12/30/2019	1.24
FHLMC 1.5 9/9/2019-18	3134GA7A6	Moody's-Aaa	5/10/2017	1,000,000.00	1,000,000.00	1.500	992,530.00	1.500	3/19/2018	9/9/2019	1.24
FHLMC 2 12/30/2021-17	3134GAYV0	None	12/30/2016	1,000,000.00	1,000,000.00	2.000	986,510.00	2.000	12/30/2017	12/30/2021	1.24
FHLMC Step 4/28/2021-16	3134G8VZ9	Moody's-Aaa	4/28/2016	2,500,000.00	2,500,000.00	1.375	2,458,700.00	2.116		4/28/2021	3.09
FHLMC Step 4/28/2021-16	3134G8Z28	Moody's-Aaa	5/10/2016	1,000,000.00	999,500.00	1.125	986,990.00	2.044	1/28/2018	4/28/2021	1.23
FNMA 1.5 6/16/2021-16	3136G3QX6	Moody's-Aaa	6/16/2016	1,000,000.00	995,000.00	1.500	973,710.00	1.604	12/16/2017	6/16/2021	1.23
<b>Sub Total / Average</b>				<b>27,500,000.00</b>	<b>27,493,730.00</b>	<b>1.462</b>	<b>27,231,760.00</b>	<b>1.627</b>			<b>33.96</b>
<b>CAMP</b>											
CAMP LGIP	LGIP4000	None	5/31/2011	3,030,457.58	3,030,457.58	1.200	3,030,457.58	1.200	N/A	N/A	3.74
<b>Sub Total / Average</b>				<b>3,030,457.58</b>	<b>3,030,457.58</b>	<b>1.200</b>	<b>3,030,457.58</b>	<b>1.200</b>			<b>3.74</b>
<b>Certificates of Deposit</b>											
Ally Bank 1.35 10/28/2019	02006LQ48	None	10/27/2016	248,000.00	248,000.00	1.350	245,221.51	1.350		10/28/2019	0.31
American Expr Centurion 2.45 4/5/2022	02587DN38	None	4/5/2017	247,000.00	247,000.00	2.450	250,398.13	2.450		4/5/2022	0.31
Belmont Savings Bank 2.15 3/22/2022	080515BV0	None	3/20/2017	248,000.00	248,000.00	2.150	248,343.48	2.150		3/22/2022	0.31
BMW Bank 2.15 3/10/2022	05580AGR9	None	3/10/2017	247,000.00	247,000.00	2.150	247,339.49	2.150		3/10/2022	0.31
Capital One Bank 1.5 10/26/2020	140420L99	None	10/26/2016	248,000.00	248,000.00	1.500	244,300.68	1.500		10/26/2020	0.31
Comenity Capital 1.25 4/11/2019	20033ASR8	None	10/25/2016	248,000.00	248,000.00	1.250	245,655.98	1.250		4/11/2019	0.31
Discover Bank 2.25 12/29/2021	254672Y36	None	12/29/2016	247,000.00	247,000.00	2.250	248,379.94	2.250		12/29/2021	0.31
Franklin Synergy Bank 0.85 12/11/2017	35471TCH3	None	6/10/2016	248,000.00	248,000.00	0.850	247,963.59	0.850		12/11/2017	0.31
JP Morgan Chase Bank 1.1 7/15/2019	48125Y5L4	None	7/15/2016	249,000.00	249,000.00	1.100	245,608.12	1.100		7/15/2019	0.31
Lakeside Bank 1.75 5/29/2020	51210SMU8	None	5/30/2017	249,000.00	249,000.00	1.750	247,530.95	1.750		5/29/2020	0.31
Landmark Bank 2.1 3/29/2021-17	51506VCA9	None	3/29/2017	248,000.00	248,000.00	2.100	248,313.30	2.100	12/27/2017	3/29/2021	0.31

Description	CUSIP/Ticker	Credit Rating 1	Settlement Date	Face Amount/Shares	Cost Value	Coupon Rate	Market Value	YTM @ Cost	Next Call Date	Maturity Date	% of Portfolio
Pacific Premier Bank 0.9 12/5/2017	69478QDG2	None	6/3/2016	248,000.00	248,000.00	0.900	247,983.86	0.900		12/5/2017	0.31
Ponce De Leon Federal Bank 1.85 5/28/2021	732333AJ8	None	5/31/2017	249,000.00	249,000.00	1.850	247,163.30	1.850		5/28/2021	0.31
State Bank of India 2.25 1/26/2022	8562846A7	None	1/26/2017	247,000.00	247,000.00	2.250	248,402.44	2.250		1/26/2022	0.31
Summit Community Bank 1.65 5/29/2020	86604XLT1	None	5/31/2017	249,000.00	249,000.00	1.650	246,916.27	1.650		5/29/2020	0.31
Synchrony Bank 2.3 2/24/2022	87165ELT2	None	2/28/2017	247,000.00	247,000.00	2.300	248,891.58	2.300		2/24/2022	0.31
Wells Fargo Bank 1.15 7/22/2019	9497486R3	None	7/20/2016	249,000.00	249,000.00	1.150	245,768.33	1.150		7/22/2019	0.31
<b>Sub Total / Average</b>				<b>4,216,000.00</b>	<b>4,216,000.00</b>	<b>1.705</b>	<b>4,204,180.95</b>	<b>1.705</b>			<b>5.21</b>

#### Corporate Issues

American Express Credit 2.7 3/3/2022	0258M0EG0	Moody's-A2	5/15/2017	1,000,000.00	1,013,279.67	2.700	1,005,040.00	2.406		3/3/2022	1.25
Barclays Bank PLC Step 4/26/2022-17	06741VR95	Moody's-A1	4/26/2017	1,000,000.00	1,000,000.00	2.250	986,500.00	3.093	4/26/2018	4/26/2022	1.24
Chevron Corp 2.1 5/16/2021	166764BG4	Moody's- Aa2	5/10/2017	1,000,000.00	999,500.00	2.100	990,840.00	2.113		5/16/2021	1.23
Chevron Corp 2.193 11/15/2019	166764AN0	Moody's- Aa2	2/26/2016	1,160,000.00	1,167,806.57	2.193	1,164,338.40	2.004		11/15/2019	1.44
GE Capital International 2.04 11/15/2020	36164QMS4	S&P-AA	3/10/2017	1,000,000.00	1,010,642.28	2.040	996,280.00	1.738		11/15/2020	1.25
HSBC 4.875 8/24/2020	4042Q1AE7	Moody's-A1	5/17/2016	2,000,000.00	2,191,145.28	4.875	2,123,800.00	2.500		8/24/2020	2.71
Toyota Motor Credit 1.55 7/13/2018	89236TCP8	Moody's- Aa3	3/16/2016	1,000,000.00	1,002,490.00	1.550	998,950.00	1.440		7/13/2018	1.24
Toyota Motor Credit Corp 1.2 4/6/2018	89236TCX1	Moody's- Aa3	4/6/2017	1,000,000.00	998,710.00	1.200	998,490.00	1.330		4/6/2018	1.23
Toyota Motor Credit Corp 1.2 4/6/2018	89236TCX1	Moody's- Aa3	5/24/2016	1,000,000.00	1,000,360.00	1.200	998,490.00	1.180		4/6/2018	1.24
<b>Sub Total / Average</b>				<b>10,160,000.00</b>	<b>10,383,933.80</b>	<b>2.537</b>	<b>10,262,728.40</b>	<b>2.039</b>			<b>12.83</b>

#### LAIF

LAIF LGIP	LGIP1002	None	4/30/2011	14,040,820.85	14,040,820.85	1.172	14,040,820.85	1.172	N/A	N/A	17.34
<b>Sub Total / Average</b>				<b>14,040,820.85</b>	<b>14,040,820.85</b>	<b>1.172</b>	<b>14,040,820.85</b>	<b>1.172</b>			<b>17.34</b>

#### Municipal

City of Riverside CA 2.125 6/1/2021	769036BA1	S&P-AA-	6/1/2017	500,000.00	500,000.00	2.125	492,900.00	2.125		6/1/2021	0.62
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Description	CUSIP/Ticker	Credit Rating 1	Settlement Date	Face Amount/Shares	Cost Value	Coupon Rate	Market Value	YTM @ Cost	Next Call Date	Maturity Date	% of Portfolio
La Quinta Redev Agency 2.034 9/1/2019	50420BCH3	S&P-AA-	12/22/2016	1,330,000.00	1,336,650.00	2.034	1,323,921.90	1.843		9/1/2019	1.65
State of California 2.152 4/1/2022	13063DAD0	Moody's-Aa3	4/27/2017	1,000,000.00	1,010,000.00	2.152	1,003,270.00	1.938		4/1/2022	1.25
Victor Valley College General Obligation Bond 2.35	92603PER9	Moody's-Aa2	12/28/2016	500,000.00	490,150.00	2.350	492,545.00	2.811		8/1/2021	0.61
<b>Sub Total / Average</b>				<b>3,330,000.00</b>	<b>3,336,800.00</b>	<b>2.130</b>	<b>3,312,636.90</b>	<b>2.056</b>			<b>4.12</b>
<b>None</b>											
Union Bank Cash	LGIPUNIONBANK	None	12/31/2016	13,451,419.61	13,451,419.61	0.660	13,451,419.61	0.660	N/A	N/A	16.62
<b>Sub Total / Average</b>				<b>13,451,419.61</b>	<b>13,451,419.61</b>	<b>0.660</b>	<b>13,451,419.61</b>	<b>0.660</b>			<b>16.62</b>
<b>Treasury</b>											
T-Note 0.875 1/15/2018	912828H37	Moody's-Aaa	6/1/2015	1,000,000.00	1,001,560.00	0.875	999,550.00	0.815		1/15/2018	1.24
T-Note 0.875 1/31/2018	912828UJ7	None	1/9/2017	1,000,000.00	999,620.00	0.875	999,370.00	0.911		1/31/2018	1.23
T-Note 0.875 5/15/2019	912828R44	None	4/26/2017	1,000,000.00	993,080.00	0.875	987,500.00	1.217		5/15/2019	1.23
T-Note 1.283 3/31/2019	912828SN1	None	2/22/2017	1,000,000.00	1,004,480.00	1.283	996,840.00	1.067		3/31/2019	1.24
T-Note 1.5 2/28/2019	912828C24	None	1/9/2017	1,000,000.00	1,005,440.00	1.500	997,070.00	1.241		2/28/2019	1.24
<b>Sub Total / Average</b>				<b>5,000,000.00</b>	<b>5,004,180.00</b>	<b>1.082</b>	<b>4,980,330.00</b>	<b>1.050</b>			<b>6.18</b>
<b>Total / Average</b>				<b>80,728,698.04</b>	<b>80,957,341.84</b>	<b>1.423</b>	<b>80,514,334.29</b>	<b>1.410</b>			<b>100</b>

All investment actions executed since the last report have been made in full compliance with the District's Investment Policy. The District will meet its expenditure obligations for the next six months. Market value sources are the LAIF, CAMP, and BNY Mellon monthly statements. Broker/Dealers: BOSC, Inc.; Cantella & Co.; First Empire Securities; Ladenburg, Thalman & Co, Inc.; UBS Financial Services; Wells Fargo Securities.

Reviewer:

Approver:

Union Sanitary District  
 Transactions Summary  
 Board Report - Activity  
 Group By: Action  
 Portfolio / Report Group: All Portfolios  
 Begin Date: 10/31/2017, End Date: 11/30/2017

Description	CUSIP/Ticker	Face Amount/Shares	Principal	Interest/Dividends	Coupon Rate	YTM @ Cost	Settlement Date	Total
<b>Deposit</b>								
CAMP LGIP	LGIP4000	2,983.77	2,983.77	0.00	N/A	0.000	11/30/2017	2,983.77
Union Bank Cash	LGIPUNIONBANK	13,451,419.61	13,451,419.61	0.00	N/A	0.000	11/30/2017	13,451,419.61
<b>Sub Total / Average</b>		<b>13,454,403.38</b>	<b>13,454,403.38</b>	<b>0.00</b>				<b>13,454,403.38</b>
<b>Interest</b>								
CAMP LGIP	LGIP4000	0.00	0.00	2,983.77	N/A	0.000	11/30/2017	2,983.77
Chevron Corp 2.1 5/16/2021	166764BG4	0.00	0.00	10,500.00	2.100	0.000	11/16/2017	10,500.00
Chevron Corp 2.193 11/15/2019	166764AN0	0.00	0.00	12,719.40	2.193	0.000	11/15/2017	12,719.40
Comenity Capital 1.25 4/11/2019	20033ASR8	0.00	0.00	263.29	1.250	0.000	11/13/2017	263.29
FFCB 1.17 5/16/2019-17	3133EF7L5	0.00	0.00	5,850.00	1.170	0.000	11/16/2017	5,850.00
FFCB 1.3 11/25/2019-16	3133EGBK0	0.00	0.00	6,500.00	1.300	0.000	11/27/2017	6,500.00
FFCB 1.7 5/3/2021-17	3133EF5T0	0.00	0.00	8,500.00	1.700	0.000	11/03/2017	8,500.00
FHLB 1.375 2/28/2019-17	3130ABEH5	0.00	0.00	6,798.61	1.375	0.000	11/28/2017	6,798.61
Franklin Synergy Bank 0.85 12/11/2017	35471TCH3	0.00	0.00	179.04	0.850	0.000	11/10/2017	179.04
GE Capital International 2.04 11/15/2020	36164QMS4	0.00	0.00	2,342.00	2.040	0.000	11/20/2017	2,342.00
GE Capital International 2.04 11/15/2020	36164QMS4	0.00	0.00	9,368.00	2.040	0.000	11/15/2017	9,368.00
Lakeside Bank 1.75 5/29/2020	51210SMU8	0.00	0.00	370.09	1.750	0.000	11/30/2017	370.09
Pacific Premier Bank 0.9 12/5/2017	69478QDG2	0.00	0.00	189.57	0.900	0.000	11/03/2017	189.57
Ponce De Leon Federal Bank 1.85 5/28/2021	732333AJ8	0.00	0.00	378.62	1.850	0.000	11/30/2017	378.62
Summit Community Bank 1.65 5/29/2020	86604XLT1	0.00	0.00	337.68	1.650	0.000	11/30/2017	337.68
T-Note 0.875 11/15/2017	912828G20	0.00	0.00	4,375.00	0.875	0.000	11/15/2017	4,375.00
T-Note 0.875 5/15/2019	912828R44	0.00	0.00	4,375.00	0.875	0.000	11/15/2017	4,375.00
Wells Fargo Bank 1.15 7/22/2019	9497486R3	0.00	0.00	243.20	1.150	0.000	11/20/2017	243.20
<b>Sub Total / Average</b>		<b>0.00</b>	<b>0.00</b>	<b>76,273.27</b>				<b>76,273.27</b>
<b>Matured</b>								
T-Note 0.875 11/15/2017	912828G20	1,000,000.00	1,000,000.00	0.00	0.875	0.000	11/15/2017	1,000,000.00
<b>Sub Total / Average</b>		<b>1,000,000.00</b>	<b>1,000,000.00</b>	<b>0.00</b>				<b>1,000,000.00</b>
<b>Withdraw</b>								
Union Bank Cash	LGIPUNIONBANK	10,473,814.93	10,473,814.93	0.00	N/A	0.000	11/29/2017	10,473,814.93
<b>Sub Total / Average</b>		<b>10,473,814.93</b>	<b>10,473,814.93</b>	<b>0.00</b>				<b>10,473,814.93</b>

**MONTHLY OPERATIONS REPORT FOR THE MONTH OF NOVEMBER 2017**  
**TECHNICAL SUPPORT WORK GROUP SUMMARY**

**Capital Improvement Program**

**Thickener Control Building Improvements Project** – Project closeout and punchlist work are in progress.

**Fremont and Paseo Padre Lift Stations Improvements Project** – The replacement pump for Fremont Lift Station Pump No. 1 was installed and successfully tested. Project closeout and punchlist work are next.

**Chemical Tanks and Piping Replacement Project** – The contractor relocated the flood sensor at the Odor Control Building and installed the plexiglass shield at the Maintenance Shop Building.

**Sludge Degritter System Project** – Degritter performance tests were completed, and laboratory analysis of grit removal efficiency is in progress. Miscellaneous field change orders are in progress.

**Headworks Knife Gate Valves 1-3 Replacement Project** – The Board accepted the Project on November 13<sup>th</sup>. Release of retention is pending receipt of the recorded Notice of Completion from the County.

**Force Main Corrosion Repairs Project Phase 1** – Project closeout is in progress. Project acceptance is scheduled for the December 4<sup>th</sup> Board meeting.

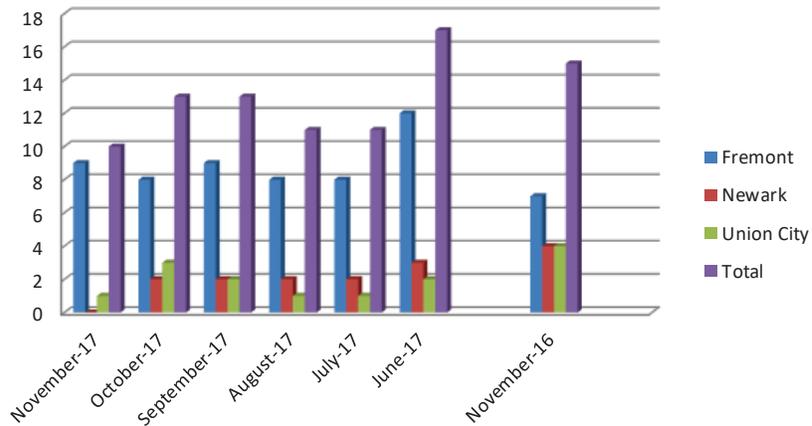
**Newark Pump Station Wet Well Improvements** – Contractor's submittal reviews are in progress. Contractor anticipates construction work in the pump station building to begin in January 2018.

**Cast Iron/Piping Lining Phase 6** – All Cured-in-Place Pipe (CIPP) sewer main liners and lateral sealing systems were installed. Corrective action items provided to contractor.

**Customer Service**

Trouble Calls dispatched from the Front Desk during business hours:

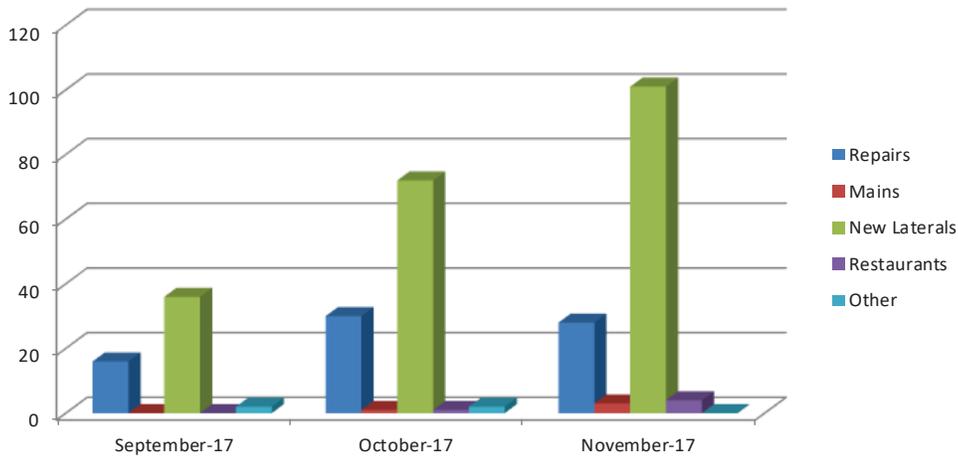
Month	Fremont	Newark	Union City	Total
November-17	9	0	1	10
October-17	8	2	3	13
September-17	9	2	2	13
August-17	8	2	1	11
July-17	8	2	1	11
June-17	12	3	2	17
November-16	7	4	4	15
6-Month Total				75



**Sewer Permits Issued**

Month	Repairs	Mains	New Laterals	Restaurants	Other
November-17	28	3	101	4	0
October-17	30	1	72	1	2
September-17	16	0	36	0	2

New Laterals - New residential lateral connections  
 Other - Non-residential construction (except restaurants)



**Communication**

- RFP for District Branding initiative closed; preliminary bid scoring completed.
- Participated in CASA Communications Workgroup January 2018 conference planning.
- Participated in Chamber of Commerce Board activities as Director and Past-President: Thanksgiving dinner for Union City first responders.
- Social Media Posts: FOG holiday messaging, HR recruitments.
- Website updates: FOG holiday messaging.
- Holiday FOG ad to Tri-City voice – published Thanksgiving week.

**Environmental Compliance**

**Pollution Prevention/Stormwater Programs**

USD’s Environmental Compliance (EC) team conducts pollution prevention inspections at restaurants, car wash businesses, and other commercial facilities. EC also conducts inspections and enforcement for the City of Fremont’s Environmental Services group. We conduct over 600 Stormwater compliance inspections every year to ensure that commercial facilities, including restaurants and auto shops, comply with City Ordinance requirements, and do not discharge pollutants to the creeks and bay.

During the past month, the EC team conducted 77 Stormwater (Urban Runoff), and 49 FOG (restaurant) inspections. During this reporting period, Inspectors identified 32 Stormwater and 17 FOG enforcement actions. Twenty (20) of the Stormwater enforcements resulted in administrative fines ranging from \$100 to \$500. Seven (7) administrative fines were for illicit discharges and 13 were for repeated violations.

**Urban Runoff Inspections and Enforcements**

November 2017	No. of UR Inspections	VW	WL	NOV	AF	LA	Total Enforcements	No. of Illicit Discharge/s	
	77	6	1	5	20	0	32	% enforcement	8

**FOG Inspections and Enforcements**

November 2017	No. of FOG Inspections	VW	WL	NOV	AF	LA	Total Enforcements	% Enforcement	
	49	5	12	0	0	0	17		35%

*Enforcements:*

*VW – Verbal Warning*

*WL – Warning Letter*

*NOV – Notices of Violation*

*AF – Administrative Fine*

*LA – Legal Action*

*NOD – Notice of Deficiency*

*AO – Administrative Order*

*C&D – Cease & Desist Order*

*SNC – Significant Non-Compliance*

**Dental Inspections, School Outreach, and Plant Tours**

# of Dental Inspections	# of School Outreach Events including Sewer Science	# of Plant Tours
0	0	2

**Industrial Pretreatment**

The Industrial Pretreatment program has pending permits as shown in the table below. USD inspectors are working with each of these companies to establish permitted industrial discharges.

**Pending Permits**

<b>New Industrial/Groundwater Permits</b>	<b>Groundwater/Temporary</b>
TE Connectivity	None

**Permits Issued**

<b>Company Name</b>	<b>Date Permit Issued</b>
None	

**Industrial Closures**

<b>Company Name</b>	<b>Date of Closure</b>
Exar	11/14/17

**Reports (Annual & Semi-Annual Pretreatment Report, Union City Report, etc.)**

<b>Report Name</b>	<b>Date Report Completed and Submitted</b>
None	

**Enforcement Action**

<b>IU Name &amp; Nature of Business</b>	<b>Comments</b>	<b>City</b>	<b>Parameters Violated</b>	<b>Discharge concentration (mg/L)</b>	<b>USD/Fed Limit Violated (mg/L)</b>	<b>Enforcement (1)</b>
Chutney Restaurant	Prohibited discharge that will cause obstruction of flow	F	None	None	None	WL

(1) *WL – Warning Letter*                      *NOV – Notices of Violation*                      *AO – Administrative Order*  
*C&D – Cease and Desist Order*                      *SNC – Significant Non-Compliance*                      *EM – Enforcement Meeting*

**Other - Training, Special Meetings, Conferences, IAC (topics)**

<b>Activity</b>	<b>Date of Event</b>	<b>Attendees</b>
Alameda County Annual Stormwater Training	11/7/2017	All EC Inspectors and EC Administrative Specialist, Audrey Villanueva
IAC Plant Tour	11/27/17	Alameda County Clean Water Program (4), Boehringer Ingelheim (2), Safety Kleen (1), Tesla (1), Western Digital (2), Lam Research (2)
BACWA Executive Meeting	11/17/17	Doug Dattawalker
MEDs Coalition	11/20/17	Doug Dattawalker

**Engineering/Construction**

No. of projects under construction: 9

	<b>Construction Projects</b>	<b>Capital (\$1000)</b>	<b>Scheduled Completion</b>	<b>Completed Scope</b>	<b>Completed Time</b>	<b>Comments for Nov. 2017 Activities</b>
1.	Thickener Control Building Improvements Project – Curtis	\$9,990	03/17	100%	100%	Project closeout and punchlist work are in progress.
2.	Fremont and Paseo Padre LS Improvement - Derek	\$2,801	10/16	99%	100%	Fremont LS Pump 1 was replaced on November 15 and testing successfully completed on November 28.
3.	Chemical Tanks and Piping Replacement Project – Thomas	\$2,102	10/17	99%	100%	Completed relocation of the flood sensor at Odor Control Building and installation of the plexiglass shield at the Maintenance Building.
4.	Sludge Degritter System Project – Kevin	\$1,436	11/17	95%	100%	Degritter equipment performance testing in progress.
5.	Headworks Knife Gate Valves 1-3 Replacement – Kevin	\$478	9/17	100%	100%	Project accepted by the Board on November 13 <sup>th</sup> .
6.	Force Main Corrosion Repairs Phase 1 – Chris	\$839	10/17	100%	100%	Project closeout in progress. Acceptance at Dec. 4 <sup>th</sup> Board meeting.
7.	Newark Pump Station Wet Well Improvements - Thomas	\$674	3/18	10%	55%	Equipment submittal reviews are in progress.
8.	Cast Iron/Piping Lining Phase VI – Andrew	\$243	11/17	95%	100%	All Cured-in-Place Pipe (CIPP) sewer main liners and lateral sealing systems installed. Corrective action items provided to contractor.
9.	Primary Digester No. 3 Rehabilitation - Derek	\$1,956	8/18	0%	0%	Notice of Award issued on November 15. Notice to Proceed anticipated to be issued December 2017.

**Design/Study**

No. of projects in design/study phase: **12**

	<b>Design/Study Projects</b>	<b>Capital (\$1000)</b>	<b>Scheduled Completion</b>	<b>Completed Scope</b>	<b>Completed Time</b>	<b>Comments for Nov. 2017 Activities</b>
1.	Plant Solids System / Capacity Assessment Phase 2 – Curtis	\$329	02/18	77%	80%	Study is in progress. Recommended projects technical memorandum was submitted on November 17 <sup>th</sup> .
2.	Local Limits Study – Chris	\$77	6/18	69%	69%	Assistance with local limits implementation in progress.
3.	Force Main Corrosion Repairs Phase 2 – Chris	\$62	2/18	90%	45%	90% design submittal under review.
4.	Standby Power Generation System Upgrade Project – Raymond/Kevin	\$175	05/17	95%	100%	Final Preliminary Design Report and development of design scope in progress.
5.	Force Main Condition Assessment – Andrew	\$121	10/20	25%	27%	Assessment on hold pending until next segment of Force Main can be taken out of service.
6.	Emergency Outfall Improvements Project – Andrew	\$92	8/17	100%	100%	Received Final Preliminary Design Tech Memo.
7.	Primary Digester No. 7 Project – Curtis	\$127	7/17	98%	100%	Final preliminary design report to be submitted in December.
8.	Plant Master Plan – Raymond	\$304	11/17	55%	69%	Began evaluation of the findings and recommendations from the Plant Solids System/Capacity Assessment Study and the predesign results of the Standby Power Generation System Upgrade Project.
9.	Effluent Management Study – Curtis	\$70	6/17	78%	100%	Effluent management options analysis is in progress.
10.	Odor Control Alternatives Study - Kevin	\$140	11/17	80%	100%	Negotiations for additional scope of work in progress.

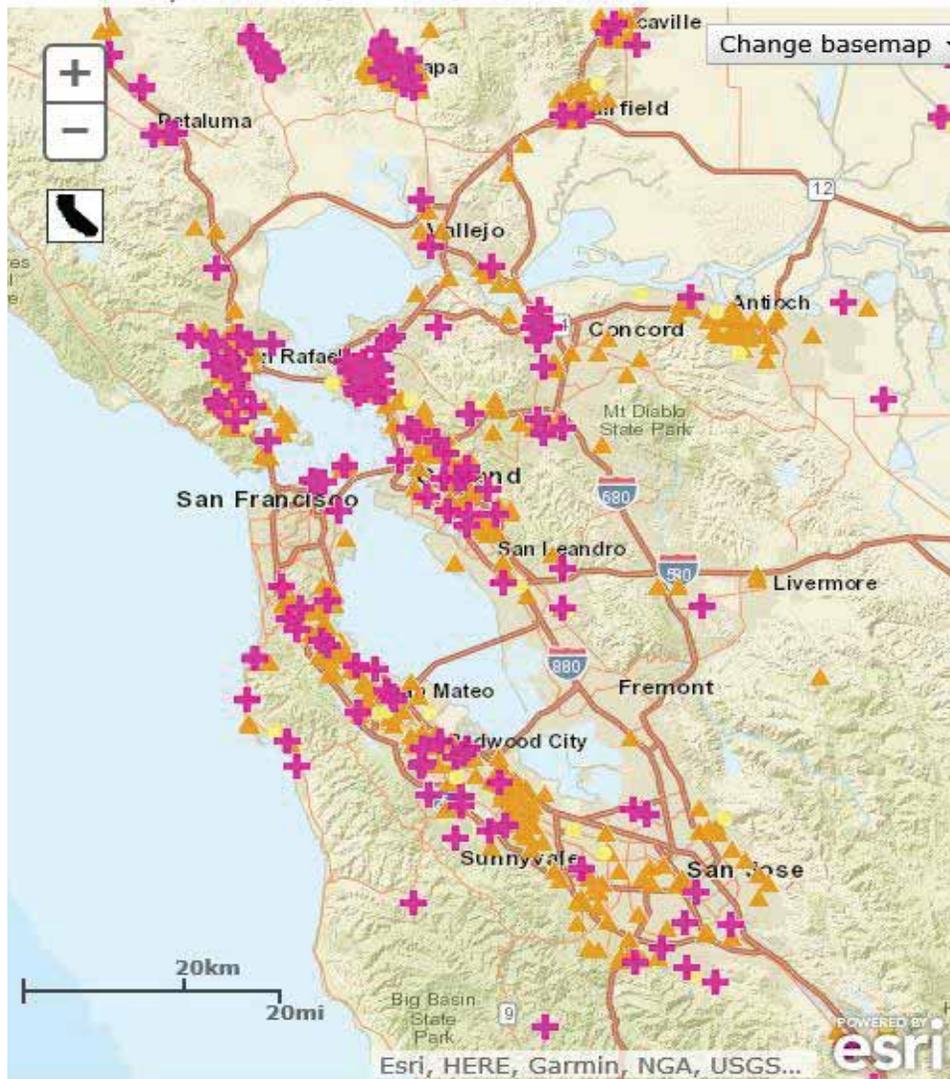
	<b>Design/Study Projects</b>	<b>Capital (\$1000)</b>	<b>Scheduled Completion</b>	<b>Completed Scope</b>	<b>Completed Time</b>	<b>Comments for Nov. 2017 Activities</b>
11.	Headwork Screen No. 3 Project - Thomas	\$50	1/18	20%	38%	Pre-design kickoff meeting was held on November 15 <sup>th</sup> .
12.	Alvarado Influent Pump Station Improvements Project - Thomas	\$54	1/18	20%	35%	Pre-design kickoff meeting was held on November 20 <sup>th</sup> .

**COLLECTION SERVICES  
ACTIVITIES REPORT  
November 2017**

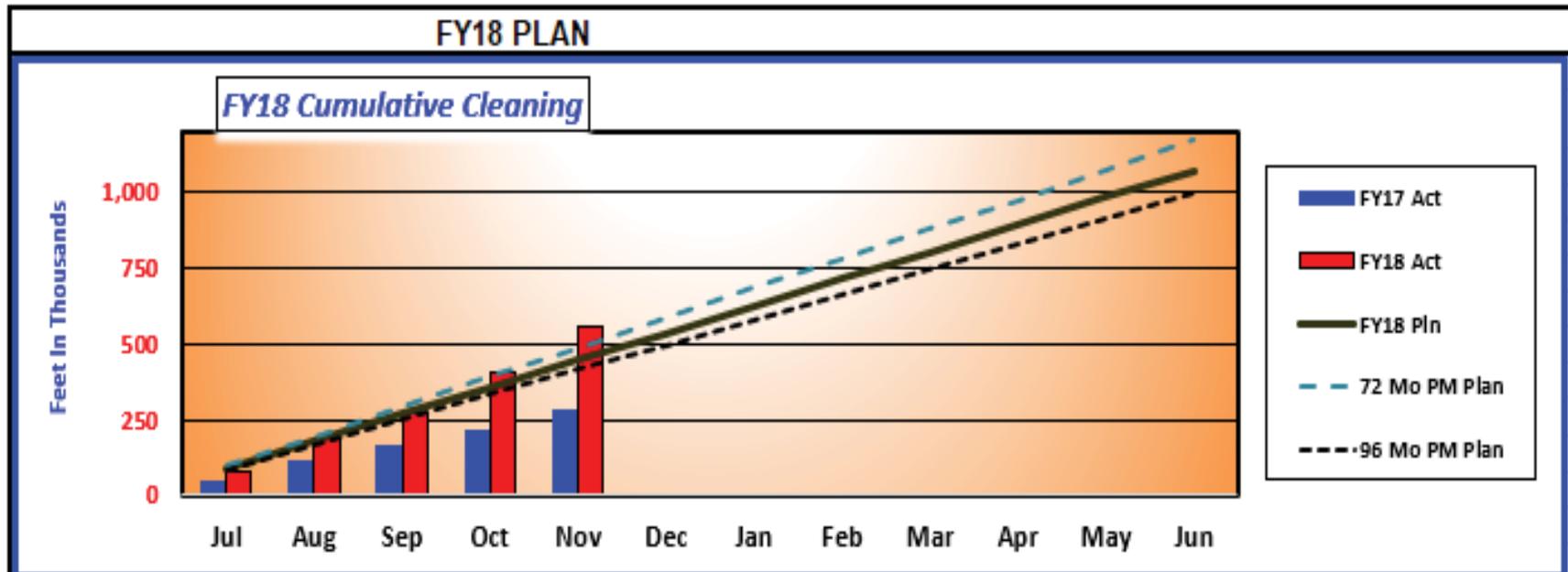
**Progress/Accomplishments**

- No spills in November
- Completed 28.4 miles of sewer main cleaning.
- Completed 15.2 miles of sewer main inspection.
- Responded to 10 service request calls.
- Completed a total of 8 sewer main repairs.
- Trainings
  - Utility Hazard Awareness
  - Pipe Hunter (new hydro-jetter)
  - Hazmat Handling/SPCC Training
  - Hydro Fundamentals (new employee)

**Reported Bay Area Spills 1/01/2017 thru 11/30/17**



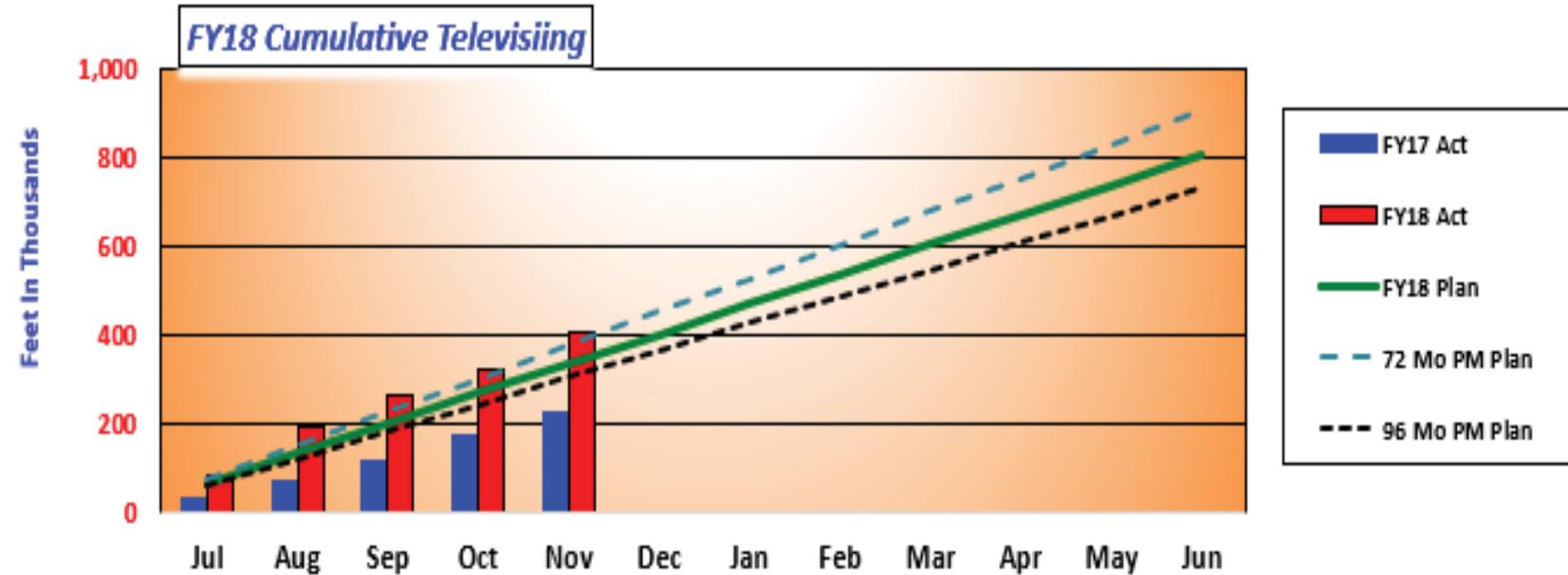
Performance Measures



**Cleaning Actual Footages/Costs** Nov-17 Clean Cost/Ft = \$0.63

Description	FY18 Q1 Footage	Oct-17 Footages	Nov-17 Footages	FY18 Q2 Footage	FY18 YTD Footage	FY18 YE Goal	% Cmpl to Plan	FY16 'Y/E Footages	FY17 'Y/E Footage
72 Month Hydro-jet Clean-REV	229,414	57,137	89,987	147,124	376,538	731,522	51.5%	412,703	525,009
Selective Line Cleaning	28,316	3,937	18,265	22,202	50,518	113,365	44.6%	155,828	156,815
Special Condition Clean	410	70	13,845	13,915	14,325	18,720	76.5%	79,529	17,237
Root Control/Chemical Cln	15,865	68,263	27,765	96,028	111,893	209,078	53.5%	285,404	331,805
Cast Iron Proj/Other (not included in Cost Per Foot)	0	0		0	0			1,254	1,183
<b>Totals</b>	<b>274,005</b>	<b>129,407</b>	<b>149,862</b>	<b>279,269</b>	<b>553,274</b>	<b>1,072,685</b>	<b>51.6%</b>	<b>934,718</b>	<b>1,032,049</b>

## FY18 PLAN



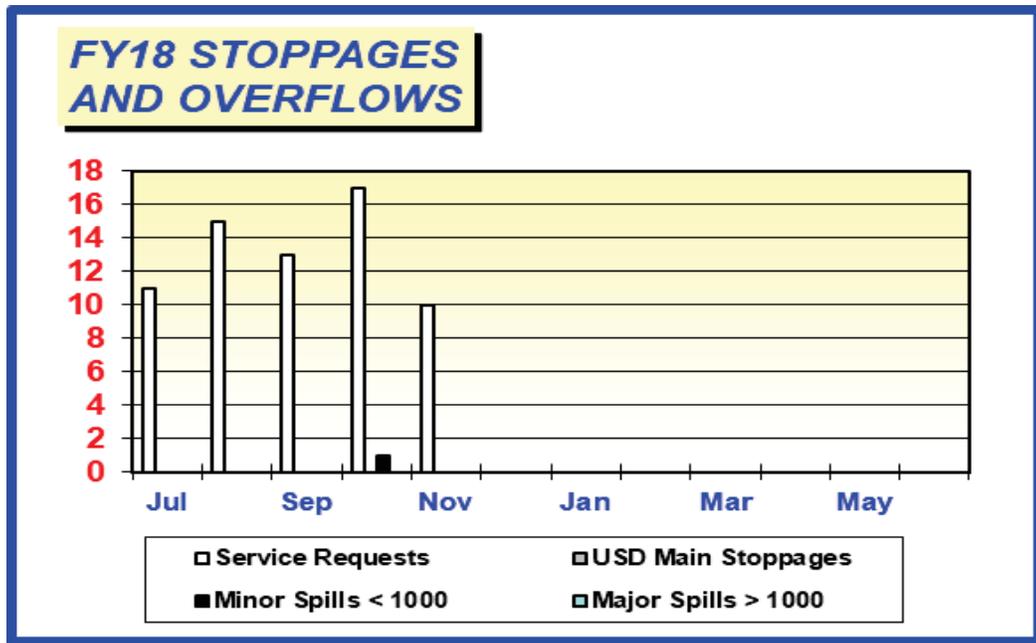
### Televising Actual Footages/Costs

Nov-17 TV Cost/Ft = \$1.09

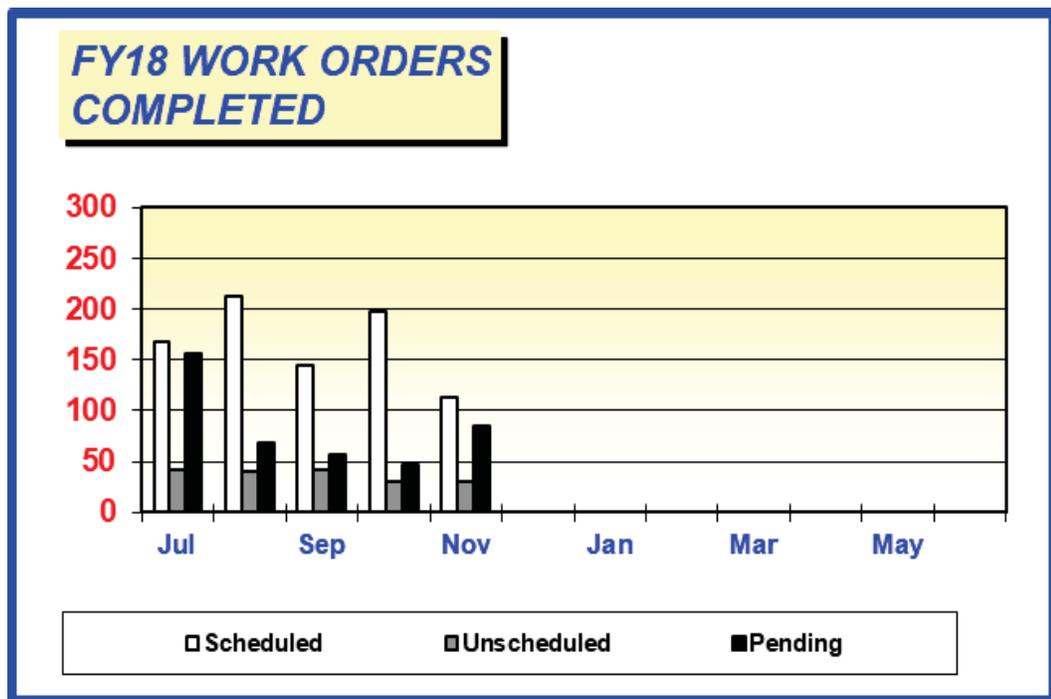
Description	FY18 Q1 Footage	Oct-17 Footages	Nov-17 Footages	FY18 Q2 Footage	FY18 YTD Footage	FY18 YE Goal	% Cmpl to Plan	FY16 'Y/E Footages	FY17 'Y/E Footage
72 Month TV Inspection	244,859	59,286	72,913	132,199	377,058	710,910	53.0%	463,024	541,780
Visual/Condition,Pre/Post Cnst TV	315	0	0	0	315	18,540	1.7%	33,805	21,742
New Development, CIP, Misc.	20,669	1,242	7,558	8,800	29,469	45,900	64.2%	28,471	43,099
Condition Assessments	0	0	0	0	0	32,245	0.0%	17,789	12,409
<b>Totals</b>	<b>265,843</b>	<b>60,528</b>	<b>80,471</b>	<b>140,999</b>	<b>406,842</b>	<b>807,595</b>	<b>50.4%</b>	<b>543,089</b>	<b>619,030</b>

Other Collection Services Status Data:

Support Team Work Order Status:



C/S Maintenance Status:



**Fabrication, Maintenance and Construction  
Activities Report  
November 2017**

**Progress/Accomplishments**

- Completed 94% of preventive maintenance activities for the month of November
- Completed 94 corrective maintenance work orders for the month of November
- Cogen #2 4K service
- Installation of Site Waste Pumps No. 1, 2, and 4
- Primary Clarifier No. 2 annual service
- APS Pump No.5 overhaul
- IPS Pump No. 4 overhaul

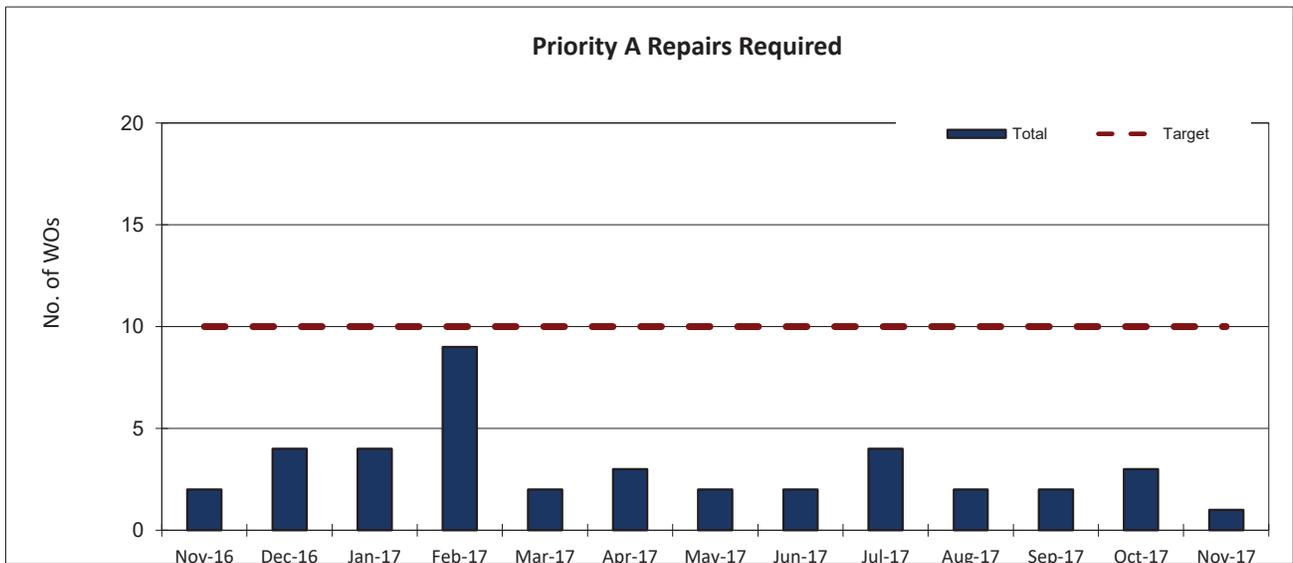
**Future Planning**

- Cogen #2 upper end o- ring and gasket replacement
- Primary Clairifier 6 Annual
- Installation of Chopper Pump at IPS (this is a trial pump)
- MSB static loop fabrication
- RAS hypo injection piping for each pump
- Pouring of concrete pad for fourth GBT Poly Unit

**Other**

- Ed, Louis, Aaron and Scott attend Infrared Certification Training/Class

**Performance Measurements**





Treatment & Disposal  
Activities Report  
November 2017

### Progress/Accomplishments

- Maintained 100% compliance with NPDES permits.
- Completed 99% preventive maintenance activities for the month of November.
- Conducted QAIs for Plant Operator III and Plant Operator III trainees.
- Conducted operational testing of the RAS flow paced control system installed as part of the RAS Interim Improvements Project.
- Provided wet weather training to staff in advance of the wet weather season.
- Continued to analyze results of membrane acid cleaning phase II project.
- Received, reviewed and provided comments on the P.W. Tech volute pilot test report.
- Two staff members attended Yorke Engineering seminar on Air Quality Permitting, Title V and Compliance.
- Attended the BACWA air committee meeting.
- Analyzed digester gas and natural gas usage and cogeneration thermal input and system electrical efficiency.

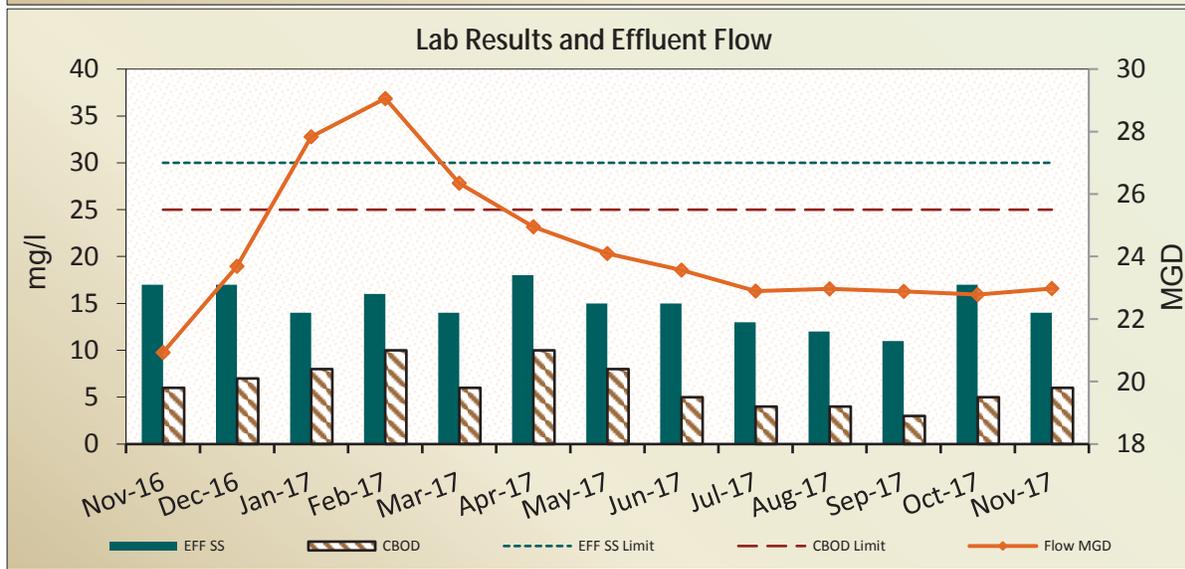
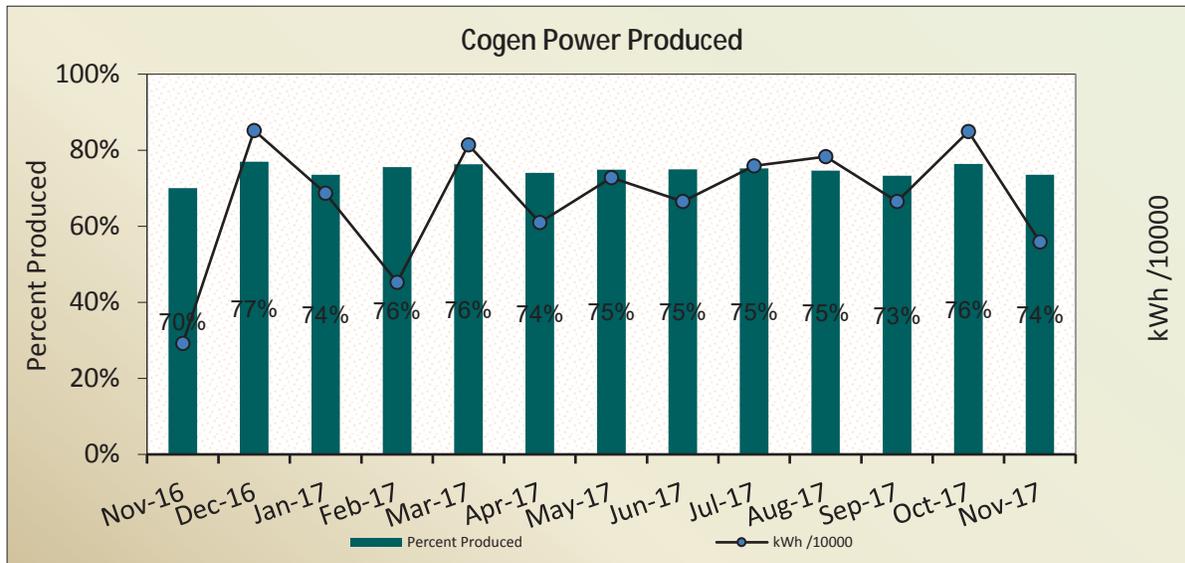
### Future Planning

- Conduct operational testing of Degritter No. 3 and associated equipment for the 3rd Degritter Project.
- Conduct hiring interviews for Plant Operator III and Plant Operator III Trainee recruitment.
- Continue conducting operational testing of the RAS flow paced control system installed as part of the RAS Interim Improvements Project.
- Attend NELAC implementation training session 2.
- Review and provide comments on SSCAR Project Chapter 7.
- Conduct a study of natural gas procurement alternatives.
- Attend Yorke webinars on BAAQMD regulation 11-18, AB 617 and air dispersion modeling.
- Conduct a recruitment for temporary laboratory worker.

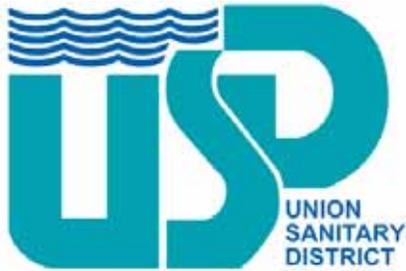
### Other

- Cogen system produced 74% of power consumed for the month of November.

## Performance Measurements



USD's Final Effluent Monthly Monitoring Results				
Parameter	EBDA Limit	Sep-17	Oct-17	Nov-17
Copper, µg/l	78	3.2	5.2	5.6
Mercury, µg/l	0.066	0.00178	0.00290	0.00280
Cyanide, µg/l	42	< 3.9	< 3.9	< 2.5
Ammonia- N, mg/L (Range)	130	38.2 - 44.2	39.8 - 41.6	38.1 - 42.0
Fecal Coliform, MPN/100ml (Range)				
• 5-Sample Geometric Mean	500	17 - 301	19 - 64	23 - 51
• 11-Sample 90th Percentile	1100	230 - 866	131 - 866	45 - 131
Enterococci				
• 5-Sample Geometric Mean	242	18 - 20	10 - 18	10 - 11
E = Estimated value, concentration outside calibration range. For SIP, E = DNQ, estimated concentration.				



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2018

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

**FROM:** Paul R. Eldredge, General Manager/District Engineer  
Sami E. Ghossain, Manager of Technical Services  
Raymond Chau, CIP Coach

**SUBJECT:** Agenda Item No. 9 - Meeting of January 8, 2018  
**Consider a Resolution to Approve Revised Policy No. 2760, Standardized Equipment**

### **Recommendation**

Staff recommends the Board adopt the proposed resolution to approve the revised Policy No. 2760 – Standardized Equipment, which, among other things, amends the procedures for designating standardized equipment, approves the new Standardized Equipment List, and designates the General Manager, or his or her designee, to modify the Standardized Equipment List and to approve standardized equipment for projects.

### **Background**

California Public Contract Code Section 3400 stipulates that public agencies drafting specifications for bids in connection with public works projects shall include the words “or equal” when calling for a designated product by specific brand name so that bidders may furnish any equal product. If the agency is aware of an equal product, the Public Contract Code requires that the product be named in the specification.

The above requirement is not applicable if the agency’s awarding authority, or its designee, finds that a particular product is designated by a specific brand name for any of the following purposes:

- (1) Make a field test or experiment to determine the product's suitability for future use.

- (2) Match other products in use at a particular public improvement either completed or in the course of completion.
- (3) Obtain a necessary item that is only available from one source.
- (4) (A) Respond to an emergency declared by a local agency, but only if the declaration is approved by a four-fifths vote of the governing board of the local agency issuing the invitation for bid or request for proposals.  
  
(B) Respond to an emergency declared by the state, a state agency, or political subdivision of the state, but only if the facts setting forth the reasons for the finding of the emergency are contained in the public records of the authority issuing the invitation for bid or request for proposals.

Staff has standardized certain mechanical, electrical, and instrumentation equipment to single manufacturers for a variety of reasons. These include proven equipment reliability and quality; equipment capability to address specific operational or maintenance issues; substantial training costs invested by staff to operate and maintain the specialized equipment; matching existing equipment to reduce spare parts inventory and training on multiple equipment types; and availability of affordable parts.

#### **Policy No. 2760 – Standardized Equipment Policy**

In the past, staff has requested the Board approve standardized, or sole sourced equipment as the need arises for each project. The same equipment is often standardized for multiple projects at the treatment plant and pump stations.

In 2008, staff developed the Standardized Equipment Guidelines and established a Standardized Equipment List to be utilized for all District projects. The Guidelines included the selection criteria for evaluating equipment to be considered for the Standardized Equipment List and the process for reviewing and approving the List every three years.

In August 2008, the Board approved the Standardized Equipment Guidelines and the Standardized Equipment List for District projects for a period of three years. In September 2011, the Board renewed its approval of the Guidelines and approved the updated Standardized Equipment List for another three years.

In 2014, due to an update of the Purchasing Policy, staff created new District Policy No. 2760 that incorporated the Standardized Equipment Guidelines and any future updates to the Standardized Equipment List. On December 8, 2014, the Board approved new Policy No. 2760 – Standardized Equipment Policy and adopted a resolution to approve the updated 2014 Standardized Equipment List.

Policy No. 2760 includes the following attachments:

1. Attachment A – Standardized Equipment List
2. Attachment B – California Public Contract Code Section 3400
3. Attachment C – Standardized Equipment Selection Criteria

Staff recently reviewed the policy and attachments and proposes the following changes:

1. Policy No. 2760 – Standardized Equipment
  - a. Updating the definition of the Standardized Equipment List to clarify the District is not obligated to select only the single manufacturers included on the List if the District chooses to list multiple manufacturers for any projects.
  - b. Designating the General Manager, or his or her designee, to make the required finding to include new standardized equipment on the list, as described in more detail below under “Staff Designation.”
  - c. Updating the policy’s procedures to clarify the review process when considering a request to add new equipment to the Standardized Equipment List. If evaluation determines the request not viable, there will be a discussion with the requester to discuss feasible options that meet the equipment and requester’s needs.
  - d. Adding a new procedure that if there are concerns over an approved standardized equipment, the Public Contract Code allows the District to issue an invitation for bids or request for proposals that a particular product is designated by specific brand or trade name in order that a field test or experiment may be made to determine the product’s suitability for future use.
2. Attachment A – Standardized Equipment List
  - a. The updated 2018 Standardized Equipment List will retain the same equipment categories, manufacturers/suppliers, and models from the List approved in 2014, but with updated quantities and unit costs. The reasons for including the equipment on the List remain unchanged and are provided in the “Comments” column of the List.
  - b. One new equipment category was added to the List. On November 23, 2015, the Board approved Milton Roy as the sole manufacturer/supplier of the six chemical metering pumps to be procured and installed during the Chemical Tanks and Piping Replacement Project. The District has been using Milton Roy chemical metering pumps for dispensing chemicals since the late 1980’s and have had very few maintenance and operational issues.
3. Attachment B –California Public Contract Code Section 3400
  - a. There are no changes to the California Public Contract Code Section 3400.
4. Attachment C – Standardized Equipment Selection Criteria
  - a. Staff updated the “Match Existing Equipment” and “Equipment Available From One Source” criteria to reflect the policy’s procedural changes as outlined in 1c above.

Attached are two versions of the policy for review. The first shows the 2014 text with all deletions in red with strikethrough, and all additions in blue and underscored. The second version shows the proposed final text without edits, in final form.

### **Staff Designation**

Staff will review Policy No. 2760 and the attachments once every three years, determine if any changes will be necessary, and present the policy to the Board for its consideration to approve it for another three-year period. During the succeeding three-year period, staff may have a need to standardize new equipment that is not on the current Standardized Equipment List. In the past, these revisions have been brought to the Board for approval. However, California Public Contract Code Section 3400 allows the awarding authority, or its designee, to find that a particular product is designated by a specific brand name for any of the purposes listed in the Background section of this agenda item. Staff recommends the Board designate the General Manager, or his or her designee, to modify the Standardized Equipment List and to approve standardized equipment for capital improvement projects pursuant to the procedures of Policy No. 2760, in consultation with District Legal Counsel, during the three-year period before the next review. Staff would follow the policy's procedures to review the new equipment and determine if it meets the criteria to be standardized. If the new equipment meets the criteria, staff would then be able to modify the Standardized Equipment List to add the new equipment or approve the new equipment for a specific capital improvement project, with Legal Counsel's guidance. This designation will save staff time and allow staff to issue invitations for bids with standardized equipment more expeditiously. The updated list would still be presented to the Board when the Policy is reviewed and approved at the three-year anniversary.

Staff recommends the Board adopt the proposed resolution to approve the revised Policy No. 2760 – Standardized Equipment, which, among other things, amends the procedures for designating standardized equipment, approves the new Standardized Equipment List, and designates the General Manager, or his or her designee, to modify the Standardized Equipment List and to approve standardized equipment for projects.

PRE/SEG/RC;dl

Attachments: Policy No. 2760 – Standardized Equipment Policy and Attachments A through C with proposed changes shown  
Policy No. 2760 – Standardized Equipment Policy and Attachments A through C, final version  
Resolution

## Union Sanitary District Policy

Effective date: <del>December 8, 2014</del> <u>January 8, 2018</u>	<b>Standardized Equipment Policy</b>	Policy Number 2760  Page 1 of <del>3</del> <u>4</u>
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### Policy

This policy is established to provide the guidelines for maintaining and approving a Standardized Equipment List and the procedures for evaluating mechanical, electrical, and instrumentation equipment for inclusion in the list.

### Purpose

The District's operating and maintenance Staff has standardized certain mechanical, electrical, and instrumentation equipment to single manufacturers include proven equipment reliability and quality; equipment capability to address specific operational or maintenance issues; substantial training costs invested by Staff to operate and maintain the specialized equipment; matching existing equipment to reduce spare parts inventory and training on multiple equipment types; and availability of affordable parts.

The purpose of this policy is to:

- Set the guidelines for evaluating the mechanical, electrical, and instrumentation equipment to be included in the Standardized Equipment List.
- Provide a process for the District to review the current Standardized Equipment List and to update the list every three (3) years ("Three Year Review") and approve the new Standardized Equipment List.
- Provide an approval process for the District's ~~Board of Directors~~ General Manager, or his or her designee, to review Staff's recommendation for changes to the guidelines and the Standardized Equipment List prior to the next Three-Year Review.

### Definitions

*California Public Contract Code (PCC)*

The Public Contract Code enacted by the California State Legislature ~~enacted the PCC~~, which consists of all public contract law, to achieve the following objectives:

- (a) To clarify the law with respect to competitive bidding requirements.
- (b) To ensure full compliance with competitive bidding statutes as a means of protecting the public from misuse of public funds.

- (c) To provide all qualified bidders with a fair opportunity to enter the bidding process, thereby stimulating competition in a manner conducive to sound fiscal practices.
- (d) To eliminate favoritism, fraud, and corruption in the awarding of public contracts.

<i>Project</i>	Any construction, reconstruction, alteration, enlargement, renewal, or replacement of District owned sewer facilities or property.
<i>Sole Source</i>	A company contracted, without competition, to be the sole supplier of a product or service.
<i>Staff</i>	The District's Engineering and Operations and Maintenance Staff.
<i>Standardized Equipment List</i>	The list of equipment approved by the Union Sanitary District <a href="#">pursuant to this policy</a> that can be identified in a project's technical specifications to a single manufacturer and/or equipment model or model family. This is <del>often</del> <a href="#">sometimes</a> referred to as "sole sourcing" equipment. <a href="#">The District can, but is not obligated to, specify the equipment from the Standardized Equipment List in a project's technical specifications.</a>
<i>Standardized Equipment Selection Criteria</i>	Two selection criteria developed by Staff to evaluate equipment that either (a) matches existing equipment already used on District facilities or (b) is only available from one manufacturer source, <a href="#">as set forth in Public Contract Code 3400</a> .

## Procedure

Staff shall utilize the following guidelines for evaluating the equipment to be included in the Standardized Equipment List:

1. The Standardized Equipment List was initially developed by Staff through evaluating the District's equipment that met the Standardized Equipment Selection Criteria.
2. Every ~~3~~ [three](#) years, Staff shall review the Standardized Equipment List and determine whether the equipment on the list continues to meet the standards set forth in the Standardized Equipment Selection Criteria and whether new equipment shall be considered to be included on the list.
3. If the evaluation determines that the equipment on the Standardized Equipment List no longer meets the standards in the Standardized Equipment Selection Criteria, Staff shall recommend the equipment be deleted from the list. If Staff determines that the

equipment on the list still meets the standards in the Standardized Equipment Selection Criteria, no changes to the list shall be recommended.

4. ~~If At the Three-Year Review, if a~~ Staff member requests to include new equipment on the Standardized Equipment List, ~~they~~ he or she shall notify the Capital Improvement Project (CIP) Coach. The CIP Coach will evaluate the request to ensure compliance with Section 3400 of the California Public Contract Code and the Standardized Equipment Selection Criteria. ~~If the equipment is eligible, the CIP Coach will include it on the list for review and approval by Management.~~
  - a. If the evaluation determines the request is viable, the CIP Coach shall recommend to the Executive Team to standardize the equipment and amend the Standardized Equipment List to include the new equipment. If the Executive Team approves the recommendation, Staff shall proceed with a final recommendation to the Board of Directors for approval consideration.
  - b. If the evaluation determines the request to be not viable, the CIP Coach will report back to the requester(s) with the reason(s) the request was denied. The CIP Coach will discuss with the requester feasible options that meet the equipment and requester's needs.
5. ~~The CIP Coach will make final recommendations of the Standardized Equipment List to Management. After Management approves of the final version of the list, Staff will make a recommendation to the Board of Directors for approval consideration.~~
5. ~~If the~~Staff has recommended ~~Board of Directors approves~~ the Standardized Equipment List in Attachment A for this Three Year Review, which is approved together with this policy. ~~by resolution,~~ Staff shall utilize the List for three (~~3~~) years, after which these guidelines shall be repeated.
6. ~~During the three-year period~~Prior to the next Three Year Review, Staff may request new equipment to be sole sourced ~~standardized~~ to accommodate project needs. The CIP Coach shall evaluate the request to ensure compliance with Section 3400 of the California Public Contract Code and the Standardized Equipment Selection Criteria.
  - a. If the evaluation determines the request is viable, the CIP Coach shall recommend to ~~Management~~ the Executive Team whether to sole source ~~standardize~~ the equipment for the current project only or to amend the Standardized Equipment List to include the new equipment. If ~~Management~~ the Executive Team agrees with the recommendation, the CIP Coach ~~Staff~~ shall proceed with a recommendation to the ~~Board of Directors~~General Manager or his or her designee for approval consideration. If the General Manager or his or her designee, in consultation with District Legal Counsel, approves the request, the project specifications and/or the Standardized Equipment List shall be amended to include the new equipment. If the General Manager or his or her designee denies the request, the CIP Coach will proceed with 6(b) below.

- b. If the evaluation determines the request to be not viable, the CIP Coach will report back to the requester(s) with the reason(s) the request was denied. The CIP Coach will discuss with the requester possible options that meet the equipment and requester’s needs. After the discussion, the CIP Coach shall coordinate with the design consultant to ensure the specification is drafted with performance requirements that will meet the District’s needs and to include “or equal” in the specification. The CIP Coach will also ensure the specification is not proprietary in nature that could exclude all but one manufacturer.
- 7. When an invitation for bids or request for proposals is issued with sole sourced or standardized equipment, the General Manager or his or her designee shall include the finding required by Public Contract Code 3400(c) that the material, product, service or thing is designated for one of the following purposes: (a) in order to match other products in use on a particular public improvement either completed or in the course of completion; or (b) in order to obtain a necessary item that is only available from one source.
- 8. If concerns emerge over approved sole sourced or standardized equipment, the General Manager or his or her designee is authorized under Public Contract Code Section 3400 to issue an invitation for bids or request for proposals that a particular material, product, thing, or service designated by specific brand or trade name in order that a field test or experiment may be made to determine the product’s suitability for future use.

**Employee Responsibility**

Employees are responsible for adhering to the procedures established by this policy and requesting Management approval whenever they have recommendations for changes to the guidelines and the Standardized Equipment List.

**Management Responsibility**

Management is responsible for ensuring that this policy is followed and that the Standardized Equipment List is reviewed and approved by the Board of Directors every ~~3~~ three years.

**References and Notes**

- Attachment A – ~~2014 Standardized Equipment List~~ [2018 Standardized Equipment List](#)
- Attachment B – [California Public Contract Code Section 3400](#)
- Attachment C – [Standardized Equipment Selection Criteria](#)

This revision supersedes the versions listed below, which are no longer effective.

Title	Policy #	Effective Date
<del>N/A Standardized Equipment</del>	<a href="#">2760</a>	<a href="#">December 8, 2014</a>


Approved by: Board of Directors, ~~December 8, 2014~~ January 8, 2018

Author/owner: CIP Coach

Reviewers: Executive Team

Notify Person: CIP Coach

Revision frequency: Every ~~3~~ three years

Next Review: ~~December 2017~~ January 2021

**Attachment A – ~~2014~~ 2018 STANDARDIZED EQUIPMENT LIST**

**Board Approval Date – ~~December 8, 2014~~ January 8, 2018**

Equipment Description	Manufacturer	Type/Model/Series	Quantity of Units Installed at USD Facilities	Average Unit Cost, excludes sales tax	Comments
Plug Valves (4-inch diameter and greater)	Dezurik	Eccentric Plug Valves (PEC)	640+	<del>\$1,500</del> <u>\$3,000</u>	<p>Plug valves are used to isolate the flow of water, wastewater, sludge, and grit at District facilities. They have a simple operation and are typically more economical than other types of valves.</p> <p>Staff has previously used plug valves by other manufacturers but found the Dezurik plug valves to be more reliable and durable. Maintenance staff has also received very good customer support from the local sales representative.</p>
Air / Vacuum Relief Valves	Vent-O-Mat	RGX Series	<del>35</del> <u>36</u>	<del>\$5,000</del> <u>\$5,500</u>	<p>The air / vacuum relief valves are important components in the operation and maintenance of the twin force main pipelines. Along with the surge towers located at Newark and Irvington Pump Stations, the air / vacuum relief valves reduce the effects of water hammer (sudden changes in the flow rate of wastewater) in the twin force main pipelines.</p> <p>Staff has previously used air / vacuum relief valves by other manufacturers but found the Vent-O-Mat units to function more reliably and are easier to maintain.</p>

**Attachment A – ~~2014~~ 2018 STANDARDIZED EQUIPMENT LIST**

**Board Approval Date – ~~December 8, 2014~~ January 8, 2018**

Equipment Description	Manufacturer	Type/Model/Series	Quantity of Units Installed at USD Facilities	Average Unit Cost, excludes sales tax	Comments
Wastewater Centrifugal Pumps and Motors	Wemco	Wemco-Hidrostal Submersible Screw-Centrifugal Impeller Pump	19 <u>20</u>	\$110,000	<p>In 1998, staff conducted an in-depth analysis of the dry-pit submersible pumps and motors prior to the Alvarado Influent Pump Station Expansion Project to address problems, such as clogging, high vibrations, and limited operating range associated with the old line-shaft pumps. The analysis included a comparison of pumps from other manufacturers.</p> <p>Based on the results of the analysis, staff selected Wemco as the sole-source supplier for the raw wastewater pumps and motors for the Alvarado Influent Pump Station. Staff has subsequently standardized to the Wemco pumps at the Irvington Pump Station, Newark Pump Station, and Boyce Road Lift Station.</p>
Centrifugal Pumps and Motors (sludge mixing pumps)	Wemco	Wemco-Hidrostal Screw-Centrifugal Impeller Pump	7	<del>\$80,000</del> <u>\$90,000</u>	<p>The original sludge mixing pumps did not perform well due to its inability to pass large clumps of rags. This resulted in a limited mixing operation, which increased the risk of a large mat formation in the digester and created operational problems with mixing and generation of methane gas. This also caused operations staff to frequently take the pumps out of service in order to remove the rags that are caught in the pumps.</p> <p>Based on the success with the non-clog capabilities of the Wemco-Hidrostal submersible screw-centrifugal impeller pumps at the wastewater pump stations, staff decided to replace the existing sludge mixing pump at Primary Digester No. 2 with the Wemco-Hidrostal Screw Centrifugal Impeller Pump in 2003. Due to this success, staff has standardized the sludge mixing pumps to the Wemco units.</p>

**Attachment A – ~~2014~~ 2018 STANDARDIZED EQUIPMENT LIST**

**Board Approval Date – ~~December 8, 2014~~ January 8, 2018**

Equipment Description	Manufacturer	Type/Model/Series	Quantity of Units Installed at USD Facilities	Average Unit Cost, excludes sales tax	Comments
Recessed Impeller Pumps (sludge pumping)	Wemco Pump	Model C	<del>15</del> <u>16</u>	\$50,000	The Wemco Model C recessed impeller pumps were first installed at the District during the 1991 Interim Improvements Project to pump primary sludge from the primary clarifiers. These pumps are still in operation. Due to the Wemco Model C's ability to pass fibrous and stringy materials with the sludge, good operational reliability, and ease of maintenance, staff also installed them as sludge recirculation pumps at the primary digesters.
<u>Chemical Metering Pumps</u>	<u>Milton Roy</u>	<u>Milroyal B High Performance Diaphragm Pump</u>	<u>16</u>	<u>\$18,000</u>	<u>Metering pumps are used to deliver chemicals for various plant treatment processes such as effluent disinfection and odor control at the plant and remote pump stations. The District has been using Milton Roy metering pumps for dispensing chemicals since the late 1980s.</u>  <u>Based on the historical success of these pumps and to match the other metering pumps at the District, on November 23, 2015, the Board approved staff to specify Milton Roy as the sole-source manufacturer/supplier for the six replacement chemical metering pumps at the Odor Control Building and Maintenance Building Shop for the Chemical Tanks and Piping Replacement Project. Staff selected the Milton Roy units as the pumps continue to have very few maintenance and operational issues.</u>
Motorized Valve Operators	Rotork	IQ Series	230+	<del>\$7,000</del> <u>\$8,000</u>	Typically, staff has installed motorized valve operators on all valves and gates that require many turns of the stem to fully open or close, are inaccessible, and / or require automatic control. The motorized valve operators allow staff to actuate the valves and gates much quicker and in a safe manner.  Staff has previously used motorized valve operators by other manufacturers but found the Rotork units to be more reliable and the customer service more responsive and dependable.

**Attachment A – ~~2014~~ 2018 STANDARDIZED EQUIPMENT LIST**

**Board Approval Date – ~~December 8, 2014~~ January 8, 2018**

Equipment Description	Manufacturer	Type/Model/Series	Quantity of Units Installed at USD Facilities	Average Unit Cost, excludes sales tax	Comments
Gas Monitoring Systems	Mining Safety Appliances Company (MSA)	Ultima Series	<del>15+</del> <u>19</u>	<del>\$2,000</del> <u>\$2,500 to \$8,500</u>	<p>Gas monitoring systems are required by the National Fire Protection Association and the National Electrical Code to be installed in areas where combustible gases may be present. Additionally, gas monitoring systems are installed in areas where staff may have exposure to hydrogen sulfide gases. The gas monitoring systems typically measure levels of combustible gases, hydrogen sulfide, and / or oxygen. The systems are critical to maintaining a safe environment for staff, equipment and processes.</p> <p>Staff has found the MSA units more reliable and the gas sensors easier to calibrate.</p>

**Attachment A – ~~2014~~ 2018 STANDARDIZED EQUIPMENT LIST**

**Board Approval Date – ~~December 8, 2014~~ January 8, 2018**

Equipment Description	Manufacturer	Type/Model/Series	Quantity of Units Installed at USD Facilities	Average Unit Cost, excludes sales tax	Comments
Programmable Logic Controllers (PLC)	Allen Bradley	Logix Series of Controllers, and Associated Support Hardware and Software	<del>26</del> <u>34</u>	\$10,000 to \$20,000 (hardware cost only; does not include enclosures, installation, wire terminations, and programming)	<p>PLCs are located at every plant process building and the remote pump and lift stations and are critical to the operation of the District’s facilities. They provide automatic controls of the equipment by continuously monitoring and adjusting the equipment’s operating parameters as flow or process conditions vary.</p> <p>The Allen Bradley PLC has advanced communication and networking technologies and is easier to program and troubleshoot. Staff has been extremely pleased with the Allen Bradley PLC.</p> <p>The Allen Bradley Logix series of controllers has seven models depending on the complexity of the system being monitored and controlled. The ControlLogix controller is the most robust and staff will utilize this controller in most of the District’s applications. However, there will be some small to mid-size applications where the CompactLogix controller system would serve the need and is more cost effective.</p> <p>PLCs from other manufacturers would require different programming and configuration software than those for the Allen Bradley units. It is important that the PLC’s are standardized to Allen Bradley since staff has already invested many training hours to learn the programming of the units.</p>

## Attachment B

### Section 3400 California Public Contract Code

(a) The Legislature finds and declares that it is the intent of this section to encourage contractors and manufacturers to develop and implement new and ingenious materials, products, and services that function as well, in all essential respects, as materials, products, and services that are required by a contract, but at a lower cost to taxpayers.

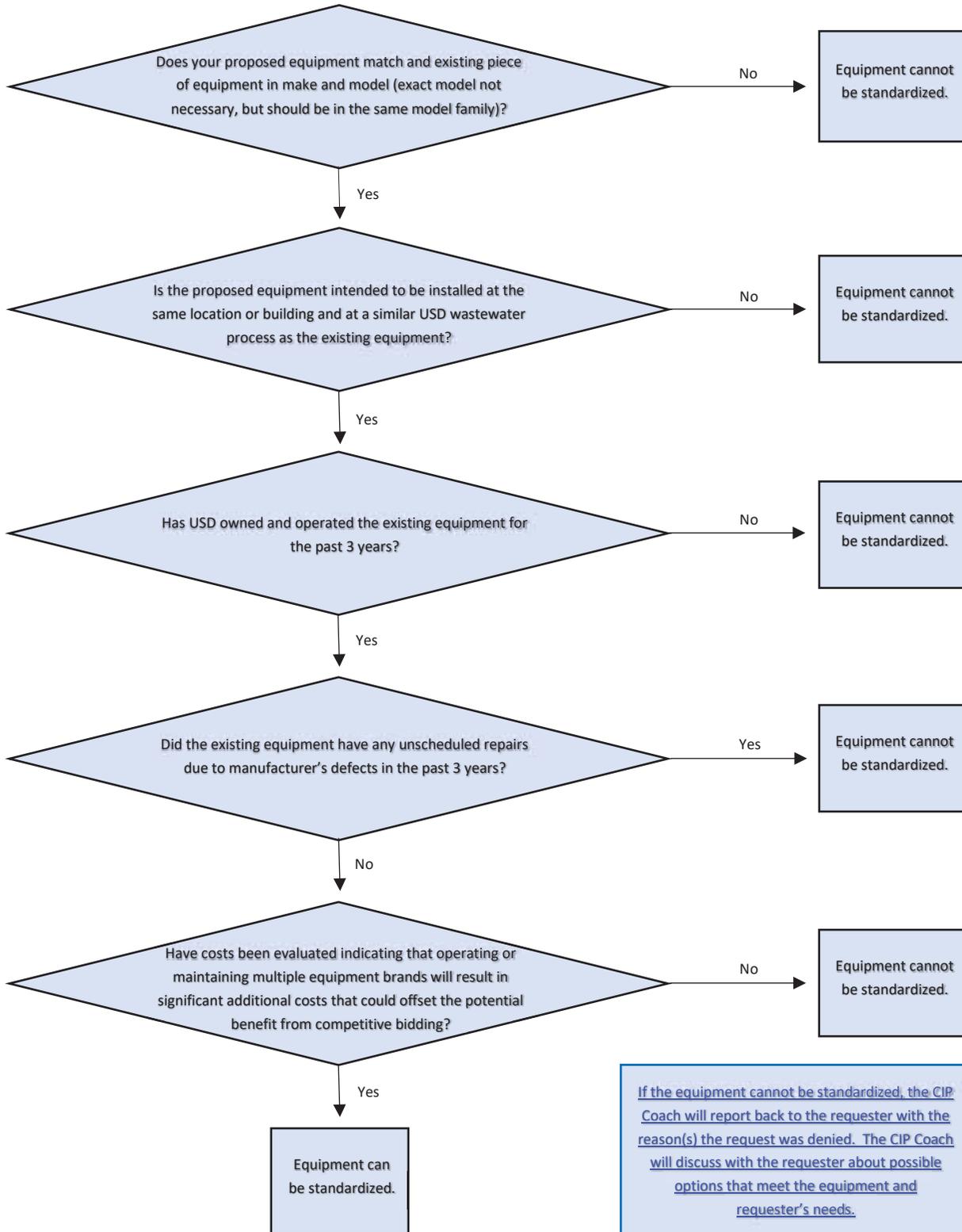
(b) No agency of the state, nor any political subdivision, municipal corporation, or district, nor any public officer or person charged with the letting of contracts for the construction, alteration, or repair of public works, shall draft or cause to be drafted specifications for bids, in connection with the construction, alteration, or repair of public works, (1) in a manner that limits the bidding, directly or indirectly, to any one specific concern, or (2) calling for a designated material, product, thing, or service by specific brand or trade name unless the specification is followed by the words "or equal" so that bidders may furnish any equal material, product, thing, or service. In applying this section, the specifying agency shall, if aware of an equal product manufactured in this state, name that product in the specification. Specifications shall provide a period of time prior to or after, or prior to and after, the award of the contract for submission of data substantiating a request for a substitution of "an equal" item. If no time period is specified, data may be submitted any time within 35 days after the award of the contract.

(c) Subdivision (b) is not applicable if the awarding authority, or its designee, makes a finding that is described in the invitation for bids or request for proposals that a particular material, product, thing, or service is designated by specific brand or trade name for any of the following purposes:

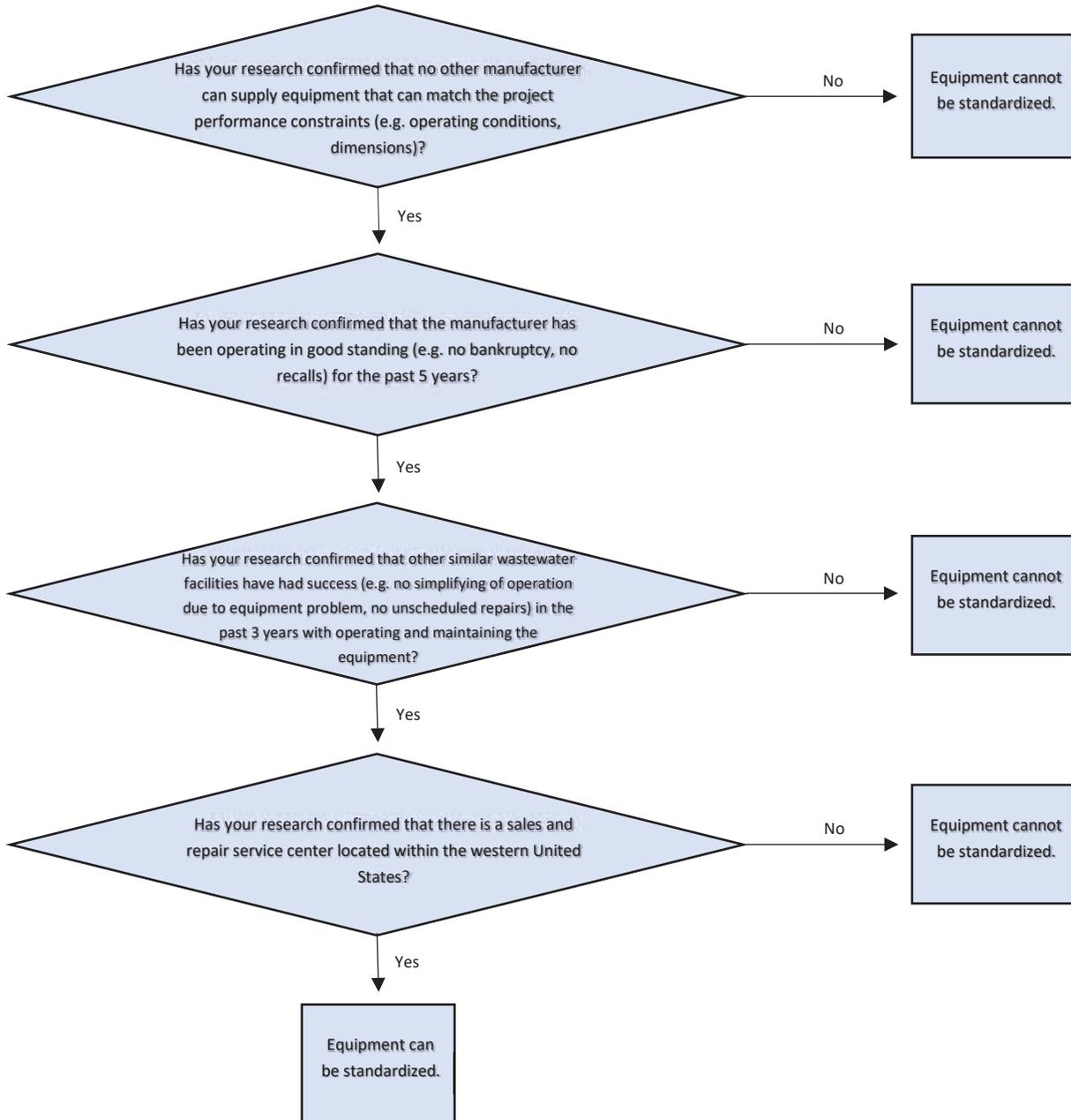
- (1) In order that a field test or experiment may be made to determine the product's suitability for future use.
- (2) In order to match other products in use on a particular public improvement either completed or in the course of completion.
- (3) In order to obtain a necessary item that is only available from one source.
- (4) (A) In order to respond to an emergency declared by a local agency, but only if the declaration is approved by a four-fifths vote of the governing board of the local agency issuing the invitation for bid or request for proposals.  
(B) In order to respond to an emergency declared by the state, a state agency, or political subdivision of the state, but only if the facts setting forth the reasons for the finding of the emergency are contained in the public records of the authority issuing the invitation for bid or request for proposals.

# Attachment C – Standardized Equipment Selection Criteria

## “Match Existing Equipment”



## “Equipment Available From One Source”



If the equipment cannot be standardized, the CIP Coach will report back to the requester with the reason(s) the request was denied. The CIP Coach will discuss with the requester about possible options that meet the equipment and requester's needs.

Union Sanitary District Policy

Effective date: January 8, 2018	<b>Standardized Equipment Policy</b>	Policy Number 2760  Page 1 of 4
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**Policy**

This policy is established to provide the guidelines for maintaining and approving a Standardized Equipment List and the procedures for evaluating mechanical, electrical, and instrumentation equipment for inclusion in the list.

**Purpose**

The District’s operating and maintenance Staff has standardized certain mechanical, electrical, and instrumentation equipment to single manufacturers include proven equipment reliability and quality; equipment capability to address specific operational or maintenance issues; substantial training costs invested by Staff to operate and maintain the specialized equipment; matching existing equipment to reduce spare parts inventory and training on multiple equipment types; and availability of affordable parts.

The purpose of this policy is to:

- Set the guidelines for evaluating the mechanical, electrical, and instrumentation equipment to be included in the Standardized Equipment List.
- Provide a process for the District to review the current Standardized Equipment List and to update the list every three (3) years (“Three Year Review”) and approve the new Standardized Equipment List.
- Provide an approval process for the District’s General Manager, or his or her designee, to review Staff’s recommendation for changes to the guidelines and the Standardized Equipment List prior to the next Three-Year Review.

**Definitions**

*California Public Contract Code (PCC)*

The Public Contract Code enacted by the California State Legislature, which consists of all public contract law, to achieve the following objectives:

- (a) To clarify the law with respect to competitive bidding requirements.
- (b) To ensure full compliance with competitive bidding statutes as a means of protecting the public from misuse of public funds.

- (c) To provide all qualified bidders with a fair opportunity to enter the bidding process, thereby stimulating competition in a manner conducive to sound fiscal practices.
- (d) To eliminate favoritism, fraud, and corruption in the awarding of public contracts.

<i>Project</i>	Any construction, reconstruction, alteration, enlargement, renewal, or replacement of District owned sewer facilities or property.
<i>Sole Source</i>	A company contracted, without competition, to be the sole supplier of a product or service.
<i>Staff</i>	The District's Engineering and Operations and Maintenance Staff.
<i>Standardized Equipment List</i>	The list of equipment approved by the Union Sanitary District pursuant to this policy that can be identified in a project's technical specifications to a single manufacturer and/or equipment model or model family. This is sometimes referred to as "sole sourcing" equipment. The District can, but is not obligated to, specify the equipment from the Standardized Equipment List in a project's technical specifications.
<i>Standardized Equipment Selection Criteria</i>	Two selection criteria developed by Staff to evaluate equipment that either (a) matches existing equipment already used on District facilities or (b) is only available from one manufacturer source, as set forth in Public Contract Code 3400.

## **Procedure**

Staff shall utilize the following guidelines for evaluating the equipment to be included in the Standardized Equipment List:

1. The Standardized Equipment List was initially developed by Staff through evaluating the District's equipment that met the Standardized Equipment Selection Criteria.
2. Every three years, Staff shall review the Standardized Equipment List and determine whether the equipment on the list continues to meet the standards set forth in the Standardized Equipment Selection Criteria and whether new equipment shall be considered to be included on the list.
3. If the evaluation determines that the equipment on the Standardized Equipment List no longer meets the standards in the Standardized Equipment Selection Criteria, Staff shall recommend the equipment be deleted from the list. If Staff determines that the

equipment on the list still meets the standards in the Standardized Equipment Selection Criteria, no changes to the list shall be recommended.

4. At the Three Year Review, if a Staff member requests to include new equipment on the Standardized Equipment List, he or she shall notify the Capital Improvement Project (CIP) Coach. The CIP Coach will evaluate the request to ensure compliance with Section 3400 of the California Public Contract Code and the Standardized Equipment Selection Criteria.
  - a. If the evaluation determines the request is viable, the CIP Coach shall recommend to the Executive Team to standardize the equipment and amend the Standardized Equipment List to include the new equipment. If the Executive Team approves the recommendation, staff shall proceed with a final recommendation to the Board of Directors for approval consideration.
  - b. If the evaluation determines the request to be not viable, the CIP Coach will report back to the requester(s) with the reason(s) the request was denied. The CIP Coach will discuss with the requester feasible options that meet the equipment and requester's needs.
5. Staff has recommended the Standardized Equipment List in Attachment A for this Three Year Review, which is approved together with this policy. Staff shall utilize the List for three years, after which these guidelines shall be repeated.
6. Prior to the next Three Year Review, Staff may request new equipment to be sole sourced to accommodate project needs. The CIP Coach shall evaluate the request to ensure compliance with Section 3400 of the California Public Contract Code and the Standardized Equipment Selection Criteria.
  - a. If the evaluation determines the request is viable, the CIP Coach shall recommend to the Executive Team whether to sole source the equipment for the current project only or to amend the Standardized Equipment List to include the new equipment. If the Executive Team agrees with the recommendation, the CIP Coach shall proceed with a recommendation to the General Manager or his or her designee for approval consideration. If the General Manager or his or her designee, in consultation with District Legal Counsel, approves the request, the project specifications and/or the Standardized Equipment List shall be amended to include the new equipment. If the General Manager or his or her designee denies the request, the CIP Coach will proceed with 6(b) below.
  - b. If the evaluation determines the request to be not viable, the CIP Coach will report back to the requester(s) with the reason(s) the request was denied. The CIP Coach will discuss with the requester possible options that meet the equipment and requester's needs. After the discussion, the CIP Coach shall coordinate with the design consultant to ensure the specification is drafted with performance requirements that will meet the District's needs and to include "or equal" in the specification. The CIP Coach will also ensure the specification is not proprietary in nature that could exclude all but one manufacturer.

7. When an invitation for bids or request for proposals is issued with sole sourced or standardized equipment, the General Manager or his or her designee shall include the finding required by Public Contract Code 3400(c) that the material, product, service or thing is designated for one of the following purposes: (a) in order to match other products in use on a particular public improvement either completed or in the course of completion; or (b) in order to obtain a necessary item that is only available from one source.
8. If concerns emerge over approved sole sourced or standardized equipment, the General Manager or his or her designee is authorized under Public Contract Code Section 3400 to issue an invitation for bids or request for proposals that a particular material, product, thing, or service designated by specific brand or trade name in order that a field test or experiment may be made to determine the product's suitability for future use.

### Employee Responsibility

Employees are responsible for adhering to the procedures established by this policy and requesting Management approval whenever they have recommendations for changes to the guidelines and the Standardized Equipment List.

### Management Responsibility

Management is responsible for ensuring that this policy is followed and that the Standardized Equipment List is reviewed and approved by the Board of Directors every three years.

### References and Notes

Attachment A – [2018 Standardized Equipment List](#)

Attachment B – [California Public Contract Code Section 3400](#)

Attachment C – [Standardized Equipment Selection Criteria](#)

This revision supersedes the versions listed below, which are no longer effective.

Title	Policy #	Effective Date
Standardized Equipment	2760	December 8, 2014

Approved by: Board of Directors, January 8, 2018

Author/owner: CIP Coach

Reviewers: Executive Team

Notify Person: CIP Coach

Revision frequency: Every three years

Next Review: January 2021

**Attachment A – 2018 STANDARDIZED EQUIPMENT LIST**  
**Board Approval Date – January 8, 2018**

Equipment Description	Manufacturer	Type/Model/Series	Quantity of Units Installed at USD Facilities	Average Unit Cost, excludes sales tax	Comments
Plug Valves (4-inch diameter and greater)	Dezurik	Eccentric Plug Valves (PEC)	640+	\$3,000	<p>Plug valves are used to isolate the flow of water, wastewater, sludge, and grit at District facilities. They have a simple operation and are typically more economical than other types of valves.</p> <p>Staff has previously used plug valves by other manufacturers but found the Dezurik plug valves to be more reliable and durable. Maintenance staff has also received very good customer support from the local sales representative.</p>
Air / Vacuum Relief Valves	Vent-O-Mat	RGX Series	36	\$5,500	<p>The air / vacuum relief valves are important components in the operation and maintenance of the twin force main pipelines. Along with the surge towers located at Newark and Irvington Pump Stations, the air / vacuum relief valves reduce the effects of water hammer (sudden changes in the flow rate of wastewater) in the twin force main pipelines.</p> <p>Staff has previously used air / vacuum relief valves by other manufacturers but found the Vent-O-Mat units to function more reliably and are easier to maintain.</p>

**Attachment A – 2018 STANDARDIZED EQUIPMENT LIST**  
**Board Approval Date – January 8, 2018**

Equipment Description	Manufacturer	Type/Model/Series	Quantity of Units Installed at USD Facilities	Average Unit Cost, excludes sales tax	Comments
Wastewater Centrifugal Pumps and Motors	Wemco	Wemco-Hidrostal Submersible Screw-Centrifugal Impeller Pump	20	\$110,000	<p>In 1998, staff conducted an in-depth analysis of the dry-pit submersible pumps and motors prior to the Alvarado Influent Pump Station Expansion Project to address problems, such as clogging, high vibrations, and limited operating range associated with the old line-shaft pumps. The analysis included a comparison of pumps from other manufacturers.</p> <p>Based on the results of the analysis, staff selected Wemco as the sole-source supplier for the raw wastewater pumps and motors for the Alvarado Influent Pump Station. Staff has subsequently standardized to the Wemco pumps at the Irvington Pump Station, Newark Pump Station, and Boyce Road Lift Station.</p>
Centrifugal Pumps and Motors (sludge mixing pumps)	Wemco	Wemco-Hidrostal Screw-Centrifugal Impeller Pump	7	\$90,000	<p>The original sludge mixing pumps did not perform well due to its inability to pass large clumps of rags. This resulted in a limited mixing operation, which increased the risk of a large mat formation in the digester and created operational problems with mixing and generation of methane gas. This also caused operations staff to frequently take the pumps out of service in order to remove the rags that are caught in the pumps.</p> <p>Based on the success with the non-clog capabilities of the Wemco-Hidrostal submersible screw-centrifugal impeller pumps at the wastewater pump stations, staff decided to replace the existing sludge mixing pump at Primary Digester No. 2 with the Wemco-Hidrostal Screw Centrifugal Impeller Pump in 2003. Due to this success, staff has standardized the sludge mixing pumps to the Wemco units.</p>

**Attachment A – 2018 STANDARDIZED EQUIPMENT LIST**  
**Board Approval Date – January 8, 2018**

Equipment Description	Manufacturer	Type/Model/Series	Quantity of Units Installed at USD Facilities	Average Unit Cost, excludes sales tax	Comments
Recessed Impeller Pumps (sludge pumping)	Wemco Pump	Model C	16	\$50,000	The Wemco Model C recessed impeller pumps were first installed at the District during the 1991 Interim Improvements Project to pump primary sludge from the primary clarifiers. These pumps are still in operation. Due to the Wemco Model C's ability to pass fibrous and stringy materials with the sludge, good operational reliability, and ease of maintenance, staff also installed them as sludge recirculation pumps at the primary digesters.
Chemical Metering Pumps	Milton Roy	Milroyal B High Performance Diaphragm Pump	16	\$18,000	<p>Metering pumps are used to deliver chemicals for various plant treatment processes such as effluent disinfection and odor control at the plant and remote pump stations. The District has been using Milton Roy metering pumps for dispensing chemicals since the late 1980s.</p> <p>Based on the historical success of these pumps and to match the other metering pumps at the District, on November 23, 2015, the Board approved staff to specify Milton Roy as the sole-source manufacturer/supplier for the six replacement chemical metering pumps at the Odor Control Building and Maintenance Building Shop for the Chemical Tanks and Piping Replacement Project. Staff selected the Milton Roy units as the pumps continue to have very few maintenance and operational issues.</p>
Motorized Valve Operators	Rotork	IQ Series	230+	\$8,000	<p>Typically, staff has installed motorized valve operators on all valves and gates that require many turns of the stem to fully open or close, are inaccessible, and / or require automatic control. The motorized valve operators allow staff to actuate the valves and gates much quicker and in a safe manner.</p> <p>Staff has previously used motorized valve operators by other manufacturers but found the Rotork units to be more reliable and the customer service more responsive and dependable.</p>

**Attachment A – 2018 STANDARDIZED EQUIPMENT LIST  
Board Approval Date – January 8, 2018**

Equipment Description	Manufacturer	Type/Model/Series	Quantity of Units Installed at USD Facilities	Average Unit Cost, excludes sales tax	Comments
Gas Monitoring Systems	Mining Safety Appliances Company (MSA)	Ultima Series	19	\$2,500 to \$8,500	<p>Gas monitoring systems are required by the National Fire Protection Association and the National Electrical Code to be installed in areas where combustible gases may be present. Additionally, gas monitoring systems are installed in areas where staff may have exposure to hydrogen sulfide gases. The gas monitoring systems typically measure levels of combustible gases, hydrogen sulfide, and / or oxygen. The systems are critical to maintaining a safe environment for staff, equipment and processes.</p> <p>Staff has found the MSA units more reliable and the gas sensors easier to calibrate.</p>

**Attachment A – 2018 STANDARDIZED EQUIPMENT LIST**  
**Board Approval Date – January 8, 2018**

Equipment Description	Manufacturer	Type/Model/Series	Quantity of Units Installed at USD Facilities	Average Unit Cost, excludes sales tax	Comments
Programmable Logic Controllers (PLC)	Allen Bradley	Logix Series of Controllers, and Associated Support Hardware and Software	34	\$10,000 to \$20,000 (hardware cost only; does not include enclosures, installation, wire terminations, and programming)	<p>PLCs are located at every plant process building and the remote pump and lift stations and are critical to the operation of the District’s facilities. They provide automatic controls of the equipment by continuously monitoring and adjusting the equipment’s operating parameters as flow or process conditions vary.</p> <p>The Allen Bradley PLC has advanced communication and networking technologies and is easier to program and troubleshoot. Staff has been extremely pleased with the Allen Bradley PLC.</p> <p>The Allen Bradley Logix series of controllers has seven models depending on the complexity of the system being monitored and controlled. The ControlLogix controller is the most robust and staff will utilize this controller in most of the District’s applications. However, there will be some small to mid-size applications where the CompactLogix controller system would serve the need and is more cost effective.</p> <p>PLCs from other manufacturers would require different programming and configuration software than those for the Allen Bradley units. It is important that the PLC’s are standardized to Allen Bradley since staff has already invested many training hours to learn the programming of the units.</p>

## Attachment B

### Section 3400 California Public Contract Code

(a) The Legislature finds and declares that it is the intent of this section to encourage contractors and manufacturers to develop and implement new and ingenious materials, products, and services that function as well, in all essential respects, as materials, products, and services that are required by a contract, but at a lower cost to taxpayers.

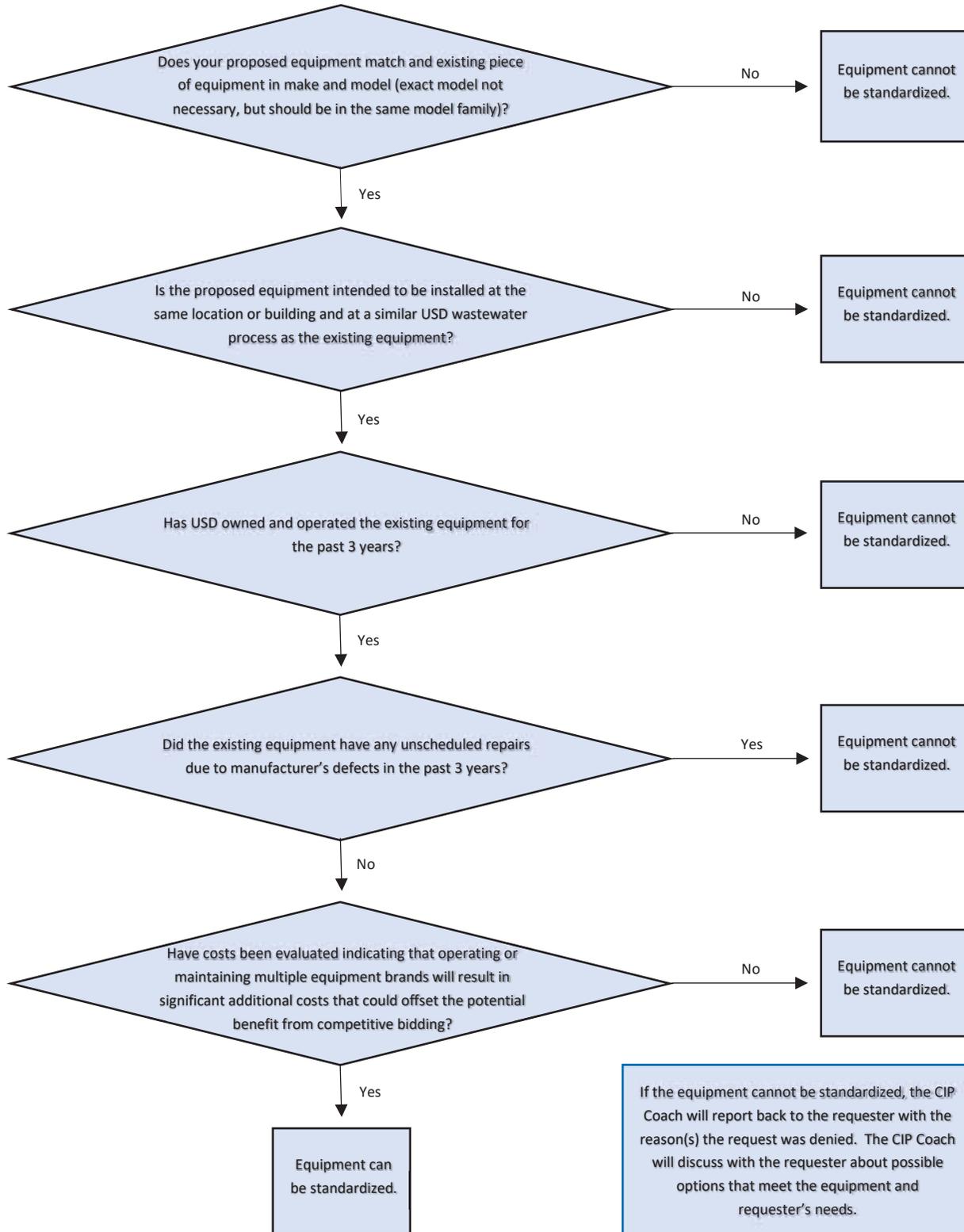
(b) No agency of the state, nor any political subdivision, municipal corporation, or district, nor any public officer or person charged with the letting of contracts for the construction, alteration, or repair of public works, shall draft or cause to be drafted specifications for bids, in connection with the construction, alteration, or repair of public works, (1) in a manner that limits the bidding, directly or indirectly, to any one specific concern, or (2) calling for a designated material, product, thing, or service by specific brand or trade name unless the specification is followed by the words "or equal" so that bidders may furnish any equal material, product, thing, or service. In applying this section, the specifying agency shall, if aware of an equal product manufactured in this state, name that product in the specification. Specifications shall provide a period of time prior to or after, or prior to and after, the award of the contract for submission of data substantiating a request for a substitution of "an equal" item. If no time period is specified, data may be submitted any time within 35 days after the award of the contract.

(c) Subdivision (b) is not applicable if the awarding authority, or its designee, makes a finding that is described in the invitation for bids or request for proposals that a particular material, product, thing, or service is designated by specific brand or trade name for any of the following purposes:

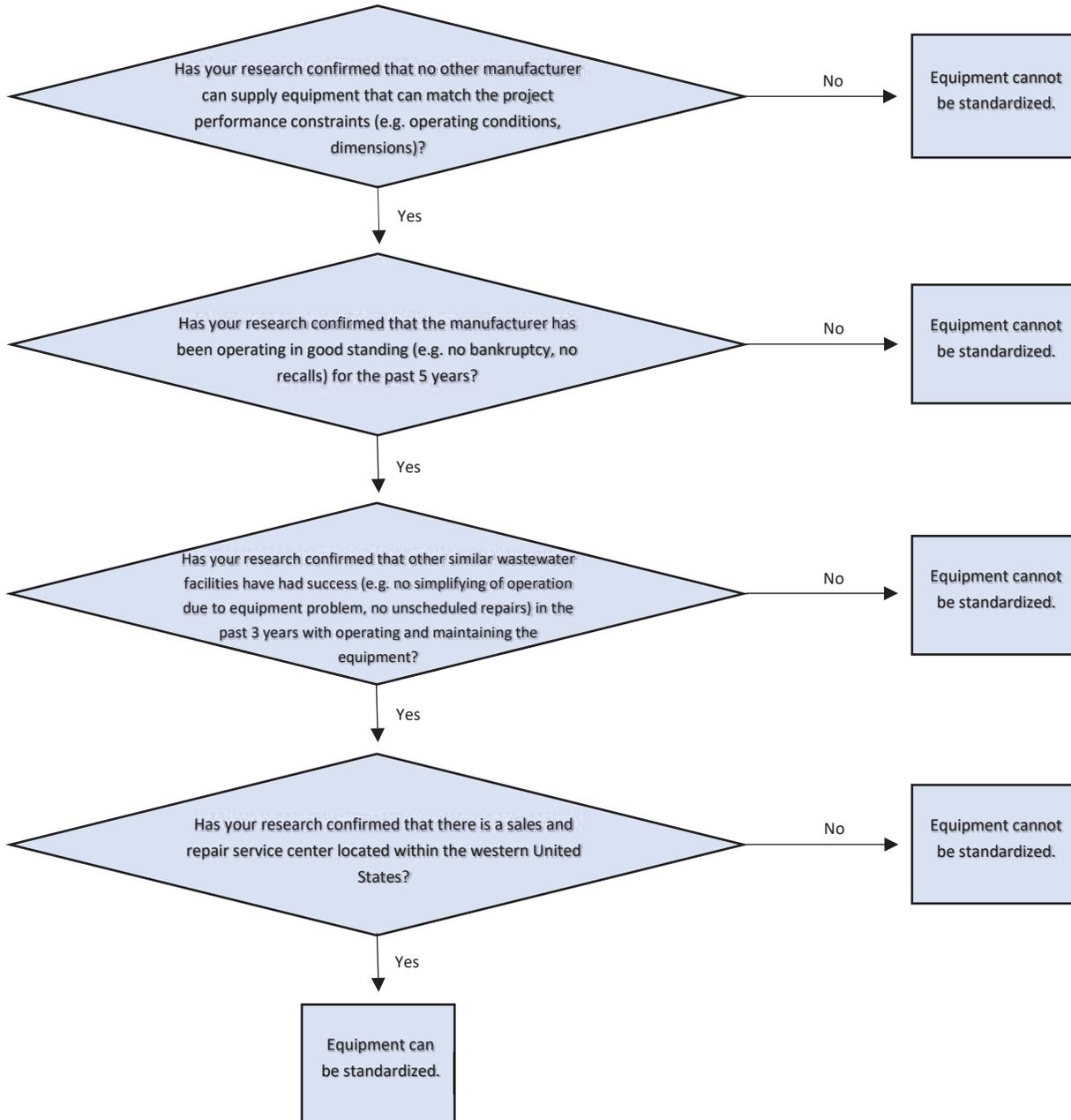
- (1) In order that a field test or experiment may be made to determine the product's suitability for future use.
- (2) In order to match other products in use on a particular public improvement either completed or in the course of completion.
- (3) In order to obtain a necessary item that is only available from one source.
- (4) (A) In order to respond to an emergency declared by a local agency, but only if the declaration is approved by a four-fifths vote of the governing board of the local agency issuing the invitation for bid or request for proposals.  
(B) In order to respond to an emergency declared by the state, a state agency, or political subdivision of the state, but only if the facts setting forth the reasons for the finding of the emergency are contained in the public records of the authority issuing the invitation for bid or request for proposals.

# Attachment C – Standardized Equipment Selection Criteria

## “Match Existing Equipment”



## “Equipment Available From One Source”



If the equipment cannot be standardized, the CIP Coach will report back to the requester with the reason(s) the request was denied. The CIP Coach will discuss with the requester about possible options that meet the equipment and requester's needs.

**RESOLUTION NO. \_\_\_\_\_**  
**APPROVE REVISED POLICY NO. 2760 – STANDARDIZED EQUIPMENT**

WHEREAS, the Union Sanitary District approved Policy No. 2760 – Standardized Equipment Policy and Attachments A through C on December 8, 2014, and the policy is established to provide the guidelines for maintaining and approving a Standardized Equipment List and the procedures for evaluating mechanical, electrical, and instrumentation equipment for inclusion in the List; and

WHEREAS, Section 3400 of the California Public Contract Code allows exceptions to the requirement to include “or equal” in the specifications for bids in connection with public work projects; and

WHEREAS, the formal bidding procedures would be unavailing for the acquisition of the products in the Standardized Equipment List since the equipment is either proprietary or is intended to match existing assets, for reasons including that maintenance costs associated with multiple suppliers of equipment would exceed the benefit of competitive bidding; and

WHEREAS, the Union Sanitary District adopted, by Resolution No. 2744, the updated 2014 Standardized Equipment List for use on projects at Union Sanitary District facilities on December 8, 2014 for a period of three years; and

WHEREAS, the Union Sanitary District revised Policy No. 2760 – Standardized Equipment and Attachments A through C, including the updated Standardized Equipment List; and

WHEREAS, the Board of Directors desires to designate the General Manager, or his or her designee, to modify the Standardized Equipment List and to approve sole source equipment for projects, as set forth in the proposed Policy No. 2760.

THEREFORE BE IT RESOLVED, that the UNION SANITARY DISTRICT hereby approves the revised Policy No. 2760 – Standardized Equipment Policy and Attachments A through C. The policy and Standardized Equipment List shall be effective for a period of three years, and shall expire on January 8, 2021.

On motion duly made and seconded, this resolution was adopted by the following vote on January 8, 2018:

AYES:

NOES:

ABSENT:

ABSTAIN:

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PAT KITE  
President, Board of Directors  
Union Sanitary District

Attest:

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MANNY FERNANDEZ  
Secretary, Board of Directors  
Union Sanitary District



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2018

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

**FROM:** Paul R. Eldredge, General Manager/District Engineer  
Sami E. Ghossain, Manager of Technical Services

**SUBJECT:** Agenda Item No. 10 - Meeting of January 8, 2018  
**Approve Updated Policy No. 2080, Project Expenditures**

### **Recommendation**

Staff recommends the Board approve updates to USD's Policy No. 2080 - Project Expenditures

### **Background**

Staff has updated the District's Project Expenditures policy as part of our ongoing efforts to review and update all policies. The Project Expenditures policy was updated by the Manager of Technical Services and reviewed by the Executive Team. This policy was last updated and approved by the Board of Directors in December of 2014.

Attached are two versions of the policy for review. The first shows the 2014 text with all deletions in red with strikethrough, and all additions in blue and underscored. The second version shows the proposed final text without edits, in final form.

The most significant updates are as follows:

- **Sewer Service Charge Fees Definition Clarifications** (Page 1). This primarily clarifies that the use of the Sewer Service Charge fees includes paying for the renewal and replacement of the wastewater facilities.

- **Rate Payers Benefited from Projects** (Pages 1, 2, 3 and 4). Except for the Operating Fund Projects, all types of projects, and their corresponding sources of funding, benefit existing and future rate payers. This distinction is proposed to be deleted.
- **The Present Threshold Amount for Projects** (Pages 2, 3 and 4). The threshold amount for the projects defined in the policy is either \$50,000, \$100,000, or as determined during the annual budget process. To be consistent, this distinction is proposed to be changed for all projects such that the threshold amount is determined during the annual budget process.
- **Capacity Fund Projects Definition Clarifications** (Pages 3, 6 and 7). This clarifies that the use of the capacity fund is allowed for projects that extend the life of an existing asset through preservation of existing capacity. This is also reflected in Appendix A for the Capacity Fund project category, and Appendix B for the Category B projects.
- **Appendix B - Criteria for Category A Capacity Projects** (Pages 8). This clarifies that projects providing additional capacity for treatment sub-processes would qualify as Category A projects, not just the projects that provide additional capacity beyond the treatment plant permitted flow.

The remainder of the changes are primarily updates of terms and definitions, updates and clarification of current practice, deletion of some examples, and other minor changes.

Staff will be available to answer any questions the Board may have regarding the updated policy.

PRE/SEG;dl

Attachments: Policy No. 2080 – Project Expenditures Policy and Appendices A and B, with proposed changes shown.  
Policy No. 2080 – Project Expenditures Policy and Appendices A and B, final version.

Effective: <del>December 8, 2014</del> <u>January 8, 2018</u>	<b>Project Expenditures</b>	Policy Number 2080  Page 1 of 8
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**Policy**

Establish guidelines for determining the nature and funding of the District’s infrastructure and non-infrastructure projects and to provide criteria for the use of the funding sources.

**Purpose**

To further clarify and define the various types of District’s infrastructure and non-infrastructure projects and the allowable funding sources by project nature and type.

**Definitions**

*Capacity Fees*

Capacity fees are charged upon connecting to the ~~existing~~ system or upon a change in use in connected properties, or upon a substantial increase in flow or loading by an industry. The fees can be used for ~~the benefit of future rate payers and~~ funding debt services for capacity-related projects and may be used ~~for the benefit of existing rate payers~~ per the criteria attached as Appendix ‘B’. The fees and expenditures are accounted for in the District’s Capacity Fund.

*Sewer Service Charge Fees*

Sewer Service Charge fees are used to pay for the maintenance, ~~and~~ operation, and renewal and replacement of the wastewater facilities (collection, transport, treatment, reuse, and disposal of wastewater) and for payment of principal and interest on debt in accordance with Federal and State Revenue Program guidelines. *(Note: this definition is derived from SSC Ordinance 31.379)*

*Sources of Funding*

Projects may be funded by the Operating Fund, Special Projects Fund, Information Systems Renewal & Replacement Fund, Structural Renewal and Replacement Fund, and the Capacity Fund. The Operating Fund's project may be capitalized, depending if the project extends the life of the asset. A matrix summarizing internal guidelines is attached as Appendix 'A'.

*Operating Fund Projects*

These are routine operations and maintenance projects, generally low in cost and do not extend the life of an asset. If the project does extend the life of an asset, it may be funded by the Structural Renewal and Replacement Fund.

~~These projects benefit existing rate payers.~~

The ~~present~~ threshold is determined during the annual budget process.

*Special Projects*

These are one time only and/or, non-routine projects or programs, ~~generally low in cost~~ and may or may not extend the life of an asset.

Examples include, but are not limited to Studies, Master Plans, Emergency projects and District-wide ~~one-time expenditures for~~ administrative programs.

~~These projects benefit existing as well as future rate payers.~~

The ~~present~~ threshold is determined during the annual budget process.

*Information Systems  
Renewal and Replacement  
Fund Projects*

Projects are for the replacement of existing hardware and software that has reached ~~its existing~~ the end of its useful life and to fund identified projects included in the approved ~~latest update of the~~ IT Master Plan.

~~These projects benefit existing as well as future rate payers.~~

The ~~present~~ threshold is determined during the annual budget process.

*Structural Renewal and  
Replacement Fund  
Projects*

Projects are a non-routine upgrade of an existing asset, moderate to high in cost, and extend the life of the asset or replace the asset. Examples would be a major renovation of an existing 50-year pipeline at 40 years, extending its life for another 30 years; or a major renovation of a 25-year treatment facility at 25 years, extending its life for another 20 years.

~~These projects benefit existing and future rate payers.~~

The threshold is determined during the annual budget process.

~~The present threshold is equal to or greater than \$50,000.~~

*Capacity Fund Projects*

These are generally new projects that either increase capacity or extend the life and projected capacity of the collection, transport, treatment, or transport-treatment system. ~~; extend service to new development; or provide service to new and existing customers.~~ These projects are moderate to high in cost and most of the time create a new asset, or extend the life of an existing asset through preservation of existing capacity. Other projects may include energy reduction and capacity conservation projects which measurably reduce flows, loadings, or energy use, and, increase the hydraulic and treatment capacity ~~available for new and existing customers.~~

~~These projects benefit future as well as existing rate payers.~~

The threshold is determined during the annual budget process.

~~The present threshold is \$100,000.~~

**Combination Projects**

Projects that include renovating and extending the life of an existing asset and also increasing capacity of the system, extending service, etc., high in cost and, depending on the nature of the project, may create a new asset. An example would be a project that replaces worn-out facilities and increases its capacity. ~~Specific examples would be a pipeline that is replaced by a larger pipeline or steeper slope, or a renovation of existing pumps that includes adding new or larger pumps.~~

~~These projects benefit both existing and future rate payers.~~

The threshold is determined during the annual budget process.

~~The present threshold is \$50,000.~~

**Procedure**

The budget allocation (as necessary) and corresponding funding of each project is determined during the annual budget process in developing the ~~ten~~20-year capital improvement plan in consultation with the Executive Team. Upon initiation of the project, the project manager confirms the funding source and necessary funding ratios ~~and makes final adjustment at completion~~.

~~Combination projects require that costs be allocated between the participating funds. The allocation is initially determined during the annual budget process in developing the ten year capital improvement plan. Upon initiation of each project, the project manager confirms the ratio and makes final adjustments at completion.~~

**Management Responsibility**

The Executive Team, or its designees, Managers are responsible for jointly developing the annual 20-year capital improvement plan and ensuring that projects are funded by the correct revenue stream.

Attachment: Internal Guideline Matrix

Reviewed by:	The Executive Team, <del>03/2008, 11/2014, 12/2017</del>
Approved by:	Board of Directors, <del>11/90; 01/08/01, 12/08/2014, 12/18/2017</del>
Author/Owner:	TS Manager
Notify Person:	TS Manager
Review Frequency:	3 years
Next Revision:	<del>12/2021</del> 17

Appendix 'A'  
Internal Guidelines for Project Expenditure Funding

Project Category	Characteristics			Internal Guidelines	Possible Funding
	General Category	Cost	Effect on Life		
1. O&M	Routine operations and maintenance projects; budgeted annually.	Low	None or minor	Continue same policy re. O&M expenses. Some current O&M projects may fall into category 2.	Annual Budget, Operating Fund.
2. Special Projects	Non-routine projects; budgeted annually.	Low to Moderate	May extend life of an asset	<del>1-</del> These are one-time, non-routine projects. <del>2-</del> <del>Cost threshold is decided during the budget process</del>	Special Projects Fund, Capacity or Renewal and Replacement Funds.
3. Information Systems	Routine replacement of existing hardware and software and for new projects included in the latest update of the IT Master Plan.	Low to Moderate	Extends asset or replaces asset	1. Larger projects are subject to IT Governance criteria. 2. New projects are reviewed and approved annually by the Board.	Annual Budget allocation to ISR&R fund from Sewer Service Fees, based on required fund balance.
4. Renewal/ Replacement	Non-routine upgrade of existing asset.	Moderate to High	Extends asset or replaces asset	<del>Suggest two tests:</del> <del>1-</del> Does it extend life of overall asset? (Re-roofing 50-year building at 10 years does not extend life of building—re-roofing is an anticipated expense and, therefore, is O&M.)  <del>2-</del> <del>Should be above a cost threshold of \$50,000</del>	Structural Renewal/ Replacement Fund, SSC Fees, Bonds Surcharge, Assessment District, SRF Loan <a href="#">or other loans</a> .  Connection Fees per Criteria in Appendix 'B.'

<p>5. Capacity Fund</p>	<p>New projects to increase capacity, <u>preserve existing capacity</u>, treatment, or extend service</p>	<p>Moderate to High</p>	<p>Creates New Asset or extends life of existing assets/projected capacity</p>	<p><del>1.</del> Needs to meet the legal test for connection fee funding. These are new facilities which increase capacity of system, extend service or extend life of existing system, etc.  <del>2. Should be above a cost threshold of \$100,000</del></p>	<p>Connection Fees, Bonds, SRF Loan, <u>or other loans.</u></p>
<p>6. Combination Projects</p>	<p>Upgrade and increase capacity of existing assets.</p>	<p>Moderate to High</p>	<p>Extends life and capacity of asset</p>	<p>1. Does it extend life of existing asset? 2. Does it add capacity to existing asset? <del>3. Should be above a cost threshold of \$ 100,000</del></p>	<p>Structural Renewal/Replacement Fund, SSC Fees, Connection Fees, Bonds, SRF Loan, Surcharge, Assessment District.</p>

## Appendix B

### Criteria for Use of Capacity Funds

(Reviewed by the Board of Directors June 13, 2011)

Prohibitions. The Capacity Fund may not be used for:

- Operating costs (i.e. salary and benefits, power, chemicals)
- Day-to-day maintenance of USD Facilities (maintenance equipment, tools, labor, maintenance contracts)
- Regular/recurring maintenance of capital facilities (i.e. painting, cleaning, replacement of minor parts and equipment, repairs)

Category A Projects. The Capacity Fund may be used up to 100% to fund projects and associated debt financing that:

- Provide treatment ~~plant~~ capacity in excess of the 33-MGD average dry weather daily-flow (ADWF), as determined by plant characteristics and master plans.
- Provide power or other plant utilities enabling capacity to be extended beyond the ADWF 33-MGD (e.g., standby power, power infrastructure, IT, access, and land).
- Provide additional pumping capacity to handle average daily flows or peak wet weather flows in excess of current capacity at pump stations and lift stations.
- Provide additional pumping capacity or pipeline conveyance capacity for new developments not currently connected to USD's collection system.
- Provide additional transport system capacity to handle peak flows in excess of current pipeline capacity (e.g., wet weather flow management, water reclamation projects).
- Provide additional collection system capacity to handle peak flows in excess of current pipeline capacity.
- Conduct studies to determine capacity needs or the capacity of existing assets for future use.

Category B Projects. The Capacity Fund may be used to fund up to 50% of capital projects and associated debt financing that:

- Maintain or restore the design capacity of an existing asset.
- Extend the life of an existing asset through preservation of existing capacity.
- Extend the life and projected capacity of an existing asset.
- Assess capacity as a portion of the project scope of a study.

Limits on use of Capacity Fund for Category B projects.

- Before any Capacity funds may be used for any Category B projects, the following conditions must exist:
  - Projected funds for the next ~~ten~~ 20 years must be adequate to cover:
    - All identified Category A projects for the next 120 years
    - All previously identified Category B projects using capacity funds in the next 120 years.
    - All debt service payments due in the next 120 years.
- The balance remaining may be allocated for Funding of Category B projects giving consideration to the following criteria:
  - Does the project restore capacity to a facility previously downgraded?
  - Does the project allow for maintaining capacity of an asset whose use may be shared by future customers?

- Does the project extend the useful life of an asset to ensure it is available for future customers?
- Does funding the project meet the minimum fund balance criteria identified in the Reserves Policy during the life of the construction project?
- Does the project provide or guarantee future availability of capacity to new/future customers?
- Is the project estimated to cost greater than \$1 million?

Union Sanitary District Policy

Effective: January 8, 2018	<b>Project Expenditures</b>	Policy Number 2080  Page 1 of 8
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**Policy**

Establish guidelines for determining the nature and funding of the District’s infrastructure and non-infrastructure projects and to provide criteria for the use of the funding sources.

**Purpose**

To further clarify and define the various types of District’s infrastructure and non-infrastructure projects and the allowable funding sources by project nature and type.

**Definitions**

*Capacity Fees* Capacity fees are charged upon connecting to the system or upon a change in use in connected properties, or upon a substantial increase in flow or loading by an industry. The fees can be used for funding debt services for capacity-related projects and may be used per the criteria attached as Appendix ‘B’. The fees and expenditures are accounted for in the District’s Capacity Fund.

*Sewer Service Charge Fees* Sewer Service Charge fees are used to pay for the maintenance, operation, and renewal and replacement of the wastewater facilities (collection, transport, treatment, reuse, and disposal of wastewater) and for payment of principal and interest on debt in accordance with Federal and State Revenue Program guidelines. *(Note: this definition is derived from SSC Ordinance 31.39)*

*Sources of Funding* Projects may be funded by the Operating Fund, Special Projects Fund, Information Systems Renewal & Replacement Fund, Structural Renewal and Replacement Fund, and the Capacity Fund. The Operating Fund’s project may be capitalized, depending if the project extends the life of the asset. A matrix summarizing internal guidelines is attached as Appendix ‘A’.

<i>Operating Fund Projects</i>	<p>These are routine operations and maintenance projects, generally low in cost and do not extend the life of an asset. If the project does extend the life of an asset, it may be funded by the Structural Renewal and Replacement Fund.</p> <p>The threshold is determined during the annual budget process.</p>
<i>Special Projects</i>	<p>These are one time only and/or, non-routine projects or programs, and may or may not extend the life of an asset.</p> <p>Examples include, but are not limited to Studies, Master Plans, Emergency projects and District-wide administrative programs.</p> <p>The threshold is determined during the annual budget process.</p>
<i>Information Systems Renewal and Replacement Fund Projects</i>	<p>Projects are for the replacement of existing hardware and software that has reached the end of its useful life and to fund identified projects included in the approved IT Master Plan.</p> <p>The threshold is determined during the annual budget process.</p>
<i>Structural Renewal and Replacement Fund Projects</i>	<p>Projects are a non-routine upgrade of an existing asset, moderate to high in cost, and extend the life of the asset or replace the asset. Examples would be a major renovation of an existing 50-year pipeline at 40 years, extending its life for another 30 years; or a major renovation of a 25-year treatment facility at 25 years, extending its life for another 20 years.</p> <p>The threshold is determined during the annual budget process.</p>
<i>Capacity Fund Projects</i>	<p>These are generally new projects that either increase capacity or extend the life and projected capacity of the collection, transport, or treatment system. These projects are moderate to high in cost and most of the time create a new asset, or extend the life of an existing asset through preservation of existing capacity. Other projects may include energy reduction and capacity conservation projects which measurably reduce flows, loadings, or energy use, and, increase the hydraulic and treatment capacity.</p> <p>The threshold is determined during the annual budget process.</p>

*Combination Projects* Projects that include renovating and extending the life of an existing asset and also increasing capacity of the system, extending service, etc., high in cost and, depending on the nature of the project, may create a new asset. An example would be a project that replaces worn-out facilities and increases its capacity.

The threshold is determined during the annual budget process.

### **Procedure**

The budget allocation (as necessary) and corresponding funding of each project is determined during the annual budget process in developing the 20-year capital improvement plan in consultation with the Executive Team. Upon initiation of the project, the project manager confirms the funding source and necessary funding ratios.

### **Management Responsibility**

The Executive Team, or its designees are responsible for jointly developing the annual 20-year capital improvement plan and ensuring that projects are funded by the correct revenue stream.

Attachment: Internal Guideline Matrix

Reviewed by:	The Executive Team,
Approved by:	Board of Directors,
Author/Owner:	TS Manager
Notify Person:	TS Manager
Review Frequency:	3 years
Next Revision:	1/2021

Appendix 'A'  
Internal Guidelines for Project Expenditure Funding

Project Category	Characteristics			Internal Guidelines	Possible Funding
	General Category	Cost	Effect on Life		
1. O&M	Routine operations and maintenance projects; budgeted annually.	Low	None or minor	Continue same policy re. O&M expenses. Some current O&M projects may fall into category 2.	Annual Budget, Operating Fund.
2. Special Projects	Non-routine projects; budgeted annually.	Low to Moderate	May extend life of an asset	These are one-time, non-routine projects.	Special Projects Fund, Capacity or Renewal and Replacement Funds.
3. Information Systems	Routine replacement of existing hardware and software and for new projects included in the latest update of the IT Master Plan.	Low to Moderate	Extends asset or replaces asset	<ol style="list-style-type: none"> <li>Larger projects are subject to IT Governance criteria.</li> <li>New projects are reviewed and approved annually by the Board.</li> </ol>	Annual Budget allocation to ISR&R fund from Sewer Service Fees, based on required fund balance.
4. Renewal/ Replacement	Non-routine upgrade of existing asset.	Moderate to High	Extends asset or replaces asset	Does it extend life of overall asset? (Re-roofing 50-year building at 10 years does not extend life of building—re-roofing is an anticipated expense and, therefore, is O&M.)	Structural Renewal/ Replacement Fund, SSC Fees, Bonds Surcharge, Assessment District, SRF Loan or other loans.  Connection Fees per Criteria in Appendix 'B.'
5. Capacity Fund	New projects to increase capacity, preserve existing capacity, treatment, or extend service	Moderate to High	Creates New Asset or extends life of existing assets/projected capacity	Needs to meet the legal test for connection fee funding. These are new facilities which increase capacity of system, extend service or extend life of existing system, etc.	Connection Fees, Bonds, SRF Loan, or other loans.

<p>6. Combination Projects</p>	<p>Upgrade and increase capacity of existing assets.</p>	<p>Moderate to High</p>	<p>Extends life and capacity of asset</p>	<p>1. Does it extend life of existing asset? 2. Does it add capacity to existing asset?</p>	<p>Structural Renewal/Replacement Fund, SSC Fees, Connection Fees, Bonds, SRF Loan, Surcharge, Assessment District.</p>
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## Appendix B

### Criteria for Use of Capacity Funds

Prohibitions. The Capacity Fund may not be used for:

- Operating costs (i.e. salary and benefits, power, chemicals)
- Day-to-day maintenance of USD Facilities (maintenance equipment, tools, labor, maintenance contracts)
- Regular/recurring maintenance of capital facilities (i.e. painting, cleaning, replacement of minor parts and equipment, repairs)

Category A Projects. The Capacity Fund may be used up to 100% to fund projects and associated debt financing that:

- Provide treatment capacity in excess of the average dry weather flow (ADWF), as determined by plant characteristics and master plans.
- Provide power or other plant utilities enabling capacity to be extended beyond the ADWF (e.g., standby power, power infrastructure, IT, access, and land).
- Provide additional pumping capacity to handle average daily flows or peak wet weather flows in excess of current capacity at pump stations and lift stations.
- Provide additional pumping capacity or pipeline conveyance capacity for new developments not currently connected to USD's collection system.
- Provide additional transport system capacity to handle peak flows in excess of current pipeline capacity (e.g., wet weather flow management, water reclamation projects).
- Provide additional collection system capacity to handle peak flows in excess of current pipeline capacity.
- Conduct studies to determine capacity needs or the capacity of existing assets for future use.

Category B Projects. The Capacity Fund may be used to fund up to 50% of capital projects and associated debt financing that:

- Maintain or restore the design capacity of an existing asset.
- Extend the life of an existing asset through preservation of existing capacity.
- Extend the life and projected capacity of an existing asset.
- Assess capacity as a portion of the project scope of a study.

Limits on use of Capacity Fund for Category B projects.

- Before any Capacity funds may be used for any Category B projects, the following conditions must exist:
  - Projected funds for the next 20 years must be adequate to cover:
    - All identified Category A projects for the next 20 years
    - All previously identified Category B projects using capacity funds in the next 20 years.
    - All debt service payments due in the next 20 years.
- The balance remaining may be allocated for Funding of Category B projects giving consideration to the following criteria:
  - Does the project restore capacity to a facility previously downgraded?
  - Does the project allow for maintaining capacity of an asset whose use may be shared by future customers?
  - Does the project extend the useful life of an asset to ensure it is available for future customers?

- Does funding the project meet the minimum fund balance criteria identified in the Reserves Policy during the life of the construction project?
- Does the project provide or guarantee future availability of capacity to new/future customers?
- Is the project estimated to cost greater than \$1 million?



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2018

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

**FROM:** Paul R. Eldredge, General Manager/District Engineer  
Sami E. Ghossain, Manager of Technical Services  
Raymond Chau, CIP Coach  
Curtis Bosick, Associate Engineer

**SUBJECT:** Agenda Item No. 11 - Meeting of January 8, 2018  
**Consider a Resolution to Accept the Construction of the Thickener Control Building Improvements Project from GSE Construction Company, Inc. and Authorize Recordation of a Notice of Completion**

### **Recommendation**

Staff recommends the Board consider a resolution to accept the construction of the Thickener Control Building Improvements Project (Project) from GSE Construction Company, Inc. (GSE), and authorize recordation of a Notice of Completion.

### **Background**

The Thickener Control Building and Thickener Tank Nos. 1 and 2 were constructed during the 1978 Plant Construction Project. Thickener Tank Nos. 3 and 4 were constructed during the 1985 Plant Expansion Project. Modifications to the Control Building were made during the 1985 and 1993 projects.

The scum and sludge pumps, valves, weir gates, and various electrical components inside the Control Building were installed at various times during the 1970s, 1980s, and 1990s and needed to be replaced due to age, obsolescence, and/or maintenance problems. With each project, the Control Building became more congested and difficult to operate and maintain. Additionally, the power and control systems for the Thickener Control Building and Heating and Mixing Building (HMB) Nos. 1 through 3 were antiquated and no longer met current building codes.

On May 27, 2014, the Board awarded the Project's construction contract to GSE in the amount of \$9,990,050. The purpose of the project was to replace the existing Thickener Control Building and associated mechanical and electrical equipment.

The Project's major elements included the following:

- Construction of a temporary bypass system for all of the existing Thickener Control Building influent and effluent process lines.
- Demolition of existing Thickener Control Building, including scum pits and flow splitter structure.
- Construction of new Thickener Control Building structure with built-in utility trenches.
- Installation of three new progressing cavity sludge pumps, two grinder pumps, and two flow meters with associated piping and instrumentation.
- Construction of new Thickener Electrical Building adjacent to the existing Paint Shop Building. This includes replacing and relocating power and PLC controls from Thickener Control Building and HMB No. 3 to the new Electrical Building.
- Conversion of the existing gas booster room at HMB No. 1 for use as an electrical room. This includes structural and HVAC improvements, as well as replacing and relocating power and PLC controls from HMB Nos. 1 and 2 to the new electrical room within HMB No. 1.
- Installation of new thickened primary sludge yard piping from the Thickener Control Building to HMB Nos. 1, 2, and 3.
- Replacement of obsolete Primary Scum Pumps Nos. 1 through 4 at Sludge Pump Room Nos. 1 and 3.
- Replacement of PLC 20 at HMB No. 4.

The District obtained financial assistance through the State Revolving Fund program administered by the State Water Resources Control Board ("SWRCB"). The approved budget for this financial assistance was \$12,200,000.

Carollo Engineers completed the design of the Project in January 2014, and The Covello Group provided construction management and general inspection services during the construction.

### **Construction Contract**

Staff issued the Notice to Proceed to GSE on July 14, 2014. The 790-day project was scheduled to be complete on September 10, 2016. GSE substantially completed all contract work on March 3, 2017. Staff awaited the completion of field punchlist items and contract change order (CCO) negotiations before recommending project acceptance by the Board.

Overall, staff granted time extensions of 174 calendar days, which were the result of several CCOs. The delays can mostly be attributed to the four major issues that were previously presented to the Board at the December 12, 2016 meeting. These issues include: the redesign of structural steel for the new Thickener Electrical Building roof, the upsizing of temporary bypass system piping, the relocation of HVAC equipment/ductwork in the HMB No. 1 Electrical Room, and the various modifications and/or rerouting of the temporary bypass system to facilitate the replacement of the Thickener Control Building.

Some photos from the construction and of the completed project are attached.

### **Change Orders**

The Project construction included 143 CCOs in the amount of \$548,485, which is approximately 5.5% of the original contract amount. A summary of the change orders is shown in the attached Table 1. A summary of the notable change orders is provided below.

1. CCO No. 3, Valve Change to Non-Domestic

Change Order No. 3 is in the credit amount of -\$139,292 and is for the cost savings associated with purchasing non-domestic valves versus domestic valves that conformed to the SWRCB American Iron and Steel (AIS) Requirements. The Project qualified for a waiver of the AIS Requirements based on the original advertisement date of January 15, 2014. Additional information regarding this change was previously presented to the Board at the October 27, 2014 meeting.

2. CCO No. 10, Deletion of Bid Alternate D

Change Order No. 10 is in the credit amount of -\$217,000 and is for the deletion of Bid Alternate D. Due to the grease accumulation issue encountered at the Thickener Interim Pumping Slab, Bid Alternate D was included in the construction contract to replace the existing temporary thickened primary sludge polyvinyl chloride (PVC) pipes and fittings with glass-lined ductile iron pipes and fittings. Staff concluded that the work associated with Bid Alternate D alone was not sufficient to make any measurable improvements to the temporary pumping system and therefore elected not to proceed with this work. Additional information regarding this change was previously presented to the Board at the March 9, 2015 meeting.

3. CCO No. 32, Heating and Mixing Building No. 1 Slab Demolition

Change Order No. 32 is in the amount of \$49,904 and is for the demolition of the existing reinforced concrete slab on the North side of HMB No. 1 to facilitate the installation of a new electrical ductbank. During the installation of the ductbank, numerous active and

abandoned utilities were discovered to be encased in the concrete slab as opposed to a few feet below as shown in historical documentation. The concrete slab was also revealed to be approximately two-feet thick, instead of eight-inches thick as documented. These unforeseen conditions resulted in the inadvertent damaging of an active sludge pipeline and significant additional work for the contractor. In addition, special care had to be taken during demolition to avoid further damage to any active process pipelines.

4. CCO No. 34, Thickened Primary Sludge Piping Modifications for Sludge Cleaning

Change Order No. 34 is in the amount of \$49,110 and is for the piping modifications needed to recirculate heated sludge through the thickened primary sludge pipes from the new Thickener Control Building to the six existing primary digesters. This owner-requested change was in response to the grease accumulation issue encountered at the Thickener Interim Pumping Slab.

5. CCO No. 59, Temporary Degritted Primary Sludge Bypass Pipe Modifications

Change Order No. 59 is in the amount of \$48,127 and is for upsizing the temporary degritted primary sludge (DPS) bypass pipes feeding three of the gravity thickeners. Through operational testing of the bypass system, it was determined that the DPS bypass piping needed to be upsized from 6-inch high-density polyethylene (HDPE) piping to 8-inch HDPE piping in order to eliminate any added backpressure on the existing degritters.

GSE completed all punch list items on December 21, 2017.

Staff recommends the Board consider a resolution to accept the construction of the Thickener Control Building Improvements Project from GSE Construction Company, Inc., and authorize recordation of a Notice of Completion.

PRE/SEG/RC/CB;dl

Attachments: Figure 1 – Site Plan  
Figures 2 through 12 – Photos  
Table 1 – CCO Summary  
Resolution  
Notice of Completion

FIGURE 1 – THICKENER CONTROL BUILDING IMPROVEMENTS PROJECT

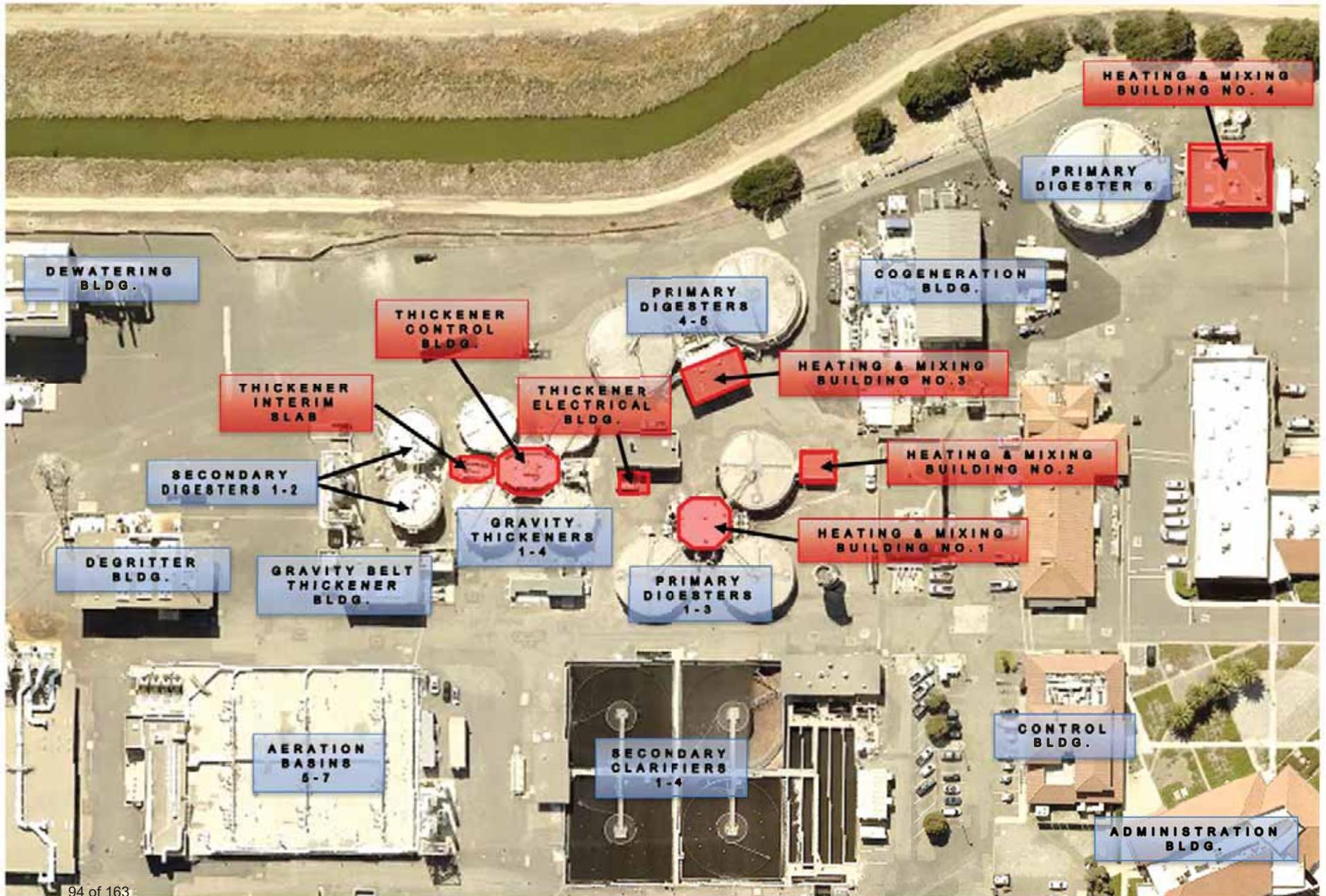




Figure 2 – Existing Thickener Control Building



Figure 3 – Thickener Interim Pumping Slab



Figure 4 – Demolition of Existing Thickener Control Building



Figure 5 – Layout of New Thickener Control Building



Figure 6 – Construction of New Thickener Control Building



Figure 7 – New Thickener Control Building (Front View)



Figure 8 – New Thickener Control Building (Overhead View)



Figure 9 – Thickened Primary Sludge Pumps and Grinders



Figure 10 – Splitter Box Structure and Weir Gates



Figure 11 – New Thickener Electrical Building



Figure 12 – New Motor Control Center No. 31

Table 1 - CCO Summary  
Thickener Control Building Improvements Project

CCO	Description	Amount
1	DBRA Wage Determination Rates	\$0
2	Vent-O-Mat Air Release Valve	\$4,421
3	Valve Change to Non-Domestic	-\$139,292
4	Revised Underground Utility Early Completion Date	\$0
5	Existing Sludge Transfer Pump Horsepower Modifications	\$6,725
6	Additional Excavations for Differing Site Conditions	\$14,685
7	Relocate TPS Trench per FO 02	\$6,987
8	Relocate Paint Shop Utilities per FO 01	\$1,384
9	Relocate Water Lines per FO 06	\$2,044
10	Deletion of Bid Alternate D	-\$217,000
11	Primary Digester No. 1-3 Gas Flowmeter Modifications	\$2,194
12	TPS Pressure Transmitter Addition and Relocation	\$4,188
13	Thickener No. 1 and No. 2 Control Modifications	\$24,567
14	Repair of Existing TPS Pipe	\$987
15	Deletion of Thickener Electrical Building Interior Wall Coatings	-\$3,001
16	Paint Shop Existing Footing Removal	\$861
17	Replace Two Plug Valves inside TWAS/TPS Valve Vault	\$4,360
18	Digester No. 04 Overflow Cleanup	\$8,088
19	Sludge Pump Room No. 2 Piping Modifications	\$15,097
20	TEB and Paint Shop HVAC and Electrical Modifications	\$22,756
21	Thickener Control Building Monorail Modifications	\$3,620
22	PLC-20 Prosoft Communication Module	\$4,916
23	Demolition of Concrete Trench Drain	\$14,764
24	Drain Line at Heating and Mixing Building No. 1	\$5,246
25	Additional Paving Modifications	\$7,358
26	Digester No. 4 and 5 Gas Flow and Pressure Instrumentation	\$21,366
27	Partial Payment for Equipment Stored Offsite	\$0
28	Thickener Control Building Roof Modifications	\$1,510
29	Thickener Electrical Building Roof Coping Modifications	\$1,051
30	Heating and Mixing Building No. 1 HVAC Modifications	\$1,706
31	Replace Existing TWAS Pipe at Digester No. 5	\$9,963
32	Heating and Mixing Building No. 1 Slab Demolition	\$49,904
33	Miscellaneous Electrical Work	\$2,440
34	TPS Piping Modifications for Sludge Cleaning	\$49,110
35	Heating and Mixing Building No. 1 Piping and TPS Valve Modifications	\$24,113
36	Heating and Mixing Building No. 1 Electrical Room Door Modifications	\$655
37	Sludge Pump Room No. 2 Pipe Support Modifications	\$4,086
38	Electrical Ductbank Installation Modifications	\$4,830
39	Thickener Electrical Building HVAC Unit Control Modifications	-\$1,989
40	Digester Mixing Pump No. 4 & 5 Sludge Line Connections	-\$2,615
41	Time Extension	\$0
42	12-inch Knife Gate Valve in Pump Room No. 2	\$5,126
43	Temporary Power and Communications for Thickener Control Building	\$0
44	Digester No. 1 Mixing Pump Inlet Valve Replacement	\$2,744
45	Primary Scum Pump MCC Modifications	\$5,662
46	Fiber Optic Modificaitons	-\$1,000
47	10-inch DPS Valve Relocation	\$7,998
48	Digester No. 4 & 5 TPS Pipe Support Modifications	\$1,944

Table 1 - CCO Summary  
Thickener Control Building Improvements Project

CCO	Description	Amount
49	Primary Scum Pump and Pumping Pad Modifications	\$14,124
50	Time Extension No. 2	\$0
51	Primary Scum Pumps Suction Pipe Modificaitons	\$1,971
52	Thickener Control Building Temporary Bypass Plan Modifications	\$35,652
53	Concrete Thrust Wall Modifications	\$14,308
54	Additional Elutriation Pipe Isolation	\$3,061
55	Digester Nos. 4 & 5 Mixing Pump Conduit Modifications	\$2,704
56	Digester Nos. 4 & 5 Gas Flow and Pressure Instrumentation Modifications	\$1,418
57	Additional Heating and Mixing Building No. 1 Lighting Conduit	\$1,160
58	Additional Miscellaneous Electrical Work	\$6,983
59	Temporary DPS Bypass Pipe Modifications	\$48,127
60	Miscellaneous Field Assistance	\$852
61	Temporary Bypass Scum Tank Modifications	\$12,524
62	Existing Odor Scrubber Panel Repairs	\$944
63	Field Investigation and Removal of Existing Wires - Bid Item No. 6 Allowance	\$0
64	Temporary Wiring Requirements - Bid Item No. 7 Allowance	\$0
65	Existing Elutriation Flow Meter Electrical Service	\$2,826
66	Existing Thickener Control Building Area Temporary Wiring	\$20,870
67	Temporary Scum Line at Thickener No. 1	\$1,831
68	HMB No. 1 and 3 Lighting Circuit Modifications	\$35,204
69	Digester No. 4 and No. 5 Road Lights	\$7,806
70	Anchor Embedment Plates for TPS Pump Pads	\$6,156
71	Pipe Support for 18-inch Thickened Influent Pipeline	\$4,758
72	Portable Crane Bases	\$5,458
73	DPS Piping Modifications at the Solids Handling Building	\$12,585
74	Roof Shoring System for Thickener Control Building	\$12,470
75	Partial Payment for Materials Stored Offsite	\$0
76	Additional Pipe Supports for 6-inch TPS Pipeline at Digester No. 4 & 5	\$3,169
77	Additional Pipe Restraint for SSC and WAS Piping	\$1,639
78	TCB Walkway Connection Details	\$6,733
79	PWAS and TPS Underground Pipe Protection	\$1,548
80	TCB Grating Rebate Details	\$10,118
81	PSC Pump No. 2 Split Guard Cover	\$1,887
82	HMB No. 1 Pipe Modifications	\$977
83	HMB No. 1 Roof and Building No. 52 Pipe Support Modifications	\$773
84	Thickener Control Building Roof Deck Modifications	\$803
85	Splitter Box Weir Gate Modifications	\$534
86	Thickener No. 2 Bypass Modifications	\$5,616
87	Elutriation and PSC Bypass Modifications	\$10,792
88	Thickener No. 1 and 3 Bypass Modifications	\$8,336
89	Thickener Control Building Concrete Placement/Reinforcement Modifications	\$2,265
90	Thickener No. 1-4 Lighting Plan Modifications	\$7,806
91	Scum Pit Piping Modifications	\$6,077
92	TPS Pump 1-6 Suction Piping Modifications	\$4,381
93	TPS Flow Meter Piping Modifications	\$10,315
94	Thickener No. 3 and 4 Temporary Lighting	\$372
95	TCB Sump Pump Piping Modifications	\$1,726
96	Additional Pipe Penetration in Scum Pit Wall	\$3,231

Table 1 - CCO Summary  
Thickener Control Building Improvements Project

CCO	Description	Amount
97	Deletion of American Iron and Steel Requirements	-\$6,521
98	Additional Overhead Conduit Offsets in the TCB	\$15,520
99	Digester No. 5 Mixing Pump Pipe Support Material Change	\$2,080
100	TPS Pump 4-6 Plug Valve Actuator Modifications	\$1,728
101	TCB Walkway Connection Details REVISED	-\$1,267
102	Existing PWAS Pipe Protection	\$7,767
103	Elutriation and DPS Pipe Concrete Encasement	\$8,786
104	Odor Scrubber Stairway Modifications	\$790
105	Additional Underground Demolition	\$14,473
106	Existing 60-PE Pipe Lining Sandblast	\$1,947
107	TPS Pipe Trench Modifications at HMB No. 1	\$11,750
108	TCB Additional W3 Hose Bibs/Racks	\$2,106
109	TCB Hypo System Modifications	\$5,355
110	TCB Grating Coatings	\$871
111	TCB Grating Modifications	\$13,732
112	TCB Underground TPS and Drain Piping Modifications	\$4,208
113	Odor Scrubber Slab Trench Drain Cover	\$532
114	TCB Drain Inlet Relocation	\$1,469
115	TCB Pipe Support Modifications	\$1,557
116	Thickener Nos. 1-4 Drive Conduit Modifications	\$6,196
117	TCB Additional WAS Support Beam	\$5,495
118	TPS Cleanout and W1/W3 Valve Boxes	\$8,985
119	TCB WAS Lateral Pipe Support	\$6,408
120	Thickener No. 1 & 2 Roof Deck Coating Repairs	\$5,248
121	TCB Electrical Ductbank Modifications	\$9,173
122	TCB Lower Level Pipe Support Modifications	\$3,129
123	TCB Scum Pipe Support Details	\$6,777
124	TCB Sludge Cleaning Connection Coatings	\$1,621
125	TCB Sump Pump LCP Electrical Feed	\$1,634
126	Thickener No. 1-4 Existing Light Photocells	\$942
127	Thickener Control Building Scum Pit Conduit Modifications	\$1,307
128	Miscellaneous Demolition	\$8,200
129	TCB Interior Lighting Modifications	\$5,261
130	TCB Sample Sink and Roof Drain Piping Modifications	\$5,477
131	TCB Paving Modifications	\$20,206
132	Miscellaneous Work	\$1,875
133	TCB Foul Air Duct Modifications	\$2,432
134	TCB Scum Pit Isolation Valves	\$8,094
136	TCB Utility Water Modificaitons	\$18,137
137	TEB Ladder Modifications	\$987
138	Bid Item No. 6 Reconciliation	-\$26,841
139	TCB TPS Piping Support Modifications	\$5,076
140	TCB Roof Deck Shoring	\$1,737
141	Bypass Piping Sequencing Modifications	\$12,139
142	TCB Piping and Insulation Modifications	-\$16,202
143	Time Extension No. 3 - Final CCO	\$30,660
<b>Total</b>		<b>\$548,485</b>

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

**ACCEPT CONSTRUCTION OF THE  
THICKENER CONTROL BUILDING IMPROVEMENTS PROJECT  
LOCATED IN THE CITY OF UNION CITY, CALIFORNIA  
FROM GSE CONSTRUCTION COMPANY, INC.**

RESOLVED, by the Board of Directors of the UNION SANITARY DISTRICT that it hereby accepts the Thickener Control Building Improvements Project from GSE Construction Company, Inc., effective January 8, 2018.

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 January 8, 2018:

AYES:

NOES:

ABSENT:

ABSTAIN:

---

PAT KITE  
President, Board of Directors  
Union Sanitary District

Attest:

---

MANNY FERNANDEZ  
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 May 27, 2014, by said District and **GSE CONSTRUCTION COMPANY, INC.**, 6950 Preston Avenue, Livermore, CA 94551, Contractor for the Project, “Thickener Control Building Improvements Project,” was substantially completed on March 3, 2017 and accepted by said District on January 8, 2018.

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

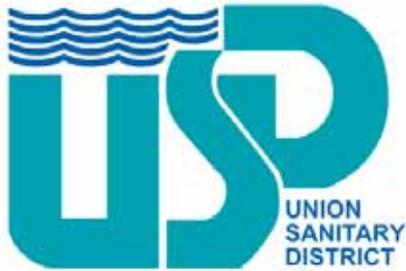
The estate or interest of the owner is: FEE SIMPLE ABSOLUTE.

The description of the site where said work was performed and completed is the Union Sanitary District’s 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



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2018

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

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

**SUBJECT:** Agenda Item No. 12 - Meeting of January 8, 2018  
**Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Carollo Engineers for the Plant Asset Condition Assessment Update Study**

### **Recommendation**

Staff recommends the Board authorize the General Manager to execute an Agreement and Task Order No. 1 in the amount of \$118,881 with Carollo Engineers for the Plant Asset Condition Assessment Update Study.

### **Background**

The Alvarado Wastewater Treatment Plant (WWTP) was originally built in 1962 and has had three major upgrades in 1978, 1985, and 1993. Several facilities from the major upgrades are due for replacement in the next several years. Staff proactively prepares for the renewal and replacement (R&R) of the WWTP facilities by identifying and prioritizing recommended projects. This is accomplished by conducting regular condition assessments and life cycle evaluations of the WWTP facilities, combined with on-going maintenance activities.

### 2006 Study

In 2004, the District hired Carollo to conduct the Wastewater Treatment Plant Master Plan, in which Carollo completed a condition assessment of the above-ground assets at the WWTP and a

risk assessment of the below-ground yard piping at the WWTP. Carollo defined an R&R project list to be included in the Capital Improvement Program's budget. The R&R project list was prioritized with assets with the highest risk for corrective action, worst condition, and shortest remaining economic useful life. Economic useful life is the time period in which the asset value is greater than the cost of repair.

### 2009 Study

In 2008, the District hired Carollo to update the 2006 Study with information on the current physical and operating condition of above-ground assets, to refine the estimated asset replacement costs, and to provide a list of R&R projects to include in the District's Capital Improvement Program's budget.

### R&R Projects

Of the major assets identified in the 2006 and 2009 Studies, staff successfully completed the replacement of the Thickener Control Building and all related mechanical and electrical equipment, Thickener Nos. 3 and 4 mechanisms, Substation No. 1, Primary Clarifiers 1 through 4 mechanisms and building ventilation upgrade, Secondary Clarifiers 1 through 4 mechanisms, Cogeneration Engine No. 4, calcium thiosulfate pump (used to dechlorinate the final effluent discharged to Old Alameda Creek), and several motor control centers. A number of smaller assets were replaced, either by including them in larger projects, or by maintenance staff.

### **Request for Proposal**

The goal of the Condition Assessment Study is to update the long-term Capital Improvement Program for the WWTP that will address maintenance, economic, and high risk conditions in assets within the plant. Staff prepared a Request for Proposal (RFP) for the Plant Asset Condition Assessment Update Study. The RFP was published through the District's public purchasing website in September 2017. Staff also invited Brown and Caldwell, Carollo Engineers, CH2M HILL, West Yost and Associates, and Woodard & Curran to participate. Staff received two proposals from Carollo Engineers and Woodard & Curran in response to the RFP. Staff reviewed the proposals and selected Carollo Engineers for the Study due to their prior experience on past District condition assessment studies, proposed team members' relevant experience, qualifications, and approach to the project.

### **Task Order No. 1**

Carollo's scope of services will include the following tasks:

- Conduct a condition assessment with a multi-discipline team of civil, mechanical, structural, and electrical and instrumentation personnel to determine the current physical and operating condition of the above-ground assets at the WWTP.
- Review and consolidate the condition assessment data with the 2009 condition assessment and the District’s computerized maintenance management system data sets to develop an updated asset database with condition scores.
- Evaluate the assets’ criticality, risk scores, and remaining useful lives using the updated asset database and develop the renewal and replacement cost projections and schedule.
- Summarize the asset condition assessment findings and recommend the renewal and replacement of assets.

The scope of services and their respective fees are summarized as follows:

<b>Task No.</b>	<b>Task Description</b>	<b>Fee</b>
1	Data Review	\$5,312
2	Inventory and Condition Assessment	\$30,734
3	Asset Data Consolidation and Finalization	\$9,465
4	Risk Assessment and CIP Development	\$29,916
5	Preliminary Findings Meeting	\$4,726
6	Draft and Final Study Report	\$31,457
7	Project Management	\$7,271
	<b>Total Not-to-Exceed Fee</b>	<b>\$118,881</b>

Carollo originally submitted a proposal fee of \$149,860. Staff was able to negotiate the fee to \$118,881 after clarifying and streamlining some of the tasks with Carollo. Staff believes the fee to be reasonable for the tasks summarized above.

**Schedule**

Staff anticipates Carollo will complete the condition assessment task in Spring 2018 and submit the final report by June 2018.

Staff recommends the Board authorize the General Manager to execute an Agreement and Task Order No. 1 in the amount of \$118,881 with Carollo Engineers for the Plant Asset Condition Assessment Update Study

Agenda Item No. 12  
Meeting of January 8, 2018  
Page 4

PRE/SEG/RC/KC;dl

Attachments:      Agreement  
                         Task Order No. 1

**PLANT ASSET CONDITION ASSESSMENT UPDATE STUDY**

AGREEMENT  
BETWEEN  
UNION SANITARY DISTRICT  
AND  
CAROLLO ENGINEERS, INC.  
FOR  
PROFESSIONAL SERVICES

THIS IS AN AGREEMENT MADE AS OF January\_\_\_\_, 2018, BETWEEN UNION SANITARY DISTRICT (hereinafter referred to as District), and CAROLLO ENGINEERS, INC. (hereinafter referred to as Engineer).

WITNESSETH:

WHEREAS, District intends to complete the Plant Asset Condition Assessment Update Study Project (hereinafter referred to as Project), and,

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

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

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

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

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

## ARTICLE 2 - COMPENSATION

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

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

Definitions are as follows:

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

of transportation and subsistence, printing and reproduction, computer time and programming costs, identifiable supplies, outside consultant's charges, subcontracts, and charges by reviewing authorities."

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

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

- 2.7 Direct labor rates are subject to revision to coincide with Engineer's normal salary review schedule. Adjustments in direct labor rates shall not affect the firm ceiling without prior written authorization of the District.
- 2.8 District shall pay Engineer in accordance with each Task Order for Services.
- 2.9 Engineer shall submit monthly statements for Services rendered. District will make prompt monthly payments in response to Engineer's monthly statements.

### ARTICLE 3 - PERIOD OF SERVICE

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

### ARTICLE 4 - DISTRICT'S RESPONSIBILITIES

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

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

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

#### ARTICLE 5 - STANDARD OF CARE

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

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

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

#### ARTICLE 7 - SUBCONTRACTING

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

## ARTICLE 8 - ENGINEER-ASSIGNED PERSONNEL

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

## ARTICLE 9 - OWNERSHIP OF DOCUMENTS

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

## ARTICLE 10 - RECORDS OF LABOR AND COSTS

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

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

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

## ARTICLE 11 - INSURANCE

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

- 11.1 Workers' Compensation and Employer's Liability Insurance for protection of Engineer's employees as required by law and as will protect Engineer from loss or damage because of personal injuries, including death to any of his employees.
- 11.2 Comprehensive Automobile Liability Insurance. Engineer agrees to carry a Comprehensive Automobile Liability Policy providing bodily injury liability. This policy shall protect Engineer against all liability arising out of the use of owned or leased automobiles both passenger and commercial. Automobiles, trucks, and other vehicles and equipment (owned, not owned, or hired, licensed or unlicensed for road use) shall be covered under this policy. Limits of liability for Comprehensive Automobile Liability Insurance shall not be less than \$1,000,000 Combined Single Limit.

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

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

## ARTICLE 12 - LIABILITY AND INDEMNIFICATION

- 12.1 Having considered the risks and potential liabilities that may exist during the performance of the Services, and in consideration of the promises included herein, District and Engineer agree to allocate such liabilities in accordance with this Article 12. Words and phrases used in this Article shall be interpreted in accordance with customary insurance industry usage and practice.
- 12.2 Engineer shall indemnify and save harmless the District and all of their agents, officers, and employees from and against all claims, demands, or causes of action of every name or nature to the extent caused by the negligent error, omission, or act of Engineer, its agents, servants, or employees in the performance of its services under this Agreement.
- 12.3 In the event an action for damages is filed in which negligence is alleged on the part of District and Engineer, Engineer agrees to defend District. In the event District accepts Engineer's defense, District agrees to indemnify and reimburse Engineer on a pro rata basis for all expenses of defense and any judgment or amount paid by Engineer in resolution of such claim. Such pro rata share shall be based upon a final judicial determination of negligence or, in the absence of such determination, by mutual agreement.
- 12.4 Engineer shall indemnify District against legal liability for damages arising out of claims by Engineer's employees. District shall indemnify Engineer against legal liability for damages arising out of claims by District's employees.
- 12.5 Indemnity provisions will be incorporated into all Project contractual arrangements entered into by District and will protect District and Engineer to the same extent.
- 12.6 Upon completion of all services, obligations and duties provided for in the Agreement, or in the event of termination of this Agreement for any reason, the terms and conditions of this Article shall survive.
- 12.7 To the maximum extent permitted by law, Engineer's liability for District's damage will not exceed the aggregate compensation received by Engineer under this Agreement or the maximum amount of professional

liability insurance available at the time of any settlement or judgment, whichever is greater.

### ARTICLE 13 - INDEPENDENT CONTRACTOR

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

### ARTICLE 14 - COMPLIANCE WITH LAWS

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

### ARTICLE 15 - NONDISCLOSURE OF PROPRIETARY INFORMATION

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

### ARTICLE 16 - TERMINATION OF CONTRACT

- 16.1 The obligation to continue Services under this Agreement may be terminated by either party upon seven days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.
- 16.2 District shall have the right to terminate this Agreement or suspend performance thereof for District's convenience upon written notice to Engineer, and Engineer shall terminate or suspend performance of Services on a schedule acceptable to District. In the event of termination or suspension for District's convenience, District will pay Engineer for all

services performed and costs incurred including termination or suspension expenses. Upon restart of a suspended project, equitable adjustment shall be made to Engineer's compensation.

#### ARTICLE 17 - UNCONTROLLABLE FORCES

17.1 Neither District nor Engineer shall be considered to be in default of this Agreement if delays in or failure of performance shall be due to uncontrollable forces, the effect of which, by the exercise of reasonable diligence, the nonperforming party could not avoid. The term "uncontrollable forces" shall mean any event which results in the prevention or delay of performance by a party of its obligations under this Agreement and which is beyond the control of the nonperforming party. It includes, but is not limited to, fire, flood, earthquake, storms, lightning, epidemic, war, riot, civil disturbance, sabotage, inability to procure permits, licenses, or authorizations from any state, local, or federal agency or person for any of the supplies, materials, accesses, or services required to be provided by either District or Engineer under this Agreement, strikes, work slowdowns or other labor disturbances, and judicial restraint.

17.2 Neither party shall, however, be excused from performance if nonperformance is due to uncontrollable forces which are removable or remediable, and which the nonperforming party could have, with the exercise of reasonable diligence, removed or remedied with reasonable dispatch. The provisions of this Article shall not be interpreted or construed to require Engineer or District to prevent, settle, or otherwise avoid a strike, work slowdown, or other labor action. The nonperforming party shall, within a reasonable time of being prevented or delayed from performance by an uncontrollable force, give written notice to the other party describing the circumstances and uncontrollable forces preventing continued performance of the obligations of this Agreement. The Engineer will be allowed reasonable negotiated extension of time or adjustments for District initiated temporary stoppage of services.

#### ARTICLE 18 - MISCELLANEOUS

18.1 A waiver by either District or Engineer of any breach of this Agreement shall not be binding upon the waiving party unless such waiver is in writing. In the event of a written waiver, such a waiver shall not affect the waiving party's rights with respect to any other or further breach.

18.2 The invalidity, illegality, or unenforceability of any provision of this Agreement, or the occurrence of any event rendering any portion or

provision of this Agreement void, shall in no way effect the validity or enforceability of any other portion or provision of the Agreement. Any void provision shall be deemed severed from the Agreement and the balance of the Agreement shall be construed and enforced as if the Agreement did not contain the particular portion or provision held to be void.

#### ARTICLE 19 - INTEGRATION AND MODIFICATION

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

#### ARTICLE 20 - SUCCESSORS AND ASSIGNS

- 20.1 District and Engineer each binds itself and its directors, officers, partners, successors, executors, administrators, assigns and legal representatives to the other party to this Agreement and to the partners, successors, executors, administrators, assigns, and legal representatives of such other party, in respect to all covenants, agreements, and obligations of this Agreement.
- 20.2 Neither District nor Engineer shall assign, sublet, or transfer any rights under or interest in (including, but without limitation, monies that may become due or monies that are due) this Agreement without the written consent of the other, except to the extent that the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent Engineer from employing such independent engineers, associates, and subcontractors as he may deem appropriate to assist him/her in the performance of the Services hereunder and in accordance with Article 7.
- 20.3 Nothing herein shall be construed to give any rights or benefits to anyone other than District and Engineer.

## ARTICLE 21 – INFORMATION SYSTEM SECURITY

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

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

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

## ARTICLE 22 – EMPLOYEE BACKGROUND CHECK

Engineer, at no additional expense to the District, shall conduct a background check for each of its employees, as well as for the employees of its subconsultants (collectively "Consultant Employees") who will have access to District's computer systems, either through on-site or remote access, or whose contract work requires an extended presence on the District's premises. The minimum background check process for any District consultant shall include, but not be limited to

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

The background check shall be conducted and the results submitted to the District prior to initial access by Consultant Employees. If at any time, it is discovered that a Consultant Employee has a criminal record that includes a felony or misdemeanor, the Engineer is required to inform the District immediately and the District will assess the circumstances surrounding the conviction, time frame, nature, gravity, and relevancy of the conviction to the job duties, to determine

whether the Consultant Employee will be placed or remain on a District assignment. The District may withhold consent at its sole discretion. The District may also conduct its own criminal background check of the Consultant Employees. Failure of the Engineer to comply with the terms of this paragraph may result in the termination of its contract with the District.

ARTICLE 23 - EXCEPTIONS

No exceptions.

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

UNION SANITARY DISTRICT

CAROLLO ENGINEERS

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

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

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

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

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

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

# PLANT ASSET CONDITION ASSESSMENT UPDATE STUDY

TASK ORDER NO. 1

to

AGREEMENT

BETWEEN

UNION SANITARY DISTRICT

AND

CAROLLO ENGINEERS, INC.

FOR

PROFESSIONAL SERVICES

Dated January \_\_\_\_, 2018

## 1. PURPOSE

The purpose of Task Order No. 1 is to provide engineering services to update the current asset conditions and refine asset replacement costs from the 2006 Master Plan and 2009 Master Plan Update for the Alvarado Wastewater Treatment Plant (WWTP) facilities. Asset management, supported with a thorough knowledge of the WWTP, provides the information and support necessary for the District to fulfill its goals in an efficient and cost-effective manner. The Project will set the course for managing asset risk and optimizing asset investment into the future.

## 2. PROJECT COORDINATION

All work related to this Task Order shall be coordinated through the District's Project Manager, Kevin Chun.

## 3. SCOPE OF SERVICES

The study update shall provide information on the current physical and operating condition of above-ground assets, refine the estimated asset replacement costs, and provide a list of renewal and replacement (R&R) projects to include in the District's Capital Improvement Program (CIP) plan.

### **Task 1: Data Review**

Engineer shall review the condition assessment criteria and scoring protocols to be used in the evaluation of condition and risk with the District in a conference call. The Engineer anticipates utilizing the previous criteria, refined based on recent staff experience and changes in industry best practices since the completion of the previous study.

### **Task 2: Inventory and Condition Assessment**

Engineer shall conduct a condition assessment with a multi-discipline team of civil, mechanical, structural, and electrical/instrumentation specialists to determine the current physical and operating condition of the above ground assets at the WWTP. The assessment will be performed during a three-day site visit to the WWTP. The assessment will begin with staff interviews to compile a list of known deficiencies, identify operating limitations, and discuss maintenance and operations history of each facility. The assessment team shall look for other potential problems, not already identified by plant staff, such as structural deterioration, electrical and instrumentation issues, or mechanical degradation. The team shall document each asset or areas of concern with photos, measurements, and other descriptions. The District will provide an updated list of above-ground assets.

### **Task 3: Asset Data Consolidation and Finalization**

Upon completion of the inventory and condition assessment, Engineer shall export the data from the effort and merge it with data exported from the latest Water/Wastewater Asset Management<sup>T</sup> (WAM) data set, along with an export from the Infor Computerized Maintenance Management System (CMMS) asset registry data set. Following this data merge, we will evaluate the database for new assets, duplicate assets, decommissioned assets, and other incomplete asset data. The consolidated data will serve as the updated above-ground asset registry with condition scores. This asset registry will then be used to complete the evaluation of risk, remaining useful life, levels of service, and subsequent R&R and CIP budgets in the following tasks.

Once this consolidation is completed, the Engineer shall conduct a meeting with the District to review the data set for correctness. Any edits from that meeting shall be reflected in the final data set, and that consolidated above-ground asset registry will be used as the basis for risk assessment, remaining useful life, and subsequent budget projections.

#### Deliverables:

- PowerPoint presentation
- Meeting agenda and summary minutes

### **Task 4: Risk Assessment and CIP Development**

Using the most recent WAM database, Engineer shall import the final asset registry with condition scores and evaluate the assets criticality, resultant risk scores, and remaining

useful lives. This customized database leverages the previous functionality of our WAM tool into a customized, easy to use platform with additional analytics. Along with levels of service, this list will then be prioritized by risk, for determination of costs and prioritized projects which will comprise the R&R projections and CIP budgets.

The Engineer shall evaluate the following criteria using the WAM tool:

- Develop the risk profile of assets based on their likelihood and consequence of failure.
- Develop the remaining useful life projections for asset registry.
- Develop assumptions on number of rehabilitations.
- Develop R&R project projections for 30-year timeline.
- Develop risk-based, prioritized 30-year CIP plan.

Once the risk, remaining useful lives, and levels of service have been evaluated, the Engineer shall develop replacement cost projections and develop R&R and CIP project projections. This evaluation shall result in the development of a 30-year R&R budget as well as projected CIP plan for above-ground assets for the next 30 years. These replacement costs and project timing will be based on the following criteria:

- Renewal costs by asset type.
- Number of renewals before required replacements.
- Required replacements.
- Replacement costs by asset type.

#### **Task 5: Preliminary Findings Meeting**

Once the team has completed the preliminary budgets, Engineer shall meet with District staff to review the evaluation output. This meeting shall review the preliminary results from the condition assessment, risk assessment, remaining useful life and resultant projected R&R projects and 30-year CIP plan. Results from this meeting along with staff feedback will form the basis for the draft report.

##### Deliverables:

- Meeting agenda and summary minutes.

#### **Task 6: Draft and Final Study Report**

Two weeks following the preliminary findings meeting, Engineer shall develop a draft report documenting project tasks to date for District staff's review and comment.

Three weeks following receipt of comments and edits from District staff, Engineer shall deliver the final report to the District.

##### Deliverables:

- Draft Report.

- Final Report.

**Task 7: Project Management**

The Engineer will manage the efforts of the project team members, assign personnel, review work products, attend and prepare materials for user group meetings, ensure implementation of quality control procedures, and manage the schedule and budget.

Deliverables:

- Monthly invoices with summary of work completed.

**4. PAYMENT TO THE ENGINEER**

Payment to the Engineer shall be as called for in Article 2 of the Agreement. The billing rate schedule is equivalent to an overall labor multiplier of 3.21, including profit. Subconsultants will be billed at actual cost plus 5%; other direct costs will be billed at actual cost; and mileage will be billed at prevailing IRS standard rate.

Total charges to the DISTRICT not-to-exceed amount shall be \$118,881. A summary of the anticipated distribution of cost and manpower between tasks is shown in Exhibit A.

The following table summarizes the previously-executed and proposed task orders and amendments under the Agreement:

<b>Task Order / Amendment</b>	<b>Not to Exceed Amount</b>	<b>Board Authorization Required?</b>	<b>District Staff Approval</b>
Task Order No. 1 – Condition Assessment Study	\$118,881	Yes	Paul Eldredge
<b>Total</b>	<b>\$118,881</b>		

**5. TIME OF COMPLETION**

All work defined in this Task Order shall be completed in 170 calendar days after the execution of this Task Order and subject to the conditions of Article 3 of this Agreement. A summary of the anticipated schedule of work is as follows:

- Notice to Proceed (NTP): January 9, 2018.
- Kickoff Conference Call: Week of January 22, 2018.
- Site Visit for Condition Assessment: Week of March 5, 2018
- Draft Report Submittal: May 11, 2018.

- Final Report Submittal: June 22, 2018.

6. KEY PERSONNEL

Engineering personnel assigned to this Task Order No. 1 are as follows:

<u>Role</u>	<u>Key Person to be Assigned</u>
Principal-in-Charge	Scott Parker
Project Manager	David Baranowski
Electrical Engineer	Todd Beecher

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

IN WITNESS WHEREOF, the parties hereto have made and executed this Task Order No. 1 as of January \_\_\_\_\_, 2018 and therewith incorporate it as part of the Agreement.

DISTRICT

ENGINEER

UNION SANITARY DISTRICT

CAROLLO ENGINEERS, INC.

By: \_\_\_\_\_

By: \_\_\_\_\_

Paul R. Eldredge, P.E.

General Manager/District Engineer

Name: \_\_\_\_\_

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

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

By: \_\_\_\_\_

Name: \_\_\_\_\_

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

**PLANT ASSET CONDITION ASSESSMENT UPDATE STUDY  
EXHIBIT A - LABOR AND BUDGET ESTIMATE  
UNION SANITARY DISTRICT**

Task	Task Description	PIC	PM	SP	LPP	AP	CAD	WP	Total Hours	Labor Cost	Other Direct Costs (ODC)								Total Cost			
											Subconsultants			PECE	Mileage		Travel	ODC				
											Name	Hours	Amount	\$11.70	Printing	Trips	Amount	Total		Total		
	Plant Asset Condition Assessment Update Study																					
1	Data Review	2	6	4	4	0	0	0	16	\$3,487	Beecher	8	\$1,638	\$187							\$1,825	\$5,312
2	Inventory and Condition Assessment	0	24	68	0	8	0	0	100	\$22,572	Beecher	24	\$4,914	\$1,170		6	\$278	\$1,800	\$8,162	\$30,734		
3	Asset Data Consolidation and Finalization	0	8	16	0	24	0	0	48	\$8,003				\$562				\$900	\$1,462	\$9,465		
4	Risk Assessment and CIP Development	0	80	34	8	38	0	0	160	\$27,951				\$1,872		2	\$93		\$1,965	\$29,916		
5	Preliminary Findings Meeting	4	8	0	0	4	0	4	20	\$3,499				\$234		2	\$93	\$900	\$1,227	\$4,726		
6	Draft and Final Study Report	2	36	32	8	20	6	16	120	\$21,417	Beecher	30	\$6,143	\$1,404	\$1,500	2	\$93	\$900	\$10,040	\$31,457		
7	Project Management	2	24	0	0	0	0	8	34	\$5,644	Beecher	6	\$1,229	\$398					\$1,627	\$7,271		
	<b>Total:</b>	<b>10</b>	<b>186</b>	<b>154</b>	<b>20</b>	<b>94</b>	<b>6</b>	<b>28</b>	<b>498</b>	<b>\$92,573</b>		<b>68</b>	<b>\$13,924</b>	<b>\$5,827</b>	<b>\$1,500</b>		<b>\$557</b>	<b>\$4,500</b>	<b>\$26,308</b>	<b>\$118,881</b>		
	<b>Grand Total:</b>	<b>10</b>	<b>186</b>	<b>154</b>	<b>20</b>	<b>94</b>	<b>6</b>	<b>28</b>	<b>498</b>	<b>\$92,573</b>		<b>68</b>	<b>\$13,924</b>	<b>\$5,827</b>	<b>\$1,500</b>		<b>\$557</b>	<b>\$4,500</b>	<b>\$26,308</b>	<b>\$118,881</b>		

**Legend:**

PIC Principal in Charge - (Parker)  
 PM Project Manager - (Baranowski)  
 SP Senior Professional - (Casey, Dadik, Khairouz)  
 LPP Lead Project Professional - (James)  
 AP Assistant Professional - (Bennett)  
 CAD CAD Drafter/Graphics  
 WP Word Processor

**Notes:**

- Mult. 3.21
- Mileage: Based on 85 miles round trip @ \$0.545/mile (2018 Rates).
- Subconsultant has a 5% mark-up.
- Beecher - E&IC - \$204.75/hr.
- PECE - Project equipment and communication expense

**UNION SANITARY DISTRICT  
CHECK REGISTER  
12/09/2017-12/29/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166333	12/14/2017	89701	SOUTHWEST PIPE & TRENCHLESS CO	CAST IRON LINING PHASE VI	\$180,972.43	\$180,972.43
166309	12/14/2017	8907	DW NICHOLSON CORP	HYPO TANKS AND PIPING REPLACEMENT	\$170,647.87	\$170,647.87
166321	12/14/2017	900468.6	KIEWIT INFRASTRUCTURE WEST CO	3RD SLUDGE DEGRITTER SYSTEM	\$157,614.50	\$157,614.50
166335	12/14/2017	30104674	SYNAGRO WEST LLC	OCTOBER 2017 BIOSOLIDS DISPOSAL	\$80,532.62	\$80,532.62
166325	12/14/2017	140120171208	PACIFIC GAS AND ELECTRIC	SERV TO 11/02/17 IRVINGTON PS	\$25.74	\$67,002.28
	12/14/2017	013720171205		SERV TO 11/02/17 BOYCE RD PS	\$2,958.98	
	12/14/2017	170120171207		SERV TO 11/20/17 PLANT	\$63,143.41	
	12/14/2017	666720171130		SERV TO 10/30/17 PASEO PADRE PS	\$292.75	
	12/14/2017	892820171130		SERV TO 11/29/17 HAYWARD MARSH	\$54.67	
	12/14/2017	096020171130		SERV TO 11/29/17 CATHODIC PROJECT	\$53.21	
	12/14/2017	380420171130		SERV TO 11/29/17 CHERRY ST PS	\$191.62	
	12/14/2017	898220171130		SERV TO 11/29/17 FREMONT PS	\$281.90	
166374	12/21/2017	LBV1829	CDW GOVERNMENT LLC	MICROSOFT SOFTWARE ANNUAL SUBSCRIPTION	\$51,351.79	\$51,351.79
166327	12/14/2017	1189908	POLYDYNE INC	44,940 LBS CLARIFLOC C-6267	\$31,516.53	\$35,490.14
	12/14/2017	1189815		42,100 LBS CLARIFLOC WE-539	\$3,973.61	
166427	12/21/2017	45206400	TYLER TECHNOLOGIES INC	EDEN SOFTWARE MAINTENANCE SUPPORT	\$30,432.83	\$30,432.83
166401	12/21/2017	4513US06A	INFOR PUBLIC SECTOR, INC	HANSEN SOFTWARE ANNUAL MAINTENANCE	\$29,883.20	\$29,883.20
166299	12/14/2017	KWX1129	CDW GOVERNMENT LLC	ANNUAL CISCO RENEWAL	\$27,895.00	\$27,895.00

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<b>Check No.</b>	<b>Date</b>	<b>Invoice No.</b>	<b>Vendor</b>	<b>Description</b>	<b>Invoice Amt</b>	<b>Check Amt</b>
166428	12/21/2017	852755	UNIVAR USA INC	5000 GALS SODIUM HYPOCHLORITE	\$2,452.92	\$24,429.58
	12/21/2017	853006		4698 GALS SODIUM HYPOCHLORITE	\$2,304.76	
	12/21/2017	852112		5001 GALS SODIUM HYPOCHLORITE	\$2,453.41	
	12/21/2017	853514		4801 GALS SODIUM HYPOCHLORITE	\$2,355.29	
	12/21/2017	852224		4801 GALS SODIUM HYPOCHLORITE	\$2,355.29	
	12/21/2017	851678		4798 GALS SODIUM HYPOCHLORITE	\$2,353.82	
	12/21/2017	853014		4701 GALS SODIUM HYPOCHLORITE	\$2,306.23	
	12/21/2017	853162		300 GALS 797714 SULFURIC ACID 36% TECH GRADE	\$786.91	
	12/21/2017	852816		4796 GALS SODIUM HYPOCHLORITE	\$2,352.84	
	12/21/2017	853019		4999 GALS SODIUM HYPOCHLORITE	\$2,452.41	
	12/21/2017	851666		4598 GALS SODIUM HYPOCHLORITE	\$2,255.70	
166297	12/14/2017	31885	CALIFORNIA WATER TECHNOLOGIES	43,060 LBS FERROUS CHLORIDE	\$4,527.29	
	12/14/2017	32195		42,880 LBS FERROUS CHLORIDE	\$4,400.04	
	12/14/2017	32118		41,460 LBS FERROUS CHLORIDE	\$4,293.61	
	12/14/2017	31923		43,840 LBS FERROUS CHLORIDE	\$4,540.08	
	12/14/2017	31877		45,260 LBS FERROUS CHLORIDE	\$4,672.85	
166342	12/14/2017	533620171122	US BANK CORP PAYMENT SYSTEM	MONTHLY CAL CARD STMT - NOV 2017	\$16,983.98	\$16,983.98
166412	12/21/2017	12183151	CITY OF NEWARK	2017 CITY OF NEWARK OVERLAY PROJECT 1141	\$11,929.50	\$11,929.50
166329	12/14/2017	25117	RMC WATER AND ENVIRONMENT	USD PLANT MASTER PLAN	\$11,014.57	\$11,014.57

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CHECK REGISTER  
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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166403	12/21/2017	89650	JWC ENVIRONMENTAL LLC	CENTRIFUGE GRINDER EXCHANGE	\$10,149.69	\$10,149.69
166295	12/14/2017	11304248	BROWN & CALDWELL CONSULTANTS	PRIMARY DIGESTER NO. 7	\$8,855.66	\$8,855.66
166368	12/21/2017	32186	CALIFORNIA WATER TECHNOLOGIES	41,780 LBS FERROUS CHLORIDE	\$4,353.13	\$8,697.93
	12/21/2017	32119		41,700 LBS FERROUS CHLORIDE	\$4,344.80	
166312	12/14/2017	201681701	GATEWAY PRODUCTS GROUP INC	24 INDUSTRIAL SPARK PLUGS	\$8,142.24	\$8,142.24
166348	12/14/2017	2033637	WEST YOST ASSOCIATES	FORCE MAIN CORROSION REPAIRS - WEST	\$7,867.24	\$7,867.24
166435	12/21/2017	2033343	WEST YOST ASSOCIATES	3RD SLUDGE DEGRITTER SYSTEM	\$6,886.22	\$6,886.22
166382	12/21/2017	1241	CSDA CAL SPECIAL DIST ASSOC	2018 MEMBERSHIP DUES	\$6,842.00	\$6,842.00
166381	12/21/2017	201303543	COVELLO GROUP INC	THICKENER CONROL BUILDING IMPROVEMENTS PHASE II	\$6,732.50	\$6,732.50
166289	12/14/2017	4107393220171130	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 11/30/17-MTR HYD 16435275	\$934.13	\$6,126.32
	12/14/2017	4107361120171130		SERV TO: 11/30/17-MTR HYD 15001101	\$946.27	
	12/14/2017	4107393420171130		SERV TO: 11/30/17-MTR HYD 15952331	\$577.99	
	12/14/2017	4108253920171130		SERV TO: 11/30/17-MTR HYD 32896061	\$120.50	
	12/14/2017	4107393020171130		SERV TO: 11/30/17-MTR HYD 15141193	\$498.18	
	12/14/2017	4107361320171130		SERV TO: 11/30/17-MTR HYD 16320037	\$695.35	
	12/14/2017	4107393120171130		SERV TO: 11/30/17-MTR HYD 16435270	\$1,488.57	
	12/14/2017	4107393520171130		SERV TO: 11/30/17-MTR HYD 16435269	\$865.33	
166344	12/14/2017	905072	VINCENT ELECTRIC MOTOR CO	IPS PUMP 4 MOTOR REPAIRS	\$5,657.96	\$5,657.96
166339	12/14/2017	3766	CITY OF UNION CITY	2018 HAZ MAT FEES, PERMIT FEES	\$5,534.00	\$5,534.00

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CHECK REGISTER  
12/09/2017-12/29/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166304	12/14/2017	357657	CPS HR CONSULTING	RECRUITING SERVICES-FEES/EXPENSES BS MGR/CFO	\$5,408.13	\$5,408.13
166340	12/14/2017	310292	UNIVAR USA INC	CREDIT: (4) DRUM DEPOSIT	\$-160.00	\$4,648.69
	12/14/2017	851238		5000 GALS SODIUM HYPOCHLORITE	\$2,452.92	
	12/14/2017	850963		4802 GALS SODIUM HYPOCHLORITE	\$2,355.77	
166307	12/14/2017	9202	HADRONEX INC. DBA SMARTCOVER SY:1	SMART COVER SYSTEM	\$4,475.24	\$4,475.24
166365	12/21/2017	11305967	BROWN & CALDWELL CONSULTANTS	EMERGENCY OUTFALL OUTLET IMPROVEMENTS	\$1,669.34	\$4,363.37
	12/21/2017	17306306		PLANT GROUNDWATER WELLS MONITORING	\$2,694.03	
166350	12/21/2017	48365	ABACUS PRODUCTS INC	3000 USD TOTE BAGS	\$4,036.20	\$4,036.20
166346	12/14/2017	39918	WECO INDUSTRIES LLC	CAMERA REPAIRS	\$1,429.16	\$4,027.84
	12/14/2017	39818		12 TRACTOR CAMERA TIRES	\$1,597.86	
	12/14/2017	39917		CAMERA REPAIRS	\$1,000.82	
166387	12/21/2017	2152	ENS RESOURCES INC	PROFESSIONAL SERVICES - OCT 2017	\$3,784.81	\$3,784.81
166291	12/14/2017	10546738	AT&T	SERV: 10/20/17 - 11/19/17	\$3,553.76	\$3,777.06
	12/14/2017	10546736		SERV: 10/20/17 - 11/19/17	\$17.47	
	12/14/2017	10546760		SERV: 10/20/17 - 11/19/17	\$205.83	
166423	12/21/2017	131012	TOTAL WASTE SYSTEMS INC	NOVEMBER 2017 GRIT DISPOSAL	\$3,661.17	\$3,661.17
166288	12/14/2017	171101580	AIRTECH MECHANICAL INC	ANNUAL CONDENSER COIL CLEANING: BLDGS 3,53,63,67,68,74,76-81,9	\$1,345.00	\$3,545.00
	12/14/2017	171101581		ANNUAL CONDENSER COIL CLEANING: BLDGS 70,82,83	\$2,200.00	
166336	12/14/2017	20171208	RUFUS TAI	EXP REIMB: 2 IT TRAINING SUBSCRIPTIONS FROM QUICKSTART	\$3,498.60	\$3,498.60

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166300	12/14/2017	381125753	CH2M HILL INC	ODOR CONTROL ALTERNATIVES STUDY	\$3,443.00	\$3,443.00
166324	12/14/2017	51588017	MCMaster SUPPLY INC	ASTD PARTS & MATERIALS	\$1,196.26	\$3,432.25
	12/14/2017	51588018		8 STRUT CHANNEL CONNECTORS	\$92.34	
	12/14/2017	51625713		8 STRUT CHANNEL CONNECTORS	\$149.30	
	12/14/2017	51915744		5 EASY FORM MARINE GRADE ALUMINUM TUBE	\$688.48	
	12/14/2017	51915743		ASTD PARTS & MATERIALS	\$154.68	
	12/14/2017	50869842		1 PACK O-RINGS	\$19.71	
	12/14/2017	51927978		4 EASY FORM MARINE GRADE ALUMINUM TUBE	\$553.86	
	12/14/2017	51863195		3 GORE GASKET TAPES	\$577.62	
166373	12/21/2017	162791	CAROLLO ENGINEERS	NEWARK PS MOD VALVE & BOOST LINE MODS	\$3,331.34	\$3,331.34
166436	12/21/2017	28033	WILEY PRICE & RADULOVICH LLP	LABOR & EMPLOYMENT LAW FEES	\$3,168.50	\$3,168.50
166302	12/14/2017	53438656	CHANNING BETE COMPANY, INC.	2500 SCHOOL OUTREACH WORKBOOKS	\$2,841.15	\$2,841.15

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<b>Check No.</b>	<b>Date</b>	<b>Invoice No.</b>	<b>Vendor</b>	<b>Description</b>	<b>Invoice Amt</b>	<b>Check Amt</b>
166363	12/21/2017	12301950	BLAISDELL'S	5 DAILY BUSINESS DAIRIES	\$285.30	\$2,585.94
	12/21/2017	12315730		ASTD OFFICE SUPPLIES	\$110.10	
	12/21/2017	12301471		1 WALL CALENDAR	\$9.87	
	12/21/2017	12301951		21 DAILY BUS DIARIES	\$1,198.24	
	12/21/2017	12326220		1 PK TAPE/ 1 DZ PENS	\$10.37	
	12/21/2017	12301380		ASTD OFFICE SUPPLIES	\$37.84	
	12/21/2017	12319010		3 NOTEBOOKS	\$19.06	
	12/21/2017	12301470		ASTD OFFICE SUPPLIES	\$361.26	
	12/21/2017	12308170C		CREDIT-INV 12308170 (1) ORGANIZER	\$-52.72	
	12/21/2017	12308170		1 ORGANIZER	\$52.72	
	12/21/2017	12311980		1 ARISTO LEATHER SET	\$57.06	
	12/21/2017	12327520		ASTD OFFICE SUPPLIES	\$39.37	
	12/21/2017	12301381		1 CALENDAR	\$16.45	
	12/21/2017	12311980C		CREDIT-INV 12311980 (1) ARISTO LEATHER SET	\$-57.06	
	12/21/2017	12312860		ASTD OFFICE SUPPLIES	\$498.08	
166301	12/14/2017	9198	CHAMPION CLEANING SPECIALISTS	REFUND # 20497	\$2,500.00	\$2,500.00

**UNION SANITARY DISTRICT  
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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166310	12/14/2017	282328	ENTHALPY ANALYTICAL LLC	6 LAB SAMPLE ANALYSIS	\$145.00	\$2,460.00
	12/14/2017	282326		5 LAB SAMPLE ANALYSIS	\$505.00	
	12/14/2017	282325		41 LAB SAMPLE ANALYSIS	\$1,520.00	
	12/14/2017	282368		15 LAB SAMPLE ANALYSIS	\$290.00	
166298	12/14/2017	162366	CAROLLO ENGINEERS	FREMONT & PASEO PADRE LS IMPROVEMENTS	\$2,457.00	\$2,457.00
166343	12/14/2017	9796663400	VERIZON WIRELESS	WIRELESS SERV 10/21/17-11/20/17	\$2,417.47	\$2,445.74
	12/14/2017	9797181310		WIRELESS SERV 11/02/17-12/01/17	\$28.27	
166287	12/14/2017	67419	3T EQUIPMENT COMPANY INC	ASTD PARTS & MATERIALS	\$2,443.67	\$2,443.67
166408	12/21/2017	52089221	MCMASTER SUPPLY INC	ASTD PARTS & MATERIALS	\$752.19	\$2,396.21
	12/21/2017	52268911		ASTD PARTS & MATERIALS	\$279.15	
	12/21/2017	52493508		ASTD PARTS & MATERIALS	\$242.87	
	12/21/2017	52065412		24 GALVANIZED STEEL U-BOLTS	\$39.67	
	12/21/2017	52493507		ASTD PARTS & MATERIALS	\$242.49	
	12/21/2017	52158771		4 EPOXY ADHESIVE/ 4 MIXER NOZZLES	\$195.00	
	12/21/2017	52144166		2 WALL HOOKS/1 MAGNET HOOK	\$26.35	
	12/21/2017	52650566		ASTD PARTS & MATERIALS	\$618.49	
166366	12/21/2017	94820	BRUCE BARTON PUMP SERVICE INC	2 SUMP PUMPS	\$2,229.03	\$2,229.03
166330	12/14/2017	7702639600	RS HUGHES CO INC	ASTD SAFETY SUPPLIES	\$1,908.18	\$1,908.18

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166432	12/21/2017	8080700595	VWR INTERNATIONAL LLC	LAB SUPPLIES	\$111.95	\$1,905.59
	12/21/2017	8080714343		LAB SUPPLIES	\$23.67	
	12/21/2017	8080696216		LAB SUPPLIES	\$442.91	
	12/21/2017	8080689155		LAB SUPPLIES	\$27.00	
	12/21/2017	8080703807		LAB SUPPLIES	\$60.86	
	12/21/2017	8080707232		LAB SUPPLIES	\$69.09	
	12/21/2017	8080747255		LAB SUPPLIES	\$57.86	
	12/21/2017	8080671498		LAB SUPPLIES	\$923.70	
	12/21/2017	8080707233		LAB SUPPLIES	\$188.55	
166414	12/21/2017	159129	ONCORE PRO SERVICES	RECONFIGURATION OF EXISTING OFFICE FURNITURE	\$1,850.00	\$1,850.00
166331	12/14/2017	4868173113017	SIERRA SPRING WATER COMPANY	WATER SERVICE 11/1/17 - 11/28/17	\$1,750.57	\$1,750.57
166377	12/21/2017	63378	CITYLEAF INC	2017 HOLIDAY DECOR	\$1,301.06	\$1,732.92
	12/21/2017	63971		PLANT MAINTENANCE - DEC 2017	\$431.86	
166303	12/14/2017	20171214	MITCHELL COSTELLO	EXP REIMB: AMA CLASS REG	\$1,695.00	\$1,695.00
166322	12/14/2017	20171211	KATHLEEN KING	EXP REIMB: LODGING,MILEAGE,PER DIEM-CALPERLA CONF	\$1,682.25	\$1,682.25
166292	12/14/2017	2522056808	BANK OF NEW YORK	SEP 2017 SERVICE FEE	\$767.90	\$1,677.92
	12/14/2017	2522052659		AUG 2017 SERVICE FEE	\$910.02	

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166345	12/14/2017	8080591526	VWR INTERNATIONAL LLC	2 CALCULATORS	\$41.88	\$1,669.54
	12/14/2017	8080360185		SERVICE CALL: CALIBRATE INCUBATOR	\$438.00	
	12/14/2017	8080529548		3 PK MICROFIBRE GLS GF	\$770.48	
	12/14/2017	8080601246		LAB SUPPLIES	\$419.18	
166422	12/21/2017	3360977359	STAPLES CONTRACT & COMMERCIAL	2 CT MULTIFOLD WHITE PAPER TOWELS	\$57.18	\$1,651.88
	12/21/2017	3360977357		2 CS SAFETY GLASSES	\$63.63	
	12/21/2017	3360977355		JANITORIAL/BREAKROOM SUPPLIES	\$688.31	
	12/21/2017	3360977358		JANITORIAL/BREAKROOM SUPPLIES	\$808.75	
	12/21/2017	3360977360		2 CS FACIAL TISSUE	\$34.01	
166399	12/21/2017	3L6040	HARRINGTON INDUSTRIAL PLASTICS	ASTD PVC PARTS & MATERIALS	\$624.81	\$1,643.12
	12/21/2017	3L6132		5-1/2" VALVE DIAPHRAGMS	\$1,018.31	
166352	12/21/2017	171101601	AIRTECH MECHANICAL INC	NOV 2017: FILTER CHANGE BLDGS 54, 63, 81, 90	\$915.00	\$1,620.00
	12/21/2017	171201621		SERVICE CALL: BLDG 82 AC #4 IGNITING PROBLEM	\$705.00	
166293	12/14/2017	12053	BARNETT MEDICAL SERVICES LLC	18 LBS PHARMACEUTICAL WASTE REMOVAL	\$85.00	\$1,530.00
	12/14/2017	13740		140 LBS PHARMACEUTICAL WASTE REMOVAL	\$340.00	
	12/14/2017	12074		18 LBS PHARMACEUTICAL WASTE REMOVAL	\$85.00	
	12/14/2017	13359		35 LBS PHARMACEUTICAL WASTE REMOVAL	\$85.00	
	12/14/2017	11370		271 LBS PHARMACEUTICAL WASTE REMOVAL	\$510.00	
	12/14/2017	12498		218 LBS PHARMACEUTICAL WASTE REMOVAL	\$425.00	

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166375	12/21/2017	300934	CENTERVILLE LOCKSMITH	ASTD KEYS	\$33.17	\$1,509.86
	12/21/2017	300920		48 MASTER PADLOCKS	\$1,476.69	
166397	12/21/2017	9618734298	GRAINGER INC	ASTD PARTS & MATERIALS	\$596.18	\$1,462.21
	12/21/2017	9612927393		1 NONMETALLIC ENCLOSURE	\$572.82	
	12/21/2017	9612533464		1 OVERLOAD RELAY	\$56.70	
	12/21/2017	9619500938		ASTD PARTS & MATERIALS	\$150.14	
	12/21/2017	9623007920		ASTD PARTS & MATERIALS	\$86.37	
166415	12/21/2017	XCTZ02C	PACHECO BROTHERS GARDENING INC	LANDSCAPE MAINTENANCE SERVICES DECEMBER 2017	\$1,365.00	\$1,365.00
166384	12/21/2017	20171125	DALE HARDWARE INC	11/17-ASTD PARTS & MATERIALS	\$1,289.61	\$1,289.61
166367	12/21/2017	7602	BURLINGAME ENGINEERS INC	1 BACK PRESSURE VALVE/2 PRESSURE RELIEF VALVES	\$1,245.01	\$1,245.01
166405	12/21/2017	15367	LOOKINGPOINT INC	ANNUAL SUPPORT FOR PHONE AND NETWORK	\$1,225.00	\$1,225.00
166316	12/14/2017	3L5961	HARRINGTON INDUSTRIAL PLASTICS	1-1 1/2 STRAINER BASKET SIMPLEX	\$775.69	\$1,178.99
	12/14/2017	3L5647		ASTD PVC PARTS & MATERIALS	\$403.30	
166411	12/21/2017	24022823	MOTION INDUSTRIES INC	2 LUBRICANTS & ADHESIVES	\$380.67	\$1,078.40
	12/21/2017	24023072		ASTD PARTS & MATERIALS	\$293.96	
	12/21/2017	24023029		6 FILTERS	\$247.31	
	12/21/2017	24022623		ASTD PARTS & MATERIALS	\$156.46	
166383	12/21/2017	2832809	CUMMINS PACIFIC LLC	NPS GENERATOR TROUBLESHOOTING	\$1,054.55	\$1,054.55

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166394	12/21/2017	6083178234	G&K SERVICES CO	ASTD DUST MOPS, WET MOPS & TERRY TOWEL	\$17.22	\$1,054.29
	12/21/2017	6083180693		UNIFORM LAUNDERING & RUGS	\$251.64	
	12/21/2017	6083180694		UNIFORM LAUNDERING SERVICE	\$267.09	
	12/21/2017	6083178233		UNIFORM LAUNDERING SERVICE	\$265.28	
	12/21/2017	6083180695		ASTD DUST MOPS, WET MOPS & TERRY TOWEL	\$17.22	
	12/21/2017	6083178232		UNIFORM LAUNDERING & RUGS	\$235.84	
166359	12/21/2017	615513	A-PRO PEST CONTROL INC	DECEMBER PEST CONTROL	\$1,005.00	\$1,005.00
166355	12/21/2017	5174614	ALL INDUSTRIAL ELECTRIC SUPPLY	13 EA 4C TYPE W WIRE	\$405.33	\$1,002.37
	12/21/2017	5174783		ASTD PARTS & MATERIALS	\$597.04	
166308	12/14/2017	9385	DRAINLINE SEWER SPECIALIST	REFUND # 20546 & 20547	\$1,000.00	\$1,000.00
166380	12/21/2017	20171128	COMMUNICATION & CONTROL INC	UTILITY FEE/ANTENNA RENTAL	\$975.20	\$975.20
166372	12/21/2017	21517228	CARBOLINE COMPANY	PAINT & RELATED PAINT SUPPLIES	\$961.15	\$961.15
166318	12/14/2017	602781311	HILLYARD/SAN FRANCISCO	ASTD JANITORIAL SUPPLIES	\$916.47	\$916.47
166311	12/14/2017	6083175761	G&K SERVICES CO	UNIFORM LAUNDERING & RUGS	\$235.84	\$912.51
	12/14/2017	6083170829		UNIFORM LAUNDERING & RUGS	\$370.03	
	12/14/2017	6083173293		UNIFORM LAUNDERING & RUGS	\$306.64	
166430	12/21/2017	40047	VALLEY OIL COMPANY	ASTD GREASE & OIL	\$827.10	\$827.10
166296	12/14/2017	23906	CALERO HOLDINGS INC	CALL ACCOUNTING SOFTWARE ANNUAL SUPPORT	\$808.11	\$808.11
166433	12/21/2017	39938	WECO INDUSTRIES LLC	TRACTOR CAMERA REPAIR PARTS	\$793.63	\$793.63

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166391	12/21/2017	10086	FREMONT EXPRESS COURIER SVC	COURIER SVCS: NOV 2017 DAILY MAIL/2 BOARDMEMBER DELIVERY	\$760.00	\$760.00
166390	12/21/2017	11600	CITY OF FOSTER CITY	3 JOB POSTINGS	\$750.00	\$750.00
166326	12/14/2017	20171208	PETTY CASH	PETTY CASH REPLENISHMENT	\$740.11	\$740.11
166398	12/21/2017	10737567	HACH COMPANY	ASTD LAB SAMPLING SUPPLIES	\$672.61	\$729.21
	12/21/2017	10741922		1 MANVER2 HARDNESS INDICATOR	\$56.60	
166362	12/21/2017	350761	BAY AREA BARRICADE SERVICE INC	30 FIBERGLASS POSTS	\$727.65	\$727.65
166371	12/21/2017	4024355108	CANON SOLUTIONS AMERICA INC	MTHLY MAINTENANCE BASED ON USE	\$696.11	\$696.11
166351	12/21/2017	9949842653	AIRGAS NCN	CYLINDER RENTAL	\$618.08	\$694.39
	12/21/2017	9070234087		ASTD PARTS & MATERIALS	\$76.31	
166410	12/21/2017	1497957	MOBILE MODULAR MANAGEMENT CORFFMC	TRAILER RENTAL - DEC 2017	\$693.63	\$693.63
166419	12/21/2017	17301	ROCHESTER MIDLAND CORPORATION	HOT WATER LOOP SERVICE	\$687.46	\$687.46
166361	12/21/2017	20171219	JEFFREY BARTON	EXP REIMB: D. VERRELLI RETIREMENT DINNER	\$400.00	\$683.18
	12/21/2017	20171219.1		EXP REIMB: PER DIEM, TRANSPORTATION-WEF TECH CONF	\$283.18	
166378	12/21/2017	41341	CLAREMONT BEHAVIORAL SERVICES	JAN 2018 EAP PREMIUM	\$634.80	\$634.80
166409	12/21/2017	171249	METROMOBILE COMMUNICATIONS INC	ANNUAL RADIO SERVICE - DECEMBER 2017	\$599.08	\$599.08
166337	12/14/2017	93254	TRI-SIGNAL INTEGRATION INC	SERVICE CALL: OPEN CIRCUIT ON PANEL	\$556.24	\$556.24
166413	12/21/2017	21727	NIXON-EGLI EQUIP OF S. CAL	4 ROOT SAW BLADES	\$517.13	\$517.13
166319	12/14/2017	944720171127	HOME DEPOT CREDIT SERVICES	MONTHLY HARDWARE STMT - NOV 2017	\$516.50	\$516.50
166424	12/21/2017	979728750	TPX COMMUNICATIONS	WIRELESS INTERNET BACKUP - DECEMBER	\$505.97	\$505.97

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166395	12/21/2017	20171219	GFOA-GOV FIN OFFICERS ASSOC	CAFR SUBMISSION FEE	\$505.00	\$505.00
166294	12/14/2017	12296090	BLAISDELL'S	1 CALCULATOR	\$98.76	\$501.10
	12/14/2017	12295810		1 HP TONER	\$153.55	
	12/14/2017	12296620		2 PK POST-IT/ 1PK PAGE FLAGS	\$24.44	
	12/14/2017	12298690		ASTD OFFICE SUPPLIES	\$224.35	
166323	12/14/2017	9404	HONG LIN	REFUND # 20548	\$500.00	\$500.00
166349	12/14/2017	9348	JEFFERY WONG	REFUND # 20560	\$500.00	\$500.00
166404	12/21/2017	1451670	LIEBERT CASSIDY WHITMORE	LEGAL SERVICES - GENERAL	\$475.00	\$475.00
166332	12/14/2017	8122768113017	SIERRA SPRING WATER COMPANY	BOTTLESS COOLERS RENTAL	\$444.59	\$444.59
166396	12/21/2017	84406	GORILLA METALS	ASTD METAL, STEEL, STAINLESS & ALUMINUM	\$413.28	\$413.28
166420	12/21/2017	7697594604	RS HUGHES CO INC	ASTD SAFETY SUPPLIES	\$401.87	\$401.87
166328	12/14/2017	337031	RKI INSTRUMENTS INC	4 OXYGEN SENSORS	\$395.10	\$395.10
166357	12/21/2017	20171110	AMAZON.COM LLC	11/17-ASTD OFFICE SUPPLIES	\$386.28	\$386.28
166315	12/14/2017	9608073533	GRAINGER INC	ASTD PARTS & MATERIALS	\$357.67	\$357.67
166338	12/14/2017	8906	TURNER RISK CONSULTING INC	FALL PROTECTION TRAINING - BULLIS	\$350.00	\$350.00
166370	12/21/2017	578306	CALTEST ANALYTICAL LABORATORY	1 LAB SAMPLE ANALYSIS	\$345.00	\$345.00
166406	12/21/2017	20171220	SCOTT MARTIN	EXP REIMB: FMC RECOGNITION EVENT	\$330.10	\$330.10
166388	12/21/2017	90096690240	ENTERPRISE GOV 43-1514861	RENTAL: T. TEALE, ST. LOUIS, MO	\$116.50	\$322.25
	12/21/2017	90096766212		RENTAL: S. MARTIN, SEATTLE, WA	\$205.75	

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166341	12/14/2017	98XW53467	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 11/18/17	\$315.38	\$315.38
166364	12/21/2017	20171219	GENE BOUCHER	EXP REIMB: BS WORKGRP HOLIDAY LUNCH	\$307.30	\$307.30
166416	12/21/2017	133143	PREFERRED ALLIANCE INC	NOVEMBER 2017 SERVICE FEE	\$277.20	\$277.20
166305	12/14/2017	20171212	CWEA	MEMBERSHIP RENEWAL - K. VONG	\$180.00	\$275.00
	12/14/2017	20171212.1		CERT RENEWAL: J. SEO	\$95.00	
166402	12/21/2017	201473802	IRON MOUNTAIN	DATA/MEDIA OFF-SITE STORAGE - NOVEMBER 2017	\$268.81	\$268.81
166392	12/21/2017	20297	FREMONT RECYCLING & TRANSFER	2.07 TON GREEN WASTE	\$262.43	\$262.43
166347	12/14/2017	20171211	WEF-WATER ENVIRONMENT FEDERATI	WEF MEMBERSHIP-R. PIPKIN	\$255.00	\$255.00
166417	12/21/2017	35061C	R & S ERECTION OF S ALAMEDA	SERVICE: DOOR NOT OPENING AUTOMATICALLY	\$250.00	\$250.00
166434	12/21/2017	6013556	WEST SAFETY SERVICES INC	E911 CLOUD SERVICE	\$250.00	\$250.00
166386	12/21/2017	377316	DLT SOLUTIONS, LLC	AWS CLOUD STORAGE - OCTOBER 2017	\$238.01	\$238.01
166334	12/14/2017	20171213	SWRCB - STATE WATER RESOURCES	GRADE II CERT RENEW-R. SHENK	\$230.00	\$230.00
166360	12/21/2017	304919001	AUTO BODY TOOLMART	ASTD PARTS & MATERIALS	\$196.57	\$196.57
166313	12/14/2017	2774732105	GLACIER ICE COMPANY INC	108 7-LB BAGS OF ICE	\$158.76	\$158.76
166425	12/21/2017	118287	TRI-SIGNAL INTEGRATION INC	FIRE PROTECTION SERVICE - MONTHLY CHARGE MONITORING AGREE	\$133.34	\$133.34
166306	12/14/2017	20171211	CWEA	SEMINAR REG: HERNANDEZ, A	\$120.00	\$120.00
166431	12/21/2017	20171219	AUDREY VILLANUEVA	EXP REIMB: FOOD AND DRINKS FOR BACWA DENTAL TRAINING	\$115.02	\$115.02
166353	12/21/2017	5375552832018	ALAMEDA COUNTY TREASURER	PROPERTY TAXES 37159 HICKORY ST	\$109.62	\$109.62
166418	12/21/2017	92095	REMOTE SATELLITE SYSTEMS INT'L	IRIDIUM SVC FEE JANUARY 2018	\$97.90	\$97.90

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166426	12/21/2017	8945	TURNER RISK CONSULTING INC	FIRST AID & CPR TRAINING - STUART BULLIS	\$95.00	\$95.00
166290	12/14/2017	612954	A-PRO PEST CONTROL INC	PEST CONTROL-ADDL BAIT STATIONS	\$90.00	\$90.00
166379	12/21/2017	256084	CLARK'S HOME AND GARDEN INC	1/2 YD CONCRETE 6SK	\$85.61	\$85.61
166407	12/21/2017	77875923	MATHESON TRI-GAS INC	MONTHLY CYLINDER RENTAL - NOVEMBER 2017	\$82.92	\$82.92
166376	12/21/2017	443670	CHEMETRICS INC	1 FORMALDEHYDE KIT	\$81.31	\$81.31
166393	12/21/2017	157606	FREMONT RUBBER STAMP CO INC	1 ACCOUNTS PAYABLE RECEIVED STAMP	\$78.84	\$78.84
166317	12/14/2017	26460	HAYWARD PIPE AND SUPPLY	ASTD PARTS & MATERIALS	\$73.70	\$73.70
166385	12/21/2017	615320171220	DISH NETWORK	JAN 2018 - SERVICE FEE	\$55.90	\$55.90
166356	12/21/2017	7121335	ALPHA ANALYTICAL LABORATORIES	1 LAB ANALYSIS	\$55.00	\$55.00
166354	12/21/2017	4047286120171205	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 12/04/17 - PASEO PADRE	\$49.84	\$49.84
166358	12/21/2017	1766627	ANALYSTS, INC.	2 LAB SAMPLE ANALYSIS	\$48.30	\$48.30
166389	12/21/2017	20171218	AUSTIN FARSAI	EXP REIMB: LIVESCAN FEE PRE-EMPLOYMENT	\$35.00	\$35.00
166400	12/21/2017	602793308	HILLYARD/SAN FRANCISCO	1 CS TISSUE ROLLS	\$33.49	\$33.49
166369	12/21/2017	273365	STATE OF CALIFORNIA	1 NEW HIRE FINGERPRINTS	\$32.00	\$32.00
166429	12/21/2017	98XW53477	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 11/25/17	\$28.32	\$28.32
166314	12/14/2017	84381	GORILLA METALS	ASTD METAL, STEEL, STAINLESS & ALUMINUM	\$26.41	\$26.41
166421	12/21/2017	20171218	SAM SOTH	EXP REIMB: LIVESCAN FEE PRE-EMPLOYMENT	\$18.00	\$18.00
166320	12/14/2017	5730851	HOSE & FITTINGS ETC	ASTD PARTS & MATERIALS	\$16.43	\$16.43

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<b>Invoices:</b>				<b>Checks:</b>		
		<b>Credit Memos :</b>	<b>3</b>			<b>-269.78</b>
		<b>\$0 - \$1,000 :</b>	<b>182</b>			<b>59,326.11</b>
		<b>\$1,000 - \$10,000 :</b>	<b>70</b>			<b>213,488.15</b>
		<b>\$10,000 - \$100,000 :</b>	<b>11</b>			<b>364,833.12</b>
		<b>Over \$100,000 :</b>	<b>3</b>			<b>509,234.80</b>
		<b>Total:</b>	<b>269</b>			<b>1,146,612.40</b>
				<b>\$0 - \$1,000 :</b>	<b>75</b>	<b>28,759.28</b>
				<b>\$1,000 - \$10,000 :</b>	<b>59</b>	<b>189,089.27</b>
				<b>\$10,000 - \$100,000 :</b>	<b>13</b>	<b>419,529.05</b>
				<b>Over \$100,000 :</b>	<b>3</b>	<b>509,234.80</b>
				<b>Total:</b>	<b>150</b>	<b>1,146,612.40</b>

# EAST BAY TIMES

## New Castro Valley Sanitary District facility plan hits snag

### Possible noise impacts, \$6 million cost cited as key concerns

By Darin Moriki | [dmoriki@bayareanewsgroup.com](mailto:dmoriki@bayareanewsgroup.com) | Bay Area News Group  
PUBLISHED: December 14, 2017



This conceptual design rendering by Noll & Tam Architects, of Berkeley, shows what the proposed Castro Valley Sanitary District corporation yard may look like. The new, 13,000-square-foot building, near the corner of Castro Valley Boulevard and Center Street, would house all of CVSan's wastewater operations and allow for future expansion options. That would allow the sanitary district's current Marshall Street office to house key administrators and solid waste services. (Contributed photo/Castro Valley Sanitary District)

**CASTRO VALLEY** — The Castro Valley Sanitary District's plan to build a new corporation yard and office building near its current headquarters is facing some resistance from residents concerned about noise and visual impacts, along with possible sewer rate hikes to pay for the project.

The proposed 13,000-square-foot corporation yard near Castro Valley Boulevard and Center Street would alleviate an existing space crunch at CVSan's main

office on Marshall Street and accommodate any growth for at least 40 years, general manager Roland Williams Jr. said.

“We want to have that flexibility, and while there’s no immediate plans for that, we could extend the building toward Center Street to gain more square footage inside the building, if we needed to, or decided to vacate Marshall Street and move all of our operations over to Center Street,” Williams said.

But the Castro Valley Municipal Advisory Council shot down preliminary building design plans on Nov. 11 and questioned whether noises from the planned facility’s vehicle repair area will impact nearby residents. The advisory board also worried that CVSan’s sewer rates, among the highest in mid-Alameda County, will be raised further to pay for the public agency’s new corporation yard.

“I see the need, and I think it’s legitimate for the sanitary district to want to build a new facility at this location,” Castro Valley MAC Chair Marc Crawford said at the meeting.

“It makes sense, and there’s very few places in town that you’re going to be able to do this without taking out another large building. I think the need is there; it’s just a matter of figuring out what sort of use is going to occur there, what the building is going to look like and what sort of impacts it’s going to have on the surrounding neighbors,” he said.

CVSan has not applied for a land use permit to Alameda County yet, and a state-required environmental study still needs to be done. The county advisory board, however, was asked to weigh in on the \$6 million project so CVSan can make changes and complete plans for the now vacant Center Street site.

CVSan’s proposal, however, “is very preliminary” and no funds have been officially committed for the project, Williams said.

“We want to make sure that the project has a great chance of success before we invest resources in it,” Williams said.

Plans for the new corporation yard include a 6,600-square-foot garage, maintenance shop and work area for up to six large district vehicles; 6,400 square feet of office space; a 6,400-square-foot, second-floor mezzanine for storage; and an up to 66-space parking lot for CVSan employees and customers.

The 5,000-square-foot CVSan main office, at 21040 Marshall St., would continue to house most CVSan administrators and solid waste staff, Williams said.

An agreement being forged with Alameda County will allow CVSan to conduct its major vehicle repairs at a public works agency facility in Dublin, Williams said. The Center Street corporation yard would be used for routine maintenance of district vehicles, he said.

Hera Alikian, whose family owns the nearby Wishing Well Mobile Home Park, said a wall should be built around the proposed corporation yard to buffer sounds from district vehicles.

“I have a real problem with the noise, and I don’t care how big of a wall you put up; there’s going to be a significant amount of noise from big trucks,” Castro Valley MAC member Chuck Moore said.

“The more you work on them, the more noises they make,” he said.

Crawford, along with fellow Castro Valley MAC member Linda Tangren, said they worry that CVSan may raise sewer rates to help pay for the new corporation yard. Those annual rates have risen steadily for houses and multi-family dwellings, from \$252 in the 2011-12 fiscal year, to \$399 this year, according to archived CVSan records. The last increase raised the annual sewer rate on July 1 to \$399, from \$380.

“If we’re looking at building a building like this, I think it’s important to look at some of those cost factors, how this is now going to parlay into what we, as rate payers in Castro Valley, are going to be seeing, and how that’s going to impact us for the next 10 years,” Alikian said.

Williams said in May that CVSan could use up to \$2 million in savings and trim costs by about 2 to 3 percent annually to finance a 30-year loan to build the new corporation yard.

# What Are Those Weird, Pink Ponds in San Francisco Bay?

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[www2.kqed.org/science/2017/12/14/what-are-those-weird-pink-ponds-in-san-francisco-bay/](http://www2.kqed.org/science/2017/12/14/what-are-those-weird-pink-ponds-in-san-francisco-bay/)

Lauren Sommer



Passengers flying into Bay Area airports usually spot them out the window: huge, colorful ponds, hugging the shoreline of the bay. The patchwork of brown, green and pink looks like a bizarre quilt.

They're known as the "salt ponds," and Bay Curious listener Ann Vercoutere has wondered about them since her childhood in the South Bay.

"When you'd drive by on the old Bayshore Freeway, you'd see these big piles of salt," she says. "So, my question is: what's the process of how they go from dirty bay water into salt that comes out white from my salt shaker?"

## 143 Billion Bowls of Popcorn

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Those giant piles of salt actually hold of piece of the Bay Area's history going back to the Gold Rush and reflect the legacy of environmental change since then.



Animation shows the movement of reddish salt brine through Cargill's Newark ponds over the course of 2017. (Images provided by Planet)

Of course, they also hold a lot of seasoning.

“The salt stack is 80 feet tall and about 800 feet wide,” says Maria Alizo-Martell of Cargill, Inc., standing next to the 500,000-ton pile. By rough estimate, it would season 143 billion bowls of popcorn, give or take, depending on how salty you like it.

The piles are at Cargill's Newark facility, where the final harvest takes place. But it begins in San Francisco Bay.

Salty water from the bay is captured in ponds, where it starts to evaporate because of heat from the sun and drying by the wind. At first, the ponds are green or brownish in color, like the bay itself.

As the salt water becomes more concentrated, it's moved into other ponds where the color becomes more yellowish. Finally, in the last stage, the “pickle” brine, as it's known, starts turning pink.

“We like pink,” says Alizo-Martell with a chuckle, walking across a shallow pond with an inch of pink water. It covers a thick layer of crusty salt and looks like a giant, raspberry snow cone.

<https://www.kqed.org/.stream/anon/radio/bay-curious/2017/12/salt-ponds.mp3>

## Don't Call it a “Salt Pond”

“This is what we call a crystallizer bed,” says Cargill's Pat Mapelli. “This is very engineered,

managed and manicured, where everything has been rolled, graded, sloped and compacted. Whereas a salt pond is essentially a diked off area that has been flooded with salt water.”



Salt-loving microbes color the water before harvest. *(Lauren Sommer/KQED)*

The vibrant pink hue comes from a natural source: halobacterium and microscopic algae.

As the water gets saltier, some microbes can't hack it and they die off. But others are specially adapted to salty conditions and they flourish, changing the color of the water.

“When they get stressed as the salinity increases, they produce that red color,” says Alizo-Martell.

The saltier the water, the redder the microbes get. That color aids in the salt-making process by absorbing sunlight and increasing evaporation. Clear water doesn't absorb as much light.

Once several inches of salt form, Cargill begins the harvest, which lasts from September to December.

“It's just beautiful,” says Alizo-Martell, picking up a handful of the flaky, white cubes. “It's so weather dependent. You had a bad year, you get not much salt.” A lot of rain slows down the process.



The massive salt stack in Newark holds 500,000 tons. (Lauren Sommer/KQED)

In all, it takes three years and a thousand gallons of bay water to produce just one pound of salt. From here, it goes to a refinery where it's cleaned, sized and sold as sea salt, bearing the Morton's or Diamond Crystal brand.

But only 3 percent of the salt ends up on our table. The rest supplies a huge range of industrial processes, from pharmaceuticals to food production, water treatment and road salt.

## Gold Rush History

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Believe it or not, the Bay Area may not be what it is today without its salt. Harvesting salt from the Bay dates back to Native American groups like the Ohlone, but demand really picked up in the 1850s.

“As people migrated from the east to the west, mostly around the discovery of gold, there was a need for salt,” says Mapelli. “Everybody traveled with salt.”

Without refrigeration, salt was how people preserved food.

“It was almost worth its weight in gold,” he says.

Salt-making boomed through the 1970s, when Cargill bought the operation. 44,000 acres of the bay were in production then, but today, it's just 8,000.

That's because the market for salt shifted and so did our view of what San Francisco Bay should be. The salt ponds used to be marshes, which, around the time of the Gold Rush, were seen as wasteland.



Only three percent ends up as table salt. The rest goes to industry. (Lauren Sommer/KQED)

“There was an encouragement by both the state and federal government to put what they considered wasteland or swamp and overflow lands into economic use,” Mapelli says.

Today, the Bay has lost more than 80 percent of its marshes. So, in 2003, the federal and state governments bought thousands of acres of ponds from Cargill. The ponds are slowly being reconnected to the Bay in the biggest ecosystem restoration project on the West Coast.

For Bay Curious questioner Ann Vercoutere, the ponds are one of the few things that haven't changed from her childhood in the South Bay.

When she was a kid in Mountain View, “there were lots of orchards around,” she says. “Some of our summer jobs were going to work picking Italian prune plums with the migrant workers. Shoreline Amphitheater was the city dump. That was always a fun Saturday to go with our dad and pick through the dump and look for stuff.”

Now, the salt ponds border some of the most expensive real estate in the nation, not far from gleaming tech campuses. The chances of starting a large, industrial salt-making operation in the Bay today are effectively zilch, for financial and environmental reasons.

Because of the long, colorful history, Cargill still holds rights to make salt, which really, is the only way salt-harvesting has stuck around amid the intense development pressure of the Bay Area.

What Are Those Weird, Pink Ponds in San Francisco Bay? 14 December, 2017 Lauren Sommer

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Community

# City of Riverside Celebrates Completion of Largest Public Works Project Ever

By **Staff** - December 15, 2017 TAGS: RIVERSIDE WATER



## Wastewater treatment plant improvements bring high-tech method, much greater efficiencies

[RIVERSIDE, Calif.](#) – The City of Riverside on Thursday celebrated the completion of the largest public works project in the city's history, a high-tech renovation of the wastewater

treatment plant that was completed \$6 million under budget and positions Riverside for future growth and development.

The \$192 million project took nearly five years and rehabilitated or replaced aged treatment facilities, installed new equipment and modified existing treatment processes, including the installation of a cutting-edge membrane bioreactor treatment system that leaves wastewater 10 times cleaner than with the previous method.

"This project is an excellent example of how Riverside stays at the front of the pack when it comes to innovation and excellence," Mayor Rusty Bailey said as people gathered for a 9 a.m. ribbon-cutting ceremony. "This cutting-edge technology will serve our city well, now and into the future."

Riverside now can process 46 million gallons per day – up from 40 million gallons per day – of wastewater, meaning the city is capable of growing and expanding in the coming years. The upgrade also means Riverside is well prepared to continue treating wastewater from the Highgrove community, as well as the Edgemont, Rubidoux, and Jurupa community service districts.

The membrane reactor system, in addition to being much more efficient and effective, also means Riverside is well-situated to comply with existing and future regulatory requirements for treating wastewater. The membrane reactor system in Riverside is the third-largest of the more than 100 such systems in the U.S.

"This project, using the best available technology, means that Riverside can rest assured that this important responsibility is being met using safe and sustainable technologies that set the standard in the nation," Public Works Director Kris Martinez said.

The project is part of an ongoing effort to ensure Riverside is capable of providing high-quality water and wastewater treatment in the decades to come. Additional investment in the city's older sewer infrastructure also is planned.

The project also includes storage for bio-methane gas that is created as a byproduct of the wastewater treatment process. Bio-methane gas is a renewable resource and is used on-site to heat digesters that break down the waste materials. A new, 1.4 mega-watt, fuel cell electrical generation system will produce about 40% of the total electrical demand at the site, and the storage of excess fuel will reduce the city's need to buy natural gas. This

moves the City a step closer to the goal of reaching energy independence for the treatment plant.

The renovated wastewater treatment plant, at 5950 Acorn Street, also features a new odor control system, with tank covers and a method for scrubbing the foul air before it leaves the eight sedimentation tanks and reaches the atmosphere.

The project was complex in that the existing system had to remain in place and operating, even as construction and renovation work touched about 70 percent of the facility. Constant supervision and care ensured that during the project, no regulatory water quality violations occurred as a result of the construction activity.

New technology also means that the plant will be able to process as much as 60,000 gallons of waste material from local restaurants and food processing plant each day, turning that material into bio-methane for use in generating electricity.

"Any project that is nearly five years in the making, including four years of actual construction, at a site where activities are heavily regulated — that's a major accomplishment," Mayor Pro Tem Jim Perry said. "The fact that the project came in \$6 million under budget is very gratifying to see when taxpayers are rightly calling on the city to be good stewards of tax money."

## INLAND EMPIRE WATER

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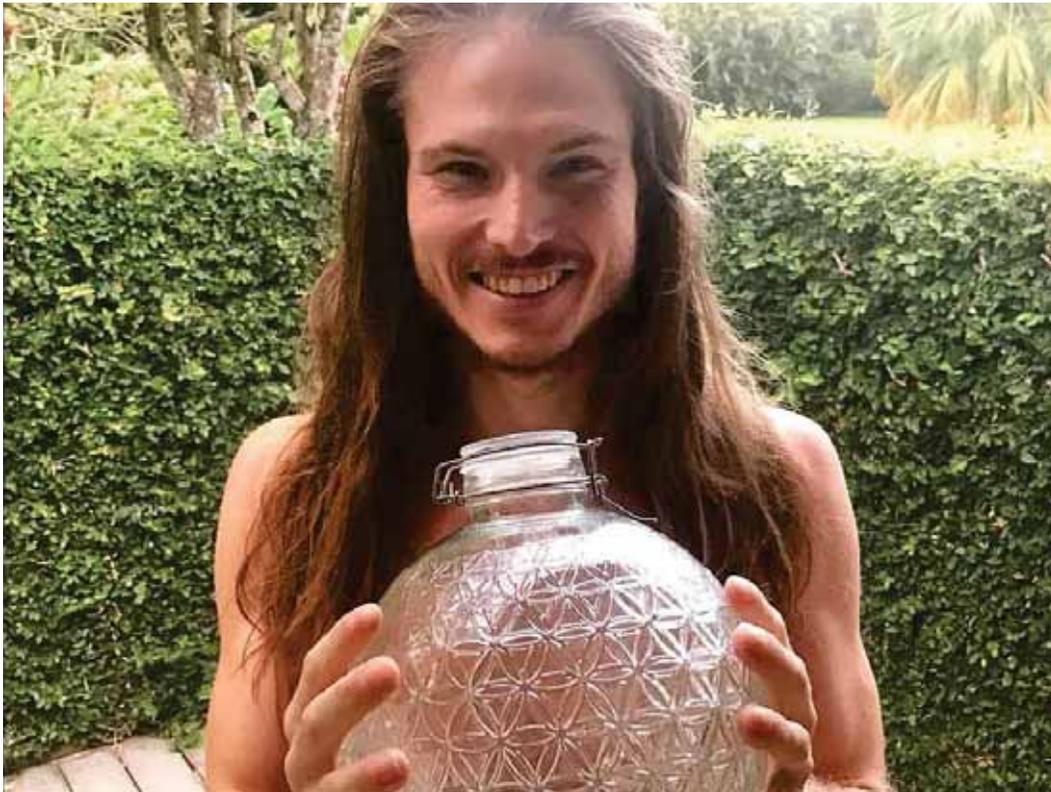
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## Food-safety expert warns latest bizarre Silicon Valley \$60 'raw water' trend could quickly turn deadly

[Kate Taylor](#) Jan. 2, 2018



Live Water is a startup selling untreated water. [Live Water](#)

- **Silicon Valley is developing an obsession with untreated, unfiltered water, according to The New York Times.**
- **But a food-poisoning expert says that the trend is dangerous and could be deadly.**
- **"Raw" water can spread bacteria and diseases including cholera, E. coli, Hepatitis A, and Giardia.**

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When food-safety expert Bill Marler saw [The New York Times' trend piece](#) on Silicon Valley's recent obsession with raw water, he thought he was reading a headline from The Onion.

According to The Times, demand for unfiltered water is skyrocketing as tech-industry insiders develop a taste for water that hasn't been treated, to prevent the spread of bacteria or other contaminants.

In San Francisco, "unfiltered, untreated, unsterilized spring water" is selling for as much as \$60.99 for a 2.5 gallon jug. Startups dedicated to untreated water are popping up. People — including [startup Juicero's cofounder Doug Evans](#) — are gathering gallons of untreated water from natural springs to bring to Burning Man.



Tourmaline Spring sells an untreated water as "sacred, living water." Tourmaline Spring

While Evans and other fans say raw water is perfect for those who are "extreme about health," Marler — a food-safety advocate and a lawyer — says the opposite is true.

"Almost everything conceivable that can make you sick can be found in water," Marler told Business Insider.

Unfiltered, untreated water, even from the cleanest streams, can contain animal feces, spreading Giardia, which has symptoms such as vomiting and diarrhea and results in roughly 4,600 hospitalizations a year. Hepatitis A, which resulted in [20 deaths in a California outbreak](#) in 2017, can be spread through water if it isn't treated. E. coli, and cholera can also be transmitted via untreated water.

Because filtered, treated water has become the norm, Marler says, most people don't realize how dangerous so-called raw water can be.

"The diseases that killed our great-grandparents were completely forgotten about," he said.

Most Americans don't personally know anyone who died of Hepatitis A or cholera, thanks to advances in technology and more stringent safety standards. As a result, they had a hard time realizing the risks involved in consuming untreated water.

"It's fine till some 10-year-old girl dies a horrible death from cholera in Montecito, California," Marler said.

On January 2, Business Insider's [Melia Robinson](#) visited a San Francisco supermarket where a small company called [Live Water](#) sells its untreated water. Rainbow Grocery was sold out of the Fountain of Truth Spring Water from Live Water, but a sign indicated a "slight price increase."



An empty container sits on a shelf in Rainbow Grocery, where Live Water is sold. Melia Robinson/Business Insider



Rainbow Grocery is expecting a new shipment of Live Water on January 4. Melia Robinson/Business Insider

The cost of a 2.5 gallon jug increased from \$36.99 to \$60.99 since The Times' article published. While the price includes the glass container, a refill costs only \$14.99, according to The Times.



According to Marler, the raw-water trend is similar to people's obsession with raw milk or opposition to vaccines. While they lack scientific evidence, they're convinced that they are correct, in part because they have failed to see the repercussions of life without scientific advances.

"You can't stop consenting adults from being stupid," Marler said. "But we should at least try."

*Melia Robinson contributed reporting.*