



REVISED

**BOARD MEETING AGENDA
Monday, October 26, 2015
Regular Meeting - 7:00 P.M.**

Directors

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

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

1. Call to Order.

2. Pledge of Allegiance.

3. Roll Call.

- Motion 4. Approve Minutes of the Meeting of September 28, 2015.

- Motion 5. Approve Minutes of the Special Meeting of September 30, 2015.

6. Monthly Operations Report for September 2015.

7. Written Communications.

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.

- Motion 9. Authorize the General Manager to Execute Task Order No. 2 with Carollo Engineers for Providing Engineering Services During Construction of the Fremont and Paseo Padre Lift Stations Improvements Project *(to be reviewed by the Construction Committee)*.

- Motion 10. Approve the Publicly Available Pay Schedule *(to be reviewed by the Personnel Committee)*.

- Motion 11. Authorize the General Manager to Execute Task Order No. 2 with West Yost Associates for Providing Final Design Services for the Pine Street Easement Improvements Project *(to be reviewed by the Construction Committee)*.

- Information 12. Information Items:
- a. Check Register.
 - b. Final June 2015 Internal Financial Report *(to be reviewed by the Budget & Finance Committee)*.
 - c. Report on the East Bay Dischargers Authority (EBDA) Commission meeting of October 15, 2015.
-
- Information 13. Committee Meeting Reports. *(No Board action is taken at Committee meetings):*
- a. Construction Committee – scheduled for Wednesday, October 21, 2015, at 10:30 a.m.
 - b. Budget & Finance Committee – scheduled for Thursday, October 22, 2015, at 8:30 a.m.
 - c. Legal/Community Affairs Committee – scheduled for Friday, October 23, 2015, at 9:15 a.m.
 - d. Personnel Committee – scheduled for Friday, October 23, 2015, at 11:00 a.m.
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- Information 14. General Manager’s Report. *(Information on recent issues of interest to the Board)*.
-
15. 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.
-
16. Adjournment – The Board will adjourn to the Special Meeting Capacity Charge Update Workshop in the Boardroom at 6:30 p.m. on Tuesday, October 27, 2015. The next scheduled Regular Meeting will be held in the Boardroom on Monday, November 9, 2015, at 7:00 p.m.

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 “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.

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

**NOTICE OF
COMMITTEE MEETING**



All meetings will be held in
the General Manager's Office
5072 Benson Road, Union City, CA 94587

BOARD MEETING OF OCTOBER 26, 2015

Committee Membership:

Budget and Finance	Directors Manny Fernandez and Pat Kite (Alt. – Jennifer Toy)
Construction Committee	Directors Tom Handley and Jennifer Toy (Alt. – Pat Kite)
Legal/Community Affairs	Directors Pat Kite and Anjali Lathi (Alt. – Tom Handley)
Legislative Committee	Directors Manny Fernandez and Tom Handley (Alt–Pat Kite)
Personnel Committee	Directors Manny Fernandez and Jennifer Toy (Alt. – Anjali Lathi)
Audit Committee	Directors Anjali Lathi and Jennifer Toy (Alt. Manny Fernandez)

Construction Committee, Wednesday, October 21, 2015, at 10:30 a.m.

9. Authorize the General Manager to Execute Task Order No. 2 with Carollo Engineers for Providing Engineering Services During Construction of the Fremont and Paseo Padre Lift Stations Improvements Project.
 11. Authorize the General Manager to Execute Task Order No. 2 with West Yost Associates for Providing Final Design Services for the Pine Street Easement Improvements Project.
-

Budget & Finance Committee, Thursday, October 22, 2015, at 8:30 a.m.

- 12b. Final June 2015 Internal Financial Report.
-

Legal/Community Affairs Committee, Friday, October 23, 2015, at 9:15 a.m.

Review Proposed Changes to District Mission Statement.

Personnel Committee, Friday, October 23, 2015, at 11:00 a.m.

10. Approve the Publicly Available Pay Schedule.
-

**MINUTES OF THE MEETING OF THE
BOARD OF DIRECTORS OF
UNION SANITARY DISTRICT
September 28, 2015**

CALL TO ORDER

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

PLEDGE OF ALLEGIANCE

ROLL CALL

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

ABSENT: Anjali Lathi, Director

STAFF: Paul Eldredge, General Manager
Karen Murphy, District Counsel
Rich Cortés, Business Services Manager
Sami Ghossain, Technical Services Manager
James Schofield, Collection Services Manager
Robert Simonich, Fabrication, Maintenance, and Construction Manager
Tim Grillo, Research and Support Team Coach
Todd Jacob, Information Technology Administrator
Roslyn Fuller, Purchasing Agent
Mariela Espinosa, Customer Service Fee Analyst
Regina McEvoy, Assistant to the General Manager/Board Secretary

APPROVAL OF THE MINUTES OF THE SPECIAL MEETING OF AUGUST 17, 2015

It was moved by Secretary Kite, seconded by Director Fernandez, to Approve the Minutes of the Special Meeting of August 17, 2015. Motion carried with the following vote:

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

APPROVAL OF THE MINUTES OF THE SPECIAL MEETING OF AUGUST 27, 2015

It was moved by Director Fernandez, seconded by Secretary Kite, to Approve the Minutes of the Special Meeting of August 27, 2015. Motion carried with the following vote:

AYES: Fernandez, Handley, Kite, Toy

NOES: None
ABSENT: Lathi
ABSTAIN: None

APPROVAL OF THE MINUTES OF THE MEETING OF AUGUST 24, 2015

It was moved by Vice President Handley, seconded by Secretary Kite, to Approve the Minutes of the Meeting of August 24, 2015. Motion carried with the following vote:

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

APPROVAL OF THE MINUTES OF THE MEETING OF SEPTEMBER 14, 2015

It was moved by Director Fernandez, seconded by Vice President Handley, to Approve the Minutes of the Meeting of September 14, 2015. Motion carried with the following vote:

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

MONTHLY OPERATIONS REPORT FOR AUGUST 2015

This item was reviewed by the Budget & Finance Committee. General Manager Eldredge reported the following:

- Odor Complaints: There were two odor complaints received in August 2015. The first complaint was received from a Fremont resident. District staff sampled the air in the USD mains, manholes, and adjacent storm drain inlets and no odor was detected. Staff relayed the findings to the reporting party, advised them to fill the P-traps in their home with water, and contact the District if they required further assistance. The second complaint was received from a restaurant in Union City. District staff sampled the air in the USD sewer mains, manholes, and storm drain inlets and no odor was detected. There is a garbage dumpster next to the restaurant and a grease interceptor near the patio area which may have contributed to the complaint. Staff relayed the findings to the reporting party, advised them to check their grease trap or dumpster if the odor returns, and contact the District should they need further assistance.
- Safety: General Manager Eldredge stated a summary of safety related matters was included in the Board meeting packet.
- Hours Worked and Leave Time by Work Group:
 - At-work hours have exceeded the target of 34 hours per employee per week

Business Service Manager Cortes reported the following:

- Revenues:

- Received \$467,000 in Capacity Fees in August including: \$168,000 from Silicon Valley Logistics Park in Fremont; \$180,000 from housing developments including the development across from Newpark Mall, \$92,000 from The Crossings buildings, and \$20,000 for the Autozone development
- Received \$22,000 in solar rebates
- Expenses:
 - The majority of CIP expenditures were for the Newark Backyard Relocation project and the Thickener project.
 - The first ARC payment for the fiscal year was made.

General Manager Eldredge reported the following:

- Technical Services:
 - Customer Service:
 - 14 trouble calls dispatched
 - 1 new lateral permit issued
 - Environmental Compliance
 - Completed 96 Stormwater (Urban Runoff) inspections, of which 31 resulted in enforcement action.
 - Completed 49 FOG (fats, oils, and grease for restaurants) inspections, of which 15 resulted in enforcement action.
 - Conducted nine Plant Tours
- Collection Services:
 - Completed over 12 miles of cleaning
 - Completed over 13 miles of televising sewer lines
 - Responded to 18 service request calls
 - Completed 24 main repairs
 - Provided a root foaming demonstration for the City of San Jose
- Fabrication, Maintenance, and Construction:
 - Completed 94% of preventative maintenance activities for the month of August
 - Completed 133 corrective maintenance work orders for the month of August
- Treatment & Disposal:
 - Reviewed the administrative draft of the Old Alameda Creek intermittent wet weather discharge permit and provided comments to the Regional Board.
 - Cogen produced 70% of power consumed for the plant during the month of August.

WRITTEN COMMUNICATIONS

There were no written communications.

ORAL COMMUNICATIONS

There were no oral communications.

CONSIDER A RESOLUTION ACCEPTING A SANITARY SEWER EASEMENT FROM ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

This item was reviewed by the Legal/Community Affairs Committee. District Special Counsel O'Hara stated that in 2013 the flood control district instituted an eminent domain action to acquire a small 1/20th of an acre property adjacent to I-880 in Fremont which contains about 10 feet of a fifteen foot wide sanitary sewer easement granted to Irvington Sanitary District in 1955. USD filed a disclaimer as to any compensation in that action on condition that the sanitary sewer easement rights would be preserved. When the matter was settled among the other parties, the easement rights were inadvertently left out of the judgment. The flood control district has prepared and executed a new easement in favor of the District. Staff recommended the easement be accepted and counsel be authorized to certify acceptance and have staff record the easement documents.

It was moved by Secretary Kite, seconded by Vice President Handley, to Adopt Resolution No. 2676 Accepting a Sanitary Sewer Easement from Alameda County Flood Control and Water Conservation District. The Board directed Legal Counsel to certify acceptance and have staff record the easement. Motion carried with the following vote:

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

APPROVE THE 2015 SCADA MASTER PLAN

This item was reviewed by the Budget & Finance Committee. Information Technology Administrator Jacob stated the 2011 Information Technology Master Plan recommended a SCADA (Supervisory Control and Data Acquisition) Master Plan project to provide a roadmap for the District SCADA system over the next 5 years, the 2015 SCADA Master Plan is the first at the District. The SCADA Master Plan includes 10 Information Technology (IT) projects with an estimated cost of \$1,025,000. Staff recommended the Board approve the 2015 SCADA Master Plan.

It was moved by Director Fernandez, seconded by Vice President Handley, to Approve the 2015 SCADA Master Plan. Motion carried with the following vote:

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

AWARD CONSTRUCTION CONTRACT FOR THE FREMONT AND PASEO PADRE LIFT STATIONS IMPROVEMENTS PROJECT TO MOUNTAIN CASCADE, INC.

This item was reviewed by the Construction Committee. Technical Services Manager Ghossain stated the District employs three small lift stations to convey wastewater in the gravity sewer system to larger pump stations that transport wastewater to the Alvarado Wastewater Treatment Plant. The Fremont Lift Station (LS) and Paseo Padre LS were constructed in 1984 and have not undergone any major improvements. Both LS's require improvements to maintain reliability and improve operation. Mountain Cascade Inc. submitted the lowest responsible bid of the eight bids received. The Project's construction

period will be 360 calendar days with estimated completion in October 2016. Staff recommended the Board award construction contract for the Fremont and Paseo Padre LS's improvements project to Mountain Cascade, Inc.

It was moved by Vice President Handley, seconded by Director Fernandez, to Award Construction Contract for the Fremont and Paseo Padre Lift Stations Improvements Project to Mountain Cascade, Inc. Motion carried with the following vote:

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

AUTHORIZE THE GENERAL MANAGER TO EXECUTE TASK ORDER NO. 2 WITH RMC WATER AND ENVIRONMENT FOR THE ALVARADO WASTEWATER TREATMENT PLANT SITE USE STUDY

This item was reviewed by the Construction Committee. Technical Services Manager Ghossain stated the Alvarado Wastewater Treatment Plant (WWTP) treats approximately 23 million gallons of wastewater per day and contains a total of 53 facilities located within the 33-acre site. The Alvarado WWTP Site Use Study was presented at a Board workshop held June 25, 2015, and it was determined a property acquisition plan should be developed to gain a better understanding of total cost implications. Task Order No. 2 includes development of a land acquisition strategy, development and assessment of incremental lifecycle costs for the new plant alternative, and project management and coordination. Staff recommended the Board authorize the General Manager to execute Task Order No. 2 with RMC Water and Environment in the amount of \$37,905 for the Alvarado WWTP Site Use Study.

The Construction Committee inquired about the final cost of Task Order No. 1, and staff stated the final cost will be reported upon completion.

It was moved by Vice President Handley, seconded by Secretary Kite, to Authorize the General Manager to Execute Task Order No. 2 with RMC Water and Environment for the Alvarado Wastewater Treatment Plant Site Use Study. Motion carried with the following vote:

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

CONSIDER FIRST AMENDMENT TO EMPLOYMENT AGREEMENT BETWEEN UNION SANITARY DISTRICT AND PAUL ELDREDGE

District General Counsel Murphy stated the District first entered into an Employment Agreement with Paul Eldredge to serve as General Manager/District Engineer on June 25, 2014. The Board of Directors conducted Mr. Eldredge's annual performance

evaluation on August 17 and 27, 2015. On August 24, 2015, the Board appointed an ad hoc subcommittee of Vice President Handley and Secretary Kite to negotiate contract amendments with Mr. Eldredge. Staff recommended the Board approve the First Amendment to Employment Agreement Between Union Sanitary District and Paul Eldredge.

It was moved by Director Fernandez, seconded by Vice President Handley, to Approve the First Amendment to the Employment Agreement Between Union Sanitary District and Paul Eldredge. Motion carried with the following vote:

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

CONSIDER OPTIONS REGARDING EMAIL AND COMMUNICATIONS POLICY AND PROVIDE DIRECTION

This item was reviewed by the Budget & Finance Committee. General Manager Eldredge stated staff identified the need to revise Board Policy 3210 – Boardmember Use of Email for District Business and Board Policy 3060 – Communication with the Media and Publicly-Elected Officials by Members of the Board of Directors. Staff presented the item to seek Board direction regarding how revisions to the policies should be accomplished.

The Board agreed by consensus of the members present to direct staff to draft revised policies to address the issues outlined in the staff report and present at a future Board meeting for consideration, and to include the recent addition of an email disclosure statement to the Board webpage.

INFORMATION ITEMS:

Check Register

All questions were answered to the Board's satisfaction.

Award for Achievement for Excellence in Procurement

Purchasing Agent Fuller stated the National Purchasing Institute (NPI), the official public sector purchasing affiliate of the Institute for Supply Management, established a program designed to recognize organizational excellence in public procurement. USD is one of only 50 government agencies in California and 29 special districts in the United States to receive the award. Purchasing Agent Fuller stated the Materials Management Team received the Award for Achievement for Excellence in Procurement for the 9th consecutive year.

Annual Report to Union City for Fiscal Year 2015

Research and Support Team Coach Grillo stated the Union City use permit requires the District to provide an annual report to the City Manager's Office. A copy of the District's annual report to Union City for FY 2015 was included in the meeting packet.

Board Expenditures for the 4th Quarter of 2015

All questions were answered to the Board's satisfaction.

Report on the East Bay Dischargers Authority (EBDA) Commission Meeting of September 17, 2015

Vice President Handley stated there will be a series of vision workshops to discuss the history and future of EBDA as well as historical and current cost factors of the EBDA system.

SIDE LETTER FOR EXTENSION OF SEIU (SERVICE EMPLOYEES INTERNATIONAL UNION) MEMORANDUM OF UNDERSTANDING (MOU)

General Manager Eldredge stated representatives of SEIU Local 1021 and the District agreed to a two year extension of the MOU between the District and SEIU 1021 which had been set to expire August 31, 2016. The Side Letter of Agreement included in the meeting packet extends the labor contract, by mutual agreement, to August 31, 2018.

It was moved by Director Fernandez, seconded by Vice President Handley, to Approve the Side Letter for Extension of SEIU MOU. Motion carried with the following vote:

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

COMMITTEE MEETING REPORTS:

The Budget & Finance, Construction, and Legal/Community Affairs Committees met.

GENERAL MANAGER'S REPORT:

General Manager Eldredge reported the following:

- General Manager Eldredge met with City of Union City staff and discussed Union City's General Plan. City staff provided an update on the General Plan timeline, a draft of which is expected to be completed soon. The land use portion for the Environmental Impact Report (EIR) is expected to be completed in the spring of 2016.
- General Manager Eldredge will meet with a representative from Congressman Swalwell's office to discuss potential future federal drought relief bills which may include funds for reclamation projects.
- The annual Newark Days Celebration and Parade were held recently, and Secretary Kite participated in the parade. Environmental Compliance staff provided a table with outreach materials at the information fair, and received 52 pollution prevention pledges from attendees. Environmental Compliance staff spoke with the staff member who publishes a newsletter for Republic Services who stated there is a need for environmentally centered content to include in their monthly newsletter.
- The District was honored to receive the Green Business of the Year award from the Union City Chamber of Commerce.

- USD received the Innovative Program of the Year Award (Large District Category) from the California Special Districts Association for the District's Leadership School program.
- General Manager Eldredge will be interviewed by Treatment Plant Operator Magazine for a monthly column titled "Building the Team".

OTHER BUSINESS:

There was no other business.

ADJOURNMENT:

The meeting was adjourned at 8:05 p.m. to the Special Meeting Board Website Design Review Workshop to be held in the Alvarado Conference Room on Wednesday, September 30, 2015, at 11:00 a.m. The next scheduled Regular Board Meeting is Monday, October 12, 2015, at 7:00 p.m.

SUBMITTED:

ATTEST:

REGINA McEVOY
SECRETARY TO THE BOARD

PAT KITE
SECRETARY

APPROVED:

JENNIFER TOY
PRESIDENT

Adopted this 26th day of October, 2015

**MINUTES OF THE SPECIAL MEETING OF THE
BOARD OF DIRECTORS OF
UNION SANITARY DISTRICT
September 30, 2015**

CALL TO ORDER

President Toy called the special meeting to order at 11:05 a.m.

ROLL CALL

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

STAFF: Paul Eldredge, General Manager
Richard Scobee, Senior GIS/Database Administrator
Michelle Powell, Communications and Intergovernmental Relations Coordinator
Regina McEvoy, Assistant to the General Manager/Board Secretary

PUBLIC COMMENT

There were no public comments.

BOARD WORKSHOP – Website Design Review

Staff provided a proposed redesign for the Union Sanitary District website for Board review.

ADJOURNMENT:

The special meeting was adjourned at approximately 12:15 p.m. to the Regular Board Meeting in the Boardroom on Monday, October 26, 2015, at 7:00 p.m.

SUBMITTED:

ATTEST:

REGINA McEVOY
SECRETARY TO THE BOARD

PAT KITE
SECRETARY

APPROVED:

JENNIFER TOY
PRESIDENT

Adopted this 26th day of October, 2015

**Directors**

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: October 14, 2015

TO: Board of Directors - Union Sanitary District

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

SUBJECT: Agenda Item No. 6 - Meeting of October 26, 2015
Information Item: **Monthly Operations Report for September, 2015**

Background

Attached is the September 2015 Operations Report. Staff is available to answer questions regarding information contained in the report.

Work Group Managers

General Manager/Administration	Paul Eldredge	GM
Business Services	Rich Cortés	BS
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

General Manager's Summary

Below is a summary of major activities that occurred at the District during September 2015.

ODOR COMPLAINTS:

There were two odor complaints received during the month of September. The first complaint was received from a Newark resident regarding an odor emanating from a manhole. District staff inspected the manhole and detected an odor. The edges of the manhole cover were cleaned to allow the lid to fit better. On September 25, 2015, USD crews used plastic to seal the manhole lid to prevent future odors. The second complaint was received from a Union City resident. Staff inspected USD manholes, mains, storm drains, and surrounding streets with no odor detected. District staff relayed their findings to the reporting party.

SAFETY:

- We had two incidents where employees strained their backs. One employee was inside a manhole reaching to remove a plug and the other was an employee changing a nozzle on a vactor truck. Both declined medical treatment and were feeling fine after a little rest.
- CSRMA changed providers for our Medical Provider Network (MPN). All of our employees with future medical from past injuries have been accommodated or placed with a new doctor.
- We conducted an evacuation drill and were able to account for all employees. We also identified a problem with the radio announcement and had it repaired.
- District employees signed up to participate in the Newark Corporate games.

STAFFING & PERSONNEL:

Completed Recruitments:

- Engineering Technician – hired Andrew Dupler on 9/8/15
- EC Inspector II/III – hired Marian Gonzales on 9/21/15
- Collection System Worker – hired Rick Lebon 9/28/15

Recruitments Opened:

- MMT Administrative Specialist I
- Business Services Manager/CFO

G.M. ACTIVITIES: For the month of September, the GM was involved in the following:

- Met with City of Union City staff to discuss their General Plan process and timeline.
- Conducted the Sewer Service Charge Rate Study Board Workshop.
- Attended the California Special Districts Association (CSDA) Luncheon in Monterey to accept the Innovative Program of the Year Award for USD's Leadership School program.
- Conducted the Website Design Review Board Workshop.
- Met internally with Operations Staff to discuss wet weather operations plan.

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

September 2015

During the recording period from September 01, 2015 through September 30, 2015, there were two odor related service requests received by the District.

City: Newark

1. Complaint Details:

Date: 9/24/2015

Location: MAYHEWS LANDING RD

Wind (from): North West

Temperature: 74 Degrees F

Time: 7:35 pm

Reported By: Angela Borg

Wind Speed: 2 mph

Weather: Clear

Response and Follow-up:

We inspected our manhole and found an odor coming from our manhole when you stand on top of the manhole cover. We cleaned the edges of the manhole cover so that the lid would fit better. On 9-25-15, our crew used plastic to seal the manhole lid to help prevent any possible odors.

City: Union City

2. Complaint Details:

Date: 9/27/2015

Location: PICKEREL DR

Wind (from): North West

Temperature: 68 Degrees F

Time: 10:25 pm

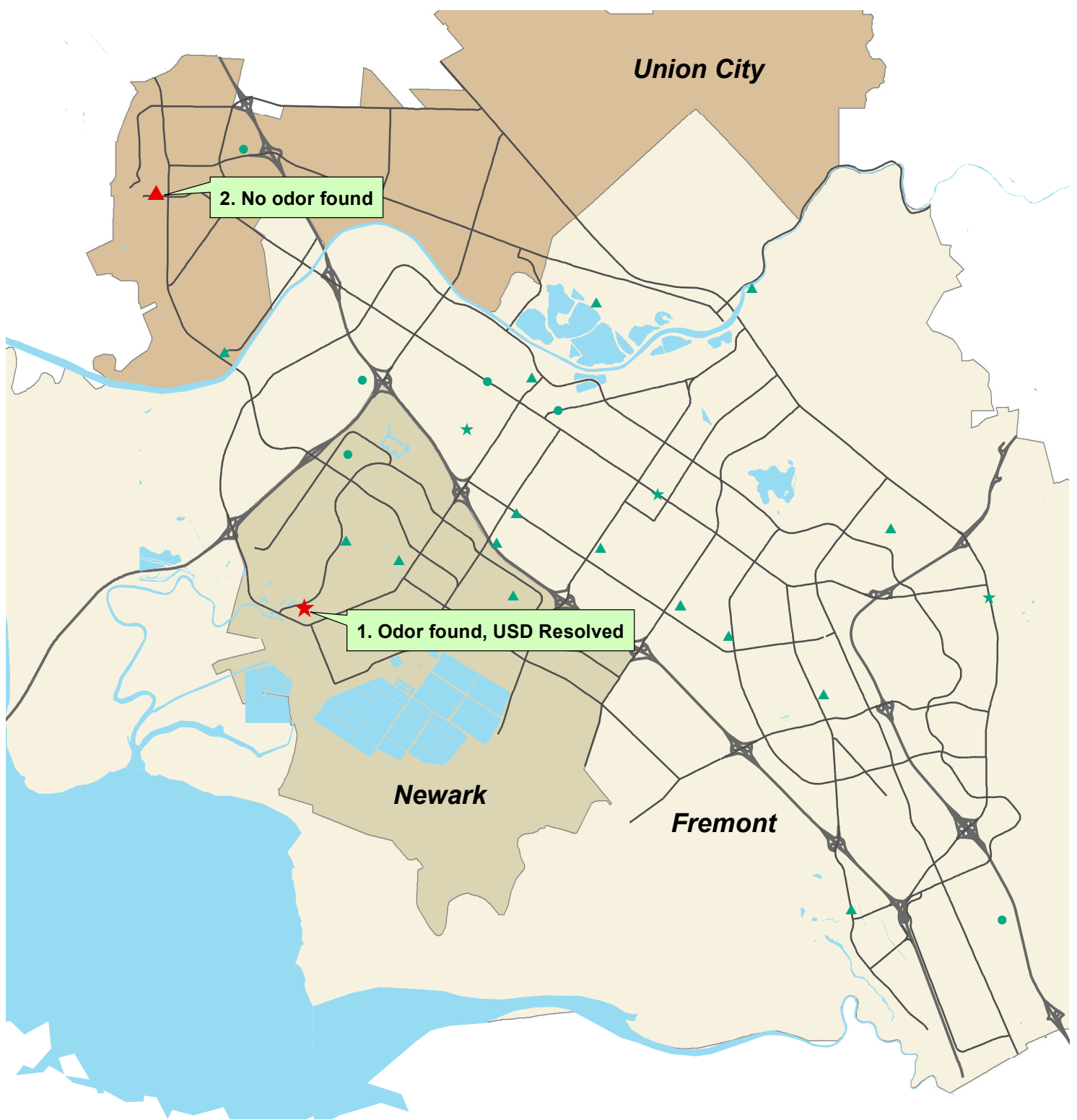
Reported By: Mr. Sankamp

Wind Speed: 2 mph

Weather: Clear

Response and Follow-up:

We inspected USD manholes, mains, storm drains and surrounding streets. We found no odors in the area; however, a block away there was a skunk odor. There was no answer by reporting party so we made contact on Monday to follow up.



Legend

Odor Complaints: September 2015

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

Odor Complaints: Oct. 2014 to Aug. 2015

- ★ Odor found, USD resolved (4)
- Odor found, not related to USD (6)
- ▲ No odor found (17)

Location of Odor Reports October 2014 to September 2015

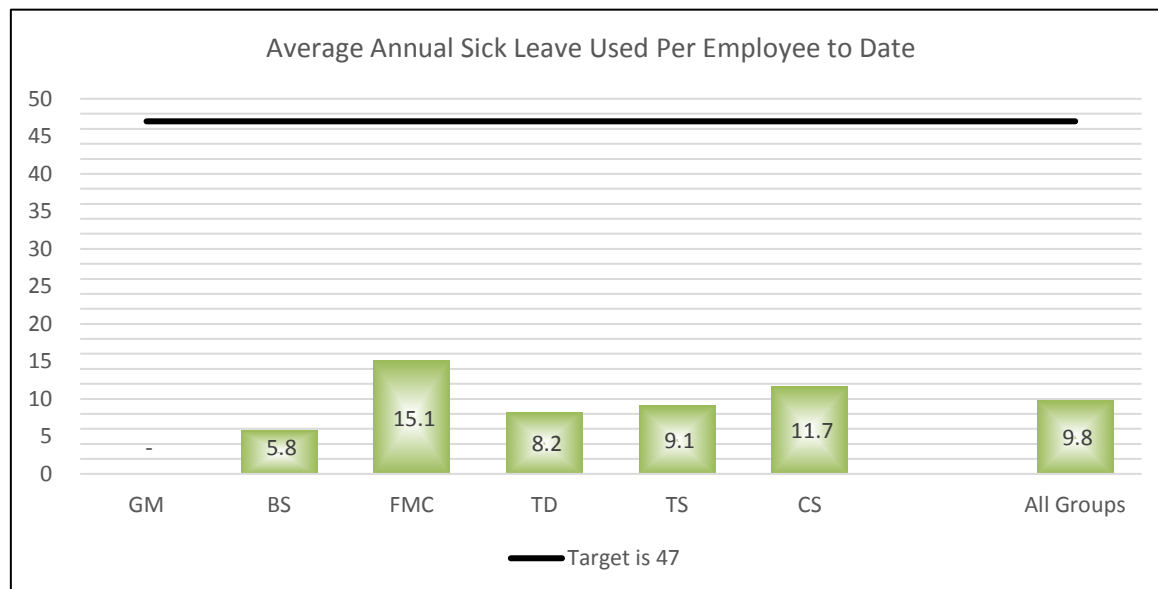
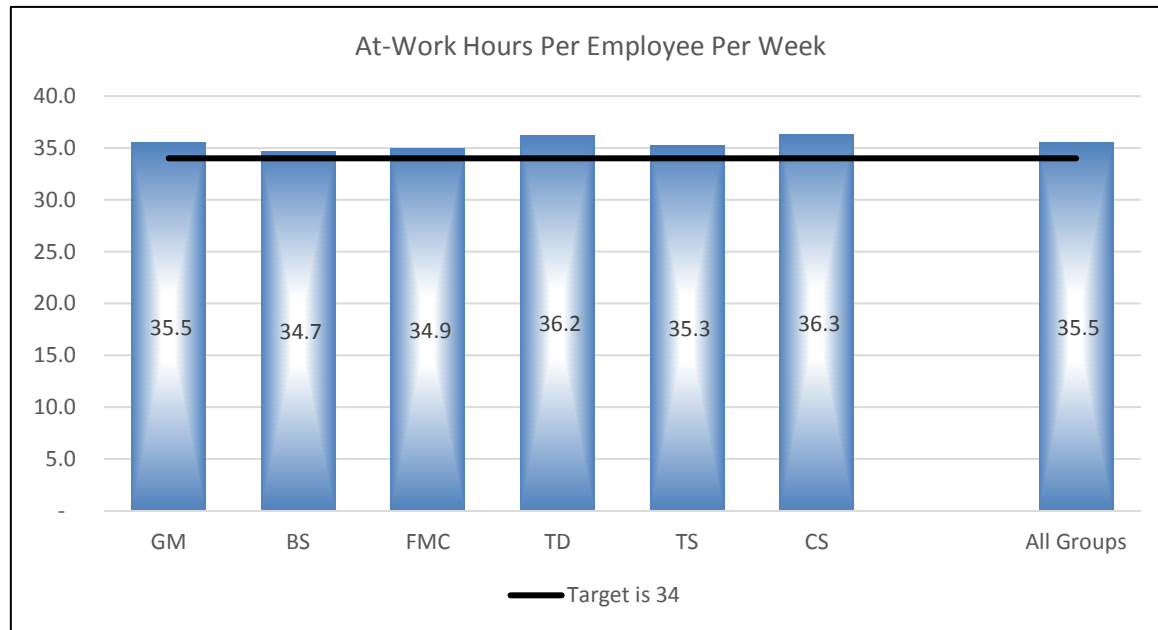
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HOURS WORKED AND LEAVE TIME BY WORK GROUP

July 2, 2015 through October 7, 2015

Weeks to Date: 14 out of 52 (26.9%)



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, 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

July 2, 2015 through October 7, 2015

Weeks to Date: 14 out of 52 (26.9%)

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	FY15		
		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	966.00	18.75	35.5	154.00	-	-	-	0.0	3	34.4	28.8
BS	23	10,867.41	181.91	34.7	1,528.17	-	-	133.42	5.8	22	35.3	30.2
FMC	22	10,430.25	216.81	34.9	1,415.50	26.77	-	331.48	15.1	23	34.2	52.4
TD	25	12,300.67	248.16	36.2	1,482.83	34.76	-	205.74	8.2	25	35.3	24.1
TS	30	14,580.26	84.67	35.3	1,790.66	-	-	272.25	9.1	30	35.0	28.1
CS	29	14,052.01	546.86	36.3	1,862.65	-	27.00	338.34	11.7	29	36.8	68.4
All Groups	131	63,196.60	1,297.16	35.5	8,233.81	61.53	27.00	1,281.23	9.8	132	35.3	40.8

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.

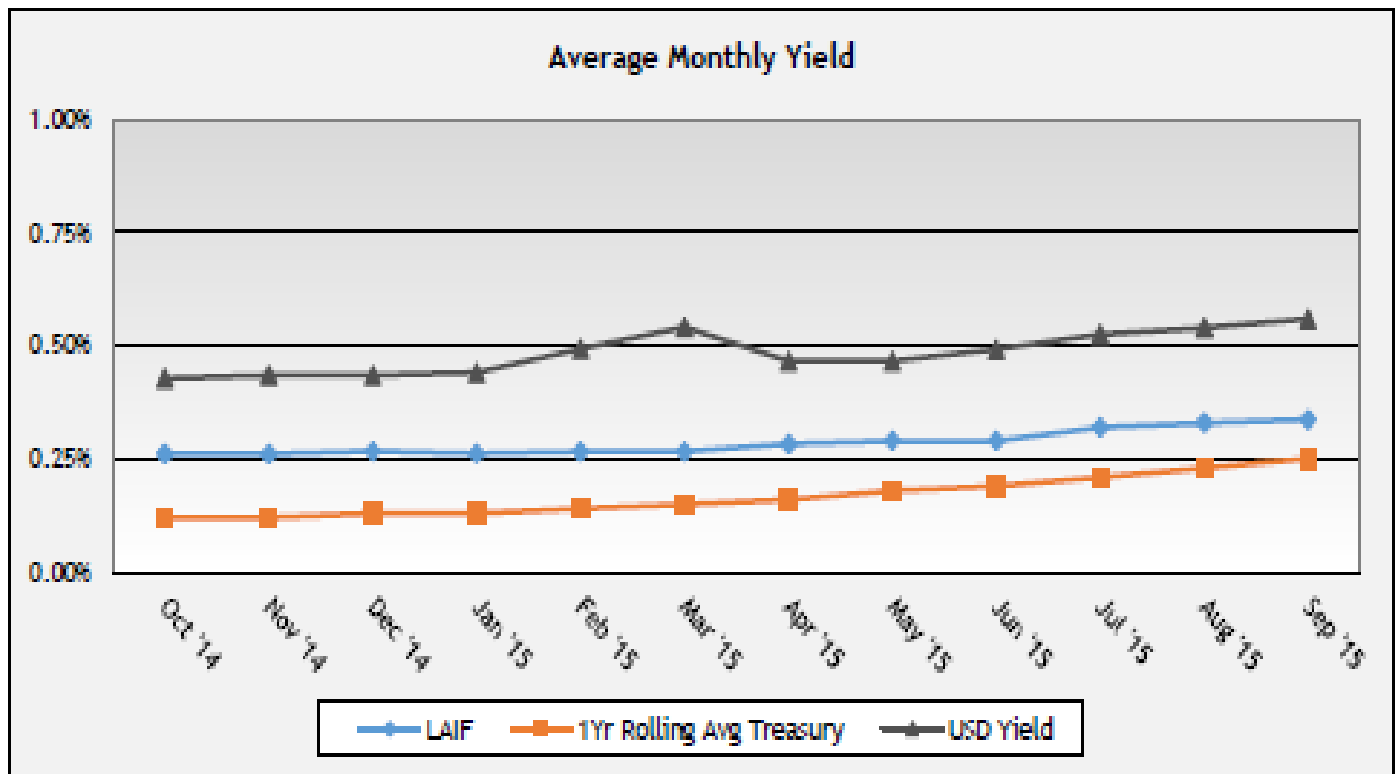
(4) Sick Leave includes sick and catastrophic sick leaves, as well as protected time off, of which the District has no discretion.

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.

**Business Services Group
Activities Report
September 2015**

- The recruitment for the Engineering Technician I was completed; Andrew Dupler was hired on 9/8/15.
- The recruitment for the EC Inspector II was completed; Marian Gonzalez was hired on 9/21/15.
- A new collection system worker, Rick Lebon, was hired on 9/28/15.
- The OPPM graduated from WEF Water Leadership Institute.
- The OPPM solicited feedback from teams on Employer of Choice initiative at GM's direction.
- The OPPM developed agenda and facilitated first ever CUES Equipment (Television equipment used throughout the industry) User Group multi-agency forum at the request of Collections Services.
- The OPPM attended CSDA (California Special District's Association) conference to receive the 2015 award for Innovative Programs- written based on USD Leadership School.

AVERAGE MONTHLY YIELD



BUDGET AND FINANCE REPORT

FY 2016

Year-to-date as of 9/30/15

25% of year elapsed

Revenues

	Budget	Actual	% of Budget Rec'd	Unaudited Last Year Actuals 6/30/15
Capacity Fees	\$4,372,000	\$1,280,995	29%	\$4,820,637
Sewer Service Charges	48,430,260	676,465	1%	48,379,254
Operating	1,080,000	119,690	11%	1,143,435
Interest	345,000	118,819	34%	309,600
Misc. (incl. LAVWMA pymnt, solar, Cogen rebates)	493,000	150,126	30%	2,127,593
Subtotal Revenues	<u>\$54,720,260</u>	<u>\$2,346,095</u>	<u>4%</u>	<u>\$56,780,519</u>
SRF Loan Proceeds (Thickener)	5,500,000	769,248	14%	4,501,122
Total Revenues + SRF Proceeds	\$60,220,260	\$3,115,343	5%	\$61,281,641

Expenses

	Budget	Actual	% of Budget Used	Last Year Actuals
Capital Improvement Prog.				
Capacity Projects	\$4,523,000	\$703,848	16%	\$3,755,472
Renewal & Repl. Projects	10,553,000	1,366,775	13%	12,194,927
Operating	33,827,303	6,895,626	20%	29,921,827
Special Projects	1,522,970	59,727	4%	1,065,653
Retiree Medical (Annual Required Contribution)	561,205	140,301	25%	543,540
Vehicle & Equipment	379,500	0	0%	787,159
Information Systems	1,036,700	149,897	14%	616,117
Plant & Pump Station R&R	250,000	109,896	44%	168,089
Pretreatment Fund	12,000	1,915	16%	109,499
County Fee for Sewer Service Charge Admin.	106,000	0	0%	105,559
Debt Servicing:				
SRF Loans (Irv., Wilw, LHH, Cdr, NPS, Sub1, Boyc, Prim Cl)	3,127,110	1,319,228	42%	3,127,110
Total Expenses	<u>\$55,898,788</u>	<u>\$10,747,213</u>	<u>19%</u>	<u>\$52,394,952</u>
Total Revenue & Proceeds less Expenses	\$4,321,472	(\$7,631,870)		\$8,886,690

Gross Operating Expenses by Work Group

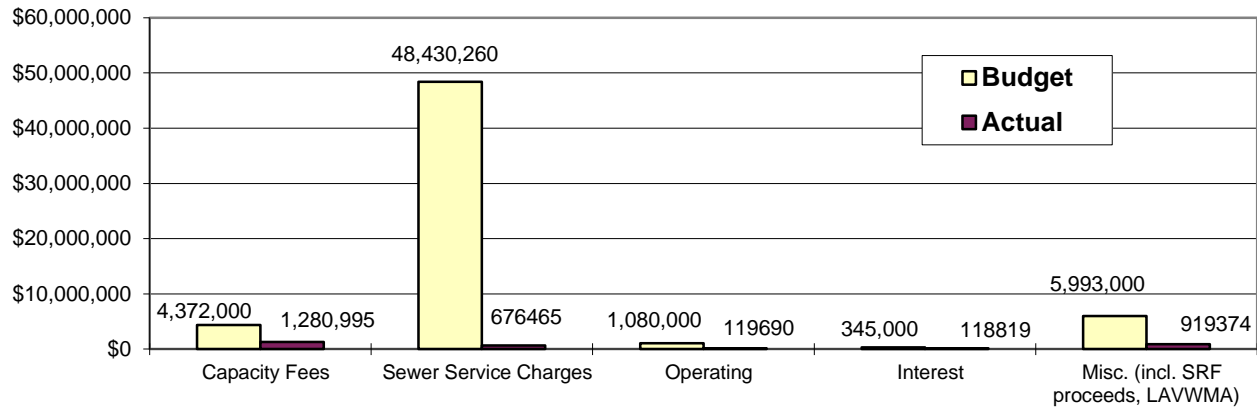
	Budget	Actual	% of Budget Used	Last Year Actuals
Board of Directors	\$176,481	\$25,567	14%	\$135,699
General Manager/Admin.	953,139	189,672	20%	987,502
Business Services	5,199,612	1,139,202	22%	4,460,485
Collection Services	6,066,202	1,207,611	20%	5,447,126
Technical Services	5,323,323	1,121,666	21%	4,693,517
Treatment & Disposal Services	10,227,304	2,097,715	21%	9,147,820
Fabrication, Maint. & Construction	5,881,242	1,114,193	19%	5,049,678
Total	<u>\$33,827,303</u>	<u>\$6,895,626</u>	<u>20%</u>	<u>\$29,921,827</u>

Operating Expenses by Type

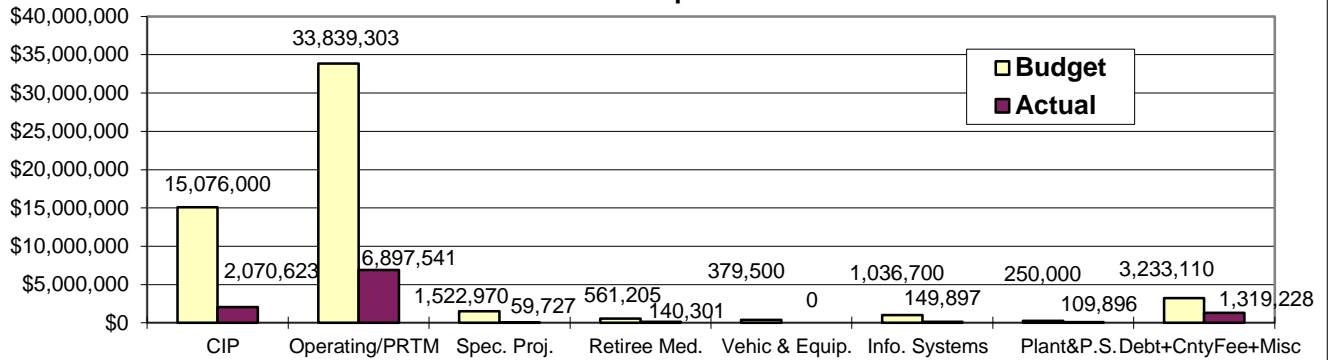
	Budget	Actual	% of Budget Used	Last Year Actuals
Personnel (incl D&E)	\$23,313,376	\$4,934,190	21% (26%)*	\$20,901,890
Repairs & Maintenance	2,008,184	327,952	16%	1,772,819
Supplies & Matls (chemicals, small tools)	2,645,660	404,342	15%	2,285,558
Outside Services (utilities, biosolids, legal)	5,580,083	1,204,614	22%	4,824,539
Fixed Assets	280,000	24,527	9%	137,021
Total	<u>\$33,827,303</u>	<u>\$6,895,626</u>	<u>20%</u>	<u>\$29,921,827</u>

* Personnel Budget Target

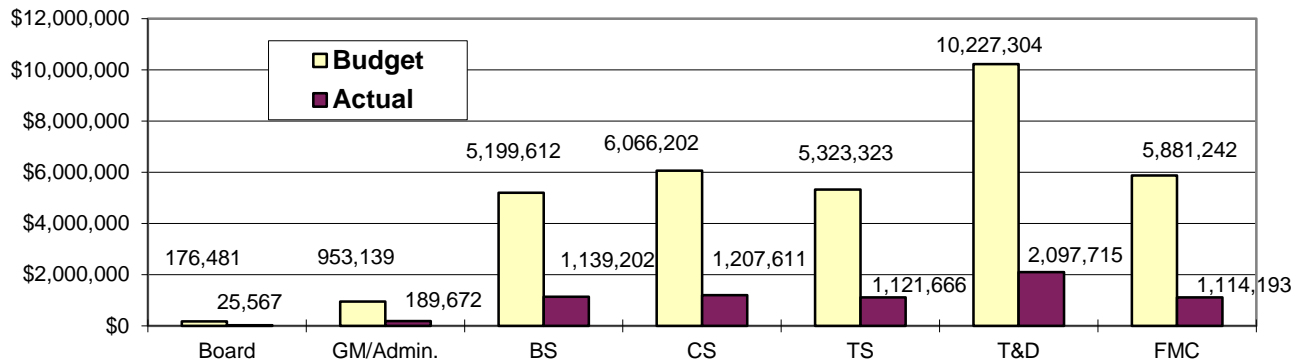
USD Revenues



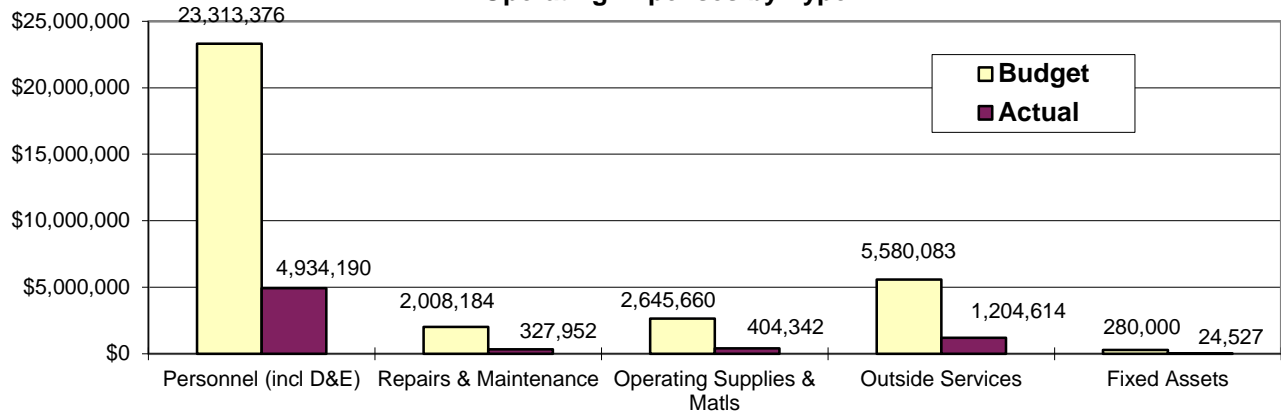
Total USD Expenses



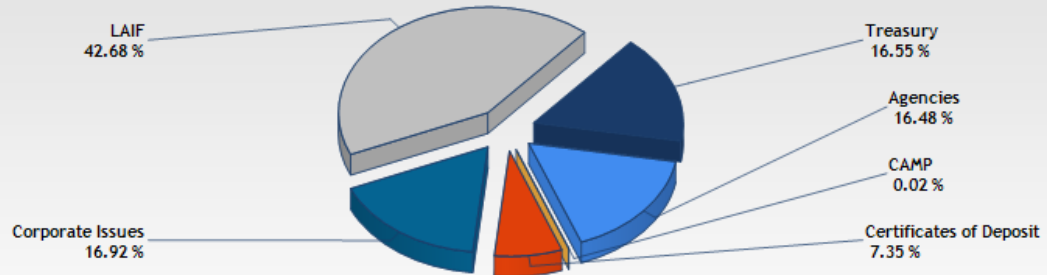
Operating Expenses by Work Group



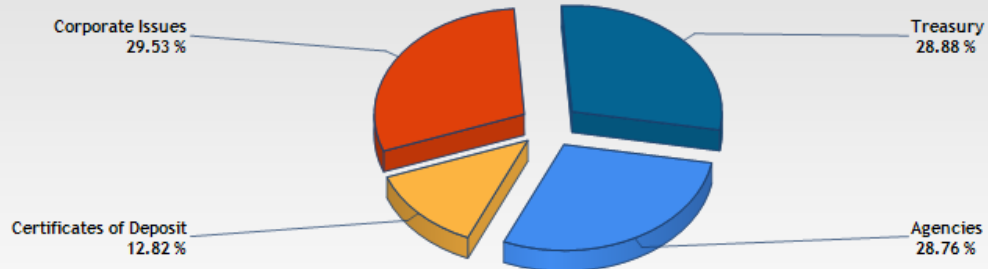
Operating Expenses by Type



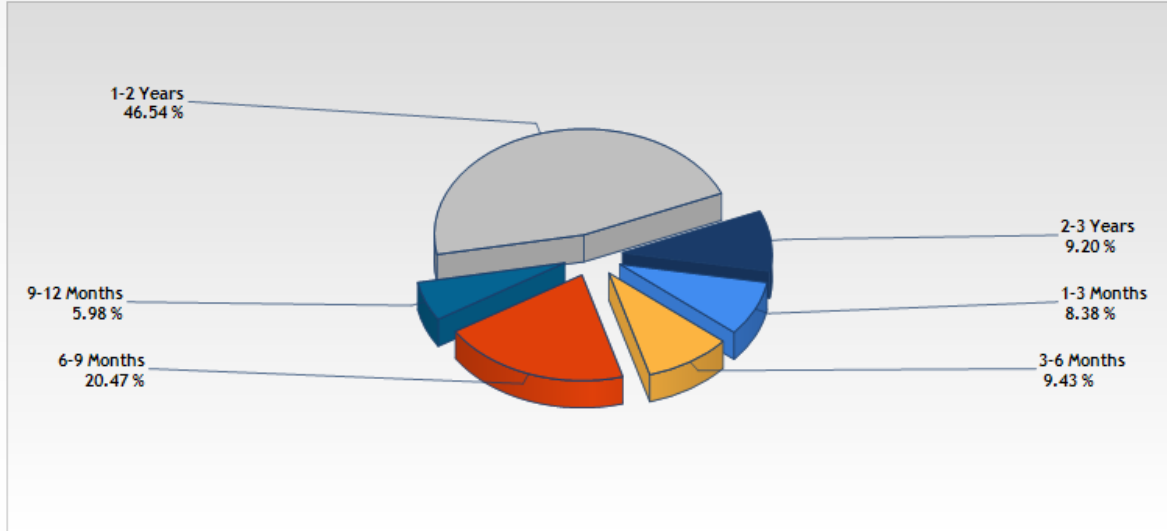
All Portfolio Holdings Distribution by Asset Class



Operating Fund Holdings Distribution by Asset Class



Operating Fund Maturity Distribution



Maturity Range	Face Amount/Shares	YTM @ Cost	Cost Value	Days To Maturity	% of Portfolio	Market Value	Book Value	Duration To Maturity
1-3 Months	2,000,000.00	0.330	2,040,480.00	61	8.38	2,004,180.00	2,003,477.86	0.17
3-6 Months	2,286,000.00	0.530	2,296,808.10	131	9.43	2,290,358.75	2,288,863.89	0.36
6-9 Months	5,000,000.00	0.542	4,986,885.56	223	20.47	4,999,835.37	4,993,741.86	0.61
9-12 Months	1,430,000.00	0.817	1,457,310.50	295	5.98	1,444,691.04	1,443,963.98	0.80
1-2 Years	11,223,000.00	0.879	11,339,791.92	569	46.54	11,320,623.15	11,306,367.71	1.54
2-3 Years	2,240,000.00	0.849	2,242,140.00	801	9.20	2,247,418.07	2,241,907.37	2.17
Total / Average	24,179,000.00	0.725	24,363,416.08	419	100	24,307,106.38	24,278,322.67	1.14

Union Sanitary District
Board Report - Holdings
 Report Format: By Transaction
 Group By: Asset Class
Portfolio/Report Group: All Portfolios
As of 9/30/2015

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
Agencies											
FHLB 0.75 7/28/2017-16	3130A4ZV7	Moodys-Aaa	4/28/2015	1,000,000.00	1,000,000.00	0.750	1,001,130.00	0.750	4/28/2016	7/28/2017	2.35
FHLB 0.8 3/17/2017-16	3130A4GT3	Moodys-Aaa	3/17/2015	1,000,000.00	1,000,000.00	0.800	1,002,500.00	0.800	3/17/2016	3/17/2017	2.35
FHLB 0.8 5/17/2017	3130A4Q54	Moodys-Aaa	3/27/2015	1,000,000.00	1,001,690.00	0.800	1,002,880.00	0.720		5/17/2017	2.36
FHLB 0.85 6/16/2017-16	3130A4GU0	Moodys-Aaa	3/16/2015	1,000,000.00	1,000,000.00	0.850	1,002,820.00	0.850	3/16/2016	6/16/2017	2.35
FHLB 0.9 9/28/2017	3130A5KH1	Moodys-Aaa	7/22/2015	1,000,000.00	1,001,140.00	0.900	1,002,690.00	0.847		9/28/2017	2.35
FHLMC 1 7/25/2017	3134G3ZH6	Moodys-Aaa	6/24/2015	1,000,000.00	1,004,540.00	1.000	1,005,690.00	0.780		7/25/2017	2.36
FNMA 0.5 3/30/2016	3135GOVA8	Moodys-Aaa	1/24/2014	1,000,000.00	1,000,750.00	0.500	1,001,290.00	0.465		3/30/2016	2.35
Sub Total / Average				7,000,000.00	7,008,120.00	0.800	7,019,000.00	0.745			16.48
CAMP											
CAMP LGIP	LGIP4000	None	5/31/2011	9,797.79	9,797.79	0.130	9,797.79	0.130	N/A	N/A	0.02
Sub Total / Average				9,797.79	9,797.79	0.130	9,797.79	0.130			0.02
Certificates of Deposit											
Ally Bank 1 10/24/2016	02006LKM4	None	10/23/2014	240,000.00	240,000.00	1.000	240,381.65	1.000		10/24/2016	0.56
American Express Bank 1.1 10/24/2016	02587CBZ2	None	10/23/2014	240,000.00	240,000.00	1.100	240,639.87	1.100		10/24/2016	0.56
	02587DYJ1	None	6/5/2015	240,000.00	240,000.00	1.050	241,058.06	1.050		6/5/2017	0.56

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
American Express Centurian 1.05 6/5/2017											
Bank of China NY 0.5 2/4/2016	06426TCH0	None	2/4/2015	240,000.00	240,000.00	0.500	240,108.89	0.500		2/4/2016	0.56
Bar Harbor Bank 0.7 1/30/2017	066851TT3	None	6/30/2015	240,000.00	240,000.00	0.700	239,611.90	0.700		1/30/2017	0.56
BMW Bank North America 0.5 3/14/2016	05568P6V4	None	3/31/2014	240,000.00	239,760.00	0.500	240,077.21	0.552		3/14/2016	0.56
Capital One Bank 1 10/24/2016	140420QG8	None	10/22/2014	240,000.00	240,000.00	1.000	240,381.65	1.000		10/24/2016	0.56
Capital One National Asso Bank 1.25 8/28/2017	14042E6B1	None	8/26/2015	245,000.00	245,000.00	1.250	247,243.88	1.250		8/28/2017	0.58
Compass Bank 0.95 6/5/2017	20451PLE4	None	6/5/2015	240,000.00	240,000.00	0.950	240,652.33	0.950		6/5/2017	0.56
Discover Bank 0.75 1/3/2017	254672QZ4	None	7/1/2015	240,000.00	240,000.00	0.750	239,761.02	0.750		1/3/2017	0.56
Goldman Sachs Bank 1 10/16/2017	38148JQX2	None	4/27/2015	240,000.00	239,520.00	1.000	241,198.07	1.069		10/16/2017	0.56
Great Midwest Bank 0.75 7/27/2016	39083PCK6	None	10/27/2014	240,000.00	240,000.00	0.750	240,280.14	0.750		7/27/2016	0.56
Santander Bank 0.5 2/4/2016	80280JDH1	None	2/4/2015	240,000.00	240,000.00	0.500	240,108.89	0.500		2/4/2016	0.56
Sub Total / Average				3,125,000.00	3,124,280.00	0.851	3,131,503.56	0.860			7.35

Corporate Issues

Caterpillar Financial 1 3/3/2017	14912L5Z0	Moodys-A2	12/23/2014	1,313,000.00	1,307,603.57	1.000	1,312,711.14	1.190		3/3/2017	3.07
General Electric Capital Corp 5.4 2/15/2017	36962G2G8	Moodys-A1	3/2/2015	1,085,000.00	1,179,514.35	5.400	1,147,376.65	0.890		2/15/2017	2.77

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
Internaltional Business Machs 0.45 5/6/2016	459200HL8	Moodys-Aa3	11/26/2013	1,000,000.00	996,840.00	0.450	1,000,240.00	0.580		5/6/2016	2.34
JP Morgan Chase 2.6 1/15/2016	46625HHW3	Moodys-A3	12/1/2014	566,000.00	577,518.10	2.600	569,033.76	0.775		1/15/2016	1.36
JP Morgan Securities 0 5/13/2016	46640PED1	Moodys-P1	8/19/2015	1,000,000.00	995,235.56	0.000	996,505.37	0.653		5/13/2016	2.34
Royal Bank of Canada 2.3 7/20/2016	78008TLB8	Moodys-Aa3	12/23/2014	1,190,000.00	1,217,310.50	2.300	1,204,410.90	0.830		7/20/2016	2.86
US Bankcorp 2.2 11/15/2016	91159HHB9	Moodys-A1	3/31/2015	900,000.00	920,304.00	2.200	913,095.00	0.797		11/15/2016	2.16
Sub Total / Average				7,054,000.00	7,194,326.08	2.009	7,143,372.82	0.838			16.92
LAIF											
LAIF LGIP	LGIP1002	None	4/30/2011	18,150,864.25	18,150,864.25	0.337	18,150,864.25	0.337	N/A	N/A	42.68
Sub Total / Average				18,150,864.25	18,150,864.25	0.337	18,150,864.25	0.337			42.68
Treasury											
T-Bond 0.25 5/16/2016	912828VC1	Moodys-Aaa	1/24/2014	1,000,000.00	994,530.00	0.250	1,000,060.00	0.488		5/16/2016	2.34
T-Note 0.375 2/15/2016	912828UM0	Moodys-Aaa	1/24/2014	1,000,000.00	999,530.00	0.375	1,001,030.00	0.398		2/15/2016	2.35
T-Note 0.5 6/15/2016	912828VG2	Moodys-Aaa	3/27/2014	1,000,000.00	999,530.00	0.500	1,001,740.00	0.521		6/15/2016	2.35
T-Note 0.875 1/15/2018	912828H37	Moodys-Aaa	6/1/2015	1,000,000.00	1,001,560.00	0.875	1,002,680.00	0.815		1/15/2018	2.36
T-Note 0.875 11/15/2017	912828G20	Moodys-Aaa	6/24/2015	1,000,000.00	1,001,060.00	0.875	1,003,540.00	0.830		11/15/2017	2.35
T-Note 1.375 11/30/2015	912828PJ3	Moodys-Aaa	12/20/2013	2,000,000.00	2,040,480.00	1.375	2,004,180.00	0.330		11/30/2015	4.80
Sub Total / Average				7,000,000.00	7,036,690.00	0.807	7,013,230.00	0.529			16.55

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
Total / Average				42,339,662.04	42,524,078.12	0.812	42,467,768.42	0.559			100

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.

Union Sanitary District
Board Report - Activity
Portfolio/Report Group: All Portfolios
From 9/1/2015 To 9/30/2015

Description	CUSIP/Ticker	Face Amount/Shares	Principal	Interest/Dividends	Coupon Rate	YTM @ Cost	Settlement Date	Total
DEPOSIT								
CAMP LGIP	LGIP4000	1.03	1.03	0.00		0.000	9/30/2015	1.03
Sub Total / Average		1.03	1.03	0.00				1.03
INTEREST								
Bar Harbor Bank 0.7 1/30/2017	066851TT3	0.00	0.00	142.68	0.700	0.000	9/30/2015	142.68
Beal Bank USA 0.45 9/2/2015	07370WLQ7	0.00	0.00	807.78	0.450	0.000	9/2/2015	807.78
BMW Bank North America 0.5 3/14/2016	05568P6V4	0.00	0.00	604.93	0.500	0.000	9/14/2015	604.93
CAMP LGIP	LGIP4000	0.00	0.00	1.03		0.000	9/30/2015	1.03
Caterpillar Financial 1 3/3/2017	14912L5Z0	0.00	0.00	6,565.00	1.000	0.000	9/3/2015	6,565.00
FHLB 0.8 3/17/2017-16	3130A4GT3	0.00	0.00	4,000.00	0.800	0.000	9/17/2015	4,000.00
FHLB 0.85 6/16/2017-16	3130A4GU0	0.00	0.00	4,250.00	0.850	0.000	9/16/2015	4,250.00
FHLB 0.9 9/28/2017	3130A5KH1	0.00	0.00	2,650.00	0.900	0.000	9/28/2015	2,650.00
FNMA 0.5 3/30/2016	3135GOVA8	0.00	0.00	2,500.00	0.500	0.000	9/30/2015	2,500.00
Great Midwest Bank 0.75 7/27/2016	39083PCK6	0.00	0.00	152.88	0.750	0.000	9/27/2015	152.88
Mizuho Bank USA 0.35 9/4/2015	60688MKK9	0.00	0.00	423.45	0.350	0.000	9/4/2015	423.45
Sub Total / Average		0.00	0.00	22,097.75				22,097.75
MATURED								
Beal Bank USA 0.45 9/2/2015	07370WLQ7	240,000.00	240,000.00	0.00	0.450	0.000	9/2/2015	240,000.00
Mizuho Bank USA 0.35 9/4/2015	60688MKK9	240,000.00	240,000.00	0.00	0.350	0.000	9/4/2015	240,000.00
Sub Total / Average		480,000.00	480,000.00	0.00				480,000.00
WITHDRAW								
LAIF LGIP	LGIP1002	1,000,000.00	1,000,000.00	0.00		0.000	9/9/2015	1,000,000.00

Description	CUSIP/Ticker	Face Amount/Shares	Principal	Interest/Dividends	Coupon Rate	YTM @ Cost	Settlement Date	Total
LAIF LGIP	LGIP1002	300,000.00	300,000.00	0.00		0.000	9/18/2015	300,000.00
LAIF LGIP	LGIP1002	400,000.00	400,000.00	0.00		0.000	9/23/2015	400,000.00
LAIF LGIP	LGIP1002	1,500,000.00	1,500,000.00	0.00		0.000	9/25/2015	1,500,000.00
Sub Total / Average		3,200,000.00	3,200,000.00	0.00				3,200,000.00

**Union Sanitary District's Internal Retiree Medical Fund
Quarterly Report**

For Period Ended 9/30/15

Fund Balance 6/30/15:		\$16,753.02
Revenues:		
7/29/15	Budget allocation for FY'16 to cover ARC	561,205.00
Expenses:		
	Net Medical Reimbursements	(11,211.13)
Transfers Out:		
8/26/15	CalPERS OPEB Trust Annual Required Contrib. (ARC) (payment #1 of 4)	(140,301.25)
Ending Fund Balance 9/30/15:		\$426,445.64



Market Value Summary:

	QTD Current Period	Fiscal Year to Date
Beginning Balance	\$4,311,934.25	\$4,311,934.25
Contribution	140,301.25	140,301.25
Distribution	(67,510.97)	(67,510.97)
Transfer In	0.00	0.00
Transfer Out	0.00	0.00
Investment Earnings	(181,804.47)	(181,804.47)
Admin Expense	(531.22)	(531.22)
Investment Expense	(388.40)	(388.40)
Other	0.00	0.00
Ending Balance	\$4,202,000.44	\$4,202,000.44
YTD Accrual	67,510.97	67,510.97
Grand Total	\$4,269,511.41	\$4,269,511.41

Unit Value Summary:

	QTD Current Period	Fiscal Year to Date
Beginning Units	318,863.990	318,863.990
Unit Purchases from Contributions	10,648.909	10,648.909
Unit Sales for Withdrawals	(4,925.170)	(4,925.170)
Unit Transfer In	0.000	0.000
Unit Transfer Out	0.000	0.000
Ending Units	324,587.729	324,587.729
Period Beginning Unit Value	13.734525	13.734525
Period Ending Unit Value	13.153644	13.153644

Please note that the Grand Total is your actual fund account balance at the end of the period, including all accrued Contributions and Distributions. Please review your statement promptly. All information contained in your statement will be considered true and accurate unless you contact us within 30 days of receipt of this statement. If you have questions about the validity of this information, please contact CERBT4U@calpers.ca.gov.

Statement of Transaction Detail for the Quarter Ending 09/30/2015

Union Sanitary District

Entity #: SKB7-6011550262



Date	Description	Amount	Unit Value	Units	Check/Wire	Notes
07/01/2015	YE Accrual Distribution Reversal	\$67,510.97				
07/06/2015	Distribution	(\$67,510.97)	\$13.707337	(4,925.170)		
08/26/2015	Contribution	\$140,301.25	\$13.175176	10,648.909	WIRE 2015082600093 157	

Client Contact:
CERBT4U@CalPERS.ca.gov

MONTHLY OPERATIONS REPORT FOR THE MONTH OF SEPTEMBER 2015
TECHNICAL SUPPORT WORK GROUP SUMMARY

Capital Improvement Program

Miscellaneous Spot Repairs, Phase 6 – The sewer main replacements for two of the project sites have been completed; Site 1 (Alvarado-Niles Road in Union City) and Site 4 (Peralta Boulevard in Fremont). The contractor anticipates to complete all site and pavement restoration by the end of October.

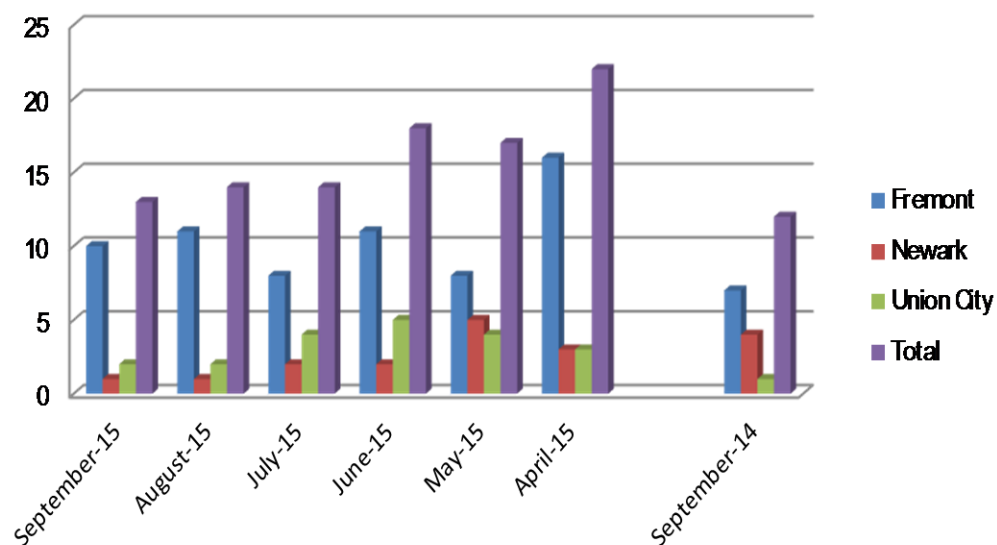
Thickener Control Building Improvements Project – Contractor has completed the replacement of three of the four primary scum pumps in Sludge Pump Room No. 1 and Sludge Pump Room No. 3. Equipment cutovers in Heating and Mixing Buildings No. 1, 2, 3 and 4 have been completed. Pressure testing of the bypass system piping has been completed. Bypass system piping tie-ins at Thickeners No. 2 and 4 are scheduled to take place in October.

Newark Backyard Sanitary Sewer Relocation Project Phase 2 – Contractor has completed all main and lateral installations. Testing of the sewer mains have begun. Prep work in advance of sewer main abandonment has also begun, which included smoke testing and the investigation of unknown lateral connections.

Customer Service

Trouble Calls dispatched from the Front Desk during business hours:

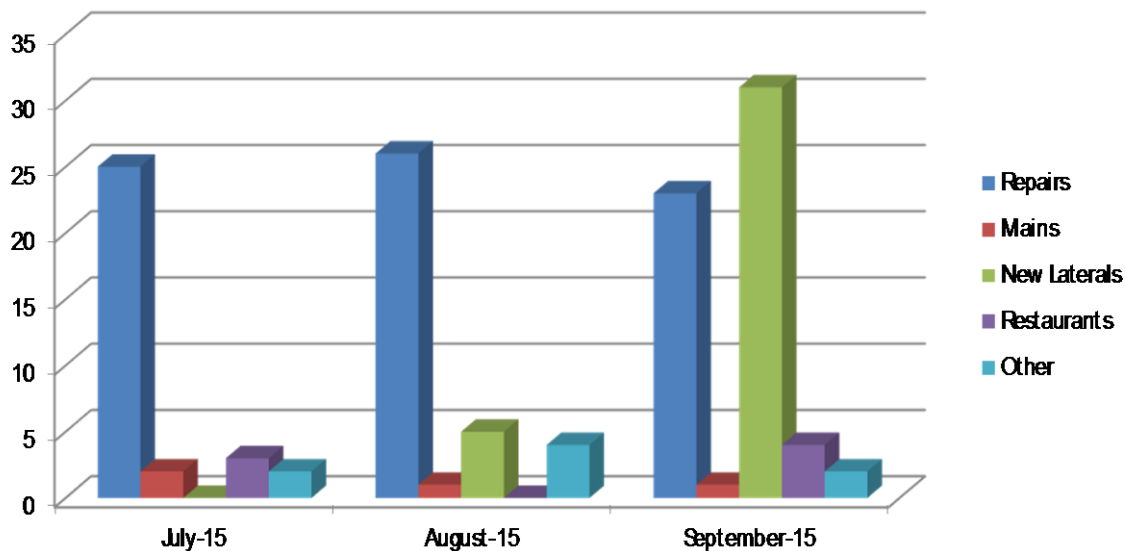
Month	Fremont	Newark	Union City	Total
September-15	10	1	2	13
August-15	11	1	2	14
July-15	8	2	4	14
June-15	11	2	5	18
May-15	8	5	4	17
April-15	16	3	3	22
September-14	7	4	1	12
6-Month Total				98



Sewer Permits Issued

Month ▾	Repairs ▾	Mains ▾	New Laterals ▾	Restaurants ▾	Other ▾
September-15	23	1	31	4	2
August-15	26	1	5	0	4
July-15	25	2	0	3	2

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



Communication & Graphics

- Attended CSDA Luncheon - District received Innovative Program Award for Leadership School
- Public Website Redesign: Continue project work with designer; presented design to Board at workshop
- Union City Chamber of Commerce: Continue to fulfill duties as Board President; emceed Chamber Spirit Awards Luncheon, presented USD's Green Business Award to Board members Fernandez, Handley and Kite
- Represented USD and Chamber at Ohlone College President's Advisory Committee meeting
- Designed PowerPoint presentation for Collection System Planner/Scheduler and Coach to present to industry association
- Managed development of printing RFQs and preparation of content for future public mailings
- Website Updates:
 - Leadership School Award information on What's New page
 - Updated Sewer Service Charges on main page, updated sample calculations page that links from it
 - Updated Board page on website – added disclosure language under Board email addresses

Environmental Compliance

Pollution Prevention Program

USD's Environmental Compliance team conducts pollution prevention inspections to 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.

For the past month, the EC team conducted 94 Stormwater (Urban Runoff), and 48 FOG (restaurant) inspections. During this reporting period, Inspectors identified 23 Stormwater and 7 FOG enforcement actions. Eleven of the Stormwater enforcements resulted in administrative fines ranging from \$100 to \$500. Six of the administrative fines were for repeated violations. There were four illicit discharges, none of which impacted waters of the bay.

Urban Runoff Inspections and Enforcements

September 2015	No. of UR Inspections	VW	WL	NOV	AF	LA	Total Enforcements	No. of Illicit Discharge/s	4
	94	1	2	9	11	0	23	% enforcement	24.46%

FOG Inspections and Enforcements

September 2015	No. of FOG Inspections	VW	WL	NOV	AF	NOD	Total Enforcements	% enforcement	14.58%
	48	1	3	0	0	3	7		

Enforcements:

VW –Verbal Warning
AF – Administrative Fine
AO – Administrative Order

WL – Warning Letter
LA – Legal Action
C&D – Cease & Desist Order

NOV – Notices of Violation
NOD – Notice of Deficiency
SNC – Significant Non Compliance

Dental Inspections, School Outreach, and Plant Tours

# of Dental Inspections	# of School Outreach Events including Sewer Science	# of Plant Tours
16	2	0

Industrial Pretreatment

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

Pending Permits

New Industrial/Groundwater Permits	Groundwater/Temporary
Jones Hamilton site in Newark – Groundwater remediation	Preston Pipelines (Groundwater)
	Ghilotti Construction (Groundwater)

Permits Issued

Company Name	Date Permit Issued
PG&E Union City Blvd and Whipple- GW-0001	9/15/15

Industrial Closures

Company Name	Date of Closure
None	

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

Report Name	Date Report Completed and Submitted
None	

Enforcement Action

IU Name & Nature of Business	Comments	City	Parameters Violated	Discharge concentration (mg/L)	USD/Fed Limit Violated (mg/L)	Enforcement (1)
Ceramic Tech	Discharge of copper at 2.0mg/L which is right at the local limit	Fremont	Copper	2.0 mg/L	2.0 mg/L	WL
Nationwide Boiler, Inc.	Discharge violation of 9.0 mg/L of zinc in excess of limit of 3.0 mg/L. PH of 5.5 which is outside of the 6-12 local limit.	Fremont	Zinc and pH	Zinc – 9.0 mg/L pH – 5.5 units	Zinc USD Local Limit – 3.0 mg/L pH USD Local Limit – 6 -12	NOV
Skansa Shimmick Herzog Joint Venture (Contractors)	Discharge of groundwater without a valid permit. Permit was terminated 5/7/15. Also, proper treatment was not provided.	Fremont	N.A.	N.A.	Ordinance 36.03 Sections 2.03 and 4.13	NOV
Sogo Bakery	Enforcement meeting	Newark	Oil and Grease	307mg/L	300mg/L	NOV-EM 9/15/15

(1) WL – Warning Letter

C&D – Cease and Desist Order

NOV – Notices of Violation

SNC – Significant Non Compliance

AO – Administrative Order

EM – Enforcement Meeting

Other - Team training, Special Meetings, Conferences, Special Recognition, IAC (topics)

Activity	Date of Event	Attendees
Tri-State Seminar (Enforcement)	9/22/15-9/24/15	Aaron Robles
NRTC Conference (Northern Regional Training Conference for Pollution Prevention)	9/8-9/10/15	Doug Dattawalker

Engineering/Construction

No. of projects under construction: 3

	Construction Projects	Capital (\$1000)	Scheduled Completion	Completed Scope	Completed Time	Comments for Sept. 2015 Activities
1.	Thickener Control Building Improvements Project – Curtis	\$9,990	9/16	55%	56%	Bypass system piping tie-ins at Thickeners No. 2 and 4 have started.
2.	Newark Backyard SS Relocation – Phase 2 – Rollie/Al B.	\$2,100	10/15	95%	95%	Sewer main and lateral installations competed.
3.	Miscellaneous Spot Repairs Phase VI – Andrew	\$324	10/15	80%	73%	Sewer main replacements for two project sites have been completed.

Design/Study

No. of projects in design/study phase: 15

	Design/Study Projects	Capital (\$1000)	Scheduled Completion	Completed Scope	Completed Time	Comments for Sept. 2015 Activities
1.	Irvington Basin Master Plan Update – Capacity Assessment - Rollie	\$231	6/15	100%	100%	CS reviewed and corrected pipe material for the list of pipes with critical ratings.
2.	Seismic Study - Raymond	\$210	6/15	95%	100%	Response to District's comments and draft report were submitted. Documents were distributed to staff for review.
3.	Cast Iron Lining Phase VI – Andrew	In-House	10/15	95%	90%	100% design submittal anticipated in October.
4.	Alvarado-Niles Road SS Rehabilitation – Chris E.	\$248	TBD	95%	95%	Project on hold; pending schedules of other construction activities on Alv.-Niles Rd.
5.	Pine St. Easement Improvements – Chris E.	\$59	8/15	100%	100%	Potholing at east end of bridge conducted. Task Order No. 2 scope and fee in progress.
6.	Plant Site Use Study – Curtis	\$238	1/16	84%	80%	Task Order No. 2 executed for additional services.

	Design/Study Projects	Capital (\$1000)	Scheduled Completion	Completed Scope	Completed Time	Comments for Sept. 2015 Activities
7.	MCC and PLC Replacement Project, Phase 3 – Thomas	\$78	9/15	95%	95%	100% plans and spec were submitted for review. Project is anticipated to be advertised in October.
8.	Generator Controls Upgrade Project – Raymond	\$72	6/15	55%	100%	Draft predesign report is anticipated in October.
9.	Plant Facilities Improvements Project – Thomas	\$158	10/15	80%	80%	90% plans and spec were submitted for review.
10.	Hypo Tank and PVC Pipe Replacement at OCB and NPS - Thomas	\$160	12/15	50%	50%	90% design submittal anticipated in October.
11.	Pump Station Master Plan – Raymond	\$175	7/15	90%	95%	Final draft of the report was received and distributed to staff for review.
12.	Aeration Blower Project – Curtis	\$96	12/15	80%	74%	90% design has been submitted for review.
13.	Newark Backyard SS Relocation Phase 3 – Al/Rollie	\$160	02/16	75%	50%	75% plans have been received.
14.	Recycled Water Feasibility Study Update – Chris E.	\$130	03/16	35%	34%	Progress meeting held. Water quality lab testing is complete.
15.	NPS Boost Mode Contingency Study – Chris E.	\$15	11/15	5%	2%	Kickoff meeting and site visit were held.
16.	FMC Building – Chris E.	\$72	01/16	20%	19%	Programming meetings in progress. Space needs assessment meetings planned.
17.	Sludge Degritter System Project – Thomas	\$180	05/16	0%	2%	Kickoff meeting and site visit held.

**COLLECTION SERVICES
ACTIVITIES REPORT
September 2015**

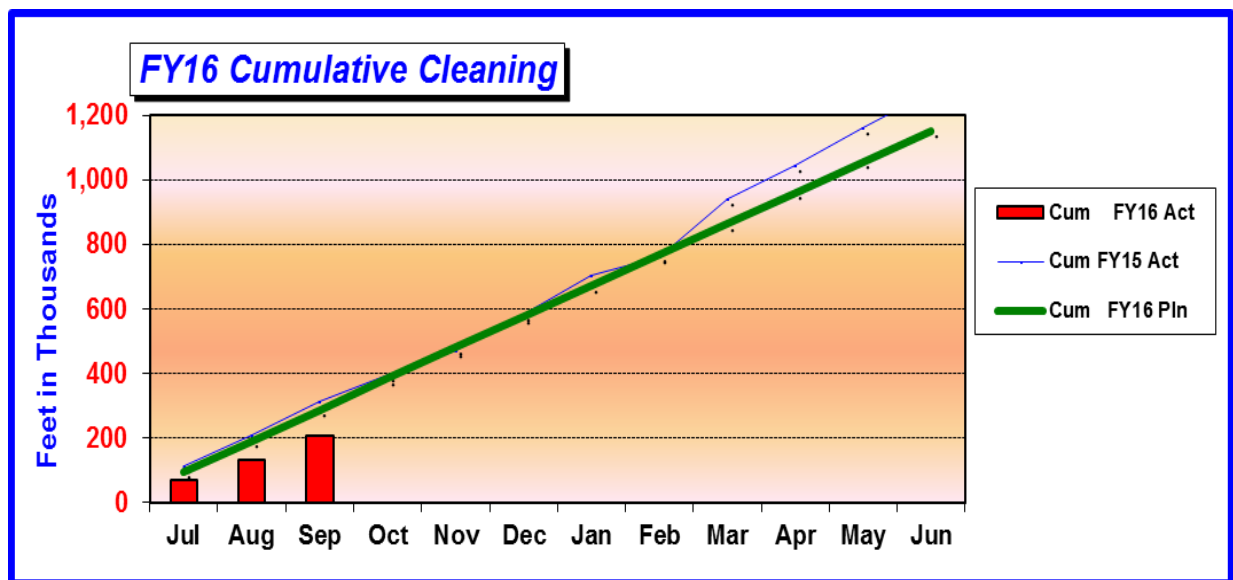
Progress/Accomplishments

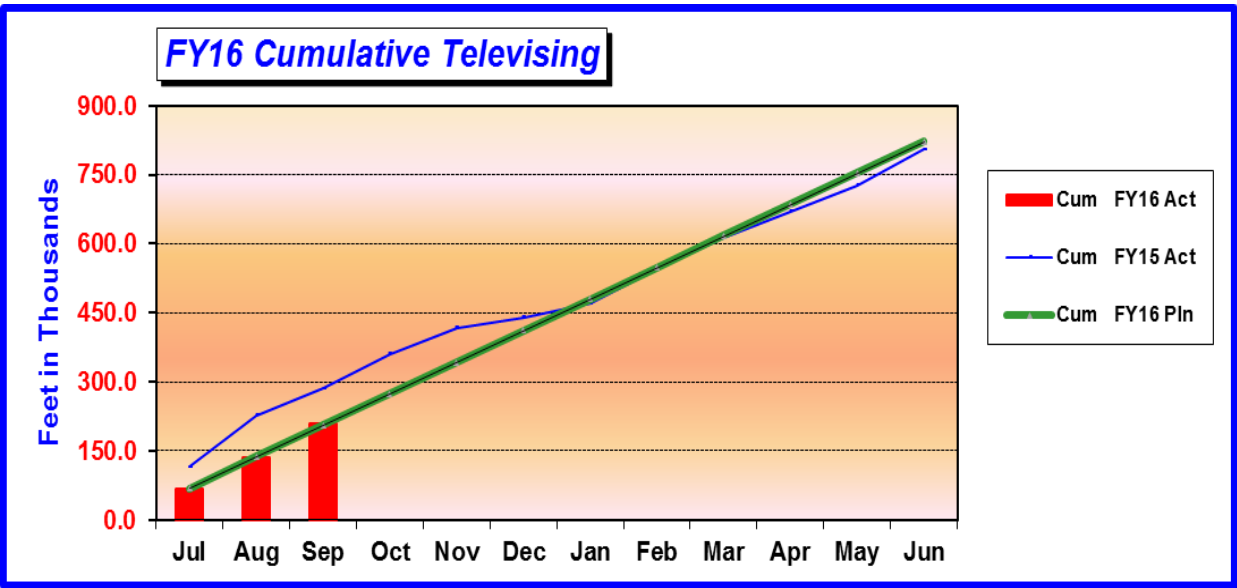
- Completed 8 miles of televising of sewer lines in September
 - Completed 14 miles of televising of sewer lines in September
 - Responded to 20 service request calls in September
 - Completed a total of 37 main repairs in September
 - Marked and located all sewer lines (Underground Service Alerts)
 - Provided support on the following projects: Newark Lateral Relocation Project, Newark Slurry Seal, Union City Overlay, Miscellaneous Spot Repair.
 - One Category 3 spill (53 gallons) in September, recovered 100%
 - Rick Lebon began employment as CSWI.
 - Nilash Charan resigned as Maintenance Assistant
 - Hosted the California Alliance for Sanitary Sewer Excellence meeting.
 - Hosted the Cues Camera Users Group Meeting.
-
- Training for Collections included; Skid Steer Loader Over The Tire Tracks, Skid Steer Loader Auger and Skid Steer Loader Tree Shear for 19 employees. Additional training; Forklift Training and Shoring Training for new employee and Kronos Training for 22 employees.

Future Planning

- Evaluation of our Collection System Preventative Maintenance Program

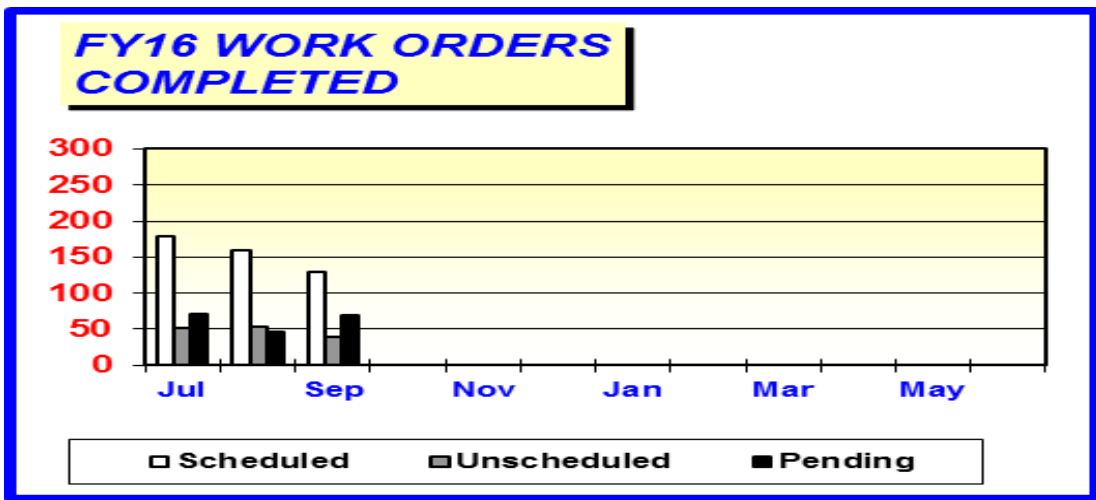
Performance Measures



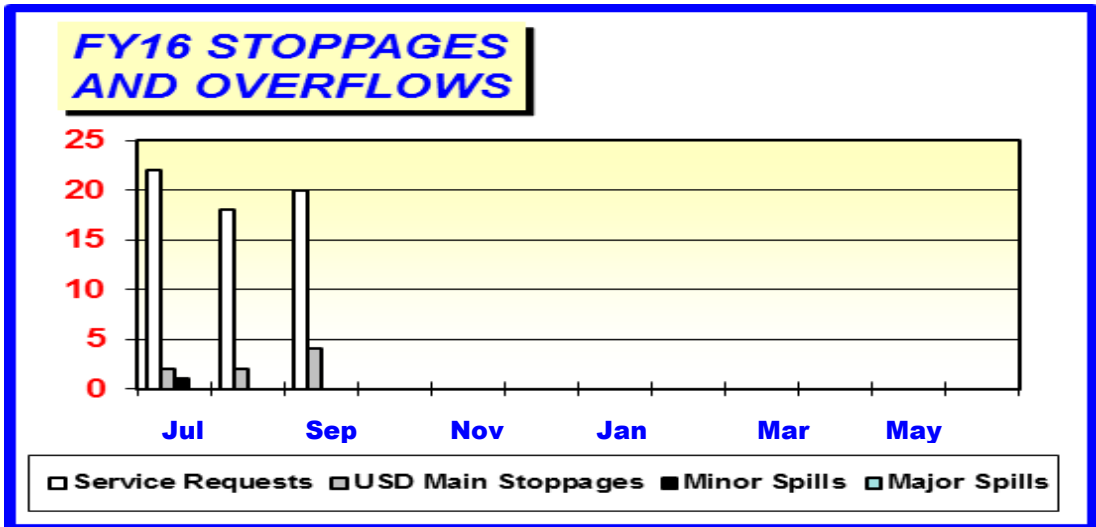


Other Collection Services Status Data:

Support Team Work Order Status:



C/S Maintenance Status:



FMC
Activities Report
September 2015

Progress/Accomplishments

- Completed 95% of preventive maintenance activities for the month of September
- Completed 110 corrective maintenance work orders for the month of September
- Installation of Blower 7
- Cherry St. PH Probe Installation
- Installation of parking lot light sensors
- Paint IPS EQ Basin Piping

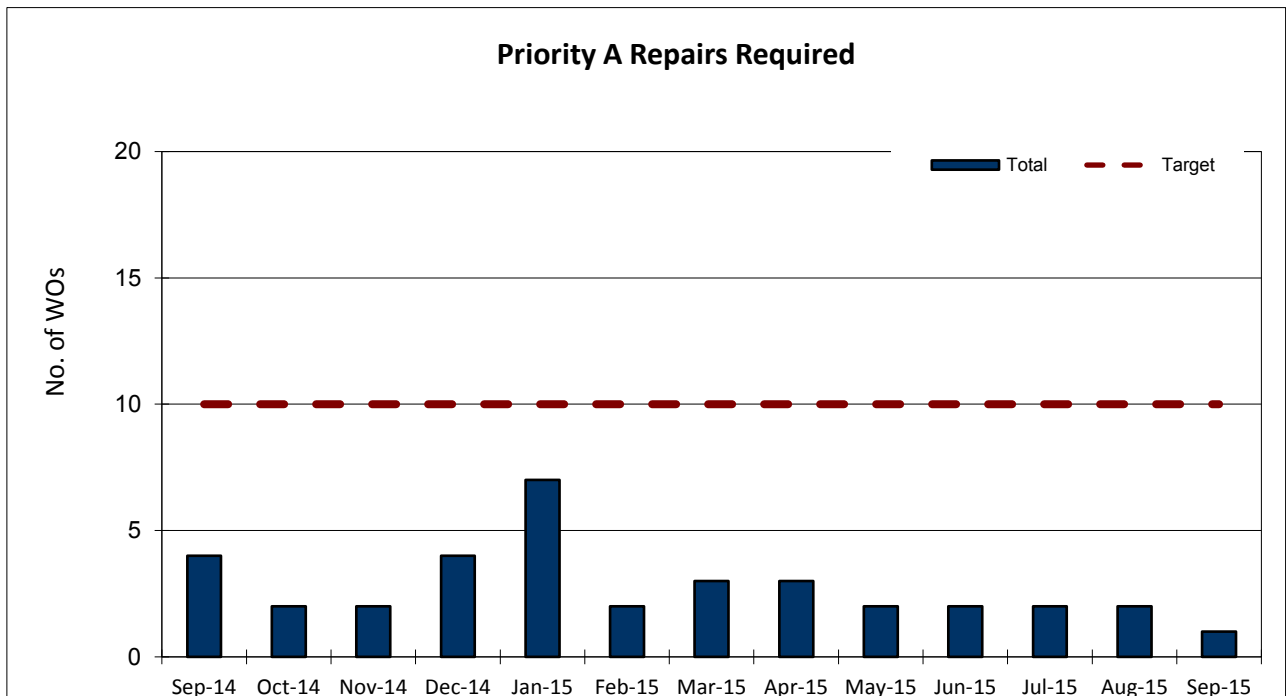
Future Planning

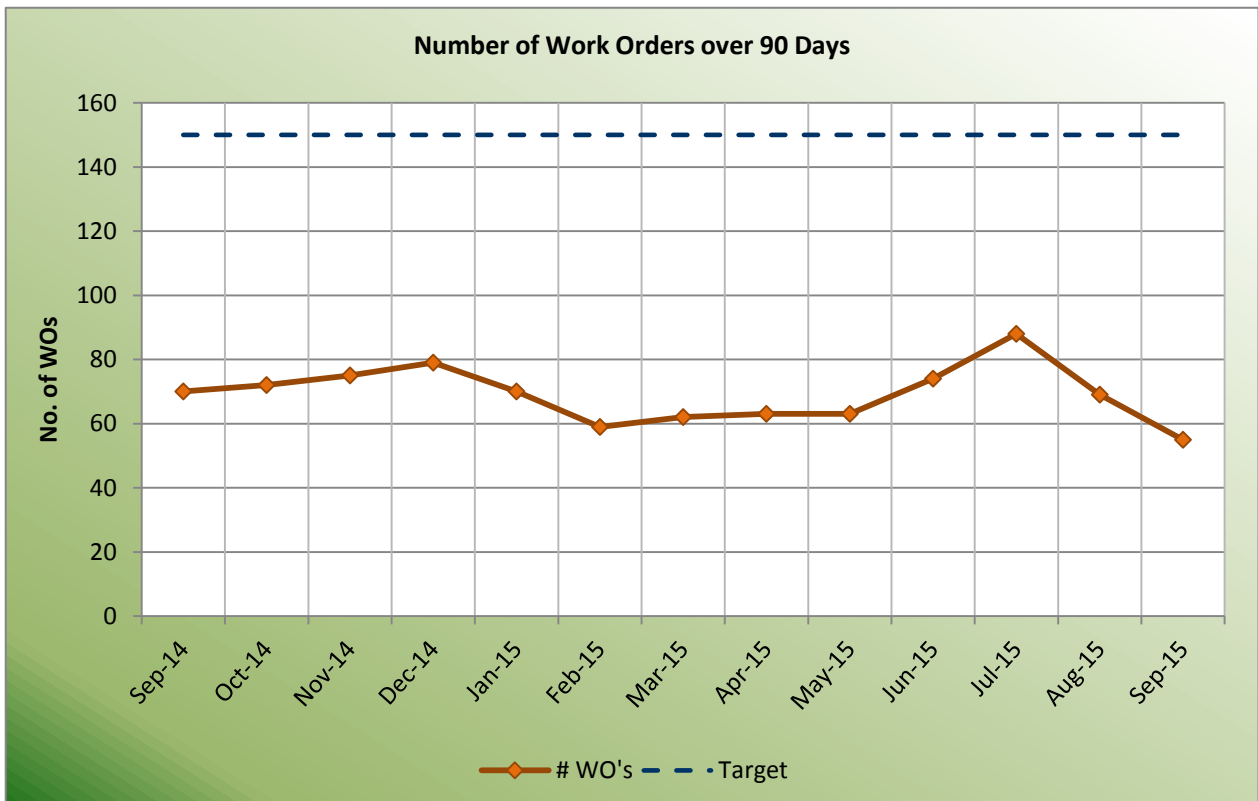
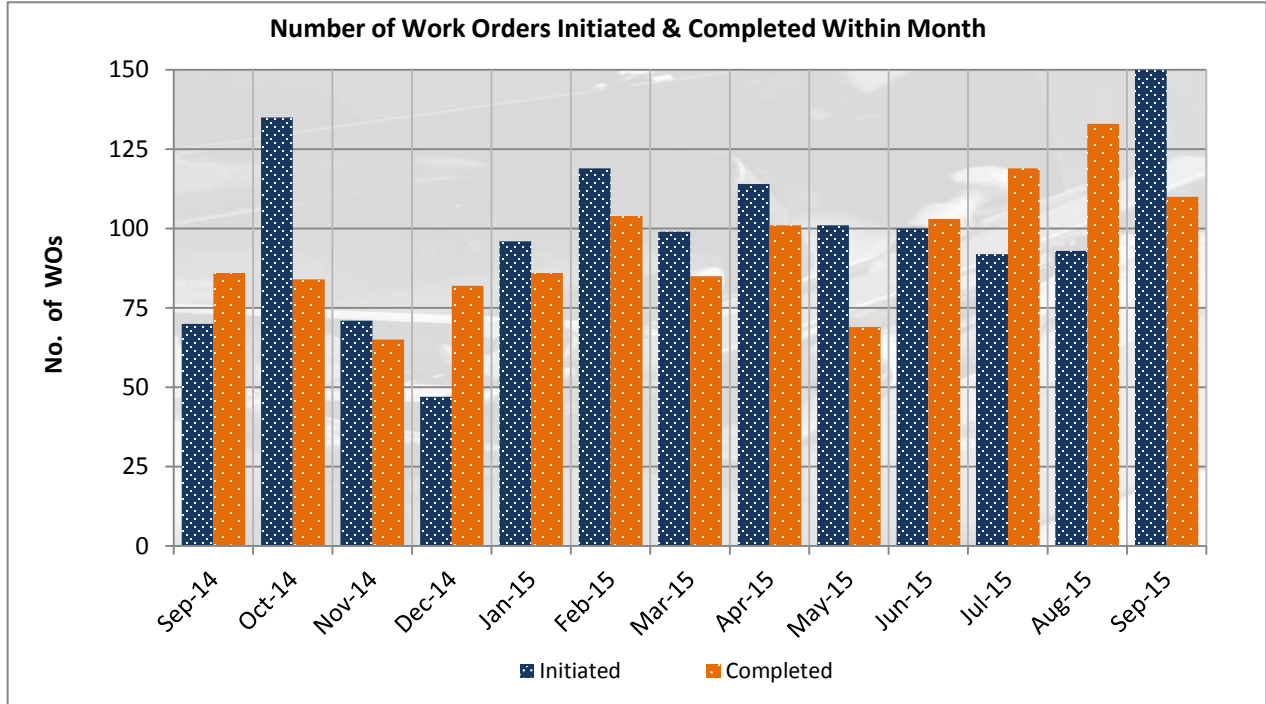
- Cheese Tank Phase II
- Centrifuge 1 complete overhaul with Andritz
- Centrifuge 3 bearing housing replacement
- Co-Gen #1 generator and misfire issues with WES

Other

- FMC Training Plan Continuation
- Eloy Sepulveda Alt Staffed to Mech. I
- Dustin Strasburg Alt Staffed to Mech. II

Performance Measurements





**Treatment & Disposal
Activities Report
September 2015**

Progress/Accomplishments

- Completed 95% preventive maintenance activities for the month of September.
- Presented the results of the Hayward Marsh Rehabilitation Options Study to the Regional Board Staff and discussed the operational status of the Marsh and next steps.
- Provided analytical results to RMC for the Recycled Water Feasibility Study Update Project.
- Provided training to TPO staff on chlorine residual analysis for wet weather operations.
- Two members of T&D attended the Annual Regional Monitoring Program annual meeting.
- Redesigned the Organics-codigestion Pilot study equipment and evaluated the cost for design alternatives and resume testing.
- Attended the BACWA Air Permit committee meeting.
- Attended Kronos training for employees and management.
- Two managers from T&D attended Water Environment Federation Technical Exhibition and Conference (WEFTEC) in Chicago.
- Assisted in the evaluation and selection of a consultant for the 2015 System Solids Capacity assessment project.
- Attended USEPA webinar on cost effective nutrient removal technologies.

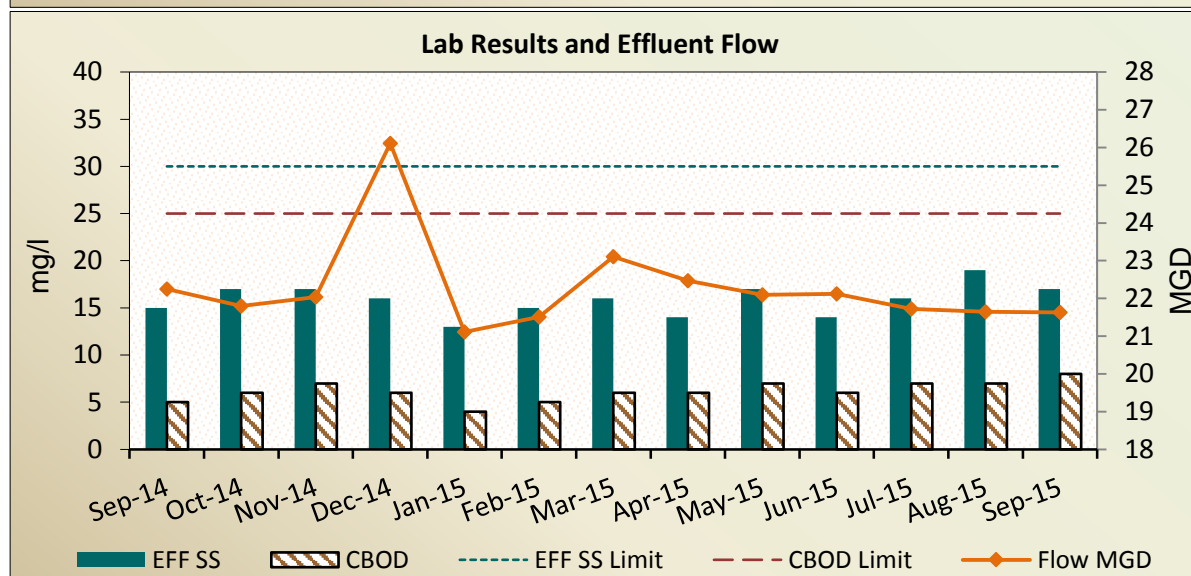
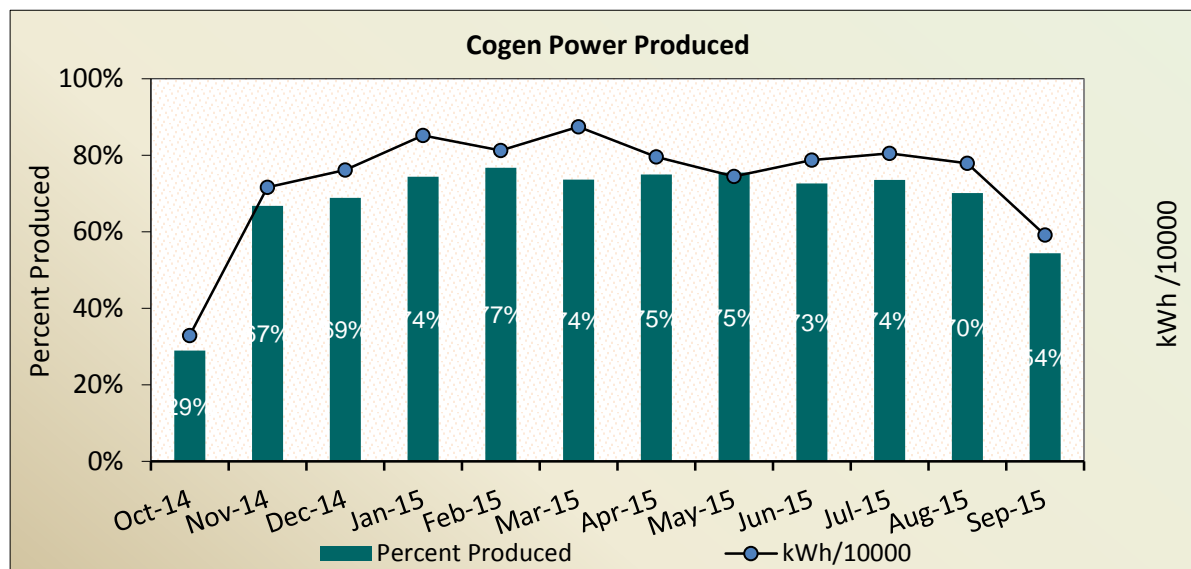
Future Planning

- Investigate in-situ aeration basin membrane cleaning methods to improve aeration efficiency.
- Meet With EBRPD management to discuss the Future of the Hayward Marsh.
- Research opportunities for testing digester enzymes to increase digester gas production at the treatment plant.
- Restart the Organic codigestion Pilot study.
- Provide comments on the tentative order for the Old Alameda Creek NPDES permit renewal.
- Revise and reissue a mixing zone study plan for the Hayward Marsh to provide results in time for submittal with the report of Waste Discharge (permit application) in April 2016.
- Identify a consultant to assist with the renewal of the Hayward Marsh Permit and all associated activities.

Other

- Cogen system produced 54% of power consumed for the month of September.

Performance Measurements



USD's Final Effluent Monthly Monitoring Results				
Parameter	EBDA Limit	Jul 2015	Aug 2015	Sep 2015
Copper, µg/l	78	4.6	4.3	5.2
Mercury, µg/l	0.066	0.00308	0.00371	0.00266
Cyanide, µg/l	42	6.000	< 3	< 3
Ammonia- N, mg/L (Range)	130	41 - 44	39 - 42	39 - 47
Dioxin-Toxicity Equivalent (TEQ), µg/l	2.8 x 10 ⁻⁸	not tested	not tested	not tested
Fecal Coliform, MPN/100ml (Range)				
• 5-Sample Geometric Mean	500	15 - 45	28 - 59	17 - 36
• 11-Sample 90th Percentile	1100	32 - 54	73	49 - 63
Enterococci *				
• 5-Sample Geometric Mean	242	< 10 - 63	< 10 - 41	20 - 52

E = Estimated value, concentration outside calibration range. For SIP, E = DNQ, estimated concentration.

* Enterococci values are the weekly concentration range not the 5-Sample Geometric Mean range.

**Directors**

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
General Manager
District Engineer

Karen W. Murphy
Attorney

DATE: October 19, 2015

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
Derek Chiu, Assistant Engineer

SUBJECT: Agenda Item No. 9 - Meeting of October 26, 2015
Authorize the General Manager to Execute Task Order No. 2 with Carollo Engineers for Providing Engineering Services During Construction of the Fremont and Paseo Padre Lift Stations Improvements Project

Recommendation

Staff recommends the Board authorize the General Manager to execute Task Order No. 2 with Carollo Engineers in the amount of \$82,740 for providing engineering services during construction of the Fremont and Paseo Padre Lift Stations Improvements Project (Project).

Funds for the project have been budgeted in the Renewal and Replacement Fund (50%) and the Capacity Fund (50%).

Background

On January 12, 2015, the Board authorized the General Manager to execute Task Order No. 1 with Carollo Engineers for the design of the Fremont and Paseo Padre Lift Stations Improvements Project. Carollo Engineers completed the Project's final design in July 2015. The Project's major elements are as follows:

- Replacement of four enclosed screw pumps, two 24-inch diameter pumps at Fremont LS and two 30-inch diameter pumps at Paseo Padre LS.
- Installation of VFDs.

- Erection of steel canopy structures over the enclosed screw pumps to protect them from the elements.
- Installation of a step-up transformer to convert and upgrade the existing 208-volt electric service to 480-volt electric service at both lift stations.
- Replacement of the MCCs and standby generators at both lift stations.
- Replacement of the hydraulic power unit at Paseo Padre LS.
- Rehabilitation and repair of coatings and concrete in the pump pits and wet wells at both lift stations.
- Miscellaneous site work including the replacement of fencing, the installation of containment curbing, and paving at both lift stations.
- Installation of a new manhole and drainage piping at Paseo Padre LS to direct all on-site runoff into the collection system.
- Replacement of the existing vehicle gates at Newark Pump Station and the addition of electric vehicle gate operators to the gates at Newark Pump Station, Fremont LS, and Paseo Padre LS.

Staff opened bids on September 10, 2015, and the Board awarded the construction contract in the amount of \$2,801,500 to Mountain Cascade, Inc. on September 28, 2015. Staff issued the Notice to Proceed on October 15, 2015.

Task Order No. 2 – Engineering Services during Construction

The scope of services and cost of Task Order No. 2 are summarized below:

Task	Task Description	Amount
1	Preparation of Conformed Bid Documents	\$3,418
2	Submittal Review	\$30,006
3	Requests for Information (RFI)	\$17,988
4	Clarification Memoranda	\$2,086
5	Informal RFIs	\$10,793
6	Meetings	\$3,711
7	Site Visits	\$9,342
8	Project Management	\$5,396
Task Order Not to Exceed Amount		\$82,740

The task order's total not-to-exceed amount is just under 3% of the construction contract amount. For a project of this size and scope, staff expects the fee to be in the range of 3% to

4%. As a comparison, the table below summarizes the final fees and percentages of engineering services during construction of past pump and lift station projects.

Project	Engineering Services During Construction Cost (A)	Construction Cost (B)	Percentage of A to B
Newark Pump Station Upgrade Project	\$681,359	\$10,051,210	6.8%
Boyce Road Lift Station Project	\$257,705	\$5,916,974	4.3%
Lift Station No. 1 Improvements Project	\$19,037	\$815,464	2.3%
Irvington Equalization Storage Facilities Project	\$541,522	\$14,172,307	3.8%

The total amounts for the Project's agreement with Carollo are summarized in the table below:

Description	Amount
Task Order No. 1 –Design	\$198,799
Task Order No. 2 – Engineering Services During Construction	\$82,740
Total for this Agreement	\$281,539

Staff recommends the Board authorize the General Manager to execute Task Order No. 2 with Carollo Engineers in the amount of \$82,740 for providing engineering services during construction of the Fremont and Paseo Padre Lift Stations Improvements Project.

PRE/SEG/RC/DC:ks

Attachment: Task Order No. 2

FREMONT AND PASEO PADRE LIFT STATIONS IMPROVEMENTS PROJECT

800-444

TASK ORDER NO. 2

UNION SANITARY DISTRICT

AND

CAROLLO ENGINEERS, INC.

ENGINEERING SERVICES DURING CONSTRUCTION

This Task Order No. 2 is issued by the Union Sanitary District (District) and accepted by Carollo Engineers, Inc. (Engineer), pursuant to the mutual promises, covenants, and conditions contained in the Agreement between the above named parties dated the 13th day of January 2015, associated with the Fremont and Paseo Padre List Stations Improvements Project (Project).

PURPOSE

The purpose of this Task Order is to provide engineering services during construction for the Project.

PROJECT COORDINATION

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

KEY PERSONNEL

Engineer's personnel assigned for this Task Order shall consist of the following individuals:

Scott Weddle

Project Manager

Todd Beecher

Project Electrical Engineer

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

ENGINEER'S SCOPE OF SERVICES

Engineering support services during construction are based upon the District providing on-site construction management (Construction Manager) for contract administration, coordination, materials testing, inspection, and technical construction representation throughout the entire estimated construction period. Services are also based upon the Construction Manager's use of a web-based construction management database system with access available to Engineer to allow a singular location for documentation.

Engineer shall provide the following specific services.

TASK 1.0 – PREPARATION OF CONFORMED BID DOCUMENTS

Engineer shall prepare conformed documents, incorporating changes made in addenda to the Original bid documents. Original Specifications shall be edited to include text from the issued addenda. Original drawings shall be annotated with changes from issued addenda and not redrafted.

TASK 2.0 – SUBMITTAL REVIEW

There will be the following division of submittal review responsibility between Construction Manager and Engineer.

Administrative Submittals: The Construction Manager will review and provide response to all administrative submittals as generally listed in Section 01340-1.1 of the Contract Document. Copies of these submittals to the Engineer are for information purposes only.

Shop Drawing Submittals: Engineer shall review and provide response to shop drawing submittals as described in the technical specifications of the Contract Documents on an as requested basis.

Quality Control Submittals: The Construction Manager will review and provide response to all quality control submittals as described in the Contract Documents, except Engineer shall review and provide response to mechanical and electrical testing procedures and testing results. Copies of all other quality control submittals to the Engineer are for information purposes only. Construction Manager will also be responsible for all testing indicated in the Contract Documents to be performed by an entity other than the Contractor.

Temporary Construction Submittals: Construction Manager will review and provide response to all temporary construction submittals described in the Contract Documents except Engineer shall review and provide responses to electrical and controls submittals. Copies of all other submittals to the Engineer are for information purposes only.

Submittals

Engineer shall respond to requests for submittal review on an as requested basis. Engineer shall provide written review comments on a review comment sheet and post the review comment sheet on the web-based construction management database system. Engineer shall complete review of submittal, provide comments, and post review comment sheet typically within twenty-one (21) calendar days for normal submittals, after Engineer's receipt of submittal. If for any reason the review cannot be completed within this period, Engineer shall notify Construction Manager and provide reason for delay prior to the end of the specified period.

The Construction Manager will screen all submittals for form, completeness, and general content conforming to that specified in the Contract Documents before transmitting them to Engineer.

Engineer's submittal review is to determine general compliance with the Contract Documents. Submittal review is not intended as acceptance of the work. The review is not intended to relieve the Contractor of his full responsibility for performance as required by the Contract Documents. However, Engineer has the responsibility to review each submittal within the context of the project scope and its impact to the installation, operation, and maintenance of the complete facilities.

Engineer's budget allowance is based on reviewing a total of twenty five (25) submittals (15 mechanical/civil submittals by Carollo plus 10 electrical/instrumentation submittals by Beecher). The average review time for submittals to be reviewed by Carollo is estimated to be four (4) hours per submittal, and six (6) hours per submittal for Beecher. The scope of work also includes Beecher providing wire tag information (both on the Contractor's MCC submittals and in Excel spreadsheet format) with an additional sixteen (16) hours estimated for this effort.

TASK 3.0 – REQUEST FOR INFORMATION

Engineer shall respond to formal requests for information (RFIs) on an as requested basis. Engineer shall provide a written response on a response sheet and post the response sheet on the web-based construction management database system. Engineer shall complete review of RFI, provide response, and

post response within seven (7) calendar days after Engineer's receipt of RFI. If for any reason the response cannot be completed within this period, Engineer shall notify Construction Manager and provide reason for delay prior to the end of the specified period.

The Construction Manager will screen all RFIs for form, completeness, and general content conforming to that specified in the Contract Documents before transmitting them to Engineer.

Engineer's budget allowance is based on reviewing ten (10) RFIs at an average review time of four (4) hours per RFI for mechanical/civil RFIs to be reviewed by Carollo, plus ten (10) electrical/instrumentation RFIs at an average of (4) hours per RFI to be reviewed by Beecher.

TASK 4.0 – CLARIFICATION MEMORANDA

Engineer shall issue Clarification Memoranda when deemed necessary by the Engineer and on an as requested basis. Engineer shall provide a written clarification on a Clarification Memorandum (including specifications, sketches, or other information as necessary) and post the Clarification Memorandum on the web-based construction management database system.

Clarification Memoranda shall be issued to clarify Contract Documents when necessary, or in the event that modifications to the Contract Documents are desired by the District. Clarification Memoranda shall also be prepared to assist the Construction Manager with the preparation of Contract Change Order requests.

Engineer's budget allowance is based on preparing one (1) Clarification Memoranda at an average of eight (8) hours for Carollo or Beecher.

TASK 5.0 – INFORMAL REQUESTS FOR INFORMATION

Engineer shall respond to Construction Manager's informal requests for information, including verbal, email, and telephone correspondence with Construction Manager.

Engineer's budget allowance is based on an average of four (4) hours of informal correspondence per month for duration of six (6) months for Carollo, plus four (4) hours per month for six (6) months for Beecher.

TASK 6.0 – MEETINGS

Engineer will have personnel attend construction meetings on a routine basis throughout the duration of the Project. The Construction Manager will facilitate all meetings and provide meeting minutes.

Engineer's budget allowance is based on the Engineer and Beecher attending two (2) construction meetings at an average of four (4) hours each.

TASK 7.0 – SITE VISITS

Engineer shall periodically visit the Project site to monitor the progress and quality of the Contractor's work effort, including specialty site visits (civil, structural, mechanical, electrical, and instrumentation). Engineer shall not, during such site visits or as a result of such observations of Contractor's work in progress, supervise, direct, or have control over Contractor's work. Nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected by Contractor or safety precautions and programs incident to the Work. Furthermore, Engineer shall not be held responsible for any failure of Contractor to comply with laws, rules, regulations, ordinances, codes, or orders applicable to Contractor furnishing and performing work. Engineer shall provide opinions and observations to the Construction Manager and/or District regarding general compliance with the Contract Documents for improvements that are observed by the Engineer at the time of Engineer's site visits.

Engineer's budget allowance is based on two (2) site visits at an average of four (4) hours per site visit for Carollo, plus six (6) site visits at an average of (6) hours per visit by Beecher, including on-site witness testing for the new MCCs.

TASK 8.0 – PROJECT MANAGEMENT

Engineer shall manage the efforts of the project team members, coordinate with representatives of the District and Construction Manager, delegate responsibilities, and review work progress. Engineer shall prepare and submit monthly invoices and progress summary reports. Monthly invoices shall be broken down by major tasks only.

Engineer's budget allowance is based upon an average of two (2) hours per month for a duration of six (6) months for Carollo, plus two (2) hours per month for six (6) months for preparation of invoices and budget correspondence for Beecher.

TIME OF PERFORMANCE

All services defined in this Task Order are based upon and shall occur during the anticipated construction schedule listed below:

- Notice of Award (NOA) issued to Contractor: September 2015
- Notice to Proceed (NTP) issued to Contractor: October 2015
- Substantial Completion: October 2016
- Final Completion: November 2016

PAYMENT TO ENGINEER

Payment to the Engineer for services shall be as provided for in Article 2 of the Agreement. A summary of the distribution of estimated cost and labor hours including other direct costs and outside services are shown in Exhibit A. Task Order No. 2 Firm Ceiling shall not exceed \$82,740.

The following table summarizes all task orders and amendments, if any, previously executed under the Agreement.

Task Order/Amendment	Not to Exceed Amount	Board Authorization Required? (Yes/No)	District Staff Approval
Task Order No.1- Design and Bid Period Services	\$198,799	Yes	Paul R. Eldredge
Task Order No. 2 – Engineering Services During Construction	\$82,740	Yes	Paul R. Eldredge
Total	\$281,539		

EFFECTIVE DATE

This Task Order No. 2 is effective as of the _____ day of October 2015.

IN WITNESS THEREOF, duly authorized representatives of the District and the Engineer have executed this Task Order evidencing its issuance by the District and acceptance by the Engineer.

CAROLLO ENGINEERS, INC.

UNION SANITARY DISTRICT

Accepted this _____ day of October 2015

By: _____

By: _____

Associate Vice President

Paul R. Eldredge, P.E

General Manager/District Engineer

By: _____

Senior Vice President

FREMONT AND PASEO PADRE LIFT STATIONS IMPROVEMENTS PROJECT

800-444

Task Order No. 2

Union Sanitary District and Carollo Engineers Inc.

Engineering Services During Construction

Exhibit A

Task No. Task Description	PM/PE \$249	Structural Engineer \$249	CAD \$115	Support \$102	Total Hours	Labor Cost	Other Direct Costs (ODC)						Total Cost
							Subconsultants		PECE \$11.70	Mileage		ODC subtotal	
							Name	Amount		Trips	Amount		
1.0 Preparation Of Conformed Bid Documents													
	2	2	8	2	14	\$2,120	Beecher	\$1,134	\$164	-	\$0	\$1,298	\$3,418
Task 1.0 Subtotal =	2	2	8	2	14	\$2,120		\$1,134	\$164	-	\$0	\$1,298	\$3,418
2.0 Submittal Review													
	40	20	0	0	60	\$14,940	Beecher	\$14,364	\$702	-	\$0	\$15,066	\$30,006
Task 2.0 Subtotal =	40	20	0	0	60	\$14,940		\$14,364	\$702	-	\$0	\$15,066	\$30,006
3.0 Request For Information													
	30	10	0	0	40	\$9,960	Beecher	\$7,560	\$468	-	\$0	\$8,028	\$17,988
Task 3.0 Subtotal =	30	10	0	0	40	\$9,960		\$7,560	\$468	-	\$0	\$8,028	\$17,988
4.0 Clarification Memoranda													
	8	0	0	0	8	\$1,992	Beecher	\$0	\$94	-	\$0	\$94	\$2,086
Task 4.0 Subtotal =	8	0	0	0	8	\$1,992		\$0	\$94	-	\$0	\$94	\$2,086
5.0 Informal Requests for Information													
	24	0	0	0	24	\$5,976	Beecher	\$4,536	\$281	-	\$0	\$4,817	\$10,793
Task 5.0 Subtotal =	24	0	0	0	24	\$5,976		\$4,536	\$281	-	\$0	\$4,817	\$10,793
6.0 Meetings													
	8	0	0	0	8	\$1,992	Beecher	\$1,512	\$94	2	\$113	\$1,719	\$3,711
Task 6.0 Subtotal =	8	0	0	0	8	\$1,992		\$1,512	\$94	2	\$113	\$1,719	\$3,711
7.0 Site Visits													
	8	0	0	0	8	\$1,992	Beecher	\$6,804	\$94	8	\$452	\$7,350	\$9,342
Task 7.0 Subtotal =	8	0	0	0	8	\$1,992		\$6,804	\$94	8	\$452	\$7,350	\$9,342
8.0 Project Management													
	12	0	0	0	12	\$2,988	Beecher	\$2,268	\$140	-	\$0	\$2,408	\$5,396
Task 8.0 Subtotal =	12	0	0	0	12	\$2,988		\$2,268	\$140	-	\$0	\$2,408	\$5,396
Totals	132	32	8	2	174	\$ 41,960	0	\$ 38,178	\$ 2,036	10	\$ 565	\$ 40,779	\$ 82,740

Legend:

PECE Project Equipment and Communication Expense

Notes:

1. Mileage based on 100 miles per round-trip @ \$0.565/mile
2. Multiplier = 3.21
3. Subconsultant amount includes 5% markup

**Directors**

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: October 14, 2015

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Rich Cortes, Business Services Work Group Manager
Sheila Tolbert, Human Resources Manager

SUBJECT: Agenda Item No. 10 - Meeting of October 26, 2015
Approve the Publicly Available Pay Schedule

Recommendation: The President, USD Board of Directors, sign the September 1, 2015 Pay Schedule which will be posted and retained in accordance with CalPERS requirements.

Background:

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

The "Publicly Available Pay Schedule" (CCR 570.5) must:

- be duly approved and adopted by the employer's governing body in accordance with requirements of applicable public meetings laws; and
- identify the position title for every employee position; and
- show the pay rate for each identified position as a single amount or as multiple amounts within a range; and
- indicate the time base (i.e., bi-weekly, monthly, etc.); and

- be posted at the office of the employer or immediately accessible and available for public review from the employer during normal business hours or posted on the employer's internet website; and
- indicate an effective date and date of any revisions; and
- be retained by the employer and available for public inspection for not less than 5 years.

The changes to the Publicly Available Pay Schedule reflect the General Manager's new salary effective September 1, 2015, which was approved by the Board of Directors on September 28, 2015. This new salary reflects the positive performance appraisal received by the General Manager.

Attachment: Union Sanitary District Pay Schedule Effective September 1, 2015

UNION SANITARY DISTRICT PAY SCHEDULE

Effective September 1, 2015		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accounting Tech Specialist	\$3,041.23	\$3,696.63
Accounting Technician II	\$2,703.31	\$3,285.90
Administrative Specialist I	\$2,402.15	\$2,919.83
Administrative Specialist II	\$2,528.58	\$3,073.50
Assistant Engineer	\$3,596.80	\$4,720.80
Assistant to the General Manager	\$3,088.87	\$4,054.14
Assistant Storekeeper	\$2,335.82	\$2,839.19
Associate Engineer	\$4,022.80	\$5,279.92
Buyer I	\$2,726.87	\$3,579.02
Buyer II	\$3,029.86	\$3,976.69
Chemist I	\$3,305.21	\$4,017.50
Chemist II	\$3,470.47	\$4,218.38
Coach, Business Services	\$4,641.14	\$6,091.50
Coach, Capital Improvement Projects	\$5,355.22	\$7,028.73
Coach, Collection Services	\$4,291.62	\$5,632.75
Coach, Customer Service	\$5,355.22	\$7,028.73
Coach, Electrical & Instrumentation	\$4,368.06	\$5,733.08
Coach, Environmental Compliance	\$4,386.22	\$5,756.92
Coach - Mechanical Maintenance	\$4,289.80	\$5,630.36
Coach, Research & Support/Sr. Process Engineer	\$4,765.42	\$6,254.62
Coach, Total Plant Operations	\$4,330.69	\$5,684.03
Collection System Worker I	\$2,481.78	\$3,016.62
Collection System Worker II	\$2,729.97	\$3,318.30
Communications & Intergovernmental Relations Coordinator	\$3,565.94	\$4,334.41
Construction Inspector I	\$2,887.70	\$3,510.02
Construction Inspector II	\$3,176.47	\$3,861.02
Construction Inspector III	\$3,303.54	\$4,015.46
Customer Service Fee Analyst	\$2,744.97	\$3,336.52
Engineering Technician I	\$2,786.27	\$3,386.74
Engineering Technician II	\$3,064.90	\$3,725.41
Engineering Technician III	\$3,371.40	\$4,097.95
Environmental Compliance (EC) Inspector I	\$2,727.98	\$3,315.88
Environmental Compliance (EC) Inspector II	\$3,069.05	\$3,730.45
Environmental Compliance (EC) Inspector III	\$3,406.64	\$4,140.79
Environmental Compliance (EC) Inspector IV	\$3,645.10	\$4,430.65
Environmental Control (EC) Outreach Representative	\$3,406.64	\$4,140.79
Environmental Health and Safety Program Manager	\$3,945.26	\$5,178.15
Environmental Program Coordinator	\$3,968.49	\$5,208.64

Effective September 1, 2015		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Fleet Mechanic I	\$2,751.67	\$3,344.67
Fleet Mechanic II	\$3,081.87	\$3,746.04
General Manager	\$7,446.35	\$9,772.11
Human Resources Manager	\$4,832.03	\$6,342.04
Human Resources Analyst II	\$3,350.31	\$4,397.29
InformationTechnology Administrator	\$4,635.89	\$6,084.60
Information Technology Analyst	\$3,237.58	\$4,249.32
Instrument Tech/Electrician	\$3,389.49	\$4,119.94
Janitor	\$1,840.39	\$2,237.01
Junior Engineer	\$3,237.12	\$4,248.72
Laboratory Director	\$4,111.05	\$4,997.00
Lead Collection System Worker	\$3,002.96	\$3,650.05
Maintenance Assistant	\$1,182.47	\$1,437.30
Manager, Business Services	\$6,598.22	\$8,660.17
Manager, Collection Services	\$5,819.59	\$7,638.22
Manager, Maintenance	\$5,819.59	\$7,638.22
Manager, Technical Services	\$6,401.55	\$8,402.03
Manager, Treatment & Disposal Services	\$5,819.59	\$7,638.22
Mechanic I	\$2,783.77	\$3,383.69
Mechanic II	\$3,117.83	\$3,789.75
Mechanic XL	\$3,714.66	\$3,979.24
Organizational Performance Program Manager	\$4,197.08	\$5,508.67
Painter	\$2,861.01	\$3,477.57
Planner/Scheduler I	\$3,196.08	\$3,884.86
Planner/Scheduler II	\$3,436.87	\$4,177.54
Plant Operations Trainer	\$3,775.57	\$4,589.22
Plant Operator I	\$2,655.79	\$3,228.14
Plant Operator II	\$2,947.94	\$3,583.24
Plant Operator III	\$3,371.03	\$4,097.51
Plant Operator XL	\$4,016.32	\$4,302.38
Principal Engineer	\$4,845.20	\$6,359.32
Principal Financial Analyst	\$3,850.64	\$5,053.97
Purchasing Agent	\$3,378.49	\$4,434.26
Receptionist	\$2,100.44	\$2,553.10
Senior Accountant	\$3,488.23	\$4,578.30
Senior Database Administrator / Developer	\$4,071.23	\$5,343.49
Senior Engineer	\$4,311.57	\$5,658.94
Senior Geographic Information System (GIS)/Database Administrator	\$4,071.23	\$5,343.49
Senior Information Technology Analyst	\$3,597.31	\$4,721.47
Senior Network Administrator	\$3,943.39	\$5,175.70

Effective September 1, 2015		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Senior Planner/Scheduler	\$3,881.24	\$5,094.13
Senior Process Engineer	\$4,311.57	\$5,658.94
Storekeeper I	\$2,953.54	\$3,590.06
Storekeeper II	\$3,101.22	\$3,769.55
Technical Training Program Coordinator	\$3,781.44	\$4,963.14
Utility Worker	\$2,267.32	\$2,755.94

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

Approved by: _____
President, Board of Directors

Date: _____

**Directors**

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: October 19, 2015

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
Chris Elliott, Associate Engineer

SUBJECT: Agenda Item No. 11 – Meeting of October 26, 2015
Authorize the General Manager to Execute Task Order No. 2 with West Yost Associates for Providing Final Design Services for the Pine Street Easement Improvements Project

Recommendation

Staff recommends the Board authorize the General Manager to execute Task Order No. 2 with West Yost Associates in the amount of \$87,033 for providing final design services for the Pine Street Easement Improvements Project.

Funds for the project have been budgeted in the Renewal and Replacement Fund.

Background

The District owns and maintains a 12-inch diameter sewer main that parallels Mammoth Creek in southeastern Fremont. This pipeline aerially crosses a small creek tributary to Mammoth Creek behind the residences on Sabercat Place. Please see the location map provided in Exhibit A, and a photo of the aerial crossing (pipe bridge) in Exhibit B, Photo 1.

In about 1997, due to the El Niño storms of the 1990's, the District completed a project to stabilize the Pine Street Easement in localized areas along the Mammoth Creek watershed where sliding failures and / or erosion were threatening the easement access road and sewer pipeline. One of these localized improvements included riprap placement in the aforementioned tributary creek where stream bank erosion had partially exposed the top of the pipe bridge's eastern foundation.

Since those 1997 improvements, the tributary creek channel has moved closer to the pipe bridge's eastern foundation and the bank has continued to erode. The top of the foundation is again exposed due to creek channel incisement, or down-cutting, and displacement of the 1997 riprap. The western foundation is unaffected by the erosion.

As seen in Exhibit B, Photos 2, 3, and 4, approximately 2 feet of the eastern foundation's side is now exposed by erosion. This erosion has removed approximately one-third of the pier embedment on the downslope, or channel side, of the pier, and places the pier in danger of failure should further erosion around the pier occur. Although there has not been damage to the pipe bridge or pipeline to date, further soil movements and erosion may result in damage, and failure could expose the tributary creek and Mammoth Creek to wastewater.

Project Development and Task Order No. 1

A number of different solutions were explored to correct the erosion issues and protect the pier. Due to the tributary creek location, the Regional Water Quality Control Board's input was also solicited regarding several of the potential solutions. Ultimately, it was determined that a structural design alternative implemented outside the stream channel's boundaries would minimize the project's permitting requirements and shorten the overall project schedule, and would therefore be best.

Staff then solicited proposals for providing preliminary design services, and West Yost Associates was selected as the design engineer. In January 2015, the General Manager executed an Agreement and Task Order No. 1 with West Yost Associates in the amount of \$58,887.

West Yost evaluated three structural design alternatives, and staff identified the preferred alternative. The selected alternative will eliminate structural dependence upon the subject pier by constructing a new, more robust eastern abutment and strengthening the existing bridge span itself. Through its environmental and potholing subconsultants, West Yost also confirmed that this alternative could be implemented outside the stream channel's boundaries by avoiding direct contact with the stream channel during construction.

Task Order No. 2

The scope of services for Task Order No. 2 includes project management, detailed final design including plans and specifications, and bid period services.

The estimated Project construction cost is between \$150,000 and \$200,000. The negotiated cost proposal is \$87,033. The engineering fee for design services represents approximately 44% to 58% of the construction cost. Given the unique and unusual nature of the project, the extensive

structural design work that must be performed, the additional environmental and potholing work involved, and the relatively small construction cost, the percentages are considered reasonable.

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

Task	Description of Work	Amount
1	Project Management	\$7,834
2	Design	\$70,317
3	Bid Period Services	\$8,882
	Task Order No. 2 Total	\$87,033

Design of the Pine Street Easement Improvements Project is scheduled for completion in winter 2016, with construction to follow in Spring 2016.

Staff recommends the Board authorize the General Manager to execute Task Order No. 2 with West Yost Associates in the amount of \$87,033 for providing design services for the Pine Street Easement Improvements Project.

PRE/SEG/RC/CE:ks

Attachments: Exhibit A – Location Map
Exhibit B – Photos
Task Order No. 2



Exhibit A
Pine Street Easement Improvements Project
Location Map



EXHIBIT B - PHOTOS

Photo 1 – Aerial Crossing (Pipe Bridge)



Photo 2 – Erosion At The Pipe Bridge's Eastern Foundation



EXHIBIT B - PHOTOS

Photo 3 – Creek Channel Looking Upstream



Photo 4 – Creek Channel Looking Downstream



PINE STREET EASEMENT IMPROVEMENTS PROJECT

(USD Project No. 800-413)

TASK ORDER NO. 2 TO

AGREEMENT DATED JANUARY 6, 2015 BETWEEN UNION SANITARY DISTRICT AND WEST YOST ASSOCIATES, INC. FOR PROFESSIONAL SERVICES

1. PURPOSE

The purpose of Task Order No. 2 is to authorize the final design and bid period services for the Pine Street Easement Improvements Project (Project). The purpose of the Project is to rehabilitate an existing 12-inch gravity sewer aerial bridge crossing of a small tributary creek that drains into Mammoth Creek, as shown in Exhibit A. Erosion of the creek bed over the years has caused part of the eastern pier to become exposed, raising concern for the structural stability of the column support. Task Order No. 1 included an evaluation of three alternatives for the rehabilitation or replacement of the existing aerial crossing, and a rehabilitation alternative was chosen for the final design.

The scope of work for Task Order No. 2 includes project management, design, and bid support services.

2. SCOPE OF SERVICES

The task numbers in this Scope of Services relate directly to the costs presented in Item 5, Payment to the Engineer, and the schedule presented in Item 6, Time of Completion. Deliverables to be received by Union Sanitary District (District) are described in Item 3, Deliverables. Optional tasks shown shall not be performed without authorization from the District.

Task 1. Project Management

This task will include project management activities, including day-to-day administration, progress meetings, and technical reviews.

Subtask 1.01—Project Administration. Monitor progress of individual tasks and coordinate completion of work products. Monitor task budgets and project schedule. Schedule changes, if required, will be provided.

Subtask 1.02—Progress Meetings. Attend a project kick-off meeting and up to two progress meetings with District staff to discuss and review progress and significant action items. Engineer will prepare and submit meeting agendas and minutes.

Subtask 1.03—Technical Reviews. Technical reviews shall be conducted by the Principal-in-Charge and a senior staff member not directly involved in the project.

Task 2. Design

This task includes services for utility coordination, potholing, determining environmental mitigation measures, and preparing bid documents and cost estimates for the Project. Five sets of plans and specifications will be submitted to the District for review at the 75 and 90 percent completion levels. Engineer will address comments and submit one set of the final 100 percent drawings and specifications to the District for printing, bid advertisement, and distribution.

Subtask 2.01—Utility Coordination. Utility coordination letters and preliminary drawings shall be mailed to the utility companies following the 75 percent design submittal. Engineer will review responses from utility companies and update drawings as required.

Subtask 2.02—Potholing. West Yost's subconsultant, Exaro Technologies, will pothole to determine the location of the existing steel casing. West Yost has assumed a total of 6 hours to prepare a potholing plan and oversee potholing activities.

Subtask 2.03—Environmental Support. West Yost's subconsultant, Environmental Collaborative, will review plans and specifications and determine appropriate environmental mitigation measures to be included in the bid documents. Environmental Collaborative will also determine and the drawings will reflect all the boundaries of the various state and federal agencies having jurisdiction over the creek channel.

Subtask 2.04—Design Drawings. Drawings shall be prepared using AutoCAD conforming to USD digital submittal guidelines. The design shall be plotted at a scale of 1"=40' horizontal and 1"=4' vertical plan and profiles and appropriately scaled details. Approximately 6 drawing sheets are anticipated.

Subtask 2.05—Specifications. Specifications shall be prepared in Microsoft Word format. Engineer shall prepare technical specifications, notice inviting bids, instructions to bidders, bid schedule and supplementary general conditions in CSI format and based on District Standards. District will provide contract documents, general conditions and general requirements in Microsoft Word Format.

Subtask 2.06—Construction Cost Estimate. Engineer shall develop a construction cost estimate at the 75, 90, and 100 percent design completion levels.

Task 3. Bid Period Services

The purpose of this task is to assist the District during the bidding of the Project. The District will advertise and distribute bid documents.

Subtask 3.01—Pre-bid Meeting, Bidder Inquiries, and Bid Evaluation. West Yost shall conduct the pre-bid meeting, attend site walk, and prepare minutes for distribution. Engineer shall assist in answering bidders' technical questions during the bid period and assist the District in bid evaluation.

Subtask 3.02—Addenda. West Yost shall prepare addenda during the bid period to be distributed by the District.

3. DELIVERABLES

Project deliverables are listed below:

- Meeting agendas, meeting minutes, and project schedule updates.
- Five sets of draft plans and specifications at 75 and 90 percent completion levels.
- One set of 100 percent completion level plans and specifications in Word and PDF format for printing and bid advertisement.
- Cost estimate at 75, 90, and 100 percent completion levels.
- Drawing files in AutoCAD 2013 format stored on a DVD.
- Addenda and email documentation of phone conversations with bidders.

4. PROJECT COORDINATION

All work related to this task order shall be coordinated through the District's Project Manager, Chris Elliott.

5. PAYMENT TO THE ENGINEER

Compensation shall be on a time and materials cost basis for services provided under Article 2 of this Agreement in accordance with the Billing Rate Schedule contained in Exhibit B (updated annually) except that subconsultants will be billed at actual cost plus 5%, outside services will be billed at actual cost, and mileage will be billed at prevailing IRS standard mileage rate. The billing rate schedule is generally comparable to a labor multiplier of approximately 3.22.

The estimated costs for Tasks 1 through 3 are presented in Exhibit C. Total charges to the District shall not exceed the cost ceiling of \$87,033.

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

Task Order / Amendment	Not to Exceed Amount	Board Authorization Required? (Yes/No)	District Staff Approval
Task Order No. 1 Alternatives Evaluation and 50% Design	\$58,887	No	Paul Eldredge
Task Order No. 2 Final Design	\$87,033	Yes	Paul Eldredge
Total	\$145,920		

6. TIME OF COMPLETION

All work defined in Item 2 shall be completed in accordance with the project schedule shown in Exhibit D.

7. KEY PERSONNEL

Key engineering personnel or subconsultants assigned to Task Order No. 2 are as follows:

Role	Personnel/Subconsultant
Principal-in-Charge	John D. Goodwin
Project Manager	Thea Durbin
Project Engineer	David Pezzini
Structural	Brad Freiderichs
Environmental Mitigation	James Martin

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

IN WITNESS WHEREOF, the parties hereto have made and executed this Task Order No. 2 as of _____ and therewith incorporated it as part of the Agreement.

ENGINEER:

WEST YOST & ASSOCIATES

DISTRICT:

UNION SANITARY DISTRICT

By: _____
John D. Goodwin
Vice President

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



Exhibit A
Pine Street Easement Improvements Project
Location Map



2015 Billing Rate Schedule

(Effective January 1, 2015 through December 31, 2015)*

ENGINEERING

Position	Labor Charges (dollars per hour)
Principal/Vice President	253
Engineering/Scientist/Geologist Manager II	242
Engineering/Scientist/Geologist Manager I	232
Principal Engineer/Scientist/Geologist II	224
Principal Engineer/Scientist/Geologist I	211
Senior Engineer/Scientist/Geologist II	198
Senior Engineer/Scientist/Geologist I	189
Associate Engineer/Scientist/Geologist II	179
Associate Engineer/Scientist/Geologist I	167
Engineer/Scientist/Geologist II	157
Engineer/Scientist/Geologist I	136
Senior GIS Analyst	184
GIS Analyst	174
CAD Supervisor	146
Senior CAD Designer	127
CAD Designer	113
Engineering Aide	76
Technical Specialist IV	143
Technical Specialist III	127
Technical Specialist II	110
Technical Specialist I	92
Administrative IV	116
Administrative III	105
Administrative II	87
Administrative I	69

- Hourly rates include Technology and Communication charges such as general and CAD computer, software, telephone, routine in-house copies/prints, postage, miscellaneous supplies, and other incidental project expenses.
- Outside Services such as vendor reproductions, prints, shipping, and major West Yost reproduction efforts, as well as Engineering Supplies, Travel, etc. will be billed at actual cost.
- Mileage will be billed at the current Federal Rate.
- Subconsultants will be billed at actual cost plus 5%.
- Expert witness, research, technical review, analysis, preparation and meetings billed at 150% of standard hourly rates. Expert witness testimony and depositions billed at 200% of standard hourly rates.
- A Finance Charge of 1.5% per month (an Annual Rate of 18%) on the unpaid balance will be added to invoice amounts if not paid within 45 days from the date of the invoice.

Continues on following page

*This schedule is updated annually

2015 Billing Rate Schedule

(Effective January 1, 2015 through December 31, 2015)*

CONSTRUCTION MANAGEMENT

Position	Labor Charges (dollars per hour)
Senior Construction Manager	244
Construction Manager IV	212
Construction Manager III	170
Construction Manager II	159
Construction Manager I	148
Resident Inspector (Prevailing Wage – Group 1)	165
Resident Inspector (Prevailing Wage – Group 2)	159
Resident Inspector (Prevailing Wage – Group 3)	142
Resident Inspector (Prevailing Wage – Group 4)	127
Apprentice Inspector	117
CM Administrative II	85
CM Administrative I	64

SURVEYING

Position	Labor Charges (dollars per hour)
GPS, 3-Person	387
GPS, 2-Person	336
GPS, 1-Person	261
Survey Crew, 2-Person	284
Survey Crew, 1-Person	214

EQUIPMENT CHARGES

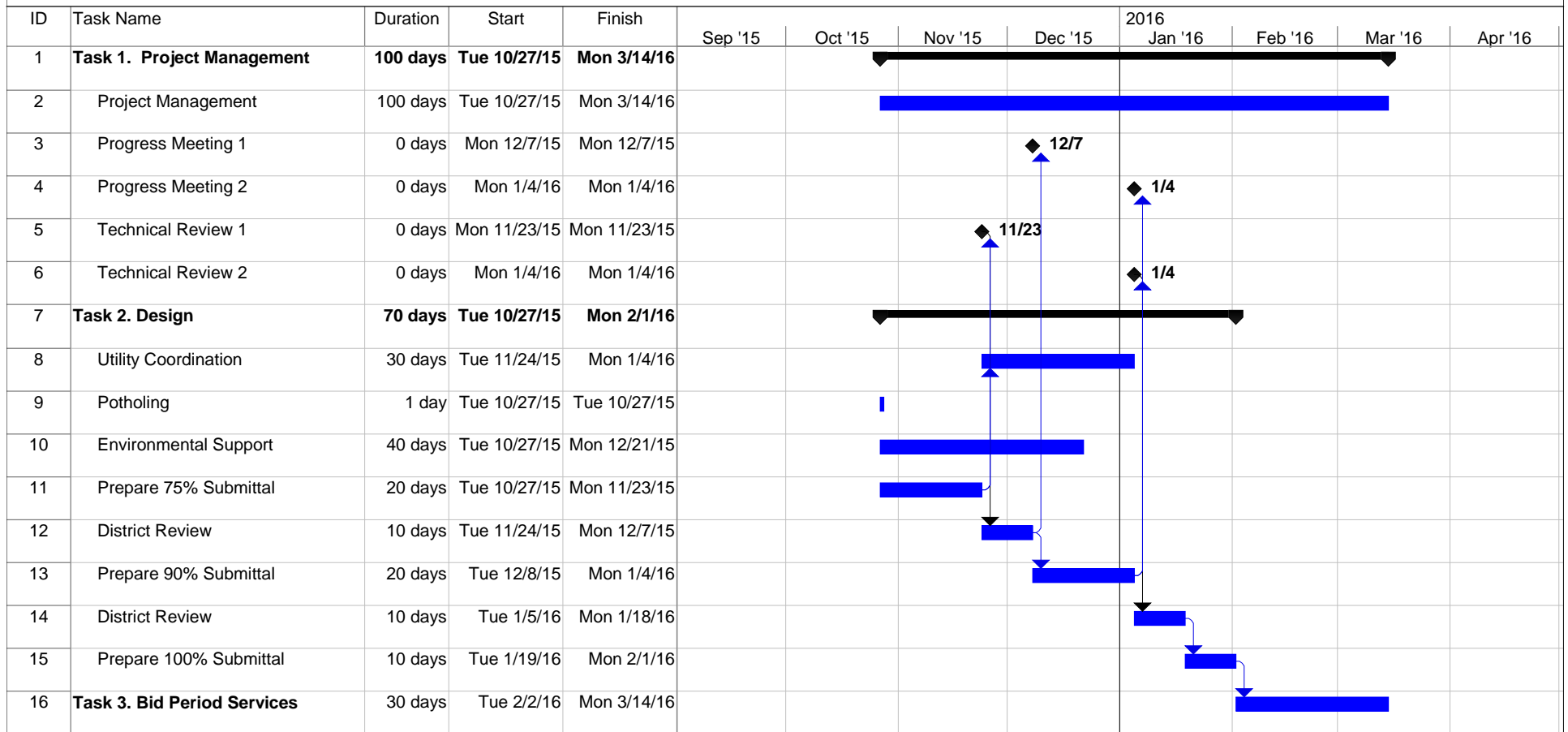
Equipment	Billing Rate (dollars per day)	Billing Rate (dollars per week)
DO Meter	17	83
pH Meter	5	26
Automatic Sampler	130	712
Transducer/Data Logger	41	206
Hydrant Pressure Gage	12	50
Hydrant Pressure Recorder (HPR)	—	206
Hydrant Wrench	5	33
Well Sounder	29	134
Ultrasonic Flow Meter	—	269
Vehicle	88	445
Velocity Meter	12	65
Water Quality Multimeter	176	964

*This schedule is updated annually

West Yost Associates	P/VP \$253 Goodwin	PE/PS/PG II \$224 Friederichs	EM/SM/GM II \$242 McWilliams	SE/SS/SG II \$198 Durbin	ESG II \$157 Pezzini	SCADD \$127	ADM IV \$116	Labor		Sub. ENVR	Sub. EXRO	Costs		
								Hours	Fee			Sub. w/ markup 5%	Other Direct	Total Costs
PROJECT: Task Order No. 2 Pine St Design														
Task 1 Project Management														
1.01 Project Administration	2			8				10	\$ 2,090					\$ 2,090
1.02 Progress Meetings	4			8				12	\$ 2,596				\$ 150	\$ 2,746
1.03 Technical Reviews	4		8					12	\$ 2,948				\$ 50	\$ 2,998
Subtotal, Task 1 (hours)	10	0	8	16	0	0	0	34						
Subtotal, Task 1 (\$)	\$ 2,530		\$ 1,936	\$ 3,168					\$ 7,634				\$ 200	\$ 7,834
Task 2 Design														
2.01 Utility Coordination					8		2	10	\$ 1,488				\$ 50	\$ 1,538
2.02 Potholing	4			2				6	\$ 1,408		\$ 2,580	\$ 2,709	\$ 50	\$ 4,167
2.03 Environmental Support	2			2	2			6	\$ 1,216	\$ 3,000		\$ 3,150		\$ 4,366
2.04 Desgin Drawings	8	90		24	40	40		202	\$ 38,296				\$ 400	\$ 38,696
2.05 Specifications	8	10		30	40		20	108	\$ 18,804				\$ 250	\$ 19,054
2.06 Construction Cost Estimate		2		4	8			14	\$ 2,496					\$ 2,496
Subtotal, Task 2 (hours)	22	102	0	62	98	40	22	346						
Subtotal, Task 2 (\$)	\$ 5,566	\$ 22,848		\$ 12,276	\$ 15,386	\$ 5,080	\$ 2,552		\$ 63,708	\$ 3,000	\$ 2,580	\$ 5,859	\$ 750	\$ 70,317
Task 3 Bid Period Services														
Prebid Meeting, Bidder Inquiries, and Bid														
3.01 Evaluation	4	4		8	8			24	\$ 4,748					\$ 4,748
3.02 Addenda	4			8	8		2	22	\$ 4,084				\$ 50	\$ 4,134
Subtotal, Task 3 (hours)	8	4	0	16	16	0	2	46						
Subtotal, Task 3 (\$)	\$ 2,024	\$ 896		\$ 3,168	\$ 2,512		\$ 232		\$ 8,832				\$ 50	\$ 8,882
TOTAL (hours)														
	40	106	8	94	114	40	24	426						
TOTAL (\$)	\$ 10,120	\$ 23,744	\$ 1,936	\$ 18,612	\$ 17,898	\$ 5,080	\$ 2,784		\$ 80,174	\$ 3,000	\$ 2,580	\$ 5,859	\$ 1,000	\$ 87,033

Union Sanitary District Pine Street Easement Improvements Project

EXHIBIT D



Project: Pine St Project Schedule
Date: Wed 10/14/15

Task



Summary



Milestone



Project Summary



**UNION SANITARY DISTRICT
CHECK REGISTER
10/03/2015-10/16/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
159088	10/15/2015	141260	RESC-Q SERVICES LLC	GAS CONDITIONING MEDIA EXCHANGE		
					\$38,100.00	\$38,100.00
158988	10/8/2015	144034	CAROLLO ENGINEERS	PUMP STATION MASTER PLAN		
					\$9,219.34	\$26,486.19
	10/8/2015	143997		FREMONT & PASEO PADRE LS IMPROVEMENTS		
					\$17,266.85	
159024	10/8/2015	761520150925	PACIFIC GAS AND ELECTRIC	SERV TO 09/25/15 NEWARK PS		
					\$23,365.90	\$23,388.88
	10/8/2015	224720150923		SERV TO 09/22/15 CS TRAINING TRAILER		
					\$22.98	
159097	10/15/2015	533620150922	US BANK CORP PAYMENT SYSTEM	MONTHLY CAL-CARD STMT - SEPT 2015		
					\$23,179.55	\$23,179.55
159020	10/8/2015	46146	NACWA	FY2016 MEMBERSHIP DUES (10/1/15 - 9/30/16)		
					\$15,390.00	\$15,390.00
159035	10/8/2015	2920	SIGNET TESTING LABS INC	TRANSPORT SYSTEM MISC		
					\$11,731.13	\$13,609.35
	10/8/2015	2875		MISC SPOT REPAIRS PHASE VI		
					\$1,407.81	
	10/8/2015	2876		NEWARK BACKYARD SS RELOCATION - PHASE 2		
					\$470.41	
159067	10/15/2015	902334854	EVOQUA WATER TECHNOLOGIES	25,530 LBS HYDROGEN PEROXIDE		
					\$11,907.19	\$11,907.19
158975	10/8/2015	64419	3T EQUIPMENT COMPANY INC	1 FLOW THROUGH PACKER		
					\$1,100.00	\$10,788.92
	10/8/2015	64418		11 PIPEPATCH KIT - WINTER		
					\$4,827.91	
	10/8/2015	64401		REPAIR OMNI III ZOOM CAMERA		
					\$444.52	
	10/8/2015	64449		10 PIPEPATCH KIT - WINTER		
					\$4,416.49	
158994	10/8/2015	1351353C	DELTA DENTAL SERVICE	SEPTEMBER 2015 DENTAL		
					\$9,313.80	\$10,505.97
	10/8/2015	1351353A		SEPTEMBER 2015 DENTAL		
					\$1,192.17	
159078	10/15/2015	11863	LOOKINGPOINT INC	BLOCK TIME AGREEMENT - NETWORK SUPPPORT		
					\$10,000.00	\$10,000.00

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
158984	10/8/2015	100120150911	BARTLE WELLS ASSOCIATES	CAPACITY FEE UPDATE		
					\$9,407.00	\$9,407.00
158976	10/8/2015	20150818	ALAMEDA COUNTY TREASURER	FYE 16 BUDGET SHARE PMT		
					\$9,257.00	\$9,257.00
159031	10/8/2015	20523	RMC WATER AND ENVIRONMENT	AS NEEDED SUPPORT FOR PRETREATMENT PROGRAM		
					\$1,070.50	\$8,822.50
	10/8/2015	20524		OLD ALAMEDA CREEK NPDES PERMIT RENEWAL		
					\$7,752.00	
159034	10/8/2015	467.1	SIEGEL & STRAIN ARCHITECTS	FMC BUILDING - NEW		
					\$8,098.90	\$8,098.90
159013	10/8/2015	37432220151001	LINCOLN NATIONAL LIFE INS COMP	LIFE & DISABILITY INSURANCE - OCT 2015		
					\$7,569.92	\$7,569.92
159085	10/15/2015	996081	POLYDYNE INC	41,280 LBS CLARIFLOC WE-539		
					\$7,265.28	\$7,265.28
159096	10/15/2015	707985	UNIVAR USA INC	5,032 GALS SODIUM HYPOCHLORITE		
					\$2,275.53	\$6,713.07
	10/15/2015	707449		5,031 GALS SODIUM HYPOCHLORITE		
					\$2,275.07	
	10/15/2015	707679		4,782 GALS SODIUM HYPOCHLORITE		
					\$2,162.47	
159050	10/15/2015	64499	3T EQUIPMENT COMPANY INC	10 PIPEPATCH KIT - WINTER		
					\$6,270.00	\$6,270.00
159094	10/15/2015	20096146	TELEDYNE ISCO INC	1 REFRIGERATED SAMPLER & 1 BOTTLE CONFIGURATION		
					\$6,099.50	\$6,099.50
159007	10/8/2015	9713544	HILTON FARNKOPF & HOBSON LLC	SEWER SERVICE CHARGE PEER REVIEW		
					\$6,098.75	\$6,098.75
158987	10/8/2015	27940	CALIFORNIA WATER TECHNOLOGIES	42,100 LBS FERROUS CHLORIDE		
					\$4,965.72	\$4,965.72
159063	10/15/2015	27871	CALIFORNIA WATER TECHNOLOGIES	42,400 LBS FERROUS CHLORIDE		
					\$4,778.73	\$4,778.73

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
158982	10/8/2015	2521870987	BANK OF NEW YORK	FEB 2015 SERVICE FEE	\$500.00	\$4,500.00
	10/8/2015	2521872306		MAY 2015 SERVICE FEE	\$500.00	
	10/8/2015	2521868195		NOV 2014 SERVICE FEE	\$500.00	
	10/8/2015	2521869065		JAN 2015 SERVICE FEE	\$500.00	
	10/8/2015	2521868193		OCT 2014 SERVICE FEE	\$500.00	
	10/8/2015	2521863175		SEP 2014 SERVICE FEE	\$500.00	
	10/8/2015	2521871104		APR 2015 SERVICE FEE	\$500.00	
	10/8/2015	2521868199		DEC 2014 SERVICE FEE	\$500.00	
	10/8/2015	2521870988		MAR 2015 SERVICE FEE	\$500.00	
159041	10/8/2015	707049	UNIVAR USA INC	5,031 GALS SODIUM HYPOCHLORITE	\$2,275.07	\$4,445.67
	10/8/2015	706320		4,800 GALS SODIUM HYPOCHLORITE	\$2,170.60	
159064	10/15/2015	24693	CDW GOVERNMENT LLC	VMWARE HORIZON UPDATE	\$1,868.00	\$4,315.50
	10/15/2015	8300		SAN EXPANSION	\$2,447.50	
159038	10/8/2015	130799	TOTAL WASTE SYSTEMS INC	SEPTEMBER 2015 GRIT DISPOSAL	\$3,950.48	\$3,950.48

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
159082	10/15/2015	140120151006	PACIFIC GAS AND ELECTRIC	SERV TO 10/04/15 IRVINGTON PS		
					\$27.46	\$3,787.93
	10/15/2015	898220151001		SERV TO 09/30/15 FREMONT PS		
					\$282.99	
	10/15/2015	096020151001		SERV TO 09/30/15 CATHODIC PROJECT		
					\$71.50	
	10/15/2015	013720151006		SERV TO 10/05/15 BOYCE RD PS		
					\$2,863.28	
	10/15/2015	666720151001		SERV TO 09/30/15 PASEO PADRE PS		
					\$213.91	
	10/15/2015	380420151001		SERV TO 09/29/15 CHERRY ST PS		
					\$272.67	
	10/15/2015	892820151001		SERV TO 09/30/15 HAYWARD MARSH		
					\$56.12	
159005	10/8/2015	7529	HILLHOUSE CONSTRUCTION	REFUND # 18431		
					\$3,300.00	\$3,300.00
159037	10/8/2015	7997	TAQUERIA LIMON	REFUND # 18448		
					\$3,300.00	\$3,300.00
159049	10/15/2015	3EU0064099	3E COMPANY	ONLINE MSDS 09/01/15-08/31/16		
					\$3,270.00	\$3,270.00
158980	10/8/2015	937	AUTOMATED NETWORK CONTROLS	SCADA/PLC SUPPORT SERVICES		
					\$3,062.50	\$3,062.50
159045	10/8/2015	20151001	VISION SERVICE PLAN - CA	OCTOBER 2015 VISION STMT		
					\$3,023.09	\$3,023.09

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159079	10/15/2015	40725842	MCMASTER SUPPLY INC	1 EA FLEXIBLE PRECISION-FINISH CYLINDER HONE	\$23.86	\$2,884.54
	10/15/2015	40519025		15 EA PIPE FITTINGS	\$285.57	
	10/15/2015	38276612		1 PACK INCANDESCENT LIGHT BULBS	\$18.06	
	10/15/2015	40884783		1 EA SHIELDED COMMUNICATIONS/SECURITY SYSTEM CABLE	\$68.71	
	10/15/2015	40668433		30 PACKS ASTD CLAMPS	\$134.37	
	10/15/2015	40884782		ASTD PARTS & MATERIALS	\$106.73	
	10/15/2015	40884784		4 EA SUPPORTS	\$425.36	
	10/15/2015	40651239		2 EA PISTOL GRIP GREASE GUNS	\$58.46	
	10/15/2015	41023909		2 EA RECHARGEABLE SEALED LEAD-ACID BATTERIES	\$64.06	
	10/15/2015	40503920		1 EA POLYPROPYLENE CAM & GROOVE HOSE COUPLING	\$31.35	
	10/15/2015	40817821		ASTD PARTS & MATERIALS	\$389.56	
	10/15/2015	40963548		ASTD PARTS & MATERIALS	\$1,095.79	
	10/15/2015	40503919		25 FEED GRADE 40/43 STEEL CHAIN	\$107.69	
	10/15/2015	40725843		1 EA SHIELDED COMMUNICATIONS/SECURITY SYSTEM CABLE	\$74.97	
159081	10/15/2015	91500211	NBS	SEWER SERVICE CHARGE DATA SERV OCT - DEC 2015	\$2,862.68	\$2,862.68
159028	10/8/2015	737	PROACTIVE SAFETY & TRNG MGMT	6 HAZARDOUS MATERIAL/WASTE HANDLING CLASSES	\$2,780.00	\$2,780.00
159056	10/15/2015	7079540	AT&T	SERV: 08/20/15 - 09/19/15	\$17.82	\$2,732.43
	10/15/2015	7073828		SERV: 08/20/15 - 09/19/15	\$2,714.61	
158997	10/8/2015	L15-059	ENVIROSIM ASSOCIATES LTD	BIOWIN WASTEWATER MODELING SOFTWARE	\$2,540.00	\$2,540.00

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
159040	10/8/2015	7092	SAINT PAUL'S UNITED METHODIST CHUR	REFUND # 18410		
					\$2,500.00	\$2,500.00
159083	10/15/2015	29590887	PAN PACIFIC SUPPLY COMPANY	1 CHESTERTON S 10 SEAL CB/SSC/FKM		
					\$2,358.07	\$2,358.07
159087	10/15/2015	916002539133	REPUBLIC SERVICES #916	RECYCLE & ROLL OFF - SEPTEMBER 2015		
					\$2,216.88	\$2,216.88
159070	10/15/2015	111786474001	GEXPRO	CATAPULT SCADA MENU ANNUAL SUPPORT		
					\$2,203.30	\$2,203.30
159026	10/8/2015	20151005	RIC PIPKIN	EXP REIMB: REGIS,LODGING,MEALS & AIRFARE WEFTEC 2015		
					\$2,108.50	\$2,108.50
159060	10/15/2015	10926870	BLAISDELL'S	1 BLK LSR TONER		
					\$200.17	\$2,023.27
	10/15/2015	10919300		4 PRINTER CARTRIDGES		
					\$1,265.07	
	10/15/2015	10913470		ASTD OFFICE SUPPLIES		
					\$157.06	
	10/15/2015	10915280		ASTD OFFICE SUPPLIES		
					\$73.63	
	10/15/2015	10922660		ASTD OFFICE SUPPLIES		
					\$68.81	
	10/15/2015	10925960		ASTD OFFICE SUPPLIES		
					\$64.94	
	10/15/2015	10922340		2 BX CLSS FOLDERS		
					\$69.96	
	10/15/2015	10924960		ASTD OFFICE SUPPLIES		
					\$18.13	
	10/15/2015	10915281		1 PK SHEARS		
					\$24.19	
	10/15/2015	10920900		ASTD OFFICE SUPPLIES		
					\$81.31	
159061	10/15/2015	561787	BRENNTAG PACIFIC, INC.	3846 LBS SODIUM HYDROXIDE		
					\$2,000.41	\$2,000.41
158986	10/8/2015	559891	BRENNTAG PACIFIC, INC.	2564 LBS SODIUM HYDROXIDE		
					\$1,333.60	\$2,000.40
	10/8/2015	559892		1282 LBS SODIUM HYDROXIDE		
					\$666.80	
159047	10/8/2015	3514705	WESTERN ENERGY SYSTEMS	2 OIL FILTERS		
					\$1,945.09	\$1,945.09

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
159018	10/8/2015	24851189	MOTION INDUSTRIES INC	1 EA BEARING		
					\$1,036.79	\$1,726.32
	10/8/2015	24851527		6 EA TRI-POWER BELTS		
					\$105.98	
	10/8/2015	24851082		1 EA BEARING		
					\$817.53	
	10/8/2015	24851139		4 EA TRI-POWER BELTS		
					\$66.43	
	10/8/2015	24851715		CREDIT LESS RESTOCK FEE FOR 1 EA BEARING		
					\$-1,023.39	
	10/8/2015	24851107		1 EA PRPGRAMMING KIT - MACHINE SAFEGUARDING		
					\$319.22	
	10/8/2015	24851565		1 EA BEARING		
					\$309.56	
	10/8/2015	24851540		6 EA TRI-POWER BELTS		
					\$94.20	
158978	10/8/2015	5188620150911	APWA AMERICAN PUBLIC WORKS	AGENCY MEMBERSHIP & CHAPTER DUES		
					\$1,600.00	\$1,600.00
158999	10/8/2015	207094	FERGUSON WELDING SERVICE INC	FABRICATE C/S PLUG HANGER		
					\$1,518.00	\$1,518.00
159000	10/8/2015	20151001	CITY OF FREMONT	MISC SPOT REPAIRS PHASE VI		
					\$1,500.00	\$1,500.00
159099	10/15/2015	34977	WECO INDUSTRIES LLC	REPAIR TRUCK T2355		
					\$1,407.13	\$1,407.13
159074	10/15/2015	318082	HARRINGTON INDUSTRIAL PLASTICS	3 EA BUSHINGS		
					\$154.47	\$1,301.83
	10/15/2015	318020		ASTD PVC FITTINGS		
					\$794.28	
	10/15/2015	317956		ASTD PARTS & MATERIALS		
					\$33.60	
	10/15/2015	317880		ASTD PARTS & MATERIALS		
					\$319.48	
159095	10/15/2015	6080153473	THYSSENKRUPP ELEVATOR CORP	PERFORMED TESTING AS OUTLINED BY STATE OF CA		
					\$1,239.76	\$1,239.76
159057	10/15/2015	1410149485B	AVEPOINT PUBLIC SECTOR INC	DOCAVE 6 BACKUP AND RECOVERY		
					\$1,238.00	\$1,238.00
159068	10/15/2015	234014	FRANK A OLSEN COMPANY	ASTD 10" CHECK VALVE PARTS		
					\$1,208.63	\$1,208.63

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
159014	10/8/2015	20151007	ARMANDO LOPEZ	EXP REIMB: MEALS, LODGING, TAXI, PARKING - WEFTEC 2015	\$1,104.13	\$1,104.13
159053	10/15/2015	13786421	APPLEONE EMPLOYMENT SVCS	TEMP LABOR-CARMICHAEL, L., WK END 09/19/15	\$1,092.96	\$1,092.96
158993	10/8/2015	258645	CURTIS & TOMPKINS LTD	29 LAB SAMPLE ANALYSIS	\$425.00	\$1,070.00
	10/8/2015	258625		8 LAB SAMPLE ANALYSIS	\$115.00	
	10/8/2015	258677		13 LAB SAMPLE ANALYSIS	\$530.00	
159055	10/15/2015	522298	A-PRO PEST CONTROL INC	SEP PEST CONTROL	\$1,005.00	\$1,005.00
159027	10/8/2015	8024	PRO ROOTER	REFUND # 18442	\$500.00	\$1,000.00
	10/8/2015	7968		REFUND # 18441	\$500.00	
159093	10/15/2015	8048	STREAMLINE PLUMBING & DRAIN	REFUND # 18459	\$500.00	\$1,000.00
	10/15/2015	8049		REFUND # 18458	\$500.00	
158977	10/8/2015	5091575	ALPHA ANALYTICAL LABORATORIES	10 DAY ANALYSIS	\$992.00	\$992.00
159001	10/8/2015	1083726255	G&K SERVICES CO	UNIFORMS AND MATS	\$59.22	\$946.41
	10/8/2015	1083726256		UNIFORM LAUNDERING SERVICE	\$11.20	
	10/8/2015	1083726250		UNIFORM LAUNDERING SERVICE	\$255.92	
	10/8/2015	1083726251		UNIFORM LAUNDERING SERVICE	\$124.98	
	10/8/2015	1083726254		UNIFORM LAUNDERING SERVICE	\$15.16	
	10/8/2015	1083726257		ASTD DUST MOPS, WET MOPS & TERRY TOWELS	\$33.78	
	10/8/2015	1083726252		UNIFORM LAUNDERING SERVICE	\$418.98	
	10/8/2015	1083726253		UNIFORM LAUNDERING SERVICE	\$27.17	

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
159062	10/15/2015	6640	BURLINGAME ENGINEERS INC	ASTD MILTON ROY PUMP PARTS		
					\$943.40	\$943.40
159092	10/15/2015	3279263819	STAPLES CONTRACT & COMMERCIAL	ASTD OFFICE SUPPLIES - CIP		
					\$51.48	\$934.05
	10/15/2015	3279263822		ASTD OFFICE SUPPLIES - CIP		
					\$3.90	
	10/15/2015	3279263815		ASTD JANITORIAL & BREAKROOM SUPPLIES - INVENTORY		
					\$878.67	
159009	10/8/2015	1023776	INDUSTRIAL SAFETY SUPPLY	ASTD CAL GAS		
					\$892.25	\$892.25
159046	10/8/2015	34924	WECO INDUSTRIES LLC	2 KIT REPAIR TV CABLE END SINGLE CONDUCTOR 2000		
					\$878.07	\$878.07
159012	10/8/2015	1683	KEN GRADY CO INC	1 EA SENSOR		
					\$861.41	\$861.41
158989	10/8/2015	283523	CENTERVILLE LOCKSMITH	ASTD KEYS & LOCKS		
					\$48.07	\$832.36
	10/8/2015	283687		25 ENGRAVED LOCKS		
					\$784.29	
158979	10/8/2015	7050747	AT&T	SERV: 08/13/15 - 09/12/15		
					\$97.53	\$823.73
	10/8/2015	7041576		SERV: 08/13/15 - 09/12/15		
					\$641.26	
	10/8/2015	7054842		SERV: 08/13/15 - 09/12/15		
					\$42.47	
	10/8/2015	7054713		SERV: 08/13/15 - 09/12/15		
					\$42.47	
159021	10/8/2015	20150930	NAPA AUTO PARTS	MONTHLY AUTO PARTS STMT - SEPT 2015		
					\$804.75	\$804.75
159052	10/15/2015	7497	AMERICAN DISCOUNT SECURITY	SEP SECURITY GUARD SERVICES		
					\$759.00	\$759.00
159029	10/8/2015	8200000008781	RED WING SHOE STORE	SAFETY SHOES - FMC, CUSTOMER SERVICE, CS		
					\$733.85	\$733.85
159022	10/8/2015	20151006	SHAWN NESGIS	TRAVEL REIMB: MSA CONFERENCE AIRFARE/MEALS/TAXI/LODGIN		
					\$657.41	\$732.41
	10/8/2015	20151005		EXP REIMB: SAFETY RECOG GIFT CARDS - SEPTEMBER 2015		
					\$75.00	

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
159015	10/8/2015	40378413	MCMASTER SUPPLY INC	ASTD PARTS & MATERIALS	\$310.49	\$726.69
	10/8/2015	40340310		ASTD PARTS & MATERIALS	\$344.95	
	10/8/2015	40324916		5 PACKS SPIKES	\$71.25	
159019	10/8/2015	20151005	BRODERICK MOY	EXP REIMB: REGIS,LODGING,AIRFARE,MEALS & MILEAGE	\$722.09	\$722.09
159058	10/15/2015	73368	BAILEY FENCE CO INC	FENCE REPAIRS	\$717.00	\$717.00
159033	10/8/2015	1676329002	SAN LEANDRO ELECTRIC SUPPLY	ASTD PARTS & MATERIALS	\$186.61	\$712.05
	10/8/2015	1676329004		10 CORD GRIP 3/4 NPT	\$68.56	
	10/8/2015	1676329005		10 STUB SPLICE INSULATOR	\$164.70	
	10/8/2015	1677647003		ASTD PARTS & MATERIALS	\$269.62	
	10/8/2015	1676329003		46 LAMP MINIATURE	\$22.56	
159023	10/8/2015	20151007	TRIEU NGUYEN	EXP REIMB: LONGEVITY GIFTS & GIFT CARDS FOR EMP RECOG E	\$675.00	\$675.00
159036	10/8/2015	7599	STAR ROOTER AND PLUMBING	REFUND # 18433	\$500.00	\$650.00
	10/8/2015	8073		REFUND # 18432	\$150.00	
159025	10/8/2015	20151002	PETTY CASH	PETTY CASH REPLENISHMENT	\$611.62	\$611.62
158996	10/8/2015	8623	EAST BAY MUNI UTILITY DISTRICT	13 LAB SAMPLE ANALYSIS	\$597.30	\$597.30
159043	10/8/2015	9752640416	VERIZON WIRELESS	WIRELESS SERV 08/21/15-09/20/15	\$521.61	\$521.61
158981	10/8/2015	8003	JESUS ROSALES AYALA	REFUND # 18428	\$500.00	\$500.00
158995	10/8/2015	7983	DRAIN DOCTOR	REFUND # 18427	\$500.00	\$500.00
159010	10/8/2015	7976	JEMBY ELECTRIC	REFUND # 18426	\$500.00	\$500.00

**UNION SANITARY DISTRICT
CHECK REGISTER
10/03/2015-10/16/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
159039	10/8/2015	7670	TRI POINTE CONTRACTORS LP	REFUND # 18429		
					\$500.00	\$500.00
159084	10/15/2015	8039	PLUMBING TECH SEWER & REPIPE	REFUND # 18460		
					\$500.00	\$500.00
159086	10/15/2015	8058	PRO ROOTER	REFUND # 18457		
					\$500.00	\$500.00
159016	10/8/2015	823986	MOBILE MODULAR MANAGEMENT CORP	MOBILE MODULAR OFFICE - OCT 2015		
					\$493.90	\$493.90
159004	10/8/2015	1604627	HANSON AGGREGATES INC	6.18 TONS 1/2 MED TYPE A AC-R		
					\$468.38	\$468.38
159073	10/15/2015	1608748	HANSON AGGREGATES INC	5.96 TONS 1/5 MED TYPE AC-R		
					\$451.99	\$451.99
159006	10/8/2015	601776270	HILLYARD/SAN FRANCISCO	ASTD JANITORIAL SUPPLIES		
					\$433.13	\$433.13
159069	10/15/2015	1083728220	G&K SERVICES CO	UNIFORM LAUNDERING SERVICE		
					\$11.20	\$432.01
	10/15/2015	1083728216		UNIFORM LAUNDERING SERVICE		
					\$5.16	
	10/15/2015	1083728219		UNIFORMS AND MATS		
					\$59.22	
	10/15/2015	1083728217		UNIFORM LAUNDERING SERVICE		
					\$27.17	
	10/15/2015	1083728215		UNIFORM LAUNDERING SERVICE		
					\$122.98	
	10/15/2015	1083728221		ASTD DUST MOPS, WET MOPS & TERRY TOWELS		
					\$33.78	
	10/15/2015	1083728214		UNIFORM LAUNDERING SERVICE		
					\$155.04	
	10/15/2015	1083728218		UNIFORM LAUNDERING SERVICE		
					\$17.46	
159048	10/8/2015	2050393001	WHCI PLUMBING SUPPLY CO	1 EBF-650 BATT LAV FCT		
					\$431.39	\$431.39
159076	10/15/2015	944720150927	HOME DEPOT CREDIT SERVICES	MONTHLY HARDWARE STMT - SEPT 2015		
					\$414.00	\$414.00
159075	10/15/2015	601782271	HILLYARD/SAN FRANCISCO	2 CS POWER WASH SPCLIST		
					\$388.48	\$388.48
159059	10/15/2015	479164	BETE FOG NOZZLE INC	36 PVC NOZZLES		
					\$386.83	\$386.83

**UNION SANITARY DISTRICT
CHECK REGISTER
10/03/2015-10/16/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
159089	10/15/2015	278492	RKI INSTRUMENTS INC	4 SENSOR, OXYGEN, OS-BM2		
					\$363.00	\$363.00
159066	10/15/2015	258783	CURTIS & TOMPKINS LTD	13 LAB SAMPLE ANALYSIS		
					\$265.00	\$325.00
	10/15/2015	258825		1 LAB SAMPLE ANALYSIS		
					\$60.00	
159032	10/8/2015	2645380004	S & S SUPPLIES & SOLUTIONS	3 BAGS TOOL DALLOZ FALL PROTECTION		
					\$306.90	\$306.90
158992	10/8/2015	20151006	RICHARD CORTES	EXP REIMB: SEMINAR REGISTRATION		
					\$200.00	\$275.57
	10/8/2015	20151007		EXP REIMB: RETIREMENT LUNCH K. MARTIN		
					\$75.57	
159011	10/8/2015	79924270	KANO LABORATORIES INC	2 CS AEROKROIL		
					\$264.00	\$264.00
159098	10/15/2015	8042632594	VWR INTERNATIONAL LLC	5 PH IND PH 1-11 10MMX5M		
					\$149.33	\$261.58
	10/15/2015	8042604863		4 BXS KIMWIPES 38 CM X 43 CM		
					\$67.89	
	10/15/2015	8042611541		1 TIMER TRACEABLE 2-MEMORY & 1 PK BEAKER POLY 250ML		
					\$44.36	
159017	10/8/2015	20151007	MICHAEL MOSLEY	RECOGNITION FOR 25 YEARS OF SERVICE		
					\$250.00	\$250.00
159044	10/8/2015	20151008	DANNY VERRELLI	RECOGNITION FOR 25 YEARS OF SERVICE		
					\$250.00	\$250.00
158998	10/8/2015	902329294	EVOQUA WATER TECHNOLOGIES	DI WATER SYSTEM		
					\$240.10	\$240.10
159072	10/15/2015	9835189128	GRAINGER INC	1 EA DC POWER SUPPLY		
					\$164.33	\$232.82
	10/15/2015	9833907950		1 EA SUPER GLUE, HEAVY DUTY, CLEAR		
					\$5.53	
	10/15/2015	9836874355		1 EA SOCKET		
					\$23.98	
	10/15/2015	9837147769		1 EA TV MOUNT - ANTIMICROBIAL		
					\$38.98	
159003	10/8/2015	1120365	GROENIGER AND COMPANY	1 EA 10X4 THRD BLIND 150# FF IMP		
					\$224.54	\$224.54
159091	10/15/2015	20151001	SPOK INC	OCTOBER 2015 PAGER SERVICE		
					\$217.97	\$217.97

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CHECK REGISTER
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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
159051	10/15/2015	5124972	ALL INDUSTRIAL ELECTRIC SUPPLY	1 BQD360		
					\$196.35	\$196.35
158983	10/8/2015	803320	BARNETT MEDICAL SERVICES LLC	100 LBS PHARMACEUTICAL WASTE REMOVAL		
					\$164.00	\$164.00
158990	10/8/2015	408529	CHEMETRICS INC	SULFIDE CHEMETS KIT CATALOG NO. K-9510		
					\$134.68	\$134.68
159090	10/15/2015	878945541	SHARP BUSINESS SYSTEMS	MTHLY MAINTENANCE BASED ON USE		
					\$115.88	\$115.88
158991	10/8/2015	192761	CLARK'S HOME AND GARDEN INC	6 TOP SOIL FILL YARD		
					\$99.00	\$99.00
159030	10/8/2015	75909	REMOTE SATELLITE SYSTEMS INT'L	IRIDIUM SVC FEE OCTOBER 2015		
					\$97.90	\$97.90
159002	10/8/2015	9830342284	GRAINGER INC	1 PACK BUSHINGS		
					\$34.03	\$88.41
	10/8/2015	9831055752		1 EA ABSORBENT SOCK		
					\$54.38	
159054	10/15/2015	7006113308	APPLIED INDUSTRIAL TECHNOLOGIE	3 CONTINENTAL B68		
					\$59.04	\$59.04
159008	10/8/2015	525093	HULBERT LUMBER SUPPLY	ASTD LUMBER SUPPLIES		
					\$15.74	\$55.26
	10/8/2015	524906		ASTD LUMBER SUPPLIES		
					\$39.52	
159065	10/15/2015	193228	CLARK'S HOME AND GARDEN INC	1 PG&E FILL SAND		
					\$52.80	\$52.80
159071	10/15/2015	79108	GORILLA METALS	ASTD METAL, STEEL, STAINLESS, AND ALUMINUM		
					\$42.40	\$42.40
158985	10/8/2015	20150916	BOTTOM LINE	SUBSCRIPTION RNWL - BOTTOMLINE HEALTH		
					\$39.00	\$39.00
159100	10/15/2015	81327719	XEROX CORPORATION	MTHLY MAINTENANCE BASED ON USE		
					\$35.14	\$35.14
159077	10/15/2015	5563821	HOSE & FITTINGS ETC	ASTD PARTS & MATERIALS		
					\$25.85	\$25.85
159080	10/15/2015	20151008	NINA NARVAEZ	EXP REIMB: LIVESCAN FEE		
					\$22.00	\$22.00
159042	10/8/2015	9853375	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 09/12/15		
					\$16.65	\$16.65

**UNION SANITARY DISTRICT
CHECK REGISTER
10/03/2015-10/16/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
Invoices:				Checks:		
Credit Memos :		1	-1,023.39			
\$0 - \$1,000 :		161	44,101.88	\$0 - \$1,000 :	67	30,423.00
\$1,000 - \$10,000 :		59	202,228.81	\$1,000 - \$10,000 :	50	182,468.87
\$10,000 - \$100,000 :		7	140,940.62	\$10,000 - \$100,000 :	9	173,356.05
Over \$100,000 :		0		Over \$100,000 :		
Total:		228	386,247.92	Total:	126	386,247.92

**Directors**

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge, P. E.
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: October 15, 2015

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Rich Cortes, Business Services Manager
Maria Scott, Principal Financial Analyst

SUBJECT: Agenda Item No. 12b - Meeting of October 26, 2015
Information Item: **Final June 2015 Internal Financial Report**

Recommendation

Information only.

Background

Staff presented preliminary June financials with the June Monthly Operations Report. These were preliminary because we keep the June books open through September for audit and adjustment purposes. The next time the Board sees the June financials is typically in the form of the formal audited financial statements, which are in a different format than the Monthly Operations report.

Most of the differences between preliminary and final are due to accruals for both revenues and expenses. These accruals are accounting entries made to ensure that all activity for Fiscal Year 2015 is accounted for on the books.

There are substantial differences between Monthly Operations and final audited financial statements (e.g. naming conventions and categories, depreciation expense). Staff wants the Board to see the final numbers in the familiar format as well as the audited financial report format.

The final FY 2015 audit is nearing completion, and the final report is scheduled to come to the Audit Committee and Board in November.

Attachments

BUDGET AND FINANCE REPORT

FY 2015

Year-to-date as of 6/30/15

100% of year elapsed

Revenues

	Budget	Actual	% of Budget Rec'd	Difference	Audited Last Year Actuals 6/30/14
Capacity Fees	\$2,700,000	\$4,820,637	179%	2,120,637	\$3,315,007
Sewer Service Charges	47,448,461	48,379,254	102%	930,793	45,139,420
Operating	848,500	1,143,435	135%	294,935	1,072,242
Interest	299,000	309,600	104%	10,600	385,844
Misc. (LAVWMA pymnt, solar, Cogen rebates)	1,994,200	2,127,594	107%	133,394	297,776
Subtotal Revenues	\$53,290,161	\$56,780,521	107%		\$50,210,289
SRF Loan Proceeds (Thickener Project)	3,390,000	4,501,122	133%	1,111,122	2,424,739
Total Revenues + SRF Proceeds	\$56,680,161	\$61,281,643	108%	4,601,482	\$52,635,028

Expenses

	Budget	Actual	% of Budget Used		Last Year Actuals
Capital Improvement Program:					
Capacity Projects	\$3,240,000	\$3,755,472	116%	515,472	\$5,592,023
Renewal & Repl. Projects (incl. escrow)	11,632,500	12,194,927	105%	562,427	14,195,068
Operating	32,659,214	30,058,848	92%	-2,600,366	30,751,966
Special Projects	1,708,478	1,065,653	62%	-642,825	775,361
Retiree Medical (Annual Required Contribution)	543,540	543,540	100%	0	462,852
Vehicle & Equipment	1,057,700	787,159	74%	-270,541	784,695
Information Systems	1,216,000	616,117	51%	-599,883	848,449
Plant & Pump Station R&R	250,000	168,089	67%	-81,911	197,237
Pretreatment Fund	7,000	109,499	1564%	102,499	5,124
County Fee for Sewer Service Charge Admin.	106,000	105,559	100%	-441	105,559
Misc. (A/R Write-off)	0	0	0%	0	1,343
Debt Servicing:					
SRF Loans (Irv., Wlw, LHH, Cdr, NPS, Sub1, Boyc, PrmCl)	3,127,389	3,127,110	100%	-279	4,675,361
Total Expenses	\$55,547,821	\$52,531,974	95%	-3,015,847	\$58,395,038
Total Revenue & Proceeds less Expenses	\$1,132,340	\$8,749,669		7,617,329	(\$5,760,010)

Gross Operating Expenses by Work Group

	Budget	Actual	% of Budget Used		Last Year Actuals
Board of Directors	\$170,900	\$135,699	79%	-35,201	\$166,233
General Manager/Admin.	1,036,505	987,502	95%	-49,003	1,153,217
Business Services	4,666,100	4,460,485	96%	-205,615	4,416,832
Collection Services	5,954,753	5,447,126	91%	-507,627	5,460,336
Technical Services	5,247,562	4,693,517	89%	-554,045	4,850,139
Treatment & Disposal Services	9,980,700	9,172,622	92%	-808,078	9,739,655
Fabrication, Maint. & Construction	5,602,694	5,161,897	92%	-440,797	4,965,555
Total	\$32,659,214	\$30,058,848	92%	-2,600,366	\$30,751,966

Operating Expenses by Type

	Budget	Actual	% of Budget Used		Last Year Actuals
Personnel (incl D&E)	\$22,966,422	\$20,901,890	91%	-2,064,532	\$21,125,985
Repairs & Maintenance	1,828,375	1,772,819	97%	-55,556	1,615,427
Supplies & Matls (chemicals, small tools)	2,453,720	2,285,558	93%	-168,162	2,442,617
Outside Services (utilities, biosolids, legal)	5,217,697	4,961,560	95%	-256,137	5,493,010
Fixed Assets	193,000	137,021	71%	-55,979	74,927
Total	\$32,659,214	\$30,058,848	92%	-2,600,366	\$30,751,966

* Personnel Budget Target

Reconciliation of Monthly Report to draft Audited Financial Statement (Income Statement) for FY15

	Monthly Report	Audited Financial Stmts (IS*) (Draft)	Difference	Explanation/Comments
<u>Revenues</u>				
Capacity Fees	4,820,637	4,820,637	0	
Sewer Service Charges	48,379,254	48,379,254	0	
Operating Revenues	1,143,435	1,581,031	(437,596)	Fin Statement includes Misc. Income less SGIP grant
Interest	309,600	160,790	148,810	Monthly report shows actual cash vs. accrual & market adj.
Misc. Income	2,127,594	0	2,127,594	SGIP grants are credited against Cogen project on FStmt
SRF Loan Proceeds	4,501,122	0	4,501,122	Recorded as an increase in liability on balance sheet
Contributed Capital (donated assets)	0	4,774,582	(4,774,582)	Not reported on monthly report; recorded in June (non-cash)
Subtotal Revenues & SRF Proceeds	61,281,643	59,716,294	1,565,349	
<u>Expenses</u>				
Capacity Fund Project Cost (CIP)	3,755,472	7,007	3,748,465	Capital or Asset cost is on Bal. Sheet; Non capital is on Inc Stmt
Renewal Fund Project Cost (CIP)	12,194,927	677,295	11,517,632	Capital or Asset cost is on Bal. Sheet; Non capital is on Inc Stmt
Operating	30,058,848	29,921,826	137,022	Capital or Asset cost is on Bal. Sheet; Non capital is on Inc Stmt
Special Projects	1,065,653	1,004,648	61,005	Capital or Asset cost is on Bal. Sheet; Non capital is on Inc Stmt
Retiree Medical (ARC)	543,540	537,844	5,696	Capital or Asset cost is on Bal. Sheet; Non capital is on Inc Stmt
Vehicle & Equipment R&R	787,159	3,079	784,080	Capital or Asset cost is on Bal. Sheet; Non capital is on Inc Stmt
Information Systems R&R	616,117	217,351	398,766	Capital or Asset cost is on Bal. Sheet; Non capital is on Inc Stmt
Plant & Pump Station R&R	168,089	46,653	121,436	Capital or Asset cost is on Bal. Sheet; Non capital is on Inc Stmt
Pretreatment	109,499	109,499	0	
County Fee for SSC Administration	105,559	105,559	0	
Debt Servicing (SRF loan repayments)	3,127,110	971,695	2,155,415	Only interest expense is on Inc Stmt, principal is on Bal. Sheet
Depreciation	0	17,899,765	(17,899,765)	Not reported on monthly report; recorded in June (non-cash)
Loss on Retirement of Capital Assets	0	1,165,160	(1,165,160)	Not reported on monthly report; recorded in June (non-cash)
Loss on Equity Investment in EBDA	0	86,652	(86,652)	Not reported on monthly report; recorded in June (non-cash)
Subtotal Expenses	52,531,974	52,754,033	(222,060)	
Change in Net Position (Rev. less Exp.)	8,749,669	6,962,261	1,787,408	Audited Financial Statement amount is "official" number.
Net Position Beginning of Year	0	349,745,533	(349,745,533)	
Prior period adj. - GASB 68 entries	0	(31,662,435)	31,662,435	Adjustment necessary to record pension liability on Bal. Sheet
Restated Net Position, Beg. of Year	0	318,083,098	(318,083,098)	
Net Position, End of Year	0	325,045,359	(325,045,359)	

*IS = Income Statement (Statement of Revenues, Expenses & Changes in Net Position); BS = Balance Sheet (Statement of Net Position)



Summary of the EBDA Commission Meeting

Thursday, October 15, 2015 at 9:30 a.m.

Prepared by: P. Eldredge

- Commissioners Handley, Dias, Johnson, Peixoto, and Prola were present.
- The Consent Calendar was approved unanimously and included the Commission Meeting Minutes, List of Disbursements, and Treasurer's Reports.
- The Commission unanimously approved the reports from the General Manager, Managers Advisory, Financial Management, Regulatory Affairs, and Operations & Maintenance committees. The following items were discussed:
- **General Managers Report** invited David Stoops to update the Commission on recent wet weather preparations. Staff met with each of the member agencies to establish standard operating procedures (SOP) for the forecasted wet winter. A well-attended training was then held for member agency staff to review EBDA's SOP for wet weather events.
- **Managers Advisory Committee (MAC)** met with the General Manager on October 14, 2015. The Committee discussed the proposed scope for the outfall inspection contractor and supported the contract. The MAC also discussed the Carollo Engineers, Inc. proposed flow study for the AEPS. The MAC continued the discussion on their future vision for EBDA. The Committee members agree that increased recycled water use will impact the future flows of all agencies.
- **Financial Management Committee** approved the September list of disbursements and Treasurer's Reports. Final invoices have been processed and are credited to the member agencies second quarter billing. The Committee expressed its support for Commission approval of the resolution for North Bay Pensions to complete an actuarial valuation.
- **Regulatory Affairs Committee** reviewed EBDA's permit compliance. The Committee discussed the State of the Estuary report card and regulatory emphasis on single-walled underground storage tanks.
- **Operations and Maintenance (O&M) Committee** met with the General Manager on October 12, 2015 and was updated on EBDA performance. The Kennedy/Jenks Consultants has begun the cost benefit analysis of repair versus replacement of the HEPS, the study will be provided at a future Commission meeting. The proposal from Underwater Resources, Inc. for the inspection and condition assessment of the transport system outfall pipe was discussed. The Committee supports adoption of the resolution, in the amount of \$177,990, for the inspection.

- **Report from the Personnel Committee** discussed the General Manager's travel and reduction in time commitment. The Committee reviewed the Commissioners Compensation and recommends not increasing the current rate.

The Commission unanimously passed the following resolutions:

- Commissioner Handley moved to adopt the resolution issuing a purchase order to North Bay Pensions in the amount of \$1,800 for actuarial valuation services. The motion was seconded by Commissioner Peixoto and carried unanimously (Handley, Johnson, Prola, Peixoto, Dias; ayes).
- Commissioner Johnson moved to adopt the resolution authorizing a contract with Underwater Resources, Inc. in the amount of \$177,990 for the inspection and assessment of the transport system outfall pipe. The motion was seconded by Commissioner Handley and carried unanimously (Handley, Johnson, Prola, Peixoto, Dias; ayes).

Information items from the Commission and Staff:

Oro Loma Sanitary District's General Manager, Jason Warner complimented David Stoops for his work and management of the OLEPS control system upgrade project.

Lack of support in D.C. hampers water recycling efforts

By Carolyn Lochhead
San Francisco Chronicle

September 7, 2015 Updated: September 7, 2015 7:47pm



Photo: Michael Macor, The Chronicle

General manager Gary Darling, above the aeration tanks where the cleaning process begins at the Delta Diablo water district recycling plant, on Wed. September 2, 2015, in Antioch, Calif., where 13 million gallons of water is processed a day.

Water recycling may be one of the most promising sources of new water for California, but you'd never know it in Washington.

At half the cost of desalinating sea water, recycling municipal wastewater could create an estimated 1.1 million acre-feet of new water in California. That's roughly twice as much water as \$9 billion in new dam proposals would deliver to the state in a year. The new reclaimed source would come from purifying water that currently is used once to take a shower or wash clothes or flush a toilet and then cleaned by a wastewater treatment plant and dumped in the ocean. Conservative Orange County is the technology's poster child.

Yet amid one of the worst droughts in California's modern history, the Obama administration this year asked Congress for \$20 million for water recycling, to be spread across the entire 17-state West. That's one-fifth the amount the administration targeted on livestock disaster assistance to California ranchers as part of its drought response, using funds under its discretion.

But tapping even that puddle of money is proving difficult because of a Republican ban on earmarks, which will allow no member of Congress to authorize spending on a new recycling project.

"You can't just say here's a project, fund it," said Matt Sparks, spokesman for House Majority Leader Kevin McCarthy, R-Bakersfield. "That's an earmark, and that is exactly what we got rid of when we took the majority."

Under McCarthy's leadership, House Republicans this year passed a California drought bill that makes no mention of water recycling and contains no money for water projects. The legislation focuses instead on transferring existing water from Northern California to the San Joaquin Valley by overriding environmental regulations.

Gary Darling, general manager of Delta Diablo, an East Bay sewer district covering Antioch, Pittsburg and Bay Point, said California water districts have projects on the table that could deliver 100,000 acre-feet of new water per year reclaimed from existing supplies. That's substantially more total water than San Francisco uses in a year.

"Over half of our projects are shovel ready, they've got feasibility determinations and environmental clearances that are done, so we're ready to go," said Darling, who also represents the Western Recycled Water Coalition, a group of 24 water and sewer districts that has been trying to get more federal help. Without it the districts lack the funding to complete their projects.

Taken to new level

Water recycling has been around for decades, used mainly for landscaping or industrial purposes.

Water districts in Southern California took the technology to a whole new level when they sought a more secure water source after the state's 1987-92 drought raised concerns that their access to water imported from Northern California would be curtailed. Led by Orange County, districts pioneered methods to turn raw sewage into tap water that is cleaner than many existing municipal systems deliver.

Such water “is essentially drought proof,” said UC Berkeley environmental engineer David Sedlak, co-director of Berkeley Water Center and a co-author of a National Research Council report on water recycling. Wastewater flows “don’t change much in a drought,” he said. People may cut back on watering their lawns, he said, but they still bathe and wash dishes and clothes, leaving a ready supply of water to recycle.



Photo: Michael Macor, The Chronicle

Clean recycled water ready for distribution is collected in holding tanks at the Delta Diablo water district recycling plant, on Wed. September 2, 2015, in Antioch, Calif., where 13 million gallons of water a day is processed.

Relatively inexpensive

Reclaiming wastewater is not cheap, Sedlak said, “but it’s the least expensive of the next water supplies that California cities could develop.”

Water recycling can cost as much as \$1,000 an acre-foot, several times more than the river water delivered to cities through the federal and state water projects. But when

supplies are short, it can be less costly than imported water, which in the current drought has skyrocketed to \$1,700 and more an acre-foot on the open market. And recycling is about “half the price of seawater desalination and more reliable other water sources” such as buying water, Sedlak said.

Joe Grindstaff, general manager of the Inland Empire Utilities Agency, a water district serving nearly a million people in San Bernardino County, said his district recycles almost all the water it can after meeting its legal requirement to send a certain amount downstream.

“The whole region has become more self-sufficient, more resilient, and more focused on recycling,” Grindstaff said. “Our area’s probably as conservative as they come, and yet we’ve been engaged in trying to do everything we can to make sure we’re ready for the future.”

Many of the recycling projects that have been built or are under construction were financed in part with state bond money, and a big \$133 million chunk of federal money that former House Speaker Nancy Pelosi, a San Francisco Democrat, working with the Obama administration, added to the economic stimulus program in 2009. Since then, congressional budget tightening has left little money for water investment of any kind.

Drought legislation by California Sens. Dianne Feinstein and Barbara Boxer, both Democrats, targets \$200 million for water recycling to be used on 105 projects listed in separate legislation by Rep. Jerry McNerney, D-Stockton, increasing by tenfold the money available now.

McNerney said the Bureau of Reclamation is spending what money it has, but because of the earmark ban, “there’s no way to get new projects on the list.” He said House Republicans “are just not interested. For one thing, recycling costs money, and if they find a way to ship more water through the delta then there’s really no money involved.”

Rep. John Garamendi, D-Walnut Grove, said recycling water is common sense. The way California’s water system now works is “water is taken from the Colorado River, from the Sacramento River, pumped 200, 300, 400 miles, cleaned, used once, cleaned again to a higher standard than the day it arrived, and then it’s dumped into the ocean,” he said.

The federal government, he said, spent “several billion dollars” on new water systems for Afghanistan. “We make choices around here,” he said.

Administration officials said they are doing all they can with the money that Congress gives them, and that it is up to Congress to authorize new projects.

The \$20 million the Obama administration is seeking for recycling resides in a Bureau of Reclamation program called Title 16. The Bureau will pay up to 25 percent of a new plant, and the local water agencies have to finance the rest.



Photo: Michael Macor, The Chronicle

Plant operator, Doug Schreiner displays bottles of water before and after recycling at the Delta Diablo water district recycling plant, on Wed. September 2, 2015, in Antioch, Calif., where 13 million gallons of water a day is processed.

‘Upward glide path’

Dan DuBray, the bureau’s public affairs chief, said the administration tripled the funding for the program upon taking office, in addition to providing the \$133 million for recycling in the stimulus. He said the administration also has shifted some of the \$50 million in western drought response money provided by Congress to the recycling program, bringing the total to \$26 million this year.

“Amid all the other programs getting pressured, flatlined and pushed down, between the Recovery Act and acceleration of funding, (water recycling) is really on an upward glide path,” DuBray said.

Still, the administration and Congress need to further increase the recycling budget, water managers said.

“In terms of water supply in the West,” said Inland Empire’s Grindstaff, “it would be more useful than a lot of other things they do.”



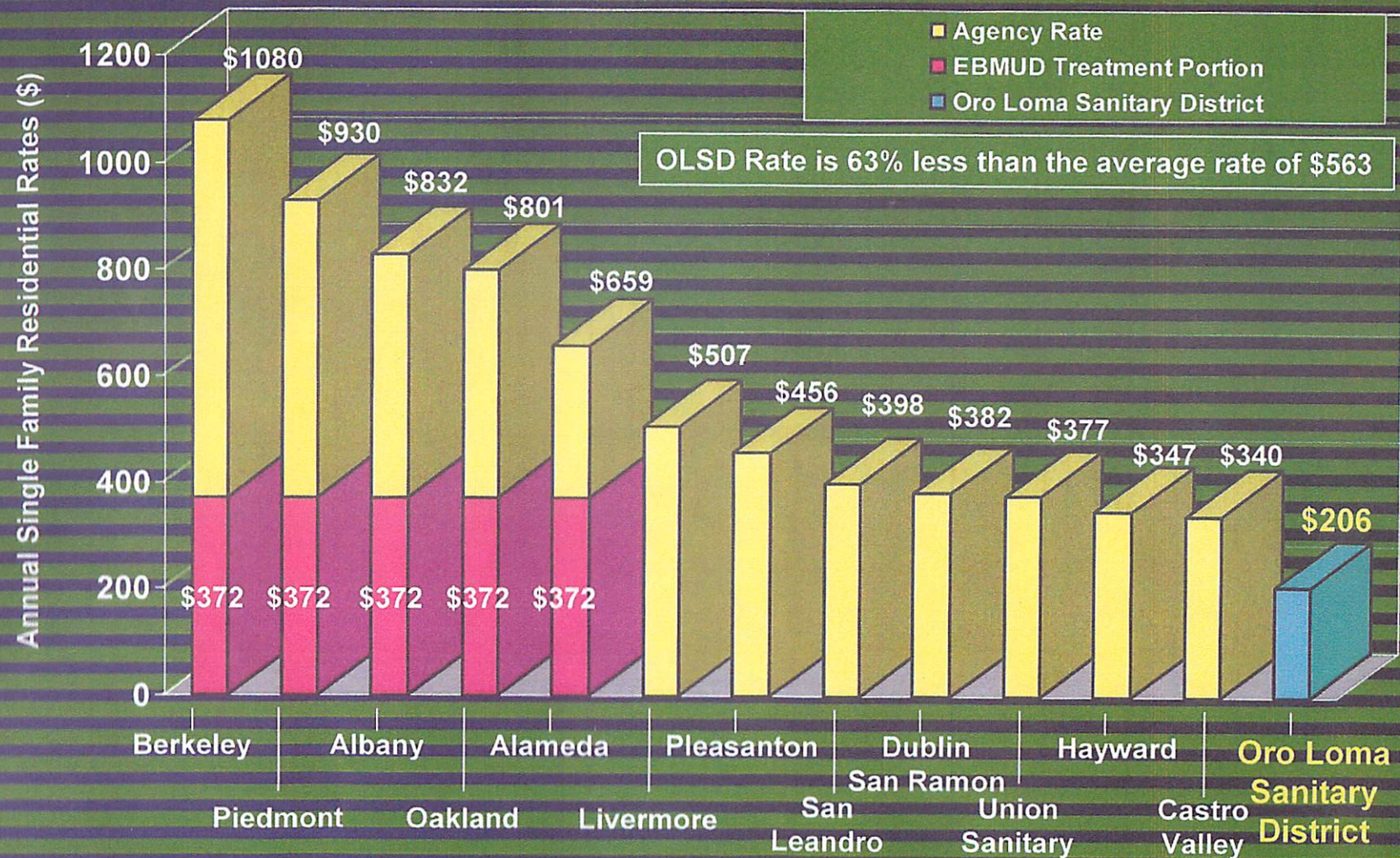
Photo: Michael Macor, The Chronicle

General manager Gary Darling, above giant augers that transport the dirty water to aeration tanks above to begin the cleaning process at the Delta Diablo water district recycling plant, on Wed. September 2, 2015, in Antioch, Calif., where 13 million gallons of water is processed every day.

Carolyn Lochhead is The San Francisco Chronicle’s Washington correspondent. E-mail: clochhead@sfgchronicle.com Twitter: @carolynlochhead

ANNUAL SEWER SERVICE RATES FOR SINGLE FAMILY RESIDENCE IN ALAMEDA COUNTY

For Fiscal Year 2015-16



Source: Survey with telephone calls and website research of individual agencies August 2015 by S. Green, and graphic presentation by P. Gonzalez.

Information provided at the 9/17/15 East Bay Dischargers Authority (EBDA) meeting

Sewer Rates and Connection Fees Survey for FY 2015-16

* Single residence annual rate includes charges for treatment services performed by EBMUD

	Jurisdiction	Monthly (SFR) Single Family Residence	Monthly EBMUD for SFR Treatment	Apartments Monthly	Mobile Homes Monthly	Sewer Connection Residential	Contact For Further Information		FY 2015-16 Single Residence Annual Rate (rounded)	Jurisdiction rate is higher than OLSD by following %	FY 2014-15 Single Residence Annual Rate (rounded)	Increase from prior year
							Sewer rates	Connection fees				
1	**City of Berkeley + EBMUD	\$59.02	\$31.02	\$4.99/100 ccf based on water consumption	n/a	\$3,536.00	Internet	Diana Alkonhead 510-981-7448	\$1,080	424%	\$882	22.55%
2	***City of Piedmont + EBMUD	\$46.50	\$31.02	\$36.25	n/a	\$1,145.00	Internet	Marietta Blessett 510-420-3050	\$930	351%	\$925	0.57%
3	*City of Albany + EBMUD	\$38.29	\$31.02	\$38.29/ea up to 5 units, \$26.80/ea add'l unit	n/a	\$1,166.00	Anne Hsu 510-528-5750	Internet	\$832	304%	\$841	-1.10%
4	*City of Oakland + EBMUD	\$35.76	\$31.02	Min \$35.76 based on water consumption	n/a	\$1,412.58	Internet	Leonardo Rivera 510-238-4759	\$801	289%	\$798	0.42%
5	*City of Alameda + EBMUD	\$23.93	\$31.02	\$21.54	n/a	\$1,013.00	Liz Acord 510-747-7957	Internet	\$659	220%	\$660	-0.09%
6	City of Livermore	\$42.28	n/a	\$24.87	n/a	\$5,425.20	Internet/Erin Peterson 925-960-4325	Internet/Erin Peterson 925-960-4325	\$507	146%	\$489	3.75%
7	City of Pleasanton	\$37.98	n/a	\$20.74	n/a	\$15,549.00	Tracie Cacciatore 925-931-5425	Internet	\$458	121%	\$448	1.73%
8	City of San Leandro	\$33.17	n/a	\$23.54	n/a	\$4,112.00	Internet	Internet	\$398	93%	\$387	2.85%
9	Dublin San Ramon Service District	\$31.87	n/a	\$18.30	n/a	\$16,927.00	Internet	Internet	\$382	86%	\$373	2.53%
10	Union Sanitary District	\$31.42	n/a	\$27.17	\$27.17	\$5,595.66	Internet	Internet	\$377	83%	\$357	5.61%
11	City of Hayward	\$28.93	n/a	\$25.75	\$20.25	\$7,700.00	Internet/Corinne Ferreyra 510-583-4713	Internet/Corinne Ferreyra 510-583-4713	\$347	68%	\$337	3.01%
12	Castro Valley Sanitary District	\$28.34	n/a	\$28.34	\$28.34	\$15,676.00	Internet	Internet	\$340	65%	\$303	12.24%
13	Oro Loma Sanitary District	\$17.17	n/a	\$17.17	\$14.00	\$6,919.00	Arlene Wong 510-481-6979	Bennett Cruz 510-481-6997	\$206	base	\$200	3.02%
AVG									\$563		\$538	4.54%

EBMUD RATES EFFECTIVE July 1, 2015

OLSD is lower than average

-63%

-63%

East Bay Municipal Utility District		Single Family Monthly Charges for Treatment Services		Per Month	Per Year	Per Year 2015-16	Per Year 2014-15	Decrease
Maria Lopez 510-287-0438 Sewer rates on internet www.ebmud.com/wastewater	Component No 1	Maximum Charge for 9 units of usage = (collected on the water bill) comprised from 4 components (A-Service charge \$5.29+B-SF Bay Pollution Prevention \$0.20+C-Strength charge \$7.28+D-Flow charge \$1.04 per unit* of flow up to 9 units \$9.36= \$22.13)		\$22.13	\$265.56	\$265.56	\$268.80	-1.21%
	Component No 2	EBMUD Wet Weather charge - Annual charge collected on property tax bill		\$7.47	\$89.62	\$89.62	\$89.40	0.25%
	Component No 3	Sewer Bonds 0.0034% (\$3.40 per \$100,000) assessed value for FY 15-16 Using average assessed value of \$500,000 (for 2015-16) the charge will be \$17.04 per year.		\$1.42	\$17.04	\$17.04	\$23.52	-27.55%
Total EBMUD charge				\$31.02	\$372.22	\$372.22	\$382	-2.49%

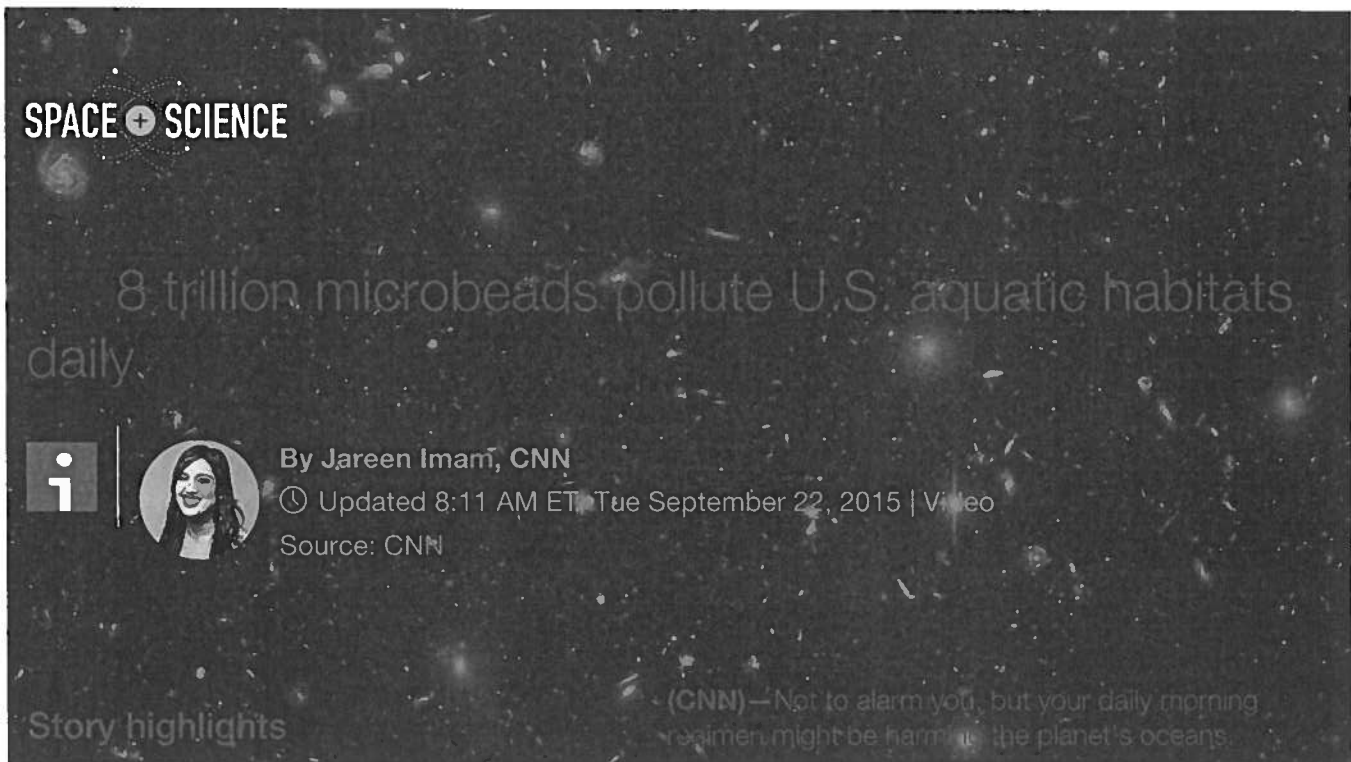
* base \$500,000*3.40 bond rate per \$100,000

* base \$500,000*4.70 bond rate per \$100,000

* Agency charges fee for sewer collection and EBMUD charges for sewer treatment

** City of Berkeley - The Single Family Residence Rate is \$4.54 per ccf. The estimated monthly amount of \$59.02 is based on an average of 13 ccf of water. The average is based on local District's Per Capita Daily Usage from July 2014 & February 2015 (<http://www.nytimes.com/interactive/2015/04/01/us/water-use-in-california.html>), assuming 4 persons per household.

*** City of Piedmont - Sewer Collection Rate is based on the size of the residential lot - up to 5,000 sq feet - \$522 annually, from 5,000-9,999 sq feet - \$594, from 10,000 to 14,999 - \$685 annually For FY 2015-16 the residential rate, for comparison, was calculated as follows: $(522+594)/2=558.00/12=\$46.50$ per month



Eight trillion microbeads are entering the United States' aquatic habitats daily, a new study says

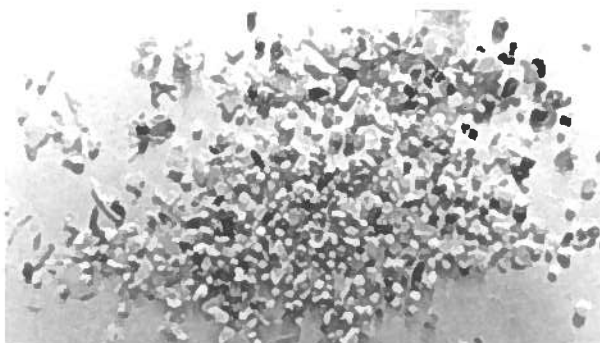
Microbeads are tiny plastic beads that can be found in hundreds of personal care products

Scientists are calling for a total ban

What's the culprit? Microbeads. They are tiny, plastic beads that many companies have added to body scrubs, cosmetics, soaps -- essentially hundreds of products, to create an exfoliating sensation for users.

There's more than eight trillion microbeads entering aquatic habitats every day in the United States alone, according to a new study published in *Environmental Science & Technology*. It's enough microbeads to cover 300 tennis courts daily.

A microbead is any plastic that is smaller than 1 mm, about the size of a pinhead. They are designed to wash down drains, but have added to the increased microplastic debris littering the Earth's oceans and many freshwater lakes, the study states. Due to their size, plastic microbeads are difficult to clean up on a large scale.



Microbeads have even been subtly added to products like toothpaste. Despite their tiny size, they still pose a threat, according to Stephanie Green of Oregon State University and co-author of the study.

"Part of this problem can now start with brushing your teeth in the morning," she said. "Contaminants like these microbeads are not something our wastewater treatment plants were built to handle, and the overall amount of contamination is huge," she said.

The eight trillion microbeads entering the United States' aquatic habitats on a daily basis is only a fraction of what is being dumped in waste-water treatment facilities. Eight hundred trillion of these plastic

beads settle into a sludge and transform into a runoff from sewage plants and go on to pollute the waterways.

"We're facing a plastic crisis and don't even know it," Green explained.

Some species of marine life mistake the small plastic particles for food, and scientists are currently examining how microplastics are affecting marine life once ingested and whether those chemicals can be transferred to humans if people consume these marine species later on, according to the National Oceanic and Atmospheric Administration (NOAA).

Chelsea Rochman of the University of California, Davis and lead author of the study, said microbeads were one of many types of microplastics to be found in the gut content of the marine wildlife that they examined.

"We've demonstrated in previous studies that microplastic of the same type, size and shape as many microbeads can transfer contaminants to animals and cause toxic effects," Rochman said. "We argue that the scientific evidence regarding microplastic supports legislation calling for a removal of plastic microbeads from personal care products."

Scientists from the study are calling for a complete ban on microbeads. They say that public support for the effort is also growing. Companies such as Unilever and Johnson & Johnson have pledged to phase out the use of microbeads in their personal care products.

In June 2014, the state of Illinois became the first state to ban the production, manufacture and sale of products that contain plastic microbeads, according to NOAA. Although the study argues that the legislation does not go far enough to eliminate microbeads that claim to be "biodegradable" but are not. Connecticut, New Jersey, Colorado have implemented regulations or bans on the plastic products as well.

Authors of the study are calling for new wording in microbead legislation that will ensure a total ban on materials that are "persistent, bioaccumulative, or toxic" to be added to products that are meant to be washed down the drain.

CNN left a message Saturday with the Personal Care Products Council, an industry group.

Big plan to reuse water in the works

WEDNESDAY, SEPTEMBER 23, 2015

Program would require huge treatment plant

By Matt Stevens
Los Angeles Times

LOS ANGELES — The Metropolitan Water District of Southern California is in talks with Los Angeles County sanitation districts about developing what could be one of the largest recycled water programs in the world.

In a committee meeting Monday, the agency's staff presented the framework of a plan to purify and reuse as much as 168,000 acre-feet of water a year — enough to serve about twice that number of households for a year.

Doing so would require MWD to build a treatment plant and delivery facilities and comply with various environmental regulations. Officials say similar projects have cost about \$1 billion.

It would also signal a shift for the region's water titan away from the business of importing water from elsewhere and toward developing local supply.

"I'm not afraid of talking about another business model," said Board Chairman Randy Record. "None of us should be."

Currently, coastal communities in California flush hundreds of billions of gallons of treated sewage into the Pacific Ocean each year. In the last couple of decades, however, water managers have attempted to recycle some of this water for human use.

So-called purple pipe systems take sewage that has been filtered and cleansed and use it to irrigate crops, parks and golf courses. This water, however, is not used as drinking water.

Potable reuse systems, on the other hand, use a variety of methods to purify water that has already been processed at a sewage treatment facility. The end result of this "toilet to tap" process is a substance that is cleaner than most bottled waters, and is intended for human consumption.

Recycled potable water can either be added to municipal water systems directly or indirectly. In an indirect potable reuse system, such as the Orange County Groundwater Replenishment System, purified water is placed in an "environmental buffer," such as an underground aquifer or surface water reservoir. After a period of storage, the water undergoes processing at a traditional drinking water treatment plant and enters the tap system.

As drought places increasing strain on traditional sources of drinking water, water managers have looked to expand water recycling systems and thereby increase local water supply.

In the city of Los Angeles, Mayor Eric Garcetti has directed the Department of Water and Power to reduce its purchase of imported potable water by 50 percent by 2024. He has also called for the creation of an "integrated water strategy that increases local water supplies and that improves water security."

Officials in Orange County say their Groundwater Replenishment System — which can treat up to 100 million gallons per day — will eventually be able to purify 130 million gallons a day for reuse. They say it is the largest such system in the world.

MWD officials hope that in about a decade, their treatment plant will produce 150 million gallons per day, eclipsing their neighbors to the south.

"Met has always been very supportive of water recycling," said MWD Assistant General Manager Debra Man in an interview. "This takes it to the next level."

MWD and a partnership of two dozen county wastewater purveyors — known as Sanitation Districts of Los Angeles County — have been working together on feasibility reports and pilot studies since 2010, according to informational documents on the recycling project. MWD officials said they want the board to authorize a memorandum of understanding between the two groups as early as November.

If the board gives its OK, the agencies could launch on a "demonstration project" at the sanitation districts' Joint Water Pollution Control Plant in Carson in about 20 months. There, the treatment processes would be perfected on 1 million gallons of water per day while officials conduct additional studies and develop a financing plan, according to an MWD memo.

Man told board members the demonstration phase would cost about \$15 million. In an interview, she said it was not clear where the funding would come from, though MWD officials have said it is possible that some of the costs may be covered by a water bond passed by voters last year.

Funding was just one of many concerns raised by MWD board members representing the San Diego County Water Authority. In a letter to the board, the San Diego representatives said MWD staff should identify a source of funding other than the existing rates.

"We request that a cost of service analysis be conducted to identify which agencies will benefit in order to determine how the costs of this project should be allocated," the San Diego board members wrote.

They also said creating a new recycled water program was "premature" because local and regional water plans are still being updated, and those plans "will provide vital information regarding water supply and demand forecasts."

In addition, they noted that "recycled water supply and reuse projects already exist throughout the MWD service area."

DSRSD GM to Retire

Posted: Thursday, September 24, 2015 12:00 am

Dublin San Ramon Services District (DSRSD) General Manager, Bert Michalczyk, has informed the DSRSD Board of Directors and employees of his plans to retire in early November, 2015.

“District leadership and staff are very well poised and capable of assuming the reins,” Michalczyk said in his memorandum informing the Board of his intent to retire. “To ensure that continued success, we have in place the following: a five-year Strategic Plan; a solid senior management team that I feel is very capable of carrying on the Mission of the District; and a policy infrastructure to deal with current and future water use limitations.”

Michalczyk’s 36-year professional career included working with Central Contra Costa Sanitary District and six years in private practice. In 1990, Michalczyk joined the District and has served as its General Manager since 2001.

The District is seeking applications from its current senior managers to fill a full-time, Interim General Manager position as the Chief Executive Officer for the District. An open search for a new permanent General Manager will extend through the western United States.

California drought drives cities to filter drinkable water from sewage

Plants deliver filtered water that is 'clean down to the atomic level'

By Kim Brunhuber, [CBC News](#) Posted: Sep 27, 2015 5:00 AM ET Last Updated: Sep 27, 2015 5:00 AM ET

The liquid in the trough below looks remarkably like iced tea. But trust me, you don't want to drink it.

Not yet.

"This is the first step of our treatment process," says Denis Bilodeau, vice-president of the Orange County Water District, on a metal catwalk next to a canal of municipal sewage.

Water is precious in the drought-plagued region, and this massive water recycling plant in Fountain Valley, an hour south of Los Angeles, was built to convert raw sewage into drinkable H₂O.

The brown liquid begins to bubble. Then it will be drawn into straw-like filters 1/300th the size of a human hair.

"That will keep all of the bacteria and viruses out," Bilodeau says.

The sewage will go through reverse osmosis and then be treated with intense UV light from bulbs manufactured by Ontario company Trojan UV.

"It's actually clean down to the atomic level, where all we have left is the H₂O molecules," Bilodeau says. "And now this plant produces enough water to serve 800,000 people."

Got any more sewage?

According to the Orange County Water District, the facility is the largest of its kind in the world. Built in 2008, it has already gone through one expansion, and now Bilodeau says they're preparing for a second.

"Our only limiting factor now is that we need more sewage water to process," Bilodeau says. "Here in Orange County we actually have less sewage than we did 20 years ago because of all of the water conservation that takes place with low-flow toilets and low-flow shower heads."

Urban Californians are using a third less water than they were two years ago. But letting lawns go brown and fountains go dry isn't enough. Many here realize that at home they have to not just use less, but re-use more.

That's why Laura Allen decided to modified some of her appliances. Half of California's urban water is used on landscaping. But the garden at her apartment building gets most of its water from its sinks and washing machines.

As she washes her hands, the dirty water is piped from the sink into small underground reservoirs covered with small round covers. Water trickles out of the pipe and into the reservoir through a layer of wood shavings.

"The greywater flows through, it soaks through the wood chips. And they are actually the filter, so they catch all the lint or debris in the water, and the greywater soaks down into the soil," Allen says.

The washing machine, too, has been retrofitted with a simple valve.

"One side of the valve sends the water back to the sewer or the septic, the other side goes into our irrigation system," Allen says. "You have to make sure you're using plant-friendly products... if you use that, the water's great quality for irrigation."

As founder of the group Greywater Action, she now teaches people how to install their own water recycling systems, which are becoming more popular as Californians become more aware of the drought and receive generous incentives from water utilities.

"Generally speaking, you can save 16 to 40 per cent of your water consumption," Allen says.

That's about 56,780 litres a year for an average household. Which is helpful, but some cities are starting to think a lot bigger.

This week, the the Metropolitan Water District of Southern California presented a plan to develop a water recycling plant in the Los Angeles area that could provide enough water for 300,000 people for a year. It would be even bigger than the mega-plant in Orange County, which generates enough to cover a quarter of the needs of the district's more than two million residents.

"Once we explain to people that the water we create here is actually cleaner than bottled water or what's in their tap," Bilodeau says, "then they understand that this water is very safe to drink."

Except no-one will actually drink this water — at least not right away.

Regardless of how much the water is filtered, health officials here still don't allow it to go directly from toilet-to-tap.

"We're very mindful that perhaps the public isn't quite ready for that step yet," Bilodeau says.

Instead, it'll be piped underground to replenish California's dwindling groundwater, which may eventually get drawn back into the municipal water supply.

But he's certain that soon Californians will have no choice.

"The future is here," Bilodeau says.

Saving water: East Bay residents continue to conserve at high levels

Updated: 09/28/2015 01:47:19 PM PDT

ContraCostaTimes.com

Drought-conscious East Bay residents kept up their big water savings in August, conserving the resource at much higher rates than state demands for the third month in a row.

The area's six water suppliers slashed use at rates ranging from 27 to 42 percent below consumption in August 2013, as people continued to throttle down use for lawns and plants.

The August savings rate slipped a little for five of the six suppliers -- a drop of 2 to 7 percent, the water agencies reported in a survey by this newspaper.

But the savings rate still was significantly higher than the state-ordered reduction rates of 12 to 28 percent for individual districts.

Water officials are pleased.

"This shows our customers are taking the drought seriously and doing what we asked for three summer months in a row," said Abby Figueroa, a spokeswoman for the East Bay Municipal Utility District. "We really need this conservation in the hot summer, when we typically get the biggest demand, but we also have the biggest potential to save."

Even with predictions of a wet El Niño winter ahead, officials say it's too soon to know if the drought is about to end.

The East Bay district's 1.3 million residents reduced use 27 percent in August, a slightly less aggressive rate than the 31 percent in June and July. EBMUD has asked customers for a 20 percent cut, and the state has ordered the district to cut back at least 16 percent.

The Contra Costa Water District reported a 40 percent drop in August among its nearly 200,000 Central County residents. This was the third month in a row with such a high rate.

The Alameda County Water District's 330,000 residents in Fremont and Newark cut use 33 percent in August, a slight decrease from the 36 percent reduction in July. The district has a 16 percent state reduction target.

The biggest August saving rates were in the Tri-Valley, an area that imposed drought rates last year, earlier than most of California.

The Dublin San Ramon Water Services District reported a 42.5 percent reduction in August. The rate was 44.5 percent in July, the district's peak month for conservation this year.

The state has ordered Dublin San Ramon to reduce 12 percent.

"We are achieving 30 percent more conservation than the state has told us we must meet," said Dan Gallagher, the district operations manager. "We have been extremely pleased with our customers' hard work."

Pleasanton residents cut use 40 percent in August, less than the 47 percent savings rate in July and 48 percent in June. The city has been ordered by the state to cut back 24 percent.

Livermore water customers slashed use 36 percent in August, not as aggressive as the 42 percent rate in July. Livermore faces a 20 percent reduction ordered by the state.

Many residents made big cuts in outdoor water use this summer -- like Danville resident Wellington Lim.

He trucks in free recycled water from the Dublin San Ramon district's sewer plant in Pleasanton to irrigate his front and back lawns. The result: His household water use stays at about 250 gallons a day in summer for a family of four.

"We take shorter showers," Lim said, "but I think the biggest difference is the recycled water for irrigating landscaping."

The Dublin San Ramon district has no plans to close the reclaimed water station at its Pleasanton sewer plant any time soon. More than 3,100 people are signed up to use it.

Livermore plans a seasonal shut down of its recycled-water fill station on Wednesday for the fall and winter.

"As we move into cooler fall and winter temperatures, the supplemental recycled water for irrigation should not be necessary to keep landscaping alive," said Darren Greenwood, Livermore's public works director.

Water officials suggest that as days become cooler and shorter, customers consider resetting their sprinkler controls to water once a week. State rules bar homeowners from running sprinklers more than twice a week.

"If you have automatic sprinkler controls, it's good to check them in the next couple of weeks and consider how often to have them run," said Jennifer Allen, a spokeswoman for the Contra Costa Water District.

Contact Denis Cuff at 925-943-8267. Follow him at [Twitter.com/deniscuff](https://twitter.com/deniscuff).

Will 'yuck factor' sink sewage reuse?

Parched Californians may be ready to take the plunge

By Peter Fimrite

Prune-dry California may soon be going down the toilet — for its drinking water.

The prospect of sewer water being treated and redirected back into faucets is the future of California if the water crisis continues, according to water managers throughout the state.

The challenge isn't so much technological as it is cultural: Will people agree to use the water they once flushed?

Toilet-to-tap technology is already here. Two water districts in the Bay Area — the Dublin San Ramon Services District and the Santa Clara Valley Water District — are testing systems that filter sewer water and purify it to the point that it can be consumed by the public. Orange County has a system in place that recycles 100 million gallons of wastewater a day — enough to quench the thirst of 850,000 people — by treating it and injecting it into aquifers.

Experts say such recycling is the path California must take if it ex-



Gallagher shows off the ultraviolet light that gives the final treatment to recycled water at the Pleasanton facility, which provides recycled water for irrigation.

RUNNING DRY

Throughout 2015, The Chronicle will report on water growing scarce in California. Find more coverage of the crisis at www.sfchronicle.com/drought.

pects to have enough water for a growing population. Hundreds of billions of gallons of treated wastewater is now dumped into the Pacific. That's water that could be

used, according to resource managers, and municipal water districts across the state are looking into doing just that.

Water recycling "would greatly reduce the impact of the drought," said Dan Gallagher, operations manager for the Dublin San Ramon district, which began providing recycled sewer water for residential irrigation last year and is pushing plans to treat the water until it is drinkable.

Sewage continues on A8

Treatment system ready to go to waste

Sewage from page A1

"People are going to do the dishes, wash clothes and go to the toilet no matter what," Gallagher said. "The idea is, we can make use of that resource right here locally."

Gray-water systems — in which homes and businesses are plumbed with purple piping that funnels used sink, bathtub and dishwashing water into the garden and toilet — have been around for a while. The technology that Gallagher and others are talking about, however, goes way beyond the reuse of water for irrigation or flushing.

Tough sell

The envisioned municipal recycling system would essentially squeeze out the crud on an industrial scale, purify what's left and feed it right back to the public. Water resources officials estimate that, if fully implemented across the state, 1.1 million acre-feet of new water could be made available every year. An acre-foot is enough to supply a family of four for a year.

Peddling recycled water to that family may not be so easy.

"My wife and I were talking about that, and we're kind of grossed out by it," said Doug Havig, 56, of Pleasanton, who was filling up a 250-gallon drum of free irrigation water provided by the Dublin San Ramon district, which serves 140,000 people in Dublin, Pleasanton and San Ramon. "It's just the thought that it comes through the sewer system that bothers me."

Jose Carillo, 75, of Pleasanton, said he's happy to use recycled water on his lawn, but would drink the stuff only as a last resort.

"If there was water from the store, I would drink that first," he said. "But I would drink it if I had to and they assured me it was safe. I gotta survive some kind of way."

Others, like Tom Kirkwood, said they are willing to accept recycled wastewater.

Getting used to idea

"If it is run through all the purification systems, then I would drink it," said Kirkwood, 71, one of up to 1,200 people a day who take advantage of free recycled wastewater provided at the Pleasanton sewage treatment plant. "I think we're going to have to do something because water is a limited resource. It's either drink that or drink more beer."

The Dublin San Ramon district has an unhappy history with the excrement-to-agua

concept. It spent \$24.5 million to build a recycling system in the late 1990s. Problem was, when the locals got wind of it, they went bonkers.

"We were going through startup and there was a public outcry," said Gallagher, recalling the intense opposition and threats of lawsuits. The idea had to be mothballed.

The general consensus among proponents is that people will overcome the "yuck factor" only if they understand the technology that can make sewer water usable.

A typical recycling plant takes what is called secondary treated water, meaning solids have been removed and it has been treated to the point that it meets federal standards for discharge into the ocean.

The water is then forced through a long series of tiny straw-like fibers called micro-filtration. That cleans out all bacteria and most viruses. After that it is pumped through semi-permeable reverse osmosis membranes that block out any toxins that remain.

The water is then subjected to ultraviolet light and a hydrogen peroxide cleansing process that purifies it to the level of distilled water.

Orange County ahead

So far, there is only one large-scale recycling plant up and running. The Orange County Water District, which serves 2.4 million people, has recycled 70 million gallons a day since 2008. Its groundwater replenishment system was so well received that the district expanded production capacity this spring to 100 million gallons a day.

Districts throughout Southern California are copying it. The Metropolitan Water District is in talks with Los Angeles County sanitation districts to build a system that would reuse as much as 168,000 acre-feet of water a year. The proposed system, which would be the largest in the world, would cost an estimated \$1 billion.

It is mostly because of the yuck factor that California does not allow the public to drink recycled water directly out of a treatment plant. Legislation has been introduced to change that, and the California Water Resources Control Board is expected to issue a report in December on the feasibility of such a system.

Until direct use is approved, recyclers will have to mix their product with groundwater. That's what Orange County does.

South Bay recycling

The Northern California leader is the Santa Clara Valley Water District, which built a \$72 million purification center last year to demonstrate to 2 million customers in 15 cities how a recycling system would work.

"We looked at everything, and this concept rose to the top," said Pam John, the operations manager for the plant, which is the largest of its kind in Northern California. "It's not as expensive as building a new reservoir."

Recycled water now makes up about 5 percent of the 330,000 acre-feet of water used every year in the Santa Clara Valley district, John said. The plan is to increase the amount to 10 percent by 2022. The only cost-effective way to do that, John said, is to begin providing it as drinking water.

The district has run taste tests for visitors to its recycling center. "Most people say it tastes just like water," John said.

A 2014 study by WateReuse, an organization that promotes alternative water supply development, found 62 percent of survey respondents supported using recycled water to augment the groundwater supply. A survey by the Bay Area Council this year found 88 percent in favor of expanding recycled water programs.

"The public is much more ready for it after four years of drought," Gallagher said.



Left: Randy Laird of Dublin finishes filling his tank with recycled water at the Dublin San Ramon Regional Wastewater Treatment Facility.

Below left: Buckets of debris are collected during the screen-system process as recycled water is cleaned at the treatment facility.

Photos by Michael Macor / The Chronicle



Cheaper than dams

"It's clearly much less expensive water than building new dams, and clearly more reliable because it's going to be there every year," said Tom Stokely, the water policy analyst for the environmental group California Water Impact Network. "Why should people spend billions of dollars to send water to Southern California to flush it out into the ocean when they can recycle it? It's really just common sense."

After all, he and others insist, recycling water is what nature has been doing since the Earth cooled.

"All the water that we have on the Earth is all the water we are ever going to have and it's all the water we've ever had, so we have to think about how we use it and how we can sustain it," said Sue Stephenson, community affairs supervisor for the Dublin San Ramon Services District. "I mean, you are drinking dinosaur pee right now, to be honest."

Peter Fimrite is a San Francisco Chronicle staff writer. E-mail: pfimrite@sfgchronicle.com Twitter: @pfimrite

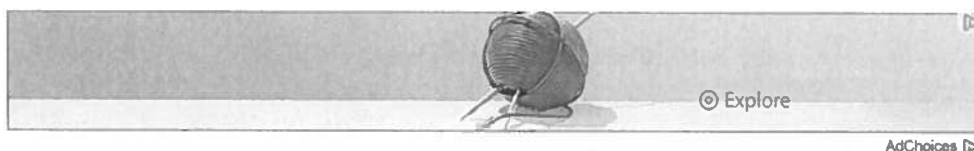


Photos by Michael Macor / The Chronicle

Plant operations manager Dan Gallagher is seen reflected in a secondary clarifier as recycled water travels through the cleaning process at the Dublin San Ramon Regional Wastewater Treatment Facility.

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September 30, 2015



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Congress: Please Fix Your "Water Fix"

Posted: 09/29/2015 9:29 am EDT | Updated: 5 hours ago



In 2014, Congress actually passed a law to help fix the \$2 trillion water infrastructure gap; but as it made its way through both Houses some well-intentioned amendments crippled it. The "fix" needs fixing in the next session.

The law in question is the Water Infrastructure Finance and Innovation Act, or WIFIA, for short. This law was intended to help fix the gap in water infrastructure -- both drinking water and wastewater -- over the next 30 years, which the American Water Works Association estimates at \$2 trillion! WIFIA was intended to supplement the wildly successful Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF). Since its passage in 1987, the CWSRF has provided over \$100 billion of financial assistance to over 33,000 projects. This means, however, that the average CWSRF project size is about \$3 million. For drinking

water, the average is even lower: \$2.4 million. That is one of the issues that WIFIA addresses. WIFIA is for large projects: \$20+ million (except for some small communities).

WIFIA was to provide U.S. Government loans or loan guaranties for water and wastewater projects at U.S. Treasury rates. It would do so both through EPA and the U.S. Army Corps of Engineers. So, is this just another big-government, federal give-away program that will cost U.S. taxpayers a fortune? Absolutely not. WIFIA could be one of the most cost-effective programs ever.

As you know, water and wastewater utilities are funded by water rates and charges that every business, household, church, hospital, not-for-profit -- everyone -- pays. That's the point. Everybody pays. And they do so regularly and religiously. The default rate on loans to water/wastewater utilities is 0.04%. That is 4 in every 10,000! If you invested \$100, you'd lose 4¢. That's almost unbelievable! Now, you don't have to believe your humble author, here, about this. Instead, trust the pros, the three international credit rating agencies: Standard & Poor's, Moody's Investor Services, and Fitch Ratings. They will tell you that water and wastewater loans are the single most secure form of lending. (Congress uses default factors such as the 0.04% for water/wastewater projects as reserves to budget for possible losses to the Treasury.) Congress needs to call the rating agencies to testify about the size of the reserves needed. And, speaking of Congress, that is why WIFIA badly needs a fix.

WIFIA's original architects wanted a 100% government loan or loan guaranty program for projects over \$20 million. Simple enough. But everyone knows that sometimes -- even with water/wastewater loans with a 0.04% default rate -- they don't get paid. So, forces in Congress began worrying about how to further minimize losses to the U.S. Treasury. So, they inserted three provisions. First, they lowered the funding amount from 100% to 49%. Next, they said that tax-exempt municipal bonds couldn't be used to fund the other 51%. Finally, they said that the 49% WIFIA share couldn't be subordinated to the 51% of other money. Unfortunately, these three -- otherwise well-intended -- provisions crippled WIFIA. Although WIFIA was signed into law by the President on 10 June 2014, neither EPA nor the Corps have organized WIFIA programs through September 2015. True, Congress did not fund WIFIA, only gave EPA \$2.2 million to organize its program, and gave the Corps nothing; still neither agency has any projects to take to the Hill to request funding for in 2016! The problem is WIFIA's broken structure.

Congress needs to fix WIFIA in 2016. WIFIA is a very good idea; but it is just badly in need of a fix. There will be a major transportation bill in 2016, just the type of legislation that WIFIA amendments can be attached to. Here's at least one way amendments can fix WIFIA.

Let's begin by seeing just how much money the Government actually saves with these three crippling provisions that were inserted at the last minute.

Take a medium-sized city in California that needs to spend \$100 million on a desalination plant to help with their drought. Thirty-year Treasury rates are about 3% in today's world. So, WIFIA can furnish the city \$49 million at 3% for 30 years. Now, where do they get the other \$51 million? They can't use tax-exempt bonds. And they can't subordinate. So, they get the \$51 million from some pension funds or other mutual funds that want a "green" component to their portfolio - but they aren't going to invest on the cheap. These funds want 5-7% for their investors/pensioners. Call it 6%. That means that for the \$100 million project, the city is going to have to pay \$6.2 million a year. Meanwhile, since we said the default rate on these loans is 0.04%, this means that there should be a \$40,000 loss reserve on this \$100 million desalination project. The Treasury's share of this reserve is 49%, about \$20,000. That's what they've got to budget.

Ok, so with WIFIA the city pays \$6.2 million and the Treasury notionally loses \$20,000.

What's the alternative?

The alternative is that the city issues \$100 million of tax-exempt bonds on its own, without WIFIA. Now, let us say that the best - AAA - tax-exempt bonds sell at 3.5%. But let's say that our California city is not only out of water, but they are debt-strapped as well - just the kind of city that needs a well-fixed WIFIA! So, let's say that our city can only sell 30-year tax-exempt bonds for 4.25%. In this case the city will have annual payments of just under \$6,000,000. So, the city would save \$200,000 a year for 30 years by not using the broken WIFIA program.

Good for the city. What about the Treasury?

Well, in the first year, there is \$4,250,000 of interest income on the city's bonds; but it is tax-exempt. So, the Treasury misses out on the tax from this \$4.25 million. Let's say that, if they weren't exempt, the Treasury would normally get about 25% of these funds in taxes. Twenty-five percent of \$4.25 million is \$1,062,500.

So, here's the situation: If our city uses WIFIA, it costs them \$200,000 more a year for 30 years and it costs the Treasury a notional \$20,000.

If our city doesn't use WIFIA, it saves them \$200,000 a year and it costs the Treasury \$1,062,500 in the first year alone - and much more over the next 29 years! Hello? Does anyone need to be a rocket scientist to figure this one out?

Now, here's some icing for this cake.

If Congress permitted tax-exempt funding for the other 51% AND they permitted subordination, the 51% would sell much more cheaply at, say, 3.5%. In this case there would be only \$1,785,000 of income that was exempt, which, with the Treasury's normal 25% take, would mean they were losing just under \$450,000 in taxes. They would, of course, also have the \$40,000 reserve, for a total of \$490,000.

So, Congressmen, which would you rather have our Treasury lose \$1,062,500 if you don't fix WIFIA, or \$490,000, if you do? Here's your WIFIA agenda for 2016: permit funding of the non-WIFIA 51% with tax-exempt municipal bonds; and permit subordination!

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Part of HPMG News

Drought update: Livermore residents upset at closing of recycled water fill-up station

By Denis Cuff

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LIVERMORE -- Residents are upset the city is closing its recycled water station, where many homeowners get free water to keep their plants and lawns green during the drought.

Water-use restrictions and steep rates have inspired 10 communities in the greater Bay Area to open recycled water stations for homeowners to fill up with highly treated effluent to use at home.

Livermore is the only one known to be closing for the season so early, at the end of service hours Wednesday.

"Why don't they at least wait until we get heavy rains?" Livermore resident Charlie Gabriel asked Tuesday during one of his last fill-ups. "It's sad. This has been a great way to keep my roses and trees alive without using drinking water to irrigate them."

Gabriel, one of 930 people signed up to use the plant, estimates he saved some 3,700 gallons this summer by hauling the recycled water to irrigate his landscaping.

He and other users said they are frustrated over investing hundreds of dollars on recycled water tanks and pumps and doing their part for a state campaign to cut water use by 25 percent.

But now they say they must go back to irrigating with potable drinking water, or drive farther to get recycled water at a fill station in Pleasanton.

More than 250 people signed a petition asking the Livermore City Council to keep the plant open permanently, but on Tuesday, the council took no action to postpone the closure.

On Wednesday, Livermore Mayor John Marchand said he supports closing the station. "It was meant as a short-term fix to bridge the hot summer, but it was never meant to work as a long-term strategy," he wrote in an email.

Other Livermore officials said winter is coming and people don't need the secondary water supply as much with cooler temperatures and shorter days ahead.

"It's getting cooler," said Darren Greenwood, Livermore's public works director. "I feel bad for people who are used to filling up at the facility, but it's costly to run and it's not the most efficient way of distributing recycled water."

Lawns and plants don't need as much water to stay alive in the cooler, shorter days of fall and winter, Greenwood said.

Although the recycled water is free to station users, it's not free to the city to provide it.

Greenwood estimates the city has spent some \$170,000 to operate the fill station this year, mostly on staff time to monitor the plant and supervise consumers as they fill up their tanks, barrels and jugs.

The 5 million gallons saved by the fill station this year is a "drop in the bucket" compared with Livermore's overall saving, Greenwood said.

City residents and businesses have slashed water use by 33.5 percent this year below 2013 levels, but the fill station accounts for a mere 0.3 percent of that total, he said.

Other Bay Area fill station operators agree the volume of water saved is modest but still plan to keep the stations open longer to help consumers and help promote public acceptance of recycled water.

The Dublin San Ramon Services District plans to keep open its main fill-up station in Pleasanton through the winter, though it is considering closing a second smaller station in Dublin at the end of October.

"The drought is not over," said Dan Gallagher, operations manager of the Dublin San Ramon Services District. "We're doing this as a service to the community to get through the drought."

The Delta Diablo Sanitation District in Pittsburg and Antioch is going to keep its fill station open through at least Dec. 31, and possibly longer if a user survey shows enough demand, said Angel Lowery, a district spokeswoman.

Brentwood's fill station likely will stay open through winter, depending on continued use, said Chris Ehlers, the city's public works director.

Nate Gartrell contributed to this story. Contact Denis Cuff at 925-943-8267. Follow him at [Twitter.com/deniscuff](https://twitter.com/deniscuff)

California's drought

Water use cuts stay strong

Reductions in August remain ahead of targets

By Lisa M. Krieger

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In a sign that Californians continued to conserve water even during the peak summer months, residents across the state cut water use 27 percent in August, compared with August of 2013, according to new figures released Thursday morning.

While the figures show a slight dip from July's 31 percent statewide savings, they exceed Gov. Jerry Brown's 25 percent conservation mandate during the state's historic drought for a third straight month.

"The news is still good," said Felicia Marcus, chairwoman of the State Water Resources Control Board. "It is still hot across the state."

Bay Area residents slashed water use 30.5 percent in August compared with August 2013, while residents in the Los Angeles and San Diego areas cut use only 23.7 percent. The region with the most savings was the Sacramento River area, which saw a 34.5 percent water reduction.

The news came on a damp day of scattered showers around the Bay Area — and the first day of the new "water year" in California, when annual rainfall totals roll back to zero. Less than .05 inches of rain was predicted to fall on Thursday; Friday and Saturday will be dry. There's a 20 percent chance of rain on Sunday.

August was hotter and drier than July, when record-breaking rains in Southern California made it easier for some to conserve water outdoors, Marcus said. But conservation is particularly important during the summer months, she said, because that is when the greatest amount of water is used on landscaping.

The average Californian used 102 gallons of water a day in August, compared to 96 gallons a day in July. But Bay Area residents kept water consumption steady from the previous month: 72 gallons a day.

Santa Cruz residents continue to be the lowest consumers of water in the state, averaging only 41.4 gallons a day. The city has a "Leak Line" for the public to report violations by phone, email or in person and has staff patrolling the city every day for excessive water use. In Santa Cruz, 1,421 homes — 6 percent of total residences — were assessed a financial penalty for exceeding limits on their water use.

Elsewhere, enforcement actions appeared less aggressive. In August, the East Bay Municipal Utility District fined 43 of its 1.3 million customers with "drought surcharges" for exceeding their budgeted amounts of water. Warnings were issued to 329 of 990,000 customers of San Jose Water Company and 24 of 64,914 customers of California Water Service Company's Bear Gulch district, which includes traditionally big water-consuming towns of Atherton, Woodside, Portola Valley and parts of Menlo Park and Redwood City.

Dry conditions are forecast to continue through November.

There is a growing prospect of a strong El Niño conditions this winter, although it is too soon to know if it will yield the big snow necessary to be a drought-buster.

"We can't know what El Niño will bring — how much precipitation we'll get, where it'll fall and what it will be," said Marcus. "What we need is snow in the Sierra Nevada."

The board's survey of 406 cities, private water companies and water districts shows that cumulative savings for the summer, despite hot and dry conditions, puts the state halfway to meeting its goal of 1.2 million acre-feet of water saved from June 2015 to February 2016.

One of the state's top performers was the city of Morgan Hill, which reduced water use by 42.5 percent in August, bringing the city's cumulative savings since June to 40.2 percent, well over its 28 percent conservation standard.

About three quarters, or 72 percent, of water suppliers met their conservation

standard. Six cities with a total population of 139,000 — the Central Valley towns of Livingston, Riverbank, Hanford, as well as Blythe of Southern California's Palo Verde Valley, California City of the Imperial Valley and El Segundo, a Los Angeles suburb — missed their conservation standard by more than 15 percent.

The state has issued "conservation orders" to water suppliers that are far behind and do not have the programs in place to meet their conservation standard. If those suppliers — the cities of Adelanto, California City, Hanford and Hemet and water districts of Indian Wells, Mission Springs, Phelan Píñon Hills and Rainbow — don't take specific actions, they'll face penalties.

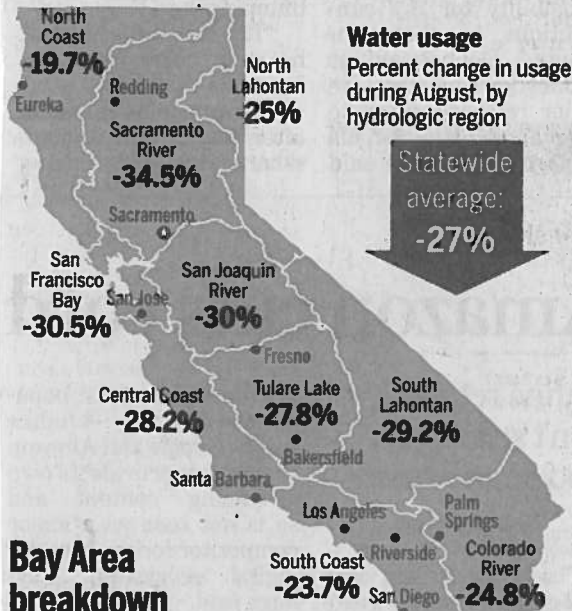
"We need to exercise our efficiency muscles," said Marcus.

"One wet winter is not going to erase our deficit," she said. "We are still better safe than sorry. We can't roll the dice."

Contact Lisa M. Krieger at 650-492-4098. Follow her at [Twitter.com/LisaMKrieger](https://twitter.com/LisaMKrieger).

Who saved the most water?

California cut residential water use by 27 percent in August compared with August 2013, the state's baseline year.



Bay Area breakdown

Percent change in August, compared with August 2013

Alameda County Water District	-33.5%	Mid-Peninsula Water District	-31.4%
American Canyon	-26.4%	Milpitas	-31.2%
Antioch	-34.7%	Morgan Hill	-42.5%
Benicia	-34.9%	Mountain View	-41.4%
Brentwood	-43.4%	Napa	-23.5%
Burlingame	-29.5%	North Coast County Water District	-35.7%
California Water Service Co. Bear Gulch	-33.6%	North Marin Water District	-34.7%
California Water Service Co. Livermore	-43.1%	Palo Alto	-34.2%
California Water Service Co. Los Altos/Suburban	-37.0%	Petaluma	-26.9%
California Water Service Co. Mid Peninsula	-30.9%	Pittsburg	-21.1%
California Water Service Co. South San Francisco	-21.9%	Pleasanton	-40.4%
Coastside County Water District	-25.2%	Redwood City	-42.0%
Contra Costa Water District	-40.3%	San Bruno	-22.1%
Daly City	-7.8%	San Francisco Public Utilities Commission	-13.7%
Dublin San Ramon Services District	-42.5%	San Jose	-34.3%
East Bay Municipal	-26.8%	San Jose Water Company	-35.6%
East Palo Alto	-5.2%	San Lorenzo Valley Water District	-23.9%
Estero Municipal Improvement District	-16.1%	Santa Clara	-32.5%
Gilroy	-32.1%	Santa Cruz	-29.2%
Golden State Water Company Bay Point	-27.4%	Scotts Valley Water District	-29.6%
Great Oaks Water Company Incorporated	-35.2%	Sonoma	-21.8%
Hayward	-42.4%	Soquel Creek Water District	-30.9%
Hillsborough	-40.9%	Suisun-Solano Water Authority	-28.5%
Hollister	-19.0%	Sunnyvale	-36.2%
Livermore Division of Water Resources	-36.0%	Vallejo	-21.2%
Marin Municipal Water District	-20.0%	Valley of the Moon Water District	-32.9%
Martinez	-31.0%	Watsonville	-17.3%
Menlo Park	-49.5%	Westborough Water District	-9.2%
Other areas			
		Los Angeles	-17.4%
		Fresno	-27.5%
		Sacramento	-33.0%
		San Diego City of	-21.3%

FRIDAY, OCTOBER 2, 2015

OAKLAND

**EBMUD fined for
sewer waste violations**

The East Bay Municipal Utility District has agreed to pay a \$99,000 federal penalty for improper management of hazardous waste at its sewer plant, the federal Environmental Protection Agency announced Wednesday,

Federal regulators inspecting the Oakland plant in 2014 discovered that the utility was accepting shipments of low-flash-point ignitable alcohol waste without the required hazardous waste permits for two years, EPA officials said.

The alcohol waste was used as feedstock in a waste-to-energy facility. Federal inspectors also found some containers not labeled as hazardous waste.

After the inspection, EBMUD corrected the problems and brought the plant back into compliance, EPA officials said.

— Denis Cuff, Staff

October 6, 2015

Union Sanitary District wins Innovative Program Award

SUBMITTED BY MICHELLE POWELL

Union Sanitary District (USD, "The District") has received a statewide recognition for its "Leadership School" in-house training program. The California Special Districts Association (CSDA) recently presented USD with its Innovative Program of the Year Award in recognition of the District's efforts to educate staff members about the demands of management and other critical roles, while providing training and mentoring to support them in promoting to those positions. Assemblymember Kansen Chu, whose 25th District contains a portion of USD's service area, congratulated District representatives at the award ceremony.

"Like many organizations, the District is continually faced with the retirements of seasoned staff – both management and non-management employees," says Laurie Brenner, Organizational Performance Program Manager. "These employees fulfill roles that are critical to our protection of public health and San Francisco Bay. USD's Leadership School was conceived as an opportunity to develop internal candidates who could not only fill these positions, but like their predecessors, become strong industry leaders."

General Manager Paul Eldredge notes that "Leadership School has resulted in promotions from within that provide significant savings in training time and maintain our high productivity levels. This helps us to continue providing customers reliable, cost effective service."

For more information about Union Sanitary District's Leadership School, call (510) 477-7500, or visit the District's website at www.unionsanitary.ca.gov.

Pittsburg schools

District using recycled water

Irrigation system being installed at other sites soon

By Nate Gartrell

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PITTSBURG — In response to the drought, many California schools have been forced to shut down their sprinklers and let athletic fields dry up, but Pittsburg officials have figured out a way to avoid that fate.

Delta Diablo workers have installed two new recycled water irrigation systems in Pittsburg schools, as part of a school district plan that was approved in November 2014.

The bigger of the two systems is at Pittsburg High, where Delta Diablo officials estimate 1.6 million gallons of potable water was used to irrigate during May through July this year. A recycled water irrigation system is also up and running at Ranchos Medanos Junior High, and the sanitation agency plans to install a third system at Parkside Elementary School sometime early next year.

"The district is committed to environmental issues, and so we're looking for opportunities to expand with recycling, recycled water, and all areas," PUSD maintenance Director Marianne Solis said, adding that the school district has recently installed solar panels in many of its facilities as well.

Recycled water is treated sewage water that isn't potable, but is safe to use for watering plants. All watering will take place during the night, and be done by 6 a.m. each day, Solis said.

In recent months, water agencies around the Bay Area have worked to install recycled water fill stations that allow residents to fill up their own tanks for personal irrigation. There are three such facilities in East Contra Costa, and officials say tens of thousands of area residents have answered the call.

But recycled water irrigation pipeline systems are much harder — and more costly — to install, Delta Diablo spokeswoman Angela Lowrey said. There is an existing recycled water line that runs from Delta Diablo's headquarters through Pittsburg and Antioch, but anyone who wants to tap into it is usually asked to help chip in some funds.

The projected cost of the three projects is \$163,000, Lowrey said. About 75 percent of those funds are coming from Prop 84, a state bond measure intended for water-related projects.

The rest of the money is coming from PUSD through grant funding and lower interest loans, Lowrey said. But officials there say the project will save them money in the long run.

Wastewater treatment plants not responsible for spreading antimicrobial resistance

Date:

October 7, 2015

Source:

Technical University of Denmark (DTU)

Summary:

Wastewater contains remnants of antimicrobial agents and a variety of pathogenic bacteria. It has therefore been generally assumed that wastewater treatment plants are the ideal location for pathogenic bacteria to develop new resistance genes. New research challenges the common perception that bacteria develop antimicrobial resistance in wastewater treatment plants.

New research challenges the common perception that bacteria develop antimicrobial resistance in wastewater treatment plants. The findings have recently been published in the recognized scientific journal *Nature Communications*.

In a collaboration with colleagues from Aalborg University, Technical University of Denmark (DTU) researchers have studied genes from wastewater treatment plants that may help bacteria to develop antimicrobial resistance. Their findings demonstrate that the treatment plants contain a great many genes that may generate resistance to a wide variety of antimicrobial agents. However, these genes are rarely found in bacteria outside the wastewater treatment plants, which suggests that -- contrary to what was previously believed -- the treatment plants do not pass on resistance genes to bacteria that are hazardous to people.

Every day, biological wastewater treatment plants all over Denmark receive millions of litres of water for processing from hospitals, private households, and other sources. This wastewater contains remnants of antimicrobial agents and a variety of pathogenic bacteria. It has therefore been generally assumed that wastewater treatment plants are the ideal location for pathogenic bacteria to develop new resistance genes. New Danish research has now revealed that the most common resistance genes in wastewater treatment plants are not to be found among bacteria outside these facilities -- in people or animals, for example. The findings thus challenge the generally held perception that wastewater treatment plants are hotbeds for the spread of antimicrobial resistance genes.

"Wastewater contains a great many intestinal bacteria that have been described in detail, so we were surprised to find that the vast majority of the resistance genes we identified in the wastewater treatment plants were unknown," relates Christian Munck from DTU.

Christian is participating in a project led by Professor Morten Sommer in collaboration with Professor Per Halkjær Nielsen's team from the Center for Microbial Communities at Aalborg University.

"We've studied five large wastewater treatment plants, collecting samples over a period of two years. In all the samples, we found genes that provided resistance to the antimicrobial agents we tested. However, when we looked into whether these genes had been described previously, we found that the vast majority were unknown," explains Christian Munck.

"This indicates that the majority of the resistance genes we identify in wastewater treatment plants are to be found in the special microorganisms that are able to survive in the extraordinary conditions of these treatment plants," continues Professor Per Halkjær Nielsen.

Professor Morten Sommer adds: "The findings from our research demonstrate that wastewater treatment plants contain a huge pool of genes with the capacity to provide bacteria with antimicrobial resistance, but that these genes do not appear in pathogenic bacteria. It is difficult to say if, and to what extent, these genes may one day appear in pathogenic bacteria, but we are working to unravel the mechanisms that allow resistance genes to migrate from non-pathogenic to pathogenic bacteria."

Story Source:

The above post is reprinted from materials provided by **Technical University of Denmark (DTU)**. The original item was written by Lotte Krull. *Note: Materials may be edited for content and length.*

Journal Reference:

1. Christian Munck, Mads Albertsen, Amar Telke, Mostafa Ellabaan, Per Halkjær Nielsen, Morten O. A. Sommer. **Limited dissemination of the wastewater treatment plant core resistome.** *Nature Communications*, 2015; 6: 8452 DOI: 10.1038/ncomms9452

WATER & DROUGHT

OCTOBER 8, 2015

Senators drill into California water bill

HIGHLIGHTS

Stark differences remain between House and Senate water bills

Nine months into congressional session comes first hearing on legislation

Chair of key Senate panel voices plans for broad Western-state package



BY MICHAEL DOYLE
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WASHINGTON — Ever-hopeful lawmakers on Thursday conjured the vision of a compromise California water bill that succeeds instead of fails.

It may be a mirage.

But in a long-awaited hearing, the chairwoman of a key Senate committee zeroed in on some specific, concrete details that could be the basis for real-world legislation. Water storage, recycling and desalination projects could be the foundation for a deal, some believe.

“We’ve got some things we can be building on,” said Sen. Lisa Murkowski, R-Alaska. “Clearly, we’ve got some real differences. The way we’re going to work this out is to work together.”

“

**WE THINK THE DIFFERENCES ARE SURMOUNTABLE
WITH ACTUAL INTEREST IN FINDING A RESOLUTION.**

Sarah Woolf, a director of the Westlands Water District

Chair of the Senate Energy and Natural Resources Committee, Murkowski convened the two-hour hearing Thursday primarily to consider significantly different House and Senate versions of California water legislation. The morning hearing was the first to be held specifically on the bills.

Murkowski’s emphasis on a pragmatic approach, and the civil working relationship she demonstrated throughout the hearing with her committee’s senior Democrat, Sen. Maria Cantwell of Washington, cheered some in the crowded third-floor hearing room.

At the same time, the enduring differences and myriad legislative hurdles ahead were on display as well. Significantly, these include the cost of a water bill and finding ways to pay for it.

“It’s very difficult to get consensus in California water on anything that’s meaningful,” acknowledged Sen. Dianne Feinstein, D-Calif.

Perhaps underscoring the big gaps remaining, Feinstein and Democratic Sen. Barbara Boxer departed after delivering their statements and missed the testimony of Rep. David Valadao, R-Hanford, the author of the House bill. Valadao, in turn, made a point of inviting both of the absent senators to visit the drought-stricken San Joaquin Valley.

“Unfortunately,” said Dan Keppen, executive director of the Family Farm Alliance, “two separate bills are of absolutely no value to a parched West.”

Introduced in late July by Feinstein and Boxer, the 147-page Senate bill is the political dance partner to a 170-page bill approved July 16 by the House of Representatives along largely party lines.

The Senate bill authorizes partial funding for new water storage projects, including Temperance Flat proposed for the Upper San Joaquin River and Sites Reservoir proposed for the Sacramento Valley. It funds water recycling and desalination projects and potentially eases the delivery of more water to San Joaquin Valley farms.

“

THE MORE SENATORS THAT TAKE AN INTEREST, THE GREATER THE CHANCE OF SUCCESS.

Todd Neves, a director of Westlands Water District

Some Senate language resembles what House Republicans wrote, such as expediting reviews of water transfers and mandating more regular monitoring of the threatened delta smelt.

Unlike the House bill, though, the Senate package leaves the ambitious San Joaquin River restoration program intact. The Senate bill ignores a House command to sell the New Melones Dam to local water districts. The House bill explicitly targets the Endangered Species Act more aggressively than the Senate bill.

Tellingly, the House bill would make permanent changes in law. The Senate bill is cast as a temporary measure.

Jeff Kightlinger, general manager of the politically potent Metropolitan Water District of Southern California, testified that his district supports the Senate bill but has taken no position on the House bill.

“We believe (the House bill) will slow decision-making, generate significant new litigation and limit the real-time operational flexibility that has proven critical to maximizing water delivery,” Deputy Interior Secretary Michael L. Connor told the Senate panel.

Murkowski has stressed that a California bill would only move as part of a larger package.

The contours of the broader package grew more apparent Thursday, with lawmakers touching briefly on two Alaska-related measures dealing with hydroelectric facilities, a New Mexico drought bill and, from far outside the West, a North Carolina hydroelectric project bill.

“The more senators that take an interest, the greater the chance of success,” noted Todd Neves, a third-generation farmer and a director of Westlands Water District, the giant that provides water to farms on the west side of the San Joaquin Valley.

Neves, fellow Westlands director Sarah Woolf, Woolf’s husband, Chris, and Johnny Amaral, the district’s deputy general manager for external affairs, spent the day before the hearing making the Capitol Hill rounds, testing the waters and answering questions in several House offices.

Michael Doyle: 202-383-0006, @MichaelDoyle10



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Massive El Niño is now 'too big to fail,' scientist says



Rong-Gong Lin II · Contact Reporter

OCTOBER 9, 2015, 7:43 AM

A

n El Niño that is among the strongest on record is gaining strength in the Pacific Ocean, and climate scientists say California is likely to face a wet winter.

“There’s no longer a possibility that El Niño wimps out at this point. It’s too big to fail,” said Bill Patzert, climatologist for NASA’s Jet Propulsion Laboratory in La Cañada Flintridge.

“And the winter over North America is definitely not going to be normal,” he said.

Water and Power is The Times' guide to the drought. Sign up to get the free newsletter >>

Article continues below ↓

Just three weeks ago, the National Weather Service’s Climate Prediction Center raised the odds of California getting doused with a wetter-than-average winter. Southern California now has more than a 60% chance of a wet winter, a 33% chance of a normal winter and less than a 7% chance of a dry winter.

Article continues below ↓

The odds of a wet winter further north are increasing too. San Francisco has more than a 40% chance of a wet winter, 33% chance of a normal winter and less than a 27% chance of a dry winter.

Scientists know that El Niño is getting stronger because of rising sea-level ocean temperatures in the Pacific west of Peru, and a change in directions of the wind along the equator that allow warm waters to surge toward the Americas.

“The trade winds are weakening yet again. That should strengthen this El Niño,” Patzert said.

Those factors can cause a dramatic change of patterns in the atmosphere, and can take winter storms that normally pour rain on the jungles of southern Mexico and Central America and move them over California and the southern United States.

“The ocean has warmed up a little bit more. ... It’s certainly still a strong event,” said Mike Halpert, deputy director of the Climate Prediction Center. Halpert said this El Niño still isn’t quite as strong as the current record holder, the El Niño that developed in 1997, but it’s “still respectable. Probably the second strongest we’ve seen at this time of year.”

Article continues below ↓

“We certainly favor a wetter-than-average winter,” Halpert said. Though he cautioned that “when you’re dealing with climate predictions, you can never get a guarantee,” he added, “this could be one of the types of winters like in 1997-98.”

That winter was dramatic for California. Heavy rains came to Orange County in December 1997, dropping an astonishing 7 inches of rain in some parts of the region, flooding mobile home parks in Huntington Beach and forcing crews to use inflatable boats to make rescues, while mudslides destroyed hillside homes.

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El Niño rains started in Los Angeles County in January 1998, and were the worst across the region in February. Downtown L.A. got about a year’s worth of rain in February alone. Two California Highway Patrol officers died in San Luis Obispo County after their car fell into a massive sinkhole, and devastating mudslides plowed into hillside homes in Laguna Beach, killing residents. More than half a billion dollars in damage was reported in California, and 17 people died.

El Niño is a relatively newly studied phenomenon. Halpert said the 1982-83 El Niño, the second-strongest on record, came as a shock, with few prepared for it. But there was warning about the 1997-98 El Niño, and Halpert said he hopes people in California are preparing for the prospect of a damaging wet winter now.

“Hopefully, the fact that this has been well-advertised, folks are preparing now for what could be a very wet-type winter,” Halpert said.

Patzert, the climatologist for the Jet Propulsion Laboratory, said “it’s fair to say” that the current El Niño will be similar to the strongest two El Niños on record.

“If you look at the really big El Niños, that’s ’82-’83 and ’97-’98, essentially the whole state got hosed, from north to south,” Patzert said. “For instance, Northern California, Sacramento, got almost double the rainfall, and we certainly got double here in L.A.”

Patzert said satellite images of the Pacific Ocean showing the height of seawater -- a reflection of how warm the water is -- show an enormous area at a higher temperature, an area of the ocean that is larger than it was at this time in 1997.

It is so big, Patzert said, that even if ocean temperatures were to start dropping now, El Niño would still have a significant impact on this winter’s rains.

Patzert said Southern California and the rest of the southern U.S., all the way to Florida, can expect a very wet winter, while it should be relatively mild in the upper part of the United States, including New England, a dramatic contrast to the intense snowfall Boston received last winter.

But Patzert issued a note of warning to Californians: Don’t think this El Niño spells the end of this state’s punishing four-year drought.

The last record El Niño that ended in 1998 was quickly followed by the arrival of El Niño’s dry sister, La Niña.

“Thinking ahead one year, could we be whiplashed from deluge back to drought again?” Patzert said. “Because remember, La Niña is the diva of drought.”

Patzert said that in the last 140 years in California, seven out of every 10 years are dry, so it would be foolish to declare an end to water conservation during this winter’s rains.

“This is no time to celebrate and backtrack on our water-saving habits that we’ve developed recently,” Patzert said. “Because conservation is going to be our new lifestyle. Our new normal.”

Follow me on Twitter for more news on El Nino: @ronlin

MORE ON EL NINO:

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Utility Puts Gray Water to Use at Construction Sites for Conservation

The move away from using fresh water for soil conditioning and dust control at project sites has saved nearly 2 million gallons of water.

Lake Elsinore-Wildomar, CA

By Alexander Nguyen (Patch Staff) October 14, 2015

Reclaimed water is now in use at construction sites served by the Riverside-based Western Municipal Water District as part of the agency's conservation strategy, and the effort is helping save hundreds of thousands of gallons of drinking water, officials said today.

"The drought has really given us an opportunity to push even harder within our business practices to ensure that we're making the most of this precious resource," said WMWD General Manager John Rossi. "We continue our steadfast dedication to secure a reliable water supply for our customers."

According to the utility, the move away from using fresh water for soil conditioning and dust control at project sites has saved nearly 2 million gallons of potable water since July.

Rossi acknowledged that the shift to recycled water for dust mitigation is part of the WMWD's overall strategy to meet the state's conservation mandates, implemented in June.

Officials estimated that by the end of the year, the volume of drinking water conserved will equal the amount available to serve 500 WMWD customers. The agency based the figures on the fact that it supplies about 10 construction sites with water for projects.

"Western is committed to providing water to businesses in our growing region, and using recycled water for parts of these projects is the right source for the right use," Rossi said. "We continue to look for innovative ways to make the most out of our water supply."

The district serves parts of Corona, Jurupa Valley, Moreno Valley, Riverside and Wildomar.

THURSDAY, OCTOBER 15, 2015

UNION CITY

**Sinkhole repair closes
Alvarado Boulevard**

A sinkhole forced the closure of a busy intersection Wednesday afternoon as workers rushed to make repairs and commuters had to find alternative routes.

City officials learned of the sinkhole at the intersection of Alvarado Boulevard and Fair Ranch Road just before noon, city communications and marketing manager Lauren Sugayan said in a statement.

According to a tweet from the city's account, the westbound lane on Alvarado Boulevard was closed between Fair Ranch Road and New Haven Street until further notice.

No information on the size of the sinkhole was released.

The intersection adjoins the Alvarado Ranch Shopping Center and is near Alvarado Middle School. Police said motorists should expect heavy traffic.

— George Kelly, Staff



DATE: October 16, 2015

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Union Sanitary District and Alameda County Water District Collaborate to Repair Sinkhole in Union City

Repairs to a sinkhole in Union City will continue through the weekend, as crews from both the Alameda County Water District and the Union Sanitary District seek to fix damaged pipes and restore normal service to customers of both agencies.

Both ACWD and USD have crews in place around the clock and hope to complete repair work by Tuesday, Oct. 20. Until then, westbound lanes on

Alvarado Boulevard will remain closed between Fair Ranch Road and Fredi Street.

The sinkhole was reported on Wednesday afternoon, and crews from both agencies have been on site since then. As the work progresses and the extent of damage is more clearly understood, it is possible that the timeline may be adjusted.

The cause of the sinkhole is undetermined at this time. The focus of both utilities remains on completing repairs as quickly as possible and on reopening the roadway to traffic. ACWD was able to bypass the line early Thursday and restore water service to all 20 customers that were impacted. Permanent repairs have been completed and water quality sampling analysis is being conducted. Sewer service continues without disruption.

After excavating the site, ACWD crews determined that the water line had more extensive damage than previously believed. The additional damage has required further excavation and more time-consuming repair.

“What initially appeared to be 40 feet of damage now is about 53 feet,” said Marty Koller, ACWD Board President. “That additional damage changed the equation for removal and repair pretty significantly. Fortunately, our crews were

able to restore service to affected customers very quickly, and now a more permanent repair can be made.”

USD is working to set up a bypass that will allow use of a remote camera to assess damage. Excavation is expected to begin Saturday in order to reach USD’s main, which is 33 inches in diameter and 20 feet below street level. USD’s main is located below ACWD’s facilities in the affected area, and repairs to the water main had to be completed before USD could conduct its repair work.

Westbound lanes on Alvarado Boulevard between Fredi Street and Fair Ranch Road remain closed. One eastbound lane of Alvarado Boulevard is closed to traffic today until approximately 10 p.m. and on Saturday beginning at 7 a.m., when it is to remain closed until the repair is complete. This closure is necessary for USD to install a bypass line, as sewage cannot flow through the pipeline while repairs are made. After considering multiple options, this closure pattern was selected as the best method to expedite the repair and maintain the fire station’s ability to respond to emergencies.

“We appreciate the collaboration between all agencies as all of us work to complete repairs and open the roadway to the public,” said Jennifer Toy, USD Board President. “We all have the same priority – to get things back to normal for our customers as quickly and safely as possible.”

###

Union Sanitary District operates a 33 million gallon per day wastewater treatment facility in Union City and provides collection, treatment and disposal services to a total population of over 344,000 in Fremont, Newark, and Union City, CA. The District maintains over 800 miles of underground pipeline in its service area. For more information about Union Sanitary District, please visit www.unionsanitary.ca.gov.

For 100 years, the Alameda County Water District has supplied water to the residents and businesses of southern Alameda County. ACWD supplies drinking water to the more than 344,000 people living in the cities of Fremont, Newark, and Union City. For more information, please visit www.acwd.org.

Union City



ANDA CHU/STAFF

Workers repair a sinkhole at the intersection of Alvarado Boulevard and New Haven Street in Union City on Thursday. The hole, which measures 25 by 25 feet across and 10 feet deep, was reported Wednesday morning.

Repairs continuing on sinkhole

Cause of damage to roadway is still under investigation

By Chris De Benedetti
cdebenedetti@
bayareanewsgroup.com

UNION CITY — Crews on Thursday were continuing inspections and repairs on an expanding sinkhole near schools and a fire station in the Alvarado district, a city spokeswoman said.

The cause of the damage to the roadway is still under investigation, spokeswoman Lauren Sugayan said.

The hole, which measures 25 by 25 feet across and 10 feet deep, was reported Wednesday morning on a busy stretch of

Alvarado Boulevard, near a middle school and a fire station, Sugayan said.

At first, the sinkhole measured “6 by 6 feet — roughly the size of a Mini Cooper,” she said. “Now, it could fit about four SUVs.”

The sinkhole’s expansion is man-made, Sugayan said, as crews have excavated it while starting repair work.

Crews from Union City, Alameda County Water District and Union Sanitary District are working together on repairing the road as quickly as possible, Sugayan said.

Crews have removed pieces of asphalt and other road debris from the area and stabilized the hole by installing sheet piling in it,

she said.

An Alameda County Water District crew worked Thursday to fix a water main that broke after the damaged roadway sunk, officials said. Once the main is repaired, the agencies will continue trying to find out the sinkhole’s cause, Sugayan said.

The Union Sanitary District, which treats wastewater for Tri-City-area customers, will dig 15 feet below ground and inspect its sewage pipes, she said.

Police have closed the westbound lane of Alvarado Boulevard between Fair Ranch Road and New Haven Street and hope to reopen it Tuesday afternoon.

The deteriorating roadway is near Alvarado Mid-

dle School, a fire station, Holly Community Center and Alvarado Elementary School.

School officials have contacted parents at both schools through emails and automated phone calls, asking them to drop off and pick up children west of the sinkhole, New Haven Unified spokesman John Mattos said.

Police have been directing traffic near the schools and helping parents and drivers at the beginning and end of school days.

The middle school has 1,400 students and the elementary campus has 850, Mattos said.

“It was a very high-traffic area, anyway, before this,” he said.

FRIDAY, OCTOBER 16, 2015

California's drought

El Niño to reach far and wide

Above-average or average rain across entire state, scientists say

By Paul Rogers

progers@mercurynews.com

In the latest sign that El Niño conditions are likely to bring wet weather to drought-parched California, federal scientists on Thursday announced for the first time that the entire state — including the northern part of California from the Bay Area to the Oregon border — is now expected to receive average or above-average rainfall this winter.

More online

Read more coverage of science and the environment at www.mercurynews.com/science.

Until Thursday, scientists at the National Oceanic and Atmospheric Administration had been predicting that Southern California

El Nino

Continued from Page 1

was most likely to get drenching storms this winter, with Northern California — home of the state's largest reservoirs — less likely to receive a soaking.

Water temperatures and wind patterns in the Pacific Ocean have created the strongest El Niño in a generation. And although heavy rains are not guaranteed, the last two times conditions were this strong, in the winters of 1982-83 and 1997-98, rainfall totals in the Bay Area and much of the state were double the historic average, triggering massive flooding and mudslides.

The new report still establishes Southern California as the odds-on favorite for major downpours, but it expands the rainy outlook more broadly across the state for the months of January, February and March, which are expected to be the wettest.

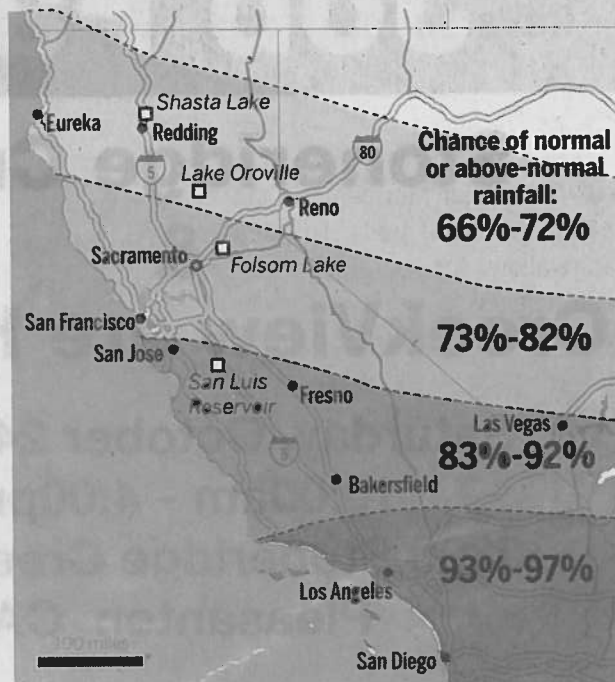
"We're very confident that this will persist through the winter and should result in some of the typical El Niño impacts that we've seen in the past," said Mike Halpert, deputy director of the NOAA's climate prediction center in College Park, Maryland.

Scientists at the NOAA — the parent agency of the National Weather Service — released maps showing that from Santa Barbara to the Mexican border, there is a 93 percent chance of average or above-average rainfall during those three months. From San Jose to Santa Barbara, there is an 83 percent chance of average or above-average rainfall, and from Humboldt County to San Jose there is a 73 percent chance of average or above-average precipitation.

"Everything continues

Odds of a wet winter

El Niño is expected to bring normal to above-normal rainfall to California between January and March, according to the NOAA.



Source: National Oceanic and Atmospheric Administration
BAY AREA NEWS GROUP

to line up in the right direction," said Jan Null, a meteorologist with Golden Gate Weather Services in Saratoga. "We haven't had a normal or above-normal winter in five years. To get out of the drought we have to have above-normal precipitation. So this is a good trend."

During much of the past four winters, a giant ridge of high pressure has been parked off the West Coast, diverting storms that would have soaked Californians north to Canada. There, they met cold air and brought massive snowstorms to Chicago, Boston and New York.

Could that "Ridiculously Resilient Ridge" return again this year to block El Niño storms?

Not likely, said the man who coined the term.

In past years, warm ocean conditions in the western Pacific Ocean built up the ridge, said Daniel Swain, a climate researcher

at Stanford University. But now, he said, the western Pacific is not as warm — and even if the ridge reappears, this El Niño is likely to affect the subtropical jet stream in ways that storms could barrel around the southern edges of the ridge and deliver rain to California.

Computer models are showing that by January the ridge will become a trough, which is favorable to bringing big storms into the state, Swain said.

"Even a normal winter will feel really wet to most people," he said. "I've been biking to the grocery store in January. I don't think that's going to happen this year."

El Niño is a disruption in the weather patterns over the Pacific. It occurs when the ocean's surface along the equator off Peru warms more than normal. Those warm waters release heat, changing wind directions and the jet stream. The con-

ditions often bring more and wetter storms to California.

As in the past, NOAA scientists and local experts on Thursday stressed that nothing is certain because the Earth's climate and weather patterns are so complex. If the storms are too warm, for example, they won't bring snow to help boost the Sierra Nevada snowpack, which normally provides nearly a third of California's water supply. If they are focused too far south, the storms won't fill the big reservoirs like Shasta, Oroville, Folsom and San Luis in Northern California that are key to the state's water system.

The state has suffered massive rainfall deficits after the driest four-year period since California became a state in 1850.

That said, Swain noted that some supercomputer climate models are "much more aggressive" than the NOAA's outlook in showing how widespread this El Niño's rainfall could be.

Meanwhile, as water agencies urge people not to let up on conservation, cities across the state are scrambling to clear storm drains and creeks, and homeowners are trimming trees and fixing roofs. A series of steady, drenching storms spread out over time would fill reservoirs without much damage. But so-called atmospheric river storms — "Pineapple Expresses" — in close succession could bring serious damage, as they have in other strong El Niño years.

"History has shown that with these real big El Niños, we have seen very big storms and a lot of landslides and floods," Halpert said. "That could be something that turns out this winter — that while we're still dealing with severe drought in California, we'll be also dealing with flooding at the same time. And that's certainly not unheard of."

Drowning marsh



KARL MONDON/STAFF

The Menlo Park Baylands surround the Facebook campus. A report urges that 54,000 acres of wetlands be restored by 2030. Without taking action, rising seawater threatens billions of dollars of development around the bay.

Report urges wetlands restoration in next 15 years to fight rising seas

By Paul Rogers

progers@mercurynews.com

San Francisco Bay is in a race against time, with billions of dollars of highways, airports, homes and office buildings at risk from rising seas, surging tides and extreme storms driven by climate change.

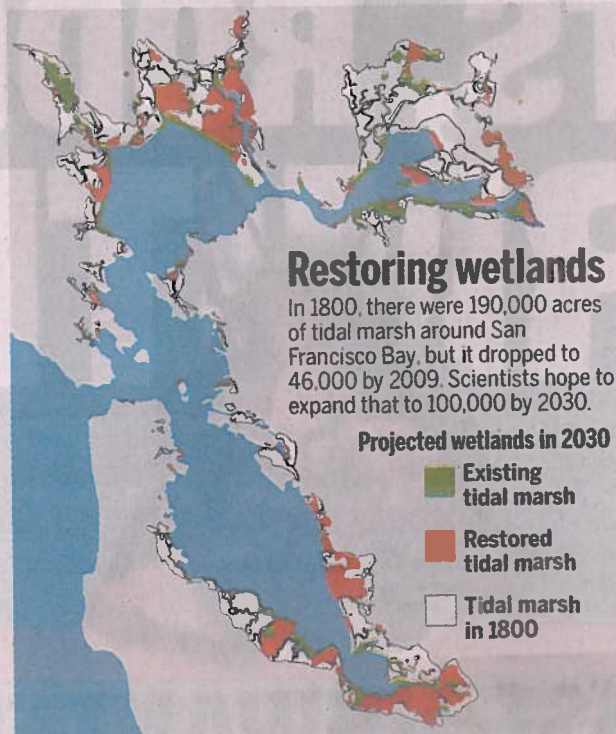
IF YOU'RE INTERESTED

To read the report titled "The Baylands and Climate Change: What We Can Do," go to www.baylandsgoals.org.

And to knock down the waves and reduce flooding, 54,000 acres of wetlands — an area twice the size of the city of San Francisco — need to be restored around the bay in the next 15 years.

That's the conclusion of a new report from more than 100 Bay Area scientists and 17 government agencies that may help fuel a regional tax measure aimed at addressing the looming crisis.

The other alternative, the report found, is to ring large



Source: San Francisco Estuary Institute

BAY AREA NEWS GROUP

Bay

Continued from Page 1

sections of the bay with sea walls and levees in the coming decades. But that would destroy many of the marshes and probably cost taxpayers more in the long run.

"If we don't change our approach, we'll see the marshes and mud flats start to drown," said Letitia Grenier, a biologist with the San Francisco Estuary Institute, a scientific research organization in Richmond.

"They'll start to erode," said Grenier, one of the report's main authors. "We'll have bigger waves coming in on high tides and storms — and more flooding. We'll lose our wildlife. And eventually the wetlands will be gone. You'll see levees and concrete sea walls. The water in many places will be higher than the land, like it is in New Orleans."

San Francisco Bay already has risen 8 inches since 1900, according to the tidal gauge at Fort Point, underneath the Golden Gate Bridge.

Driven by melting ice and expanding warming water, the bay and the Pacific Ocean off California will rise up to 1 foot in the next 20 years, 2 feet by 2050 and up to 5 feet by 2100, according to a 2012 study by the National Academy of Sciences.

Last year was the hottest year on Earth since modern temperature record-keeping began in 1880. This year is on pace to break that record. And the 10 hottest years all have occurred since 1998.

Similar to the way that Hurricane Sandy sent ocean waters pouring into New York City subways three years ago, low-lying areas around San Francisco Bay face major threats as sea level rises, the report found.



DAN ROSENSTRAUCH/STAFF ARCHIVES

Students from Riverview Middle School and Gateway High School, both in Bay Point, explore the shoreline and wetlands inside Bay Point Regional Shoreline. Shoreline communities will need sea walls as sea level rises, experts say.

Experts say some places will need sea walls, including the San Francisco and Oakland airports, Treasure Island, downtown San Francisco and shoreline communities like Foster City.

But in other places, there's still time to work with nature rather than against it, according to the report, titled "The Baylands and Climate Change: What We Can Do." That means restoring large sections of hayfields in the North Bay near Highway 37 and former

Cargill Salt industrial salt ponds in the South Bay back to tidal marsh, along with areas along the western and eastern sides of the bay.

Experts say time is running out because once the more severe sea level rise starts, restoring wetlands will be more difficult and expensive.

"We're at a critical crossroads. What we do in the next 15 or 20 years will largely determine what San Francisco Bay is going to look like 100 years from now," said Sam Schuchat, executive officer of the California Coastal Conservancy, a state agency that helped coordinate the report.

Wetlands provide natural flood protection by break-

ing up wave energy. They also filter pollutants, offer recreation for hikers and bicyclists, and are home to hundreds of species of fish and wildlife — from salmon to snowy egrets to harbor seals.

Since the Gold Rush in 1849, San Francisco Bay has shrunk by a third because of diking, development and filling. That largely stopped in the 1980s because of state and federal laws. Now the goal is to expand the bay back out.

In 1999, there were 40,000 acres of tidal marsh left around the bay, an 80 percent loss from 1800.

Scientists in 1999 wrote a report calling for 100,000 acres to restore the natural processes of the bay. Since then, 6,000 more have been restored, and another 26,000 acres have been purchased by state and federal agencies.

To reach the goal of 100,000 acres of healthy wetlands, the 26,000 acres has to be restored — and another 28,000 acres purchased and restored.

Total cost estimate: \$1.5 billion, Schuchat said.

"It's a lot of money, but it's cheaper to do it now than to wait for bad things to happen and then do things in a hurry down the road," he said. "We have a shot of maintaining what is really special about the bay and living in the Bay Area."

A coalition of groups — including Save the Bay, the Bay Area Council, Audubon California and the Silicon Valley Leadership Group — is working on a \$12 annual parcel tax for all nine counties around the bay. The groups are expected to place the measure, which would raise \$500 million over the next 20 years for wetlands restoration and flood control, on June ballots.

"There's a strong scientific reason for accelerating this marsh restoration work," said David Lewis, executive director of Save the Bay. "The main missing ingredient is funding. The sooner we get started, the more successful it will be."

There are other big challenges, however. Restoring marshes and raising their elevation requires millions of tons of sand and mud. Each year, roughly 2 million cubic yards is dredged out of shipping channels by the Port of Oakland and other harbors. But two-thirds of that is dumped in the ocean because it's the cheapest disposal method.

To use most of it to create new wetlands, federal rules have to be changed. More sediment also can come from cities re-engineering how they route streams to the bay, as well as water agencies removing sediment from behind dams.

"We've been fighting nature for so many centuries, but now we've won," biologist Grenier said. "Now to support ourselves, we need to work with nature."

Paul Rogers covers resources and environmental issues. Contact him at 408-920-5045.



DATE: October 19, 2015

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Union Sanitary District Crews Continue Work on Union City Sinkhole

Repairs to a sewer line damaged by last week's sinkhole in Union City will take longer than initially projected, although repair crews hope to conduct the work in a way that minimizes the impact on traffic in the area.

Over the weekend, crews from Union Sanitary District (USD) were able to do a more thorough examination of the damage than had been possible when the sinkhole remained flooded by a broken water main. That examination revealed that damage to the sewer pipe some 20 feet underground was more extensive than previously believed. The pipe now appears to be damaged in two different spots about 20 feet apart. Further, a manhole at the site of the sinkhole has been extensively damaged by the shifting ground.

The cause of last week's sinkhole is not known at this time. USD's focus has been and continues to be completing repairs as safely and quickly as possible.

Soil conditions in the area, as well as a high level of groundwater, have made excavation more difficult and will complicate the repair options available to work crews.

USD crews have been on site since the sinkhole was first discovered, although excavation and diagnostic work had to wait until the water main above the sewer line was repaired.

"Our crews are working as quickly as possible," said Paul Eldredge, USD general manager, "but it's important that we do this repair correctly and only have to do it once."

USD is evaluating several possible methods of repair, and will have to conduct additional diagnostic work before determining which method to use. No timetable for completing the repair is possible at this time.

Motorists, however, should see an improvement to the traffic situation on Alvarado Boulevard and the surrounding area as early as this week. USD crews hope to re-open one westbound lane of Alvarado Boulevard as early as Wednesday, and may be able to reopen an additional eastbound lane next week.

Currently, both westbound lanes of Alvarado Boulevard are closed between Fair Ranch Road and Fredi Street. One westbound lane of the boulevard will remain closed throughout the repair project, as USD crews bypass the damaged pipeline while repairs are made.

###

Union Sanitary District operates a 33 million gallon per day wastewater treatment facility in Union City and provides collection, treatment and disposal services to a total population of over 344,000 in Fremont, Newark and Union City, CA. The District maintains over 800 miles of underground pipeline in its service area. For more information about Union Sanitary District, please visit www.unionsanitary.ca.gov.