



BOARD MEETING AGENDA
Monday, January 12, 2014
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*

David M. O'Hara
Attorney

1. Call to Order.

2. Pledge of Allegiance.

3. Roll Call.

- Motion 4. Approve Minutes of the Meeting of December 8, 2014.

- Information 5. Monthly Operations Report for November 2014 *(to be reviewed by the Budget & Finance Committee)*.

6. Written Communications.

7. 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 8. Resolution No. ____, Approve Exception to the 180-Day Waiting Period for Post-Retirement Employment for David E. Livingston *(to be reviewed by the Personnel Committee)*.

- Motion 9. Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Carollo Engineers for Providing Engineering Services for the Design of the Fremont and Paseo Padre Lift Stations Improvements Project *(to be reviewed by the Construction Committee)*.

- Motion 10. Resolution No. ____, Accept Construction of the Boyce Road Lift Station Project – Phase 2 From Pacific Infrastructure Corporation and Authorize the Attorney for the District to Record a Notice of Completion *(to be reviewed by the Construction Committee)*.
-
- Motion 11. Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Carollo Engineers for the Pump Station Master Plan *(to be reviewed by the Construction Committee)*.
-
- Information 12. Information Items:
a. Check Register.
b. Pine Street Easement Improvements Project *(to be reviewed by the Construction Committee)*.
c. High Speed Aeration Blower Project *(to be reviewed by the Construction Committee)*.
d. Report on the EBDA Commission Meeting of December 18, 2014.
-
- Information 13. Committee Meeting Reports. *(No Board action is taken at Committee meetings)*:
a. Construction Committee – scheduled for Thursday, 1/8/15 at 8:45 a.m.
b. Budget & Finance Committee – scheduled for Thursday, 1/8/15 at 4:30 p.m.
c. Personnel Committee – scheduled for Friday, 1/9/15 at 9:30 a.m.
d. Legal/Community Affairs Committee – will not meet.
-
- Information 14. General Manager's Report. *(Information on recent issues of interest to the Board)*.
-
- Information 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 Newsletter Draft Review Workshop in the Centerville Conference Room on Monday, January 26, 2015, at 5:30 p.m.
-
17. Adjournment – The Board will then adjourn to the next Regular Meeting in the Boardroom on Monday, January 26, 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



BOARD MEETING OF JANUARY 12, 2015

Committee Membership:

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

Construction Committee, Thursday, January 8, 2015 at 8:45 a.m.

9. Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Carollo Engineers for Providing Engineering Services for the Design of the Fremont and Paseo Padre Lift Stations Improvements Project.
 10. Resolution No. ____, Accept Construction of the Boyce Road Lift Station Project – Phase 2 From Pacific Infrastructure Corporation and Authorize the Attorney for the District to Record a Notice of Completion.
 11. Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Carollo Engineers for the Pump Station Master Plan.
 - 12b. Pine Street Easement Improvements Project.
 - 12c. High Speed Aeration Blower Project.
-

Budget & Finance Committee, Thursday, January 8, 2015 at 4:30 p.m.

5. Monthly Operations Report for November 2014.
-

Personnel Committee, Friday, January 9, 2015 at 9:30 a.m.

8. Resolution No. ____, Approve Exception to the 180-Day Waiting Period for Post-Retirement Employment for David E. Livingston
-

Committee meetings may include teleconference participation by one or more Directors.
(Gov. Code Section 11123)

Committee Meetings are open to the public. Only written comments will be considered. No action will be taken.

**MINUTES OF THE MEETING OF THE
BOARD OF DIRECTORS OF
UNION SANITARY DISTRICT
November 24, 2014**

CALL TO ORDER.

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

PLEDGE OF ALLEGIANCE.

ROLL CALL.

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

STAFF: Paul Eldredge, General Manager/District Engineer
Dave O'Hara, District Counsel
Rich Cortés, Business Services Manager
Sami Ghossain, Technical Services Manager
Robert Simonich, Fabrication, Maintenance, and Construction Manager
James Schofield, Collection Services Coach
Andy Morrison, Former Collection Services Manager
Armando Lopez, Treatment & Disposal Services Manager
Dave Livingston, Former Treatment & Disposal Services Manager
Shawn Nesgis, Maintenance/TV Coach
Judi Berzon, Human Resources Administrator
Richard Scobee, Senior GIS/Database Administrator
Maria Scott, Principal Financial Analyst
Michelle Powell, Communications Coordinator
Jason Yeates, Environmental Compliance Inspector III
Regina McEvoy, Assistant to the GM/Board Secretary

Guests: Nesgis Family
Bill and Beverly Copeland, Editors of MSA Maintainer
Mike Giles, MSA Representative

President Fernandez announced the following information item would be considered out of order:

**RECOGNIZE SHAWN NESGIS AS RECIPIENT OF THE 2014 JERRY D. SCOTT
OUTSTANDING SUPERINTENDENT AWARD, AND RECOGNIZE ANDY MORRISON AS
RECIPIENT OF THE MAINTENANCE SUPERINTENDENTS ASSOCIATION LIFETIME
MEMBERSHIP.**

Mike Giles from the Maintenance Superintendents Association presented Shawn Nesgis with the 2014 Jerry D. Scott Outstanding Superintendent Award, and Andy Morrison with the Maintenance Superintendents Association Lifetime Membership Award.

APPROVAL OF THE MINUTES OF NOVEMBER 24, 2014.

It was moved by Director Kite, seconded by Vice President Toy, to Approve the Minutes of the Board of Director's Meeting held November 10, 2014. Motion carried unanimously.

WRITTEN COMMUNICATIONS.

There were no written communications.

ORAL COMMUNICATIONS.

There were no oral communications.

AUTHORIZE THE GENERAL MANAGER TO EXECUTE AN AGREEMENT WITH FORMULA DESIGN FOR PUBLIC WEBSITE REDESIGN, CONTENT MANAGEMENT SYSTEM, AND HOSTING.

The Budget & Finance Committee reviewed this item. Richard Scobee stated a request for proposals was issued, and the District received seven responses. Four firms (Bigwig Monster Media, Civic Live, CivicPlus, Formula Design) were invited to interview and give a product demonstration, and references were checked for three firms (Bigwig Monster Media, Civic Live, Formula Design). Based on price, experience, and proposed solution, Formula Design was selected for the project. Formula Design will redesign the District's public website, implement a new content management system, provide hosting for the new site, and migrate the District's website content.

It was moved by Secretary Handley, seconded by Vice President Toy, to Authorize the General Manager to Execute an Agreement with Formula Design for Public Website Redesign, Content Management System, and Hosting. Motion carried unanimously.

AMEND THE INVESTMENT POLICY TO ALLOW THE PURCHASE OF SENIOR DEBT OBLIGATIONS OF THREE SPECIFIC "SUPRANATIONALS".

The Budget & Finance Committee reviewed this item. Rich Cortés stated Investment Policy No. 2030 states, "Staff shall report to the Board in advance of initiating any new investments not used at the time of the latest policy revision." The recent passage of AB1933 added subsection (q) to Government Code Section 53601 which added an allowable investment effective January 1, 2015. Amending the investment policy will allow the District to purchase senior debt obligations from the International Bank for Reconstruction and Development, International Finance Corporation, and the Inter-American Development Bank.

It was moved by Director Lathi, seconded by Secretary Handley, to Amend the Investment Policy to Allow the Purchase of Senior Debt Obligations of Three Specific "Supranationals". Motion carried unanimously.

RESOLUTION NO. 2743, DESIGNATION OF AUTHORIZED REPRESENTATIVES FOR FEMA AND STATE OES DISASTER ASSISTANCE.

The Budget & Finance Committee reviewed this item. Rich Cortés stated the Federal Emergency Management Agency (FEMA) administers federal disaster assistance programs, and the State Office of Emergency Services (OES) administers state disaster assistance

programs. The resolution designating the District's agents authorized to execute and file documents seeking State and Federal disaster financial assistance must be updated every 3 years. Resolution No. 2743 states General Manager Paul R. Eldredge, Business Services Manager Rich Cortes, and Technical Services Manager Sami Ghossain are the District's designated representatives.

It was moved by Secretary Handley, seconded by Director Kite, to Adopt Resolution No. 2743 Designating Authorized Representatives for FEMA and State OES Disaster Assistance. Motion carried unanimously.

Vice President Toy exited the Boardroom at 7:11 p.m.

APPROVE POLICY NO. 2760 – STANDARDIZED EQUIPMENT.

The Construction Committee reviewed this item. Sami Ghossain stated purpose of this item is to standardize the purchase of equipment. Policy No. 2760 was last reviewed by the Board of Directors in 2011.

It was moved by Director Kite, seconded by Secretary Handley, to Approve Policy No. 2760 – Standardized Equipment. Motion carried with the following vote:

Ayes:	Fernandez, Handley, Kite, Lathi
Noes:	None
Absent:	Toy
Abstain:	None

Vice President Toy reentered the Boardroom at 7:13 p.m.

RESOLUTION NO. 2744, APPROVING THE UPDATED STANDARDIZED EQUIPMENT LIST FOR PROJECTS AT UNION SANITARY DISTRICT FACILITIES.

The Construction Committee reviewed this item. Sami Ghossain stated Policy No. 2760 and the Standardized Equipment List is reviewed by the Board of Directors every three years. The 2014 Standardized Equipment List will retain the same list of equipment from the List approved in 2011.

It was moved by President Fernandez, seconded by Vice President Toy, to Adopt Resolution No. 2744, Approving the Updated Standardized Equipment List for Projects at Union Sanitary District Facilities. Motion carried unanimously.

APPROVE THE UPDATED VERSION OF THE PROJECT EXPENDITURES POLICY.

The Construction Committee reviewed this item. Sami Ghossain stated the Project Expenditures policy was updated by the Technical Services Manager, and reviewed by both the Executive Team and Human Resources.

It was moved by Director Lathi, seconded by Director Kite, to Approve the Updated Version of the Project Expenditures Policy. Motion carried unanimously.

APPROVE THE PUBLICLY AVAILABLE PAY SCHEDULE.

The Personnel Committee reviewed this item. Judi Berzon stated the Publicly Available Pay Schedule is updated as needed. Current changes include Tim Grillo's promotion from Associate Engineer to Senior Engineer, and the addition of the Board of Directors. The proposed Publicly Available Pay Schedule is effective December 8, 2014.

It was moved by Director Lathi, seconded by President Fernandez, to Approve the Publicly Available Pay Schedule. Motion carried unanimously.

RESOLUTION NO. 2745, AUTHORIZING EXECUTION OF THE FIRST AMENDMENT TO THE JOINT EXERCISE OF POWERS AGREEMENT BETWEEN UNION SANITARY DISTRICT AND ALAMEDA COUNTY WATER DISTRICT.

The Budget & Finance Committee reviewed this item. Paul Eldredge stated the proposed amendment would allow the Alameda County Water District (ACWD) to issue new bonds, in addition to clarifying language regarding responsibility

It was moved by Vice President Toy, seconded by Director Lathi, to Adopt Resolution No. 2745 Authorizing the Execution of the First Amendment to the Joint Exercise of Power Agreement Between Union Sanitary District and Alameda County Water District. Motion carried unanimously.

INFORMATION ITEMS:

Check Register. All questions were answered to the Board's satisfaction.

AGENDA FOR THE CHECK-IN WITH THE GENERAL MANAGER (MINI-RETREAT) TO BE HELD DECEMBER 15, 2014.

Paul Eldredge stated the Check-in with the General Manager was scheduled as a follow up to the Board retreat held September 29, 2014.

VEHICLE GATE SECURITY GUARD.

The Budget & Finance Committee reviewed this item. Sami Ghossain stated a vehicle gate security guard will be hired due to increased vehicular traffic at the District and to increase security for the plant. The vehicle gate security guard will be a temporary part-time position, and will work from 6 – 8:30 am for a period of six months. The guard will ensure each vehicle uses a code to enter the gate, and all individuals entering the gate are verified. The Guard is expected to be in place by February, and the anticipated cost is \$2,000/month.

CONSULTANT SHORT LIST FOR DESIGN AND CONSTRUCTION MANAGEMENT OF CAPITAL IMPROVEMENT PROJECT.

The Construction Committee reviewed this item. Sami Ghossain stated the Consultant Short List is reviewed and updated by the Capital Improvement Project (CIP) Team every three years.

HIGHLIGHTS OF THE JUNE 2013 CALPERS RETIREMENT VALUATION.

The Budget & Finance Committee reviewed this item. Maria Scott presented the actuarial report on the District's pension plan as received annually from CalPERS. The Board had previously inquired about options to paying off the District's pension unfunded liability quicker than the PERS 30 year horizon. In an effort to increase competition on the scope and reduce the price, a request for quotation was issued to 14 vendors and one response was received. Staff will continue to investigate options for reducing the unfunded liability and increase our funded percentage.

UPCOMING AND UNSCHEDULED BOARD WORKSHOP TOPICS.

Paul Eldredge stated the workshop schedule

COMMITTEE MEETING REPORTS:

The Construction, Budget & Finance, and Personnel Committees met.

GENERAL MANAGER'S REPORT:

Paul Eldredge reported the following:

- Influent flows to the treatment plant during the last rain storm peaked at about 40 mgd before subsiding. The Newark pump station experienced significant flows during the recent storms, and staff are investigating potential causes for the anomaly.
- Steve Bullis began work as Collection System I Worker
- Mike Fulkerson began work as Treatment Plant III Trainee
- Ric Pipkin, previous Night Coach for Treatment and Disposal (T&D), is now the T&D Day Coach.
- Recruitment has begun for the T&D Night Coach and Collection Services Coach positions, and will close on January 8, 2015.
- In addition to the aforementioned Coach positions, the District is preparing for eight additional recruitments in 2015. This does not include potential backfilling as individuals may be promoted.
- There were no sanitary sewer overflows for the month of November.
- The November Monthly Operations report will be presented at the first Board meeting in January.
- Two odor complaints were received during the month of November.
- The Administration building, and the Operations building leaked during the recent rain storms. Staff continues to investigate and address the leaks as necessary.
- Directors and staff bid farewell to Andy Morrison and Dave Livingston who will retire at the end of the month.

OTHER BUSINESS:

There was no other business.

ADJOURNMENT:

The meeting was adjourned at 7:59 p.m. to the Unclassified Staff Benefits and Check-in with the General Manager (Mini-Retreat) Combined Board Workshop in the Boardroom on Monday, December 15, 2014 at 6:30 p.m.

The Board will then adjourn to the next Regular Meeting in the Boardroom on Monday, January 12, 2015 at 7:00 p.m.

SUBMITTED:

ATTEST:

REGINA McEVOY
SECRETARY TO THE BOARD

TOM HANDLEY
SECRETARY

APPROVED:

MANNY FERNANDEZ
PRESIDENT

Adopted this 12th day of January, 2015

**Directors**

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
*General Manager/
District Engineer*

David M. O'Hara
Attorney

DATE: January 5, 2015

MEMO TO: Board of Directors - Union Sanitary District

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

SUBJECT: Agenda Item No. 5 - Meeting of January 12, 2015
Information Item: **Monthly Operations Report for November, 2014**

Background

Attached is the November 2014 Operations Report. Staff is available to answer questions regarding information contained in the report.

Table of Contents

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/FMC	Armando Lopez	T&D
Fabrication, Maintenance, and Construction	Robert Simonich	FMC

Recommendation

File Report.

GENERAL MANAGER'S SUMMARY

Below is a summary of major activities that occurred at the District during November 2014.

ODOR COMPLAINTS: There were two odor complaints received in the month of November, both were in Newark. The first was investigated, and no odor was found. Upon investigating the second complaint it was discovered that three of our manholes had high sewer gas H₂S. The manholes were covered with plastic and filled the other ring holes with ram neck. We were unable to determine the exact cause of the odor. The assumption is that the recent plant shut down caused the odor or the adjacent by-pass pumping for a CIP project may have caused it. We conducted follow up testing for a week and detected no other odors. USD will work on a permanent fix that could include installing a solid water tight lid.

SAFETY: There were no recordable injuries during November. We had one minor strain and the employee declined medical treatment. There was one employee on modified duty and two employees out because of work related injuries. With the concern about Ebola being in the media, we are monitoring discussions and recommendations from the CDC to make sure we have the best information. Ebola exposure from wastewater is an industry wide issue and we are making sure we provide the necessary protection for our employees from all viruses that may be present. We received a 71 page survey from CSRMA, our insurance pool, to evaluate our risk management and loss control programs. Once we complete and submit the survey in January we will look forward to any recommendations from CSRMA.

FABRICATION, MAINTENANCE, AND CONSTRUCTION (FMC):

- FMC completed 840 preventive maintenance work orders.
- FMC completed 65 of out 71 corrective work orders that were initiated in the month of November.
- FMC continues to reduce the corrective work orders over 90 days old.
- Critical repairs were made to all of the RAS splitter box weir gates.

FINANCIAL:

- Met with SSC Study consultant to review draft Executive Summary.
- Attended EPA seminar on new WIFIA (Water Infrastructure Finance and Innovation Act) funding. WIFIA is targeted for minimum of \$20M projects with max of 50% Federal funding. USD does not have \$40M projects on the horizon, so there is not much benefit for the District.
- Developing CAFT for FY'14 submission to GFOA.
- Reviewed ACWD/USD Finance JPA agreement.
- Attended webinar on Supranational bonds.

COLLECTION SYSTEM:

- Collection Services continues to catch up on their preventative maintenance program. During the month of November the Maintenance Team cleaned over 13 miles and inspected over 10 miles of sanitary sewer.
- The Construction Team completed 47 main repairs and responded to 17 service requests.
- Collection Services continued its collaborative efforts by participating in the Collection System of the Future Benchmarking group, BACWA Committee, CASSE Benchmarking Committee, and with the State Committee rewriting the SSMP Development Guide.

- Collection Services began the recruiting process for the new CS Coach.
- Collection Services conducted numerous trainings including the recertification of 5 forklift operators.
- Congratulations to CS Coach Shawn Nesgis for receiving the Jerry D. Scott Superintendent of the Year Award from the Maintenance Superintendents Association (MSA).

PLANT OPERATIONS:

- The plant effluent remained in compliance with all NPDES permit requirements.
- Began preparing analytical data for the Old Alameda Creek Intermittent Wet Weather NPDES permit application.
- Began preparation of a final report for the treatment plant side stream nitrogen removal pilot study (anitamox).
- Toured EBMUD organics codigestion receiving station with the BACWA air committee.
- Met with a representative from Sanitaire to discuss in-situ cleaning of aeration basin membranes.

PROJECTS: Updates of selected projects:

- **Safety Kleen** – An Administrative Order for Safety Kleen was issued. The AO was appealed and the appeal was responded to. Staff continued to work with Safety Kleen to return to compliance.
- **Cogeneration Project** – The operational test of the engine generators and digester gas conditioning system has been completed and the demolition of the existing digester gas equipment has begun.
- **Primary Digester No. 5 Rehabilitation Project** – Approximately 95% of the interior coating replacement has been completed. Corrosion consultant also completed their evaluation on the condition of the digester dome and side skirt.
- **Thickener Control Building Improvements Project** – The installation of the concrete slab for the new Thickener Electrical Building has been completed. Electrical duct bank and deep well anode installations scheduled to be completed in December.
- **Upper Hetch Hetchy SS Rehabilitation** – All pipe lining work is complete. Street restoration and site improvements are in progress. Project should be complete in January.

STAFFING & PERSONNEL:

Recruitments and Selection

- John Hwang joined the District as Construction Inspector II
- Andy Trinh joined the District as Engineering Technician I

Other

- The HRA attended the Liebert Cassidy Whitmore employment consortium planning meeting to select the training for calendar year 2015. The HRA and HR Analyst attended the California Public Employers' Labor Relations Association annual conference on updates to employment law and labor relations court decision and best practices.
- The HRA and Environmental Health and Safety Program Manager, along with the General Manager, met with the representatives from Omnicare, an occupational health facility in the Tri-Cities.

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

- Met with Kris Braunschweig from Republic Services to see if there were any opportunities to partner together in the future.
- Met with Fred Diaz, City Manager of Fremont, to introduce myself and to let the City know we value them.
- Did a presentation for the League of Women Voters in partnership with Alameda County Water District titled "Water In/Water Out" at the Fremont Library.
- Met with Jason Werner, General Manager of the Oro Loma Sanitation District.
- Held interviews for and selected two new Work Group Managers.
- Board Workshop in the USD Video.
- Board Workshop for the Newsletter.
- Met with representatives from the Fremont Public Works Department for further discussions on their Fremont Boulevard widening project.



ODOR REPORT November 2014

During the recording period from November 01, 2014 through November 30, 2014, there were two odor related service requests received by the District.

City: Newark

1. Complaint Details:

Date: 11/9/2014
Location: WOODBINE PL
Wind (from): North East
Temperature: 56 Degrees F

Time: 7:25 pm
Reported By: Manen Banuelos
Wind Speed: 2 mph
Weather: Clear

Response and Follow-up:

I inspected the USD manholes in front of the property and the trunk line manholes in back of property. I also inspected the adjacent storm drains inlets and detected no odor. We relayed the findings to the reporting party and asked them to call us back if the odor returned.

2. Complaint Details:

Date: 11/13/2014
Location: MAYHEWS LANDING RD
Wind (from): West
Temperature: 66 Degrees F

Time: 12:00 pm
Reported By: Angela Borg
Wind Speed: 8 mph
Weather: Cloudy

Response and Follow-up:

I inspected the USD manholes, storm drain inlets and surrounding areas. I could not detect any odor using our gas detector. We contacted Mrs. Borg and relayed our findings. We gave her our brochure and told her to call us back if the odor returns. At 7:30 pm that evening, Mrs. Borg called us again and we did find three of our manholes with high sewer gas H₂S. We covered these manholes (S11028, S11040 and S11036) with plastic and filled the outer ring holes with ram neck. We were unable to determine the exact cause of the odor complaint. The assumption is that the recent plant shut down caused the odor complaint or the adjacent by-pass pumping for a CIP project may have caused it. We conducted follow up testing for a week and detected no other odors. USD will work on a permanent fix that could include installing a solid water tight lid.



Legend

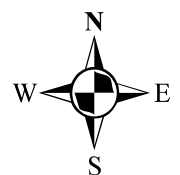
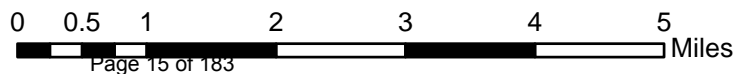
Odor Complaints: November 2014

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

Odor Complaints: Dec. 2013 to Oct. 2014

- ★ Odor found, USD resolved (5)
- Odor found, not related to USD (6)
- ▲ No odor found (13)

Location of Odor Reports December 2013 to November 2014



HOURS WORKED AND LEAVE TIME BY WORK GROUP

June 28, 2014 to November 14, 2014

DIVISION	Reg.			Total				Historical FY14			
	Hours	Lt Duty	O/T	Leaves*	Sick	STD	WC	Sick	STD	WC	
General Manager Staff	1,950		13	570 23%	10 0.4%			85 1.7%			Average Number of Employees 130
Business Services	15,940		7	2,221 12%	239 1.3%			604 1.6%	14 0.5%		Current Number of Vacant Positions (1) 6
Technical Services	20,854		59	2,185 9%	364 1.6%			1,039 3.4%	238 0.8%		
Collection Services	20,206		2,270	3,874 16%	1,135 4.7%	109 0.5%	41 0.2%	1,791 2.5%	718 0.4%	1 0.2%	Hours Worked Per Week Per Employee (2) 36.28
Treatment & Disposal	17,185		396	1,859 10%	73 0.4%			1,344 2.0%	408 0.3%		
FMC	14,894		850	2,583 15%	627 3.6%	16 0.1%	290 1.7%	1,019 3.1%	74 0.2%	107 0.1%	Projected Average Annual Sick Leave Per Employee (3) 48.82
Totals	91,027		3,595	13,292	2,448	124	331	5,882	1,452	108	
%	87.3%		3.4%	12.7%	2.3%	0.1%	0.3%	2.4%	0.5%	1.3%	

(1) Current vacancies include: Business Services (0), Collections (1), FMC (0), T&D (1), TS (4)

(2) An employee using 3 weeks vacation, 11 holidays, 2 HEC days and 40 hours of sick leave will work an average of 34.9 hours per week over the course of a year. With four weeks vacation, 34.2 hours per week.

(3) Target goal for sick leave incentive program is 47 hours per employee per year.

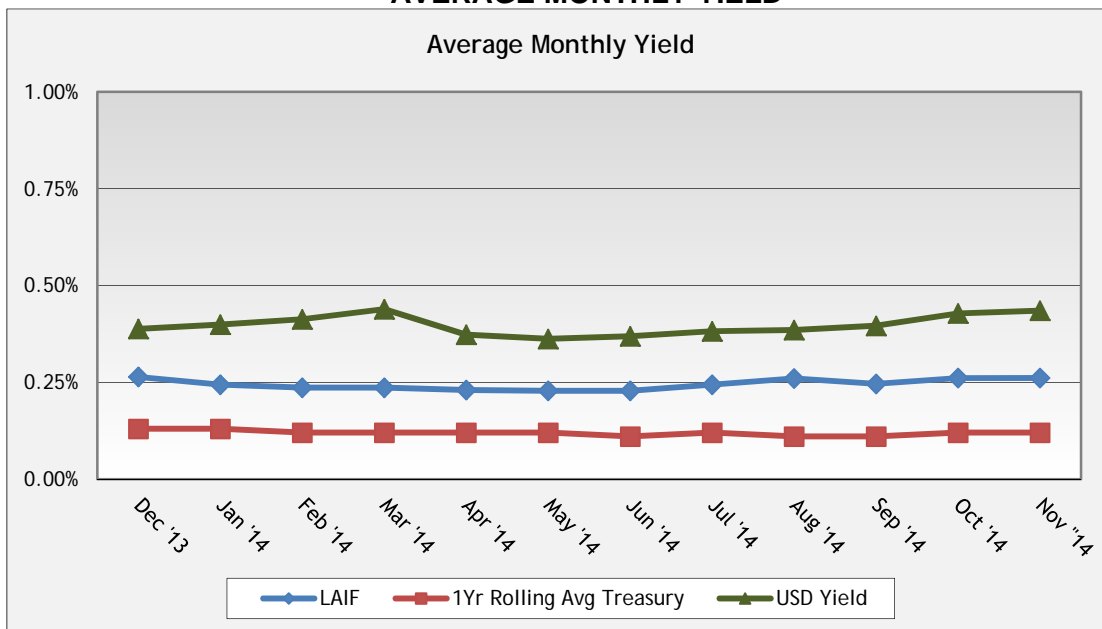
**Business Services Group
Activities Report
November 2014**

Accomplishments

- The Organizational Performance Program Manager (OPPM) attended World Strategy Week events, including “State of Strategy Today”; “Solving the Strategy Implementation Dilemma”; “Today’s Hotbed- Social, Technology and Strategy”; “Future of Strategy” webinars.
- The OPPM attended and worked as registrar at SF Bay Section of CWEA “Emerging Technologies” seminar.
- The OPPM developed and facilitated formal Critical Incident Debriefing session for Boyce Pump Station hydrocarbon issue.
- The OPPM presented Q1 BSC reports to management, Budget & Finance Committee and the Board of Directors.
- The OPPM met with TPO and FMC Work Group Managers to discuss critical asset failure definitions for BSC reporting.
- The OPPM closed Big Picture survey and created formal report
- Recruitment for the Construction Inspector was completed; John Hwang was hired on 11/17/2014.
- Recruitment for the Engineering Technician was completed; Duc (Andy) Trinh was hired on 11/18/2014.
- The Technical Training Program Manager (TTPM) completed a three day course on designing learning programs.
- The TTPM coordinated Excavation Training at the District for CS and TS Work Groups
- The TTPM provided Earthquake Safety Training to all of the Teams.
- The Human Resources Administrator (HRA) participated in the annual planning meeting to select training courses for the Liebert Cassidy Whitmore employment relations consortium.
- The HRA and HR Analyst attended the annual California Public Employer Labor Relations Association annual conference.
- The HRA, GM and Safety Program Manager met with Omnicare, a company that provides workers’ compensation and other employee physical examinations.

Performance Measures

AVERAGE MONTHLY YIELD



BUDGET AND FINANCE REPORT

FY 2015

Year-to-date as of 11/30/14

42% of year elapsed

Revenues

	Budget	Actual	% of Budget Rec'd	Unaudited Last Year Actuals 6/30/14
Capacity Fees	\$2,700,000	\$1,989,670	74%	\$3,315,007
Sewer Service Charges	47,448,461	688,607	1%	45,139,420
Operating	848,500	287,709	34%	1,072,242
Interest	299,000	117,556	39%	385,844
Misc. (incl. LAVWMA pymnt, solar, Cogen rebates)	1,994,200	213,250	11%	297,776
Subtotal Revenues	\$53,290,161	\$3,296,791	6%	\$50,210,289
SRF Loan Proceeds (Thickener)	3,390,000	647,923	19%	2,424,739
Total Revenues + SRF Proceeds	\$56,680,161	\$3,944,714	7%	\$52,635,028

Expenses

	Budget	Actual	% of Budget Used	Last Year Actuals
Capital Improvement Prog.				
Capacity Projects	\$3,240,000	\$918,894	28%	\$5,592,023
Renewal & Repl. Projects	11,632,500	5,329,625	46%	14,195,068
Operating	32,659,214	12,020,390	37%	30,751,966
Special Projects	1,708,478	102,628	6%	775,361
Retiree Medical (Annual Required Contribution)	543,540	135,885	25%	462,852
Vehicle & Equipment	1,057,700	11	0%	784,695
Information Systems	1,216,000	183,028	15%	848,449
Plant & Pump Station R&R	250,000	16,411	7%	197,237
Pretreatment Fund	7,000	19,717	282%	5,124
County Fee for Sewer Service Charge Admin.	106,000	0	0%	105,559
Misc. (A/R write-off)	0	0	0%	1,343
Debt Servicing:				
SRF Loans (Irv., Wilw, LHH, Cdr, NPS, Sub1, Boyc, Prim Cl)	3,127,389	1,567,246	50%	4,675,361
Total Expenses	\$55,547,821	\$20,293,834	37%	\$58,395,038
Total Revenue & Proceeds less Expenses	\$1,132,340	(\$16,349,120)		(\$5,760,010)

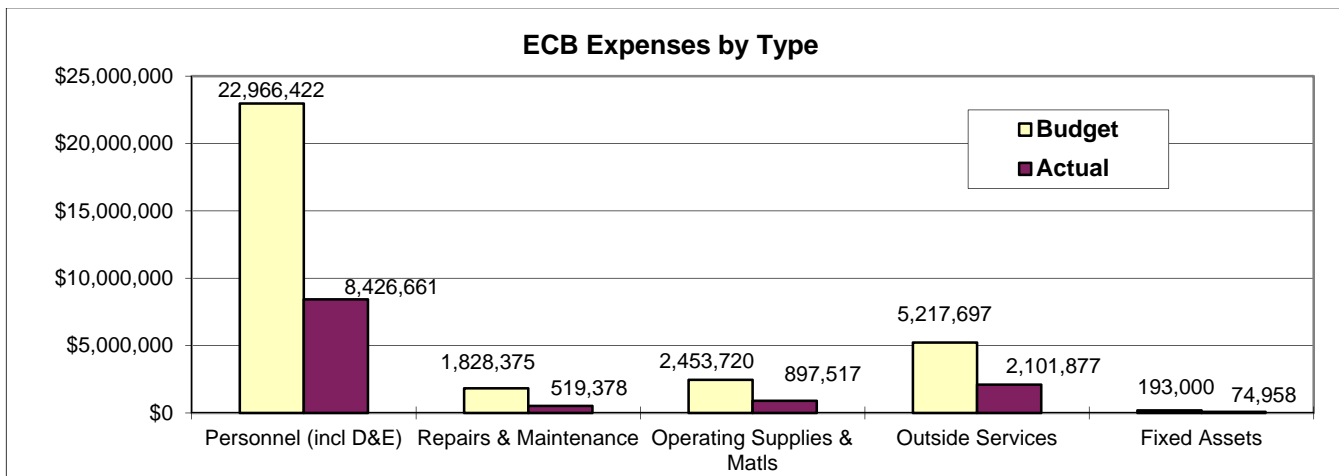
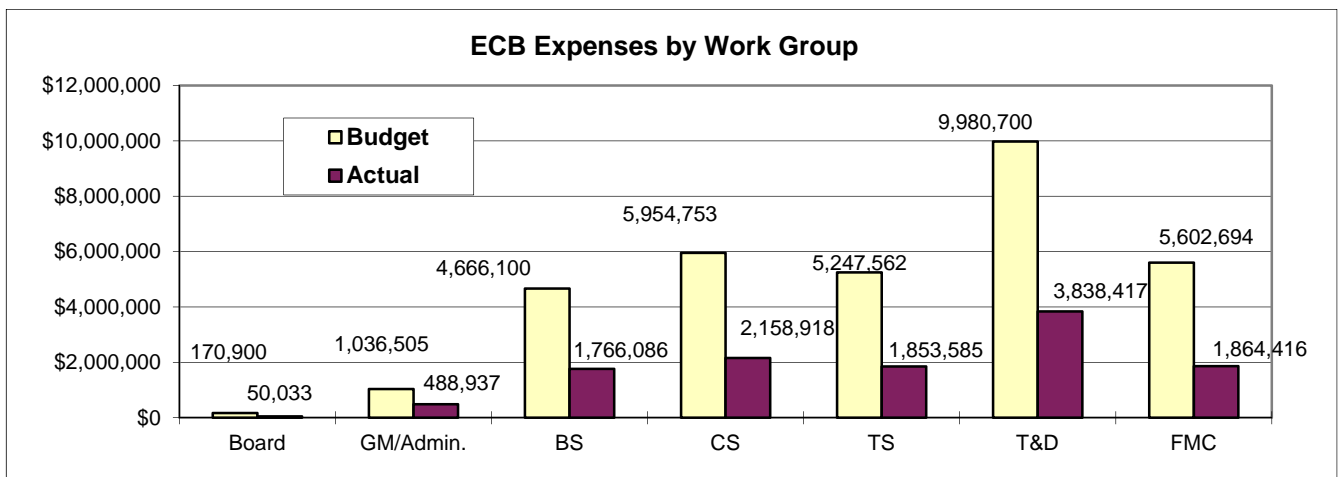
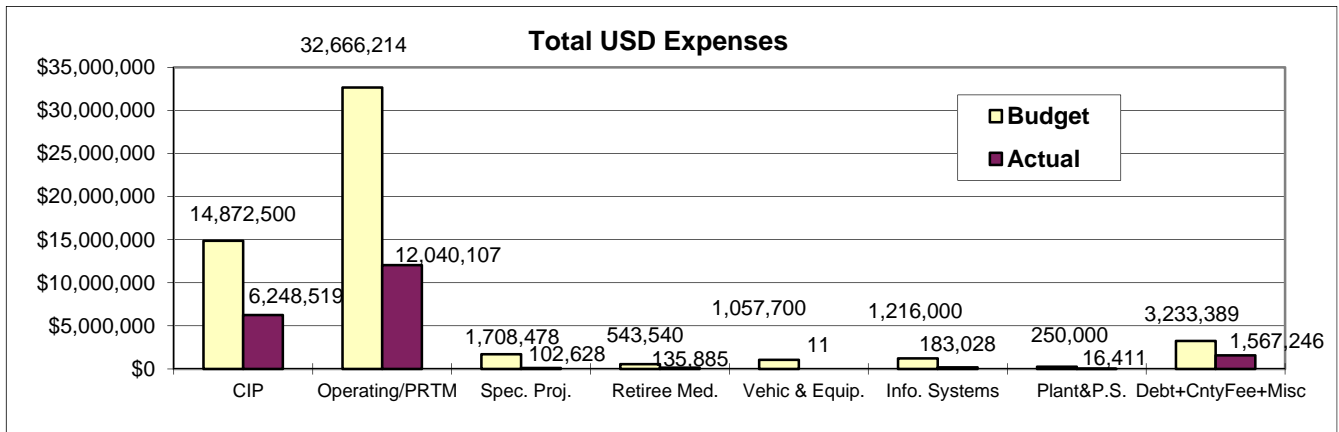
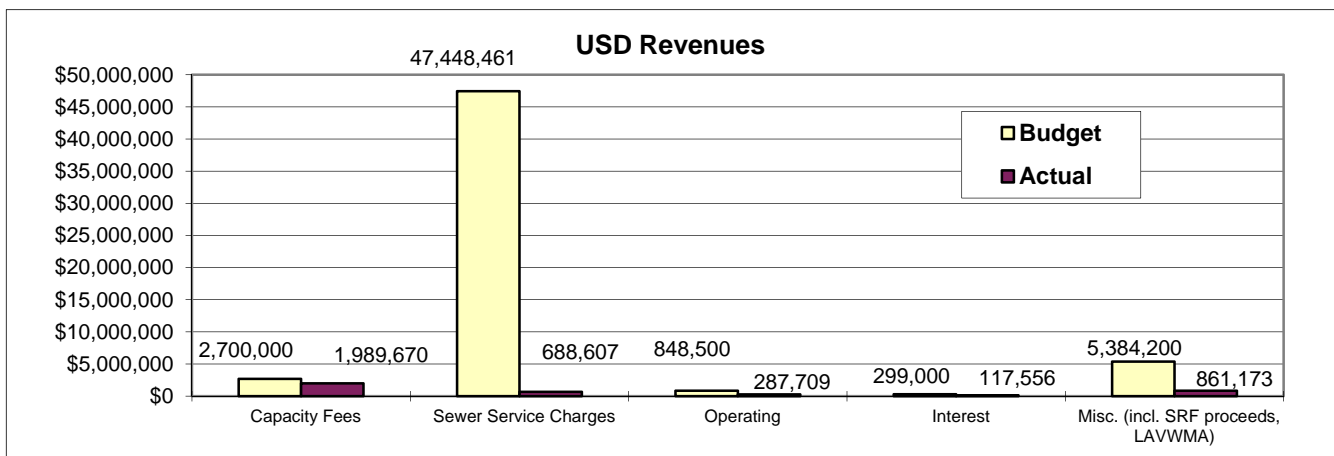
Gross Operating Expenses by Work Group

	Budget	Actual	% of Budget Used	Last Year Actuals
Board of Directors	\$170,900	\$50,033	29%	\$166,233
General Manager/Admin.	1,036,505	488,937	47%	1,153,217
Business Services	4,666,100	1,766,086	38%	4,416,832
Collection Services	5,954,753	2,158,918	36%	5,460,336
Technical Services	5,247,562	1,853,585	35%	4,850,139
Treatment & Disposal Services	9,980,700	3,838,417	38%	9,739,655
Fabrication, Maint. & Construction	5,602,694	1,864,416	33%	4,965,555
Total	\$32,659,214	\$12,020,390	37%	\$30,751,966

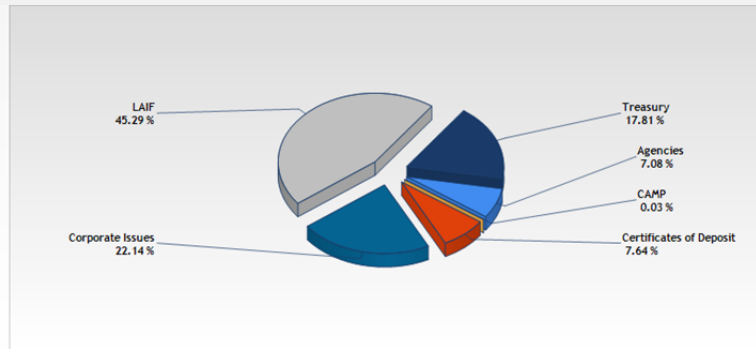
Operating Expenses by Type

	Budget	Actual	% of Budget Used	Last Year Actuals
Personnel (incl D&E)	\$22,966,422	\$8,426,661	37% (42%)*	\$21,125,985
Repairs & Maintenance	1,828,375	519,378	28%	1,615,427
Supplies & Mats (chemicals, small tools)	2,453,720	897,517	37%	2,442,617
Outside Services (utilities, biosolids, legal)	5,217,697	2,101,877	40%	5,493,010
Fixed Assets	193,000	74,958	39%	74,927
Total	\$32,659,214	\$12,020,390	37%	\$30,751,966

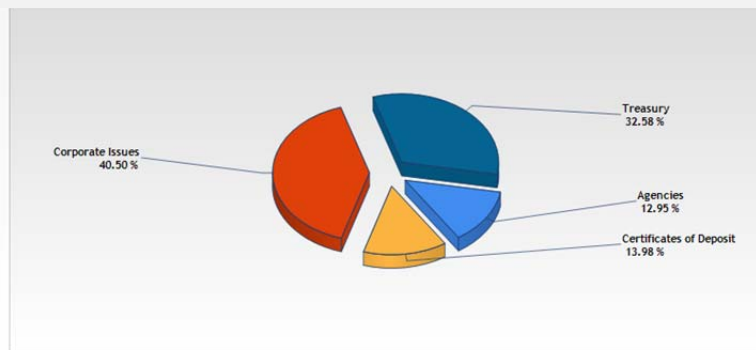
* Personnel Budget Target



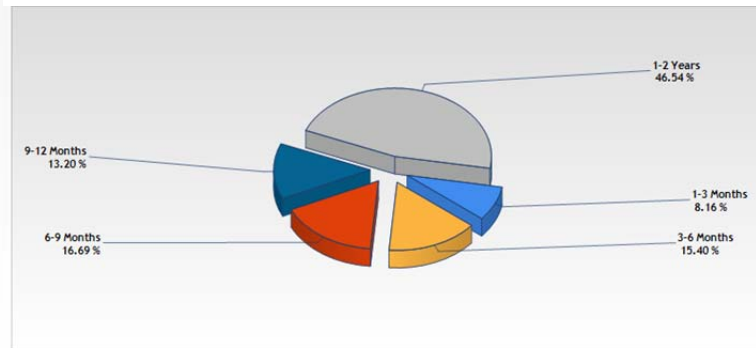
All Portfolio Holdings Distribution by Asset Class



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	1,240,000.00	0.554	1,261,670.00	42	8.16	1,241,906.73	1,241,696.28	0.12
3-6 Months	2,240,000.00	0.889	2,379,630.00	94	15.40	2,262,534.95	2,259,786.95	0.26
6-9 Months	2,545,000.00	0.565	2,579,611.60	215	16.69	2,560,869.11	2,556,931.83	0.59
9-12 Months	2,000,000.00	0.330	2,040,480.00	365	13.20	2,024,062.40	2,020,810.14	1.00
1-2 Years	7,200,000.00	0.557	7,190,940.00	538	46.54	7,208,312.54	7,194,386.13	1.47
Total / Average	15,225,000.00	0.579	15,452,331.60	352	100	15,297,685.73	15,273,611.33	0.96

Union Sanitary District
Board Report - Holdings
Report Format: By Transaction
Group By: Asset Class
Portfolio/Report Group: All Portfolios
As of 11/30/2014

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											
FHLMC 0.5 6/20/2016-14	3134G4N38	Moody's-Aaa	12/20/2013	1,000,000.00	1,000,000.00	0.500	998,950.00	0.500	12/20/2014	6/20/2016	3.54
FNMA 0.5 3/30/2016	3135GOVA8	Moody's-Aaa	1/24/2014	1,000,000.00	1,000,750.00	0.500	1,003,050.00	0.465		3/30/2016	3.54
Sub Total / Average				2,000,000.00	2,000,750.00	0.500	2,002,000.00	0.482			7.08
CAMP											
CAMP LGIP	LGIP4000	None	5/31/2011	9,790.97	9,790.97	0.050	9,790.97	0.050	N/A	N/A	0.03
Sub Total / Average				9,790.97	9,790.97	0.050	9,790.97	0.050			0.03
Certificates of Deposit											
Ally Bank 1 10/24/2016	02006LKM4	None	10/23/2014	240,000.00	240,000.00	1.000	240,000.00	1.000		10/24/2016	0.85
American Express Bank 1.1 10/24/2016	02587CBZ2	None	10/23/2014	240,000.00	240,000.00	1.100	240,000.00	1.100		10/24/2016	0.85
Bank of Baroda NY US 0.4 1/22/2015	06062AFE4	None	1/22/2014	240,000.00	240,000.00	0.400	240,076.73	0.400		1/22/2015	0.85
BMW Bank North America 0.5 3/14/2016	05568P6V4	None	3/31/2014	240,000.00	239,760.00	0.500	239,955.77	0.552		3/14/2016	0.85
Capital One Bank 1 10/24/2016	140420QG8	None	10/22/2014	240,000.00	240,000.00	1.000	240,000.00	1.000		10/24/2016	0.85
Discover Bank 0.5 6/11/2015	254671D72	None	12/24/2013	240,000.00	239,918.40	0.500	240,268.63	0.523		6/11/2015	0.85
GE Capital Retail Bank 0.95 3/16/2015	36157PAU3	None	1/2/2013	240,000.00	240,000.00	0.950	240,524.95	0.950		3/16/2015	0.85
Great Midwest Bank 0.75 7/27/2016	39083PCK6	None	10/27/2014	240,000.00	240,000.00	0.750	240,575.57	0.750		7/27/2016	0.85
Merrick Bank 0.5 6/30/2015	5912Y5Y9	None	12/30/2013	240,000.00	240,000.00	0.500	240,246.53	0.500		6/30/2015	0.85
Sub Total / Average				2,160,000.00	2,159,678.40	0.744	2,161,648.18	0.753			7.64
Corporate Issues											
General Electric Capital Corp 1.625 7/2/2015 of 183	36962G5Z3	Moody's-A1	3/31/2014	1,000,000.00	1,014,530.00	1.625	1,007,780.00	0.460		7/2/2015	3.59

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
General Electric Capital Corp 2.15 1/9/2015	36962G5M2	Moody's-A1	8/16/2013	1,000,000.00	1,021,670.00	2.150	1,001,830.00	0.590		1/9/2015	3.62
General Electric Capital Corp 2.375 6/30/2015	36962G5F7	Moody's-A1	11/30/2012	500,000.00	517,745.00	2.375	505,975.00	0.980		6/30/2015	1.83
General Electric Capital Corp 4.875 3/4/2015	36962GP65	Moody's-A1	9/18/2013	1,000,000.00	1,059,830.00	4.875	1,011,330.00	0.750		3/4/2015	3.75
International Business Machs 0.45 5/6/2016	459200HL8	Moody's-Aa3	11/26/2013	1,000,000.00	996,840.00	0.450	1,000,312.50	0.580		5/6/2016	3.53
JP Morgan Chase 4.75 3/1/2015	46625HCE8	Moody's-A3	1/2/2013	1,000,000.00	1,079,800.00	4.750	1,010,680.00	1.012		3/1/2015	3.82
Well Fargo Bank 0.75 7/20/2015	94985H5F7	Moody's-Aa3	3/31/2014	565,000.00	567,418.20	0.750	566,598.95	0.420		7/20/2015	2.01
Sub Total / Average				6,065,000.00	6,257,833.20	2.596	6,104,506.45	0.684			22.14
LAIF											
LAIF LGIP	LGIP1002	None	4/30/2011	12,798,515.35	12,798,515.35	0.261	12,798,515.35	0.261	N/A	N/A	45.29
Sub Total / Average				12,798,515.35	12,798,515.35	0.261	12,798,515.35	0.261			45.29
Treasury											
T-Bond 0.25 5/16/2016	912828VC1	Moody's-Aaa	1/24/2014	1,000,000.00	994,530.00	0.250	1,000,000.00	0.488		5/16/2016	3.52
T-Note 0.375 2/15/2016	912828UM0	Moody's-Aaa	1/24/2014	1,000,000.00	999,530.00	0.375	1,002,031.20	0.398		2/15/2016	3.54
T-Note 0.5 6/15/2016	912828VG2	Moody's-Aaa	3/27/2014	1,000,000.00	999,530.00	0.500	1,003,437.50	0.521		6/15/2016	3.54
T-Note 1.375 11/30/2015	912828PJ3	Moody's-Aaa	12/20/2013	2,000,000.00	2,040,480.00	1.375	2,024,062.40	0.330		11/30/2015	7.22
Sub Total / Average				5,000,000.00	5,034,070.00	0.780	5,029,531.10	0.413			17.81
Total / Average				28,033,306.32	28,260,637.92	0.924	28,105,992.05	0.435			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 11/1/2014 To 11/30/2014

Description	CUSIP/Ticker	Face Amount/Shares	Principal	Interest/Dividends	Coupon Rate	YTM @ Cost	Settlement Date	Total
DEPOSIT								
CAMP LGIP	LGIP4000	0.41	0.41	0.00		0.000	11/30/2014	0.41
LAIF LGIP	LGIP1002	1,250,000.00	1,250,000.00	0.00		0.000	11/18/2014	1,250,000.00
Sub Total / Average		1,250,000.41	1,250,000.41	0.00				1,250,000.41
INTEREST								
CAMP LGIP	LGIP4000	0.00	0.00	0.41		0.000	11/30/2014	0.41
Goldman Sachs Bank 0.75 11/14/2014	38143AU78	0.00	0.00	907.40	0.750	0.000	11/14/2014	907.40
Great Midwest Bank 0.75 7/27/2016	39083PCK6	0.00	0.00	152.88	0.750	0.000	11/27/2014	152.88
Internatlional Business Machs 0.45 5/6/2016	459200HL8	0.00	0.00	2,250.00	0.450	0.000	11/6/2014	2,250.00
Sallie Mae Bank 0.75 11/14/2014	795450QK4	0.00	0.00	907.40	0.750	0.000	11/14/2014	907.40
T-Bond 0.25 5/16/2016	912828VC1	0.00	0.00	1,250.00	0.250	0.000	11/15/2014	1,250.00
T-Note 0.375 11/15/2014	912828RQ5	0.00	0.00	3,750.00	0.375	0.000	11/15/2014	3,750.00
Sub Total / Average		0.00	0.00	9,218.09				9,218.09
MATURED								
Goldman Sachs Bank 0.75 11/14/2014	38143AU78	240,000.00	240,000.00	0.00	0.750	0.000	11/14/2014	240,000.00
Sallie Mae Bank 0.75 11/14/2014	795450QK4	240,000.00	240,000.00	0.00	0.750	0.000	11/14/2014	240,000.00
T-Note 0.375 11/15/2014	912828RQ5	2,000,000.00	2,000,000.00	0.00	0.375	0.000	11/15/2014	2,000,000.00
Sub Total / Average		2,480,000.00	2,480,000.00	0.00				2,480,000.00
WITHDRAW								
LAIF LGIP	LGIP1002	400,000.00	400,000.00	0.00		0.000	11/5/2014	400,000.00
LAIF LGIP	LGIP1002	700,000.00	700,000.00	0.00		0.000	11/7/2014	700,000.00
LAIF LGIP	LGIP1002	300,000.00	300,000.00	0.00		0.000	11/14/2014	300,000.00
Sub Total / Average		1,400,000.00	1,400,000.00	0.00				1,400,000.00

**COLLECTION SERVICES
ACTIVITIES REPORT
November 2014**

Progress/Accomplishments

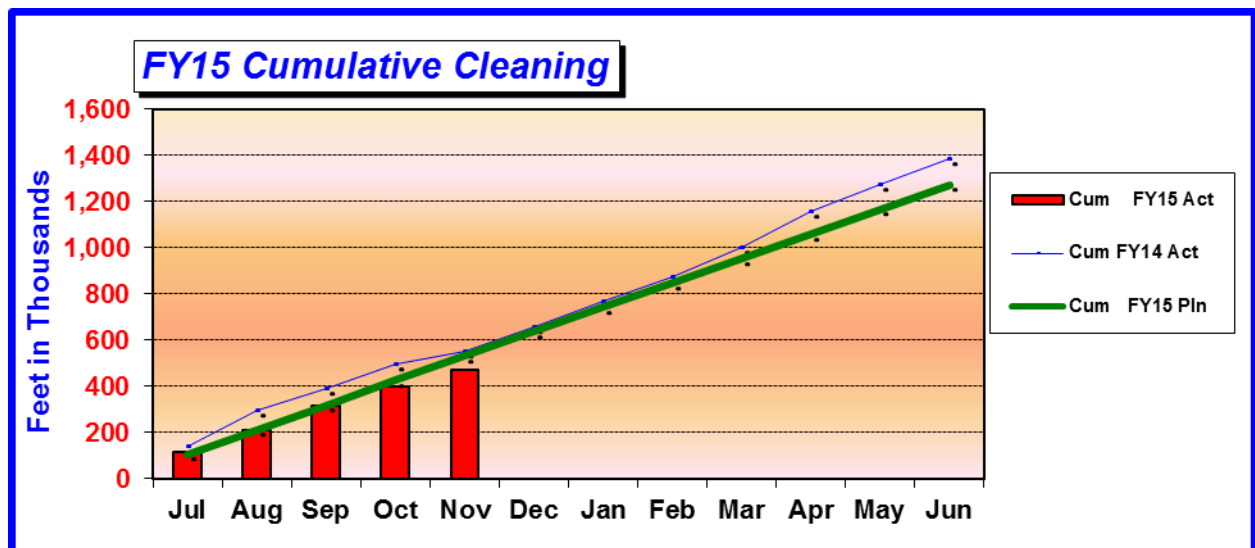
- Completed 72,887 feet of cleaning and 56,750 feet of televising of sewer lines in November
- Responded to 17 service request calls in November
- Completed a total of 47 main repairs in November
- Marked and located all sewer lines (Underground Service Alerts)
- Provided support on the following projects: Lateral Condition Assessment, Upper Hetch Hetchy Trunk Line Lining, Jarvis Ave Sewer Relocation, Newark Backyard Lateral Relocation, Alvarado Site use Study, Field Automation Pilot, & Plant Shut Downs
- Participated in a CSOTF Benchmarking meeting
- Participated in a BACWA meeting
- Continued training of 3 Collection System Worker I employees
- Continued on our progress on catching up on 72 Month Cleaning and Inspection PMP
- Participated in a Benchmarking meeting with CASSE
- Participated with State Committee to rewrite the SSMP Development Guide
- Concluded recruitment for CSWI and CS Manager
- Began recruitment process for CS Coach
- Hired Steve Bullis new CSWI
- Recertified forlift operators
- Presented CS Process Scorecard
- CS Coach Shawn Nesgis received Jerry D. Scott Superintendent of the Year Award

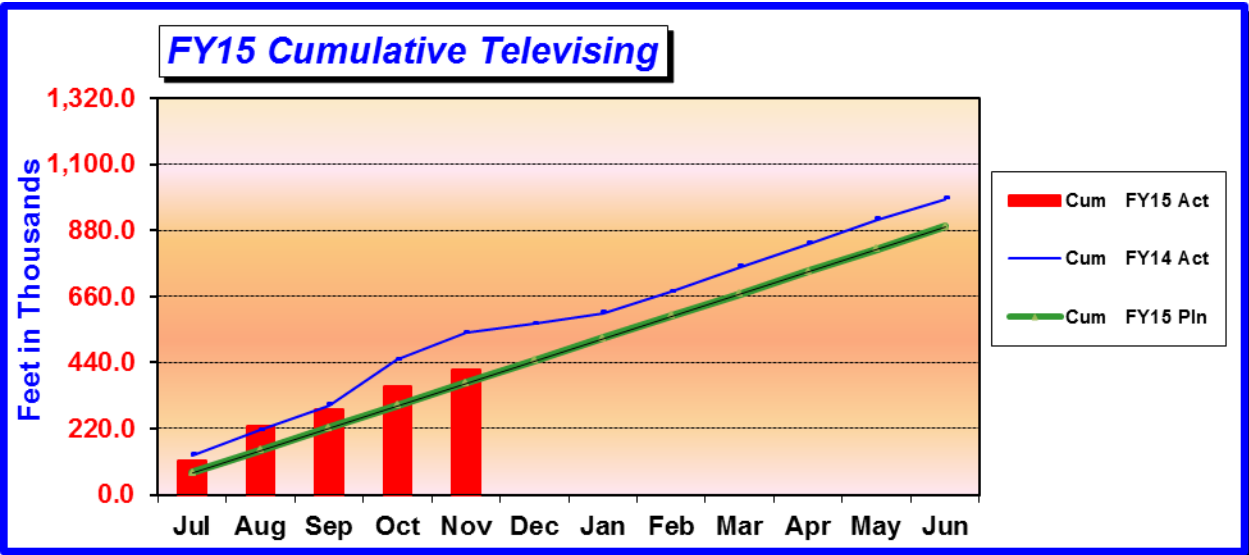
Training for Collections included;
Risk Management (Gordon Graham), Excavation Training, Competent Person, USA Laws and Regulations review, Safety Star Points shared and discussed topics from Safety meeting.

Future Planning

- Continue effort of to catch up on 72 Month Cleaning and Inspection PMP
- Complete knowledge transfer and transition to new CS Work Group Manager

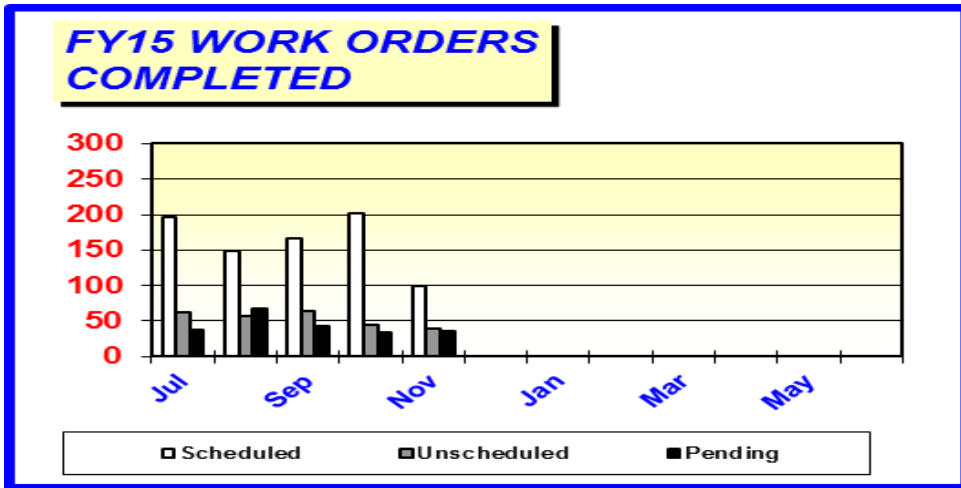
Performance Measures



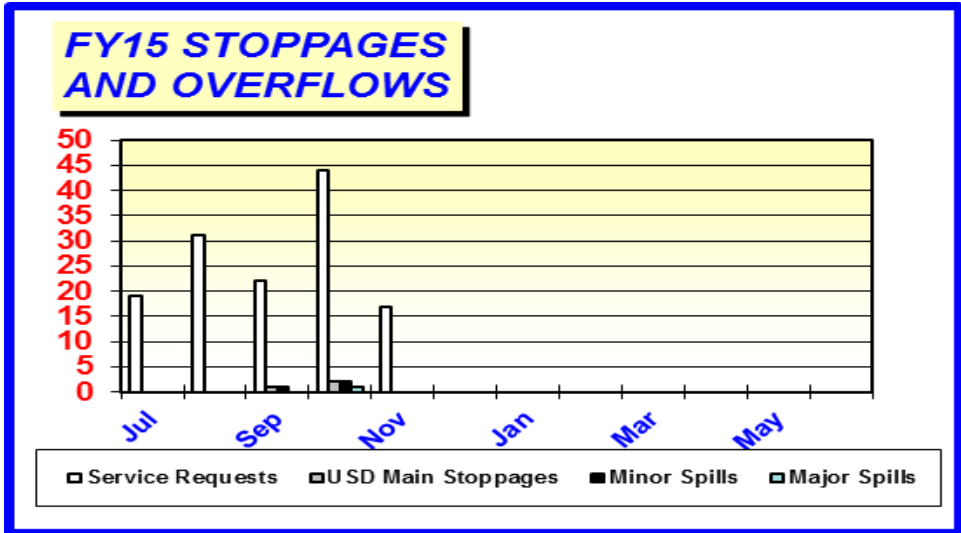


Other Collection Services Status Data:

Support Team Work Order Status:



C/S Maintenance Status:



MONTHLY OPERATIONS REPORT FOR THE MONTH OF NOVEMBER 2014 TECHNICAL SUPPORT WORK GROUP SUMMARY

Capital Improvement Program

Boyce Road Lift Station Project – Phase 2 – Contractor installed sump pump control panel and completed startup testing for load bank and weir gate actuators.

Cogeneration Project – Contractor completed operational test of the engine generators and digester gas conditioning system. Continued with modifications of the existing digester gas piping at the primary and secondary digesters and with demolition of the existing digester gas scrubbing equipment.

Jarvis Ave. SS Replacement – The project was accepted by the Board on Nov. 24th. Punchlist and closeout work are in progress.

Primary Digester No. 5 Rehabilitation Project – Approximately 95% of the interior coating replacement has been completed. Corrosion consultant also completed their evaluation on the condition of the digester dome and side skirt.

Sodium Hypochlorite Tanks A and B Replacement – The project was accepted by the Board on Nov. 10th. All construction items on the punchlist have been completed.

Thickener Control Building Improvements Project – The installation of the concrete slab for the new Thickener Electrical Building has been completed. Electrical ductbank and deep well anode installations scheduled to be completed in December.

Upper Hetch Hetchy SS Rehabilitation – All CIPP lining is complete. Street restoration and site improvements are in progress. Project should be complete by the end of December or early January.

Customer Service

Trouble Calls dispatched from the Front Desk during business hours:

Fremont	Newark	Union City	Total
10	2	0	12

Communication & Graphics

- Media Relations activities regarding Collections Workers finding heirloom ring:
 - Assisted KTVU camera crew and Shawn to provide background for story
 - Responded to requests from multiple media contacts for photos and additional facts so that each outlet could customize content after initial news story aired by KTVU
 - Wrote and distributed USD's press release
 - Arranged for family's attendance and refreshments at Board meeting when workers were recognized; attended as well
- Participated in Board Workshop: USD video

- Planned and presented at Board Workshop: USD newsletter:
 - Researched graphic designers and costs, obtained examples
- Designed Presentation for League of Women Voters, discussed logistics with League contact, participated with GM at event
- Continued Union City Chamber Board activities
- Public Website redesign project activities:
 - Referral phone calls to prepare to choose vendor, meeting and discussion with Project Manager to score after referral input
 - Continued activities to obtain team input regarding information migration and desired attributes of new site
- Website Updates:
 - Added Audited financial reports
 - Story about recovery of heirloom ring
- Alameda County Science Fair: assisting with recruitment of event judges; agreed to design certificates for winners in March 2015
- Booked holiday ads in Tri-City voice for EC
- Conducted interviews with staff for next Employee newsletter

Environmental Compliance

Pollution Prevention Program

# of Dental Inspections	# of School Outreach Events including Sewer Science	# of Plant Tours
2	4	0

Misc. Pollution Prevention (Dental trainings, Plumbing Contractor training, etc.)

Name of Event	Date
None	

Reports (Annual Pollution Prevention, City of Fremont reports, etc.)

Report Name	Date Report Completed and Submitted
None	

Pollution and Prevention

Inspections			Illicit Discharge Complaints	Enforcement Actions		
UR	FOG	Total		Type	UR	FOG
101	36	137	1	Verbal Warning	6	5
				Notice of Deficiency	0	0
				Warning Letter	0	6
				Notices of Violation	6	0
				Admin Fine	9	0
				Legal Action	1	0

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

Report Name	Date Report Completed and Submitted
None	

Pending Permits

New Industrial/Groundwater Permits	Groundwater/Temporary
None	

Permits Issued

Company Name	Date Permit Issued
Innovative Construction Solutions Inc. GW-14-007	11/20/14
Thermo Fisher Scientific, Class 2 #81	11/5/2014

Industrial Closures

Company Name	Date of Closure
None	

Enforcement Action

Violation	IU Name & Nature of Business	City (F, N, UC)	Parameters Violated	Discharge concentration (mg/L)	USD/Fed Limit Violated (mg/L)	Comments
AO-14-001	Safety Kleen of California, Inc	N	Permit narrative prohibitions	Not Applicable	Ordinance 36: -Section 2.13 Prohibition of Bypass -Section 2.15 Prohibition of discharge of Petroleum or Mineral Oil causing Pass-through or interference -Section 2.01.1 Prohibited Discharges. (c) danger to life or safety of personnel. Wastewater Discharge Permit #268 G.2 General Permit Conditions #14 Self-Monitoring, Reporting and Record keeping requirements	Working with Safety Kleen to return to compliance.

Violation	IU Name & Nature of Business	City (F, N, UC)	Parameters Violated	Discharge concentration (mg/L)	USD/Fed Limit Violated (mg/L)	Comments
AO-14-001 (continued)	Safety Kleen of California, Inc (continued)	N			-Section 2.01.1 Prohibited Discharges A. General Prohibitions & B. Specific Prohibitions	
WL-14-004	De Anza Tile Co. Inc.	F	Illegal connection	Not Applicable		Wash pad drain to sanitary sewer has been capped. Permit application in review.
WL-14-005	Ceramic Tech	F	Ordinance 36 Sections 6.12 and 6.15	Not Applicable	Failure to submit wastewater permit application by due date	Permit application received and being reviewed.
WL-14-006	Pan American Collision Center	F	Illegal connection	Not Applicable	Illegal Connection	Permit process for treatment system started.
WL-14-007	T.J. Brothers Body Shop	F	Illegal connection	Not Applicable	Illegal Connection	Facility required to cap wash pad drain to the sanitary sewer.

- (1) Warning Letter (WL), Notice of Violation (NOV), Administrative Order (AO), Cease & Desist Order (C&D), Significant Non Compliance (SNC), (EM) Enforcement Meeting
(2) Fremont (F) Newark (N) Union City (UC)
(3) Daily Max (DM) Monthly Average (MA)

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

Activity	Date of Event	Attendees
None		

Engineering/Construction

	Construction Projects	Capital (\$1000)	Scheduled Completion	Completed Scope	Completed Time	Comments for November 2014 Activity
1.	Boyce Road LS Phase 2 – Thomas	\$330	12/9	90%	95%	Installed sump pump control panel. Completed startup testing for load bank and weir gate actuators
2.	Cogeneration Project – Raymond	\$10,566	9/14	98%	100%	Completed operation test of the engine generators and digester gas conditioning system
3.	Jarvis Ave. SS Replacement – Chris E.	\$1,048	11/14	100%	100%	Punchlist and closeout work in progress.

	Construction Projects	Capital (\$1000)	Scheduled Completion	Completed Scope	Completed Time	Comments for November 2014 Activity
4.	Sodium Hypochlorite Tanks A and B Replacement – Rollie/Derek	\$220	10/14	100%	100%	Project closeout in progress and contractor is working on final O&Ms
5.	Thickener Control Building Improvements Project – Curtis	\$9,990	9/16	7%	18%	Construction of new Thickener Electrical Building is currently underway.
6.	Upper Hetch Hetchy SS Rehabilitation – Chris E.	\$3,021	12/14	78%	68%	CIPP lining complete. Street restoration and site improvements in progress.
7.	Primary Digester No. 5 Rehabilitation Project - Chris P.	\$779	12/14	68%	80%	Painting contractor has completed 95% of interior coating. Corrosion consultant completed steel assessment of the dome and side skirt.

Design/Study

	Design/Study Projects	Capital (\$1000)	Scheduled Completion	Completed Scope	Completed Time	Comments for November 2014 Activity
1.	Irvington Basin Master Plan Update – Capacity Assessment - Rollie	\$231	6/15	0%	30%	Additional flow model data gathered.
2.	Local Limits and Wastewater Treatability Study – Michael D.	\$107	6/15	98%	100%	Extending work to include evaluation of Safety Kleen discharges.
3.	Seismic Study - Raymond	\$148	9/14	98%	100%	Reviewing Degenkolb's amendment scope and fee for additional seismic evaluations of four structures
4.	Cast Iron Lining Phase VI – Andrew	In-House	12/14	100%	95%	Received management comments on 100% design submittal; Finalizing package
5.	Miscellaneous Spot Repairs Phase VI – Andrew	In-House	3/15	90%	35%	50% design submittal in progress, received UPRR consent letter
6.	Alvarado-Niles Road SS Rehabilitation – Chris E.	\$248	4/15	50%	42%	50% design submittal received and under review.

	Design/Study Projects	Capital (\$1000)	Scheduled Completion	Completed Scope	Completed Time	Comments for November 2014 Activity
7.	Pine St. Easement Improvements – Chris E.	TBD	TBD	0%	0%	West Yost Agreement & Task Order No.1 being finalized.
8.	Plant Site Use Study – Curtis	\$200	6/15	24%	33%	Workshop No. 1 took place on November 18 th . RMC working on development of layout alternatives.
9.	MCC and PLC Replacement Project, Phase 3 – Chris P.	\$78	6/15	20%	20%	Beecher Engineering is working on the design. The 50% design review meeting is scheduled for 1/13.
10.	Generator Controls Upgrade Project – Chris P.	\$72	6/15	0%	0%	Executed Task Order No. 1 with Beecher Engineering. Kick off meeting is scheduled for 12/9.
11.	Plant Facilities Improvements Project – Thomas	TBD	6/15	5%	5%	Executed agreement and Task Order No. 1 with West Yost. Had Kick off meeting on 11/24. West Yost is working on the pre-design.
12.	Plant Lighting Study – Thomas	\$50	3/15	0%	0%	Executed agreement and Task Order No. 1 with TRC. Kick off meeting is scheduled for 12/8.
13.	Administrative and Field Operations Buildings Leak Investigation – Chris P.	\$51	10/14	100%	100%	Investigation and report complete. Next steps are dependent on seismic study.
14.	Pump Station Master Plan – Raymond	TBD	TBD	TBD	TBD	Reviewing Carollo's task order scope and fee
15.	Newark Backyard SS Relocation – Phase 2 - Rollie	\$200	3/15	63%	63%	Reviewed individual lateral plans. Expecting 75% plans in December.
16.	Aeration Blower Project – Chris P.	\$96	TBD	TBD	TBD	Carollo Design Task Order being negotiated.

**Treatment & Disposal
Activities Report
November 2014**

Progress/Accomplishments

- Maintained 100% compliance with NPDES permits.
- Completed 100% preventive maintenance activities for the month of November.
- Finalized Hayward Marsh Rehabilitation Project Baseline Technical Memorandum.
- Researched and began preparation of collection system and forcemain sulfide generation modeling as part of the Collection system corrosion and pretreatment chemical study.
- Began preparing analytical data for the Old Alameda Creek Intermittant Wet Weather NPDES permit application.
- Began preparation of a final report for the treatment plant sidestream nitrogen removal pilot study (anitamox).
- Attended debriefing on the response to unusual wastewater characteristics.
- Toured EBMUD organics codigestion receiving station with the BACWA air committee.
- Met with a representative from Sanitaire to discuss in-situ cleaning of aeration basin membranes.

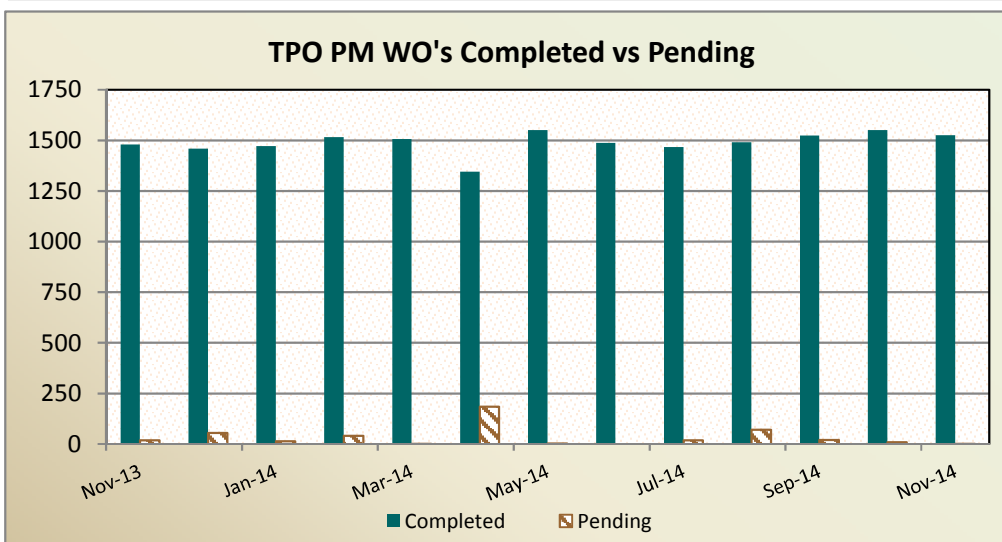
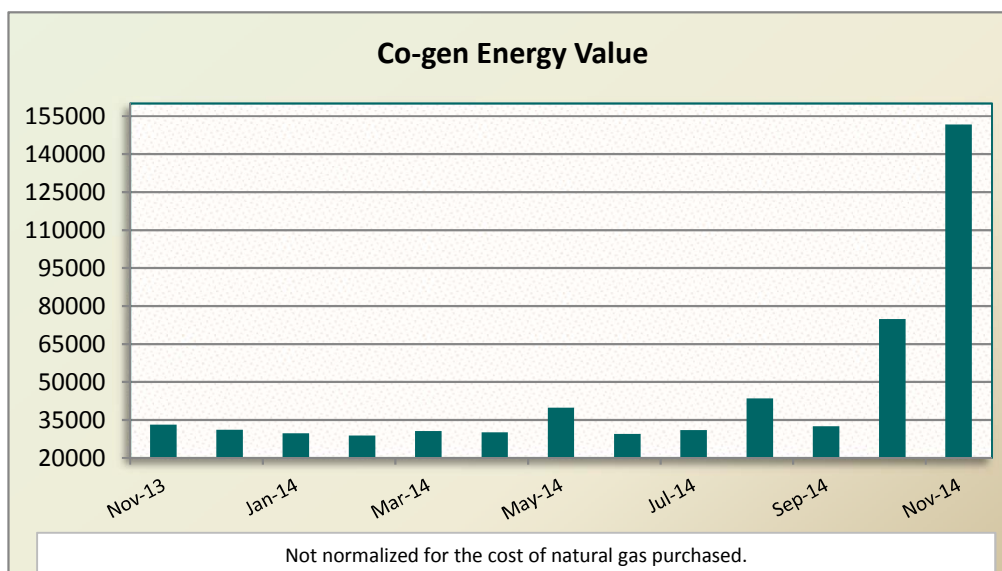
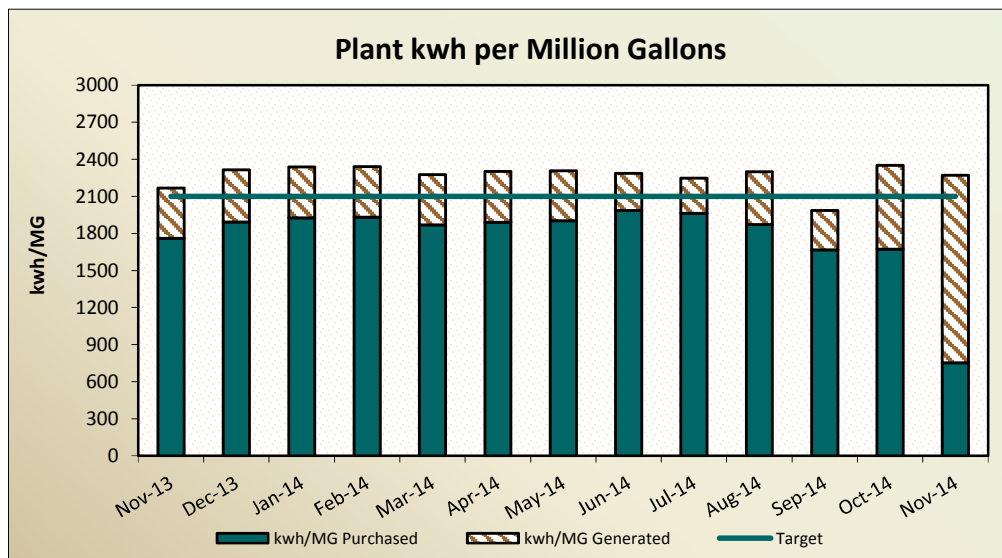
Future Planning

- Provide a tour of the Hayward Marsh to the Regional Water Board Staff.
- Prepare application for the Old Alameda Creek NPDES permit reissuance.
- Prepare for the ELAP recertification of the treatment plant laboratory.
- Review the Draft Hayward Marsh Rehabilitation Project Options Draft Technical Memorandum.
- Prepare technical submittal for the BACWA Nutrient Study reduction study required under the nutrient watershed permit.
- Prepare annual reporting for the Old Alameda Creek intermittent wet weather discharge permit.
- Research opportunities for testing digester enzymes to increase digester gas production at the treatment plant.

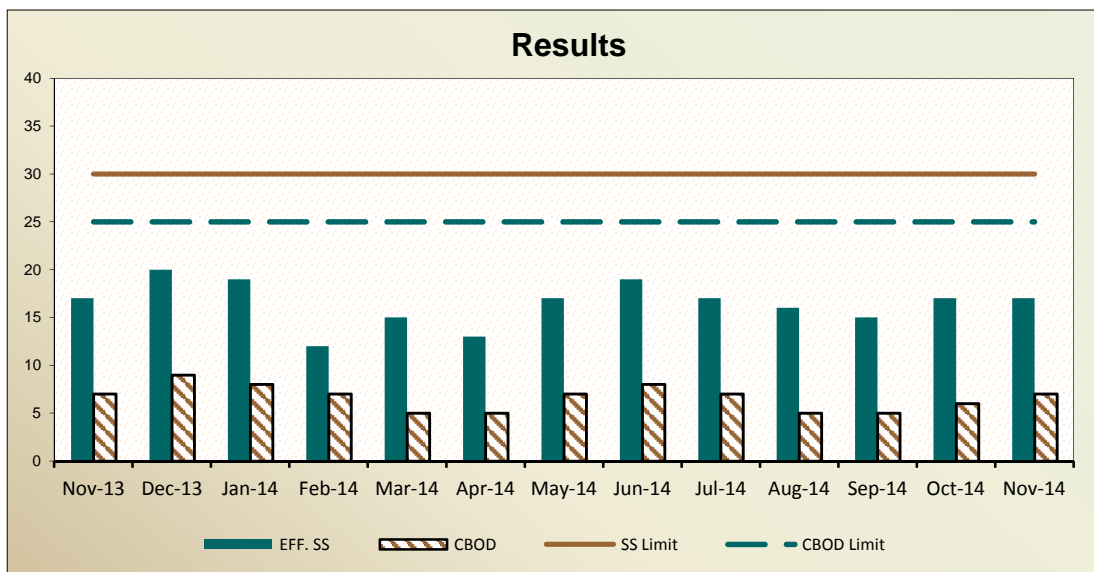
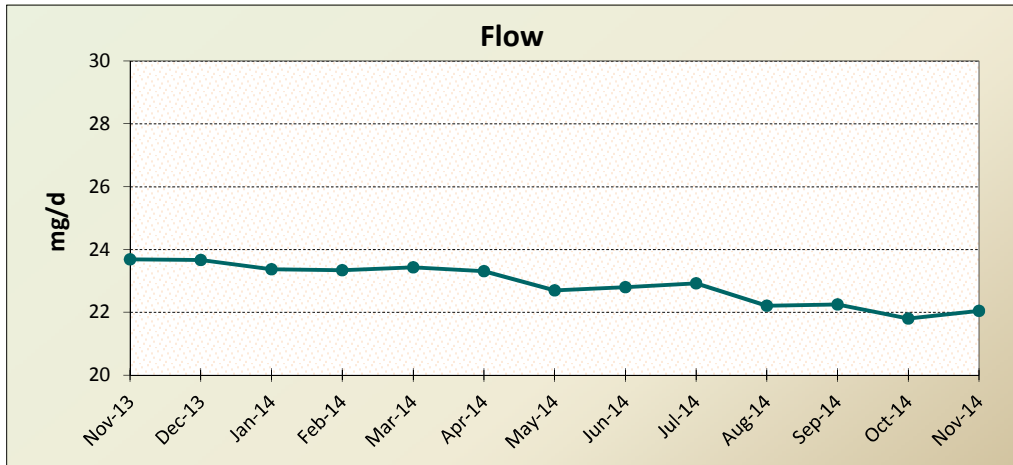
Other

- Cogen system produced 66.8% of power consumed for the month of November.

Performance Measurements



Operational/NPDES Performance



<u>Parameter</u>	<u>Monthly Average</u>	<u>NPDES Permit Limits</u>
SS	17	30 mg/l
BOD	7	25 mg/l
F. Coliform	7 - 46 78 - 165	500, 5-Day Log Mean 1100, 90th Percentile
Copper	6.1	78 µg/l
Nickel	2.9	79 µg/l
Mercury	0.00319	0.066 µg/l
Cyanide	< 3.0	42 µg/l

FMC
Activities Report
November 2014

Progress/Accomplishments

- Completed 88% preventive maintenance activities for the month of November.
- Completed 64 corrective maintenance work orders for the month of November.
- Inspect West Force Main to Headworks valve seat.
- Prep and paint pump room #4 lower gallery machinery and piping.
- Install level detection on new chemical tanks.

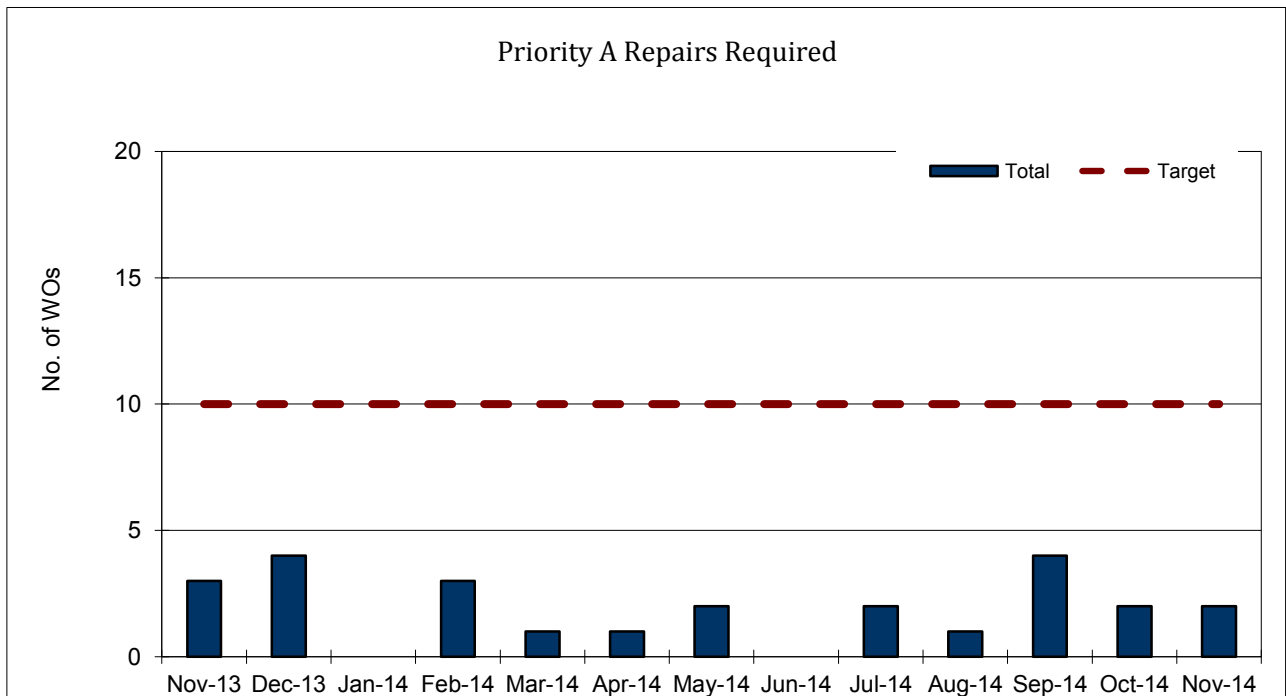
Future Planning

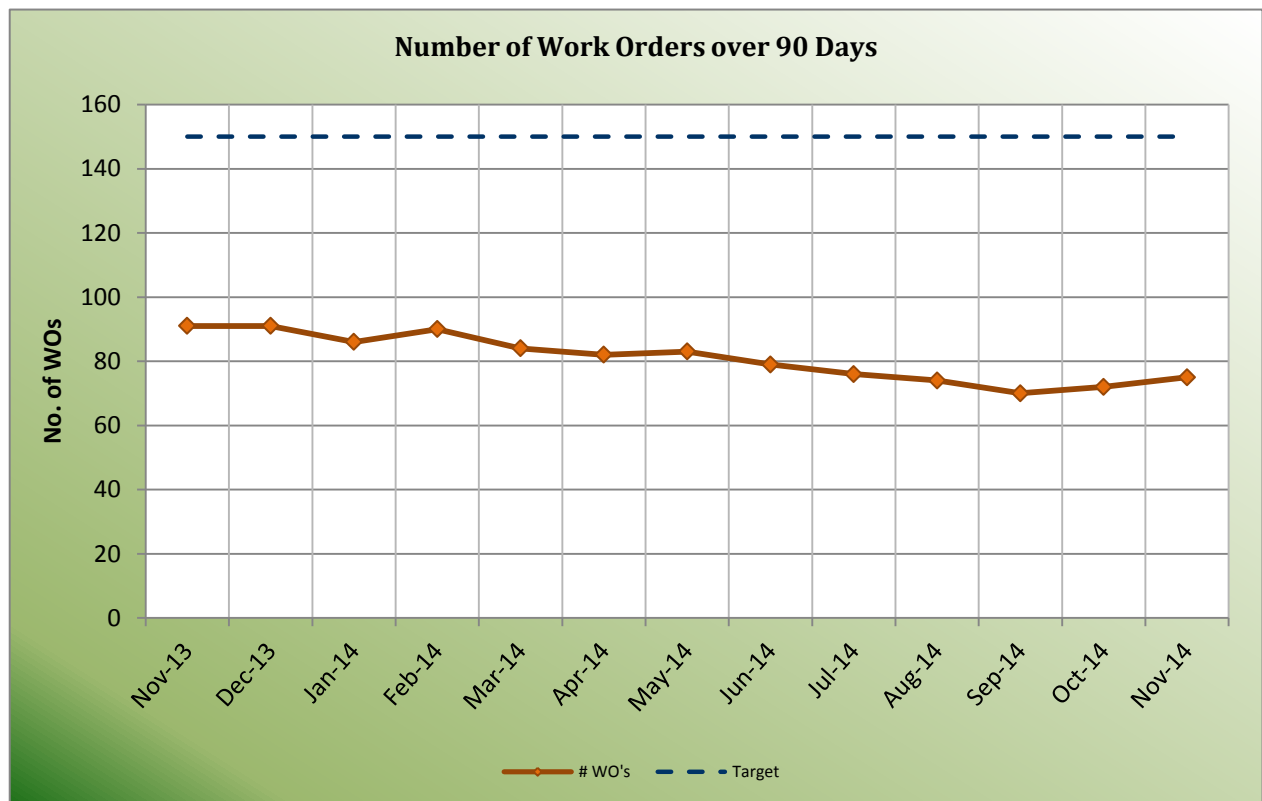
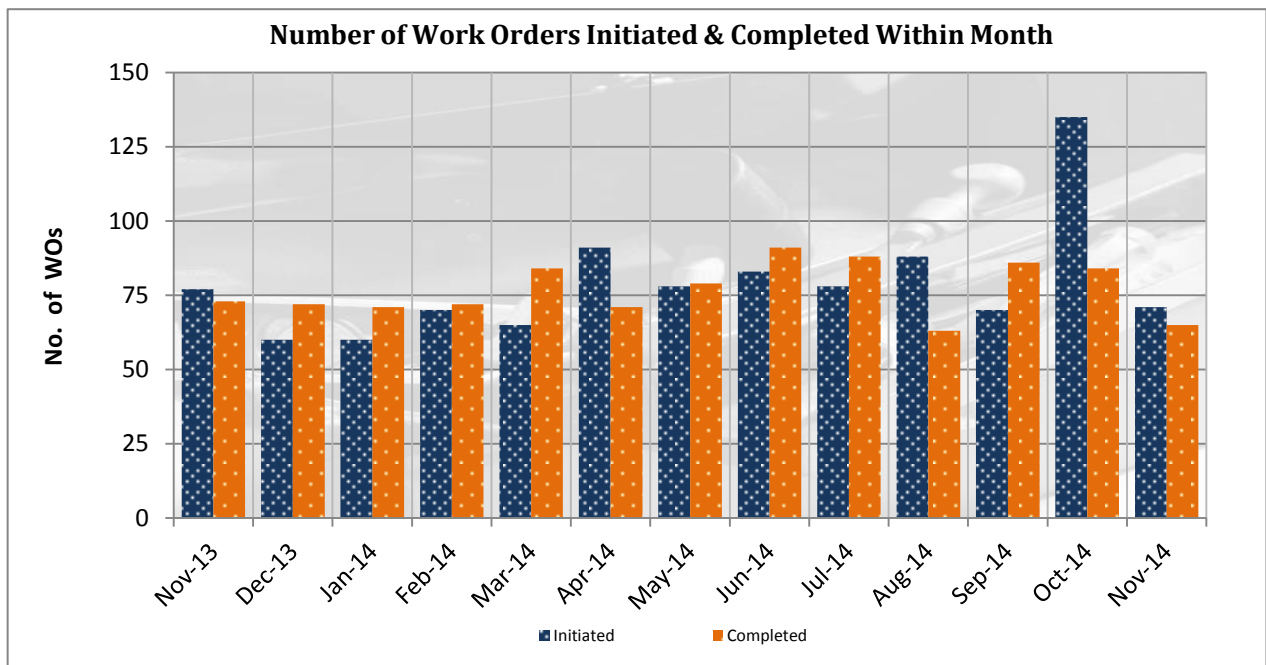
- Replace rubber seat on RAS splitter box weir gates.
- Replace secondary clarifier #3 RAS seal.
- Assemble and install centrifuge #1.

Other

- Write preventive maintenance schedule for cogeneration process.

Performance Measurements







Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

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

David M. O'Hara
Attorney

DATE: January 12, 2015

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Judi Berzon, Human Resources Administrator

SUBJECT: Agenda Item No. 8 - Meeting of January 12, 2015
Resolution No. ____, Approve Exception to the 180-Day Waiting Period
for Post-Retirement Employment for David E. Livingston (*to be reviewed by
the Personnel Committee*)

Recommendation:

Approve the Resolution for Exception to the 180-day Wait Period and letter of appointment of David E. Livingston to the position of Limited Term Trainer/Adviser to the Manager, Treatment & Disposal Services.

Background:

The recruitment for the Manager, Treatment & Disposal Services was conducted expeditiously following the selection of the General Manager, who was the decision-maker for this critical appointment. The candidate selected to fill this executive-level vacancy was Armando Lopez, who held the position of Wastewater Operations Coach. His appointment was effective December 1, 2014, which meant that Armando had less than three weeks to be mentored by the retiring manager, Dave Livingston, whose last day was December 19, 2014.

At the District the Work Group Managers, along with the General Manager, comprise the Executive Team (ET). The ET is responsible for long-range planning activities, including development and monitoring of the District's Strategic Plan, development of the budget, succession planning, policy development and implementation, employee safety, employee development, and many other District-wide activities. In addition, the Work Group Manager has overall responsibility for the management of the work group and its employees.



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

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

David M. O'Hara
Attorney

Given the scope of responsibilities, it is critical that there be sufficient time for the retiring Manager and the new Manager to work together to ensure that essential knowledge transfer occurs. This knowledge transfer optimally will occur at the beginning of the new Manager's tenure rather than many months after appointment. Retirement law allows for an agency to waive the 180-day period that typically elapses prior to the retired "annuitant's" (employee) returning to temporary employment for the purpose of performing a special project/assignment. This is the resolution that the Board is being asked to approve. It is anticipated that the length of the appointment will be approximately two to three months, two to three days per week, which should be sufficient to allow for effective knowledge transfer.

Attachments: Resolution for Exception to the 180-day Wait Period

Offer letter to David E. Livingston

Salary schedule for the comparable position

Retiree Certification of Compliance with Unemployment Insurance

Payment Requirements

Senior Process Engineer

Description

Under general supervision in a team environment, the Senior Process Engineer performs a wide variety of complex process engineering work supporting all operational aspects of a 33 million gallon per day wastewater treatment plant; utilizes a variety of office and specialized engineering software and applies statistical techniques in the interpretation of data to determine the treatment plant efficiency and propose operational adjustments needed; analyzes plant energy production and usage data and recommends strategies for maximizing energy efficiency. This position collaborates with operations, maintenance, engineering, laboratory and management staff to troubleshoot and resolve complex process-related problems.

The Senior Process Engineer keeps informed of changing wastewater, biosolids and air regulations, treatment standards and techniques, assesses the impacts of these changes on treatment plant operation and costs, provides recommendations to operations, engineering and management, assists in the prioritization of capital improvement projects for the treatment plant; and assists in the budget preparation process.

The Senior Process Engineer performs research, conducts pilot studies and provides engineering design and oversight of minor construction projects associated with the evaluation, optimization and start-up of facilities; reviews engineering plans and specifications during project design and implementation, and provides analysis and technical recommendations to management and engineering staff; performs consultant selection and manages studies and small engineering projects as required; prepares reports, data summaries and grant applications; represents the District at professional association activities and presents results of research, process and optimization projects at key industry conferences.

This classification exercises significant decision-making authority and requires a high degree of independent judgment. Senior Process Engineer is alternately staffed with Principal Process Engineer, depending on the needs for this position and based upon workload at the District.

Examples of Duties

- Manage process and energy research projects and special studies dealing with all aspects of wastewater treatment including collection systems.
- Conduct internal research studies to evaluate treatment plant performance, analyze operational anomalies, prepare reports and make presentations to management, USD's Board of Directors and others.
- Devise experiments to determine the applicability and effectiveness of new chemicals, products or technologies. Provide a report of results and recommendation to management. Conduct pilot and full scale process testing.

- Act as start-up engineer to oversee the transition of new facilities from the construction phase through their incorporation as routine operating facilities, including testing, operator training and facility optimization. Develop standard operating procedures and operator competency requirements. Modify or update operating manuals.
- Evaluate unit processes and operations and recommend adjustments for increased efficiency or performance. Perform cost/benefit analysis.
- Assist operations in troubleshooting treatment plant problems, document investigation results, and make recommendations to management.
- Work with operations and laboratory staff to implement and evaluate process modifications.
- Select consultants, and oversee and manage consultant contracts.
- Review plans and specifications for wastewater operations and maintenance projects and provide comments to project engineers.
- Review treatment plant operational data and determine compliance with permit conditions, e.g., calculating thermal input to evaluate compliance with Air Board requirements for cogeneration.
- Perform computerized modeling of the activated sludge system and secondary clarifiers.
- Review plant power production and usage and recommend a cogeneration strategy.
- Act as the District's energy efficiency champion. Review Plant energy bills and rate schedules, research alternative schedules, rules and regulations governing third party suppliers for natural gas and energy and make recommendations to management regarding the most efficient procurement of energy for the District.
- Prepare applications for grants and rebates from PG&E and others.
- Prepare regulatory reports as needed. For example, prepare and submit the EIA-923 to the Department of Energy.

Incumbents will perform any other duties that are appropriate for the scope and level of responsibility of this classification.

QUALIFICATIONS:

Education and Experience:

Any combination of education and experience that provides the knowledge, skills, and abilities indicated below. A typical way of gaining the knowledge, skills, and abilities is:

- A Bachelor's degree with major coursework in civil or environmental engineering, or a closely related field, and a minimum of ten years increasingly responsible experience related to treatment plant process engineering, at a wastewater treatment plant. Energy management expertise is highly desirable. At the discretion of the hiring manager, an advanced degree can be substituted for up to three years of the engineering requirement. Advanced degrees include a

Master of Science degree or Ph.D. in Environmental Engineering or other closely related field. Master of Science or Ph.D. is highly desirable for this position.

Knowledge of: Principles of physical, biological, and chemical wastewater treatment processes, including regulatory requirements for liquid, solids, and air process, NPDES, air emissions, and solids disposal; engineering mathematics, economics, and principles of statistical analysis; process control principles and methods and the range of equipment used in their application; principles of analytical chemistry and applications in a water quality laboratory; civil and sanitary engineering principles, practices, and methods; methods and techniques used in design and construction as applied to planning, pilot facility design and construction, cost estimation; construction start-up and performance testing for wastewater treatment facilities; applicable federal, state, and local laws and regulatory codes relevant to wastewater system design, construction, and plant operations; principles and practice of supervision; project management and contract administration principles; pertinent safety standards and practices including applicable OSHA safety standards.

Skill in: Analyzing complex civil, sanitary and /or environmental engineering data and reports and drawing sound conclusions; devising experiments and process testing plans to evaluate unit processes and operations or troubleshoot problems; conducting, evaluating, and reviewing the results of engineering investigations and studies including cost estimates and design specifications for conformance with sound engineering principles and practices; preparing plans, designs, sketches, estimates, and draft specifications for wastewater process studies and treatment facility improvements; conducting plant operations and economic studies; preparing clear, concise, and accurate reports and correspondence; managing consultant studies and design projects; coordinating, communicating and planning work with other workgroups; supervising staff in the field during process studies, process modifications, or the evaluation of newly constructed improvements; modeling wastewater treatment operations and processes using a variety of microcomputer based methods; and negotiating power purchase and sales agreements with PG&E and other organizations.

Ability to: Inspect plant facilities and recognize inefficient, unusual, or dangerous operating conditions; exercise sound judgment in emergency situations; oversee, evaluate, and train staff; interpret process control tests and recommend actions to plant operations or management; make complex engineering computations; adapt and apply new technology to the treatment of wastewater; abide by District and OSHA safety precautions and standards; coordinate a variety of activities both within the work group and with other work groups; understand, carry out and provide oral and written instructions in English; make effective oral reports and presentations.

Interpersonal Effectiveness: Ability to work effectively in a team-based organization; communicate clearly and concisely, both orally and in writing; deal tactfully and effectively with representatives of regulatory and other governmental agencies, professional services consultants, contractors, customers, District staff, and peers; and

demonstrate effective leadership, problem-solving, and two-way communication skills, including the ability to listen, explain, facilitate, ask for input, and provide recognition and encouragement.

Licenses, Certificates, or Credentials: Must possess a valid Class C California driver's license, have and maintain a satisfactory driving record, and be insurable by the District to operate District vehicles. Must possess California registration as a Professional Engineer. Possession of a California SWRCB Wastewater Operator Certificate is desirable.

Other Requirements: Must possess the physical characteristics to perform the critical and important duties of the class. Must be willing to work outdoors in a variety of weather conditions and work overtime, nights and weekends as needed.

ADDITIONAL INFORMATION:

Disaster Service Worker

Employees of Union Sanitary District are, by State and Federal law, Disaster Service Workers. In the event of a declaration of emergency, any employee may be assigned activities that promote the protection of public health and safety or the preservation of lives and property, either at the District or within the local or their own community.

Resolution Number
January 12, 2015

RESOLUTION FOR EXCEPTION TO THE 180-DAY WAIT PERIOD
GC sections 7522.56 & 21224

WHEREAS, in compliance with Government Code section 7522.56 the Union Sanitary District Board of Directors must provide CalPERS this certification resolution when hiring a retiree before 180 days has passed since his or her retirement date; and

WHEREAS, David E. Livingston, SSN last four digits 4707, retired from Union Sanitary District in the position of Manager, Treatment & Disposal Services, effective December 30, 2014, and

WHEREAS, section 7522.56 requires that post-retirement employment commence no earlier than 180 days after the retirement date, which is June 29, 2015 without this certification resolution; and

WHEREAS, section 7522.56 provides that this exception to the 180 day wait period shall not apply if the retiree accepts any retirement-related incentive; and

WHEREAS, the Board of Directors, the Union Sanitary District and David E. Livingston certify that David E. Livingston has not and will not receive a Golden Handshake or any other retirement-related incentive; and

WHEREAS, the Board of Directors hereby appoints David E. Livingston as an extra help retired annuitant to perform the duties of Limited Term Trainer/Adviser to the Manager, Treatment & Disposal Services for the Union Sanitary District under Government Code section 21224 , effective January 15, 2015; and

WHEREAS, the entire employment agreement, contract or appointment document between David E. Livingston and the Union Sanitary District has been reviewed by this body and is attached herein; and

WHEREAS, no matters, issues, terms or conditions related to this employment and appointment have been or will be placed on a consent calendar; and

WHEREAS, the employment shall be limited to 960 hours per fiscal year; and

WHEREAS, the compensation paid to retirees cannot be less than the minimum nor exceed the maximum monthly base salary paid to other employees performing comparable duties, divided by 173.333 to equal the hourly rate; and

WHEREAS, the maximum base salary for this position \$188,670.00 and the hourly equivalent is \$90.7069, and the minimum base salary for this position is \$143,748.00 and the hourly equivalent is \$69.1097; and

WHEREAS, the hourly rate paid to David E. Livingston will be \$90.7069; and

WHEREAS, David E. Livingston has not and will not receive any other benefit, incentive, compensation in lieu of benefit or other form of compensation in addition to this hourly pay rate; and

THEREFORE, BE IT RESOLVED THAT the Board of Directors hereby certifies the nature of the appointment of David E. Livingston as described herein and detailed in the attached appointment document and that this appointment is necessary to fill the critically needed position of Limited Term Trainer/Adviser to the Manager, Treatment & Disposal Services for the Union Sanitary District by January 15, 2015 because Mr. Livingston has unique knowledge based on his tenure as Manager, Treatment & Disposal Services and is needed to train and mentor his replacement in the numerous, high-level responsibilities of the Manager, Treatment & Disposal Services while the new Manager assumes his duties and continues to fulfill the duties of the first-line management position from which he was promoted.



Retiree Certification of Compliance
with Unemployment Insurance Payment Requirements

Name of CalPERS Retired Annuitant (please print): DAVID LIVINGSTON

I hereby certify that I have received no unemployment insurance compensation arising out of prior employment subject to Section 21224 of California Public Employees' Retirement Law during the 12-month period prior to my limited duration appointment to the position of Manager, Treatment & Disposal Services, which will commence on January 15, 2015.

Retiree's Signature

Date 1-5-15



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

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

David M. O'Hara
Attorney

January 13, 2015

Mr. David Livingston
19353 Santa Maria Avenue
Castro Valley, CA 94546

Dear Dave,

I am writing to offer you the position of Limited Term Trainer/Adviser to the Manager, Treatment & Disposal Services beginning January 15, 2015. In this capacity you will provide training and mentoring to the newly selected Manager. As you know, since the new Manager was appointed shortly before your final day at the District, you were unable to provide this assistance prior to your retirement. The "knowledge transfer" that will be accomplished through your work with the new Manager will be invaluable to him and will greatly benefit the District.

It is anticipated that the length of your appointment will be approximately two to three months, two to three days per week. Your hourly rate of pay will be \$90.7069 per hour, which is based on the top of the range for Manager, Treatment & Disposal Services. You will receive no other compensation, benefit, or incentive in addition to your hourly pay rate during this special assignment. Social Security contributions will be deducted from your paycheck. Additionally, as a retired annuitant appointed pursuant to Section 21224, you may not work more than 960 hours in a fiscal year. This 960 hour cap is a hard limit and will be tracked in the District's payroll system.

Sincerely,

Paul R. Eldredge
General Manager/District Engineer

Attachment: Retiree Certification of Compliance with Unemployment Insurance
Payment Requirements

cc: Personnel file

UNION SANITARY DISTRICT PAY SCHEDULE

Effective December 8, 2014		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accounting Tech Specialist	\$2,938.38	\$3,571.62
Accounting Technician II	\$2,611.90	\$3,174.78
Administrative Specialist I	\$2,320.92	\$2,821.10
Administrative Specialist II	\$2,443.06	\$2,969.57
Assistant Engineer	\$3,427.81	\$4,499.00
Assistant to the General Manager	\$2,924.79	\$3,838.79
Assistant Storekeeper	\$2,256.82	\$2,743.18
Associate Engineer	\$3,821.77	\$5,016.08
Buyer I	\$2,455.78	\$3,223.21
Buyer II	\$2,889.16	\$3,792.02
Chemist I	\$3,193.43	\$3,881.64
Chemist II	\$3,353.11	\$4,075.73
Coach, Business Services	\$4,426.46	\$5,809.72
Coach, Capital Improvement Projects	\$5,128.54	\$6,731.21
Coach, Collection Services	\$4,105.64	\$5,388.65
Coach, Customer Service	\$4,580.38	\$6,011.74
Coach, Electrical & Instrumentation	\$4,150.57	\$5,447.62
Coach, Environmental Compliance	\$4,120.45	\$5,408.09
Coach - Mechanical Maintenance	\$4,032.52	\$5,292.68
Coach, Research & Support/Sr. Process Engineer	\$4,580.38	\$6,011.74
Coach, Total Plant Operations	\$4,063.75	\$5,333.68
Collection System Worker I	\$2,397.86	\$2,914.61
Collection System Worker II	\$2,637.65	\$3,206.08
Communications Coordinator	\$3,257.39	\$3,959.38
Construction Inspector I	\$2,790.06	\$3,391.33
Construction Inspector II	\$3,069.05	\$3,730.45
Construction Inspector III	\$3,191.82	\$3,879.68
Customer Service Fee Analyst	\$2,652.14	\$3,223.70
Engineering Technician I	\$2,692.06	\$3,272.21
Engineering Technician II	\$2,961.26	\$3,599.42
Engineering Technician III	\$3,257.39	\$3,959.38
Environmental Compliance (EC) Inspector I	\$2,635.74	\$3,203.75
Environmental Compliance (EC) Inspector II	\$2,965.26	\$3,604.30
Environmental Compliance (EC) Inspector III	\$3,291.44	\$4,000.77
Environmental Compliance (EC) Inspector IV	\$3,521.84	\$4,280.82
Environmental Control (EC) Outreach Representative	\$3,291.44	\$4,000.77
Environmental Health and Safety Program Manager	\$3,798.63	\$4,985.70
Environmental Program Coordinator	\$3,728.03	\$4,893.04

Effective December 8, 2014		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Fleet Mechanic I	\$2,658.62	\$3,231.57
Fleet Mechanic II	\$2,977.66	\$3,619.36
General Manager	\$7,074.72	\$9,285.56
Human Resources Administrator	\$4,591.87	\$6,026.83
Human Resources Analyst	\$3,210.96	\$4,214.38
InformationTechnology Administrator	\$4,367.30	\$5,732.08
Information Technology Analyst	\$3,089.29	\$4,054.70
Instrument Tech/Electrician	\$3,274.86	\$3,980.62
Janitor	\$1,778.16	\$2,161.36
Junior Engineer	\$3,085.03	\$4,049.10
Laboratory Director	\$3,972.02	\$4,828.02
Lead Collection System Worker	\$2,901.42	\$3,526.69
Maintenance Assistant	\$1,142.49	\$1,388.70
Manager, Business Services	\$6,291.21	\$8,257.22
Manager, Collection Services	\$5,528.78	\$7,256.52
Manager, Collection Services*	\$5,827.56	\$7,648.67
Manager, Maintenance	\$5,528.78	\$7,256.52
Manager, Technical Services	\$6,107.76	\$8,016.44
Manager, Treatment & Disposal Services	\$5,528.78	\$7,256.52
Manager, Treatment & Disposal Services *	\$5,827.56	\$7,648.67
Mechanic I	\$2,689.63	\$3,269.26
Mechanic II	\$3,012.40	\$3,661.59
Mechanic XL	\$3,714.66	\$3,844.68
Organizational Performance Program Manager	\$3,985.83	\$5,231.41
Painter	\$2,764.26	\$3,359.97
Planner/Scheduler I	\$3,088.00	\$3,753.49
Planner/Scheduler II	\$3,320.65	\$4,036.27
Plant Operations Trainer	\$3,647.89	\$4,434.03
Plant Operator I	\$2,565.98	\$3,118.97
Plant Operator II	\$2,848.26	\$3,462.07
Plant Operator III	\$3,257.04	\$3,958.94
Plant Operator XL	\$4,016.32	\$4,156.90
Principal Engineer	\$4,640.11	\$6,090.14
Principal Financial Analyst	\$3,694.37	\$4,848.86
Purchasing Agent	\$3,637.65	\$4,774.42
Receptionist	\$2,029.41	\$2,466.76
Senior Accountant	\$3,314.23	\$4,349.93
Senior Database Administrator / Developer	\$3,875.52	\$5,086.62
Senior Engineer	\$4,144.15	\$5,439.20
Senior Geographic Information System (GIS)/Database Administrator	\$3,875.52	\$5,086.62

Effective December 8, 2014		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Senior Information Technology Analyst	\$3,432.55	\$4,505.22
Senior Network Administrator	\$3,785.53	\$4,968.51
Senior Planner/Scheduler	\$3,648.47	\$4,788.62
Senior Process Engineer	\$4,144.15	\$5,439.20
Storekeeper I	\$2,853.67	\$3,468.66
Storekeeper II	\$2,996.34	\$3,642.08
Technical Training Program Manager	\$3,625.89	\$4,758.98
Utility Worker	\$2,190.65	\$2,662.75

Board of Directors: Directors meet or serve in their official capacity 3-12 times per month with a maximum of six paid meetings/month and a maximum of one meeting per day.

* Pay rates will no longer be used after December 30, 2014.

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*

David M. O'Hara
Attorney

DATE: January 5, 2015

MEMO TO: Board of Directors - Union Sanitary District

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

SUBJECT: Agenda Item No. 9 - Meeting of January 12, 2015
Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Carollo Engineers for Providing Engineering Services for the Design of the Fremont and Paseo Padre Lift Stations Improvements Project

Recommendation

Staff recommends the Board authorize the General Manager to execute an Agreement and Task Order No. 1 with Carollo Engineers in the amount of \$198,799 for providing engineering services for the design of the Fremont and Paseo Padre Lift Stations Improvements Project (Project).

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

Background

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 both constructed in 1984 and no major improvements have been made since being built almost 30 years ago.

The Paseo Padre LS and Fremont LS are in need of improvements to maintain reliability and to improve operation. Of particular concern are the two enclosed screw pumps located at each lift station. In September 2014, staff conducted a condition assessment of the two 24-inch diameter enclosed screw pumps at Fremont LS and inspected the interior of both pumps. The inspection revealed that the protective coatings on the interior flights had failed and as a result, there is significant corrosion of the steel flights and the pumps are in need of replacement. At Paseo Padre LS, staff was not able to inspect the two 30-inch diameter enclosed screw pumps due to the need to set up a significant bypass system to prevent a spill in the collection system upstream of the station. Therefore, the two pumps located at Paseo Padre LS are assumed to be in similar condition and also in need of replacement because they are of the same age and operate in similar conditions as the pumps at Fremont LS.

The District replaced eight larger 60-inch diameter enclosed screw pumps at the plant's Lift Station Nos. 1 and 2 in 2010 and 2014 due to similar corrosion damage to the interior steel flights.

Project Scope

Carollo's scope of services will include a preliminary design task to evaluate several items at both stations in order to provide a basis for the final design task. The proposed improvements to Fremont LS and Paseo Padre LS include the following:

- Replace two enclosed screw pumps at Fremont LS and two enclosed screw pumps at Paseo Padre LS. Add variable frequency drives for the pumps at Fremont LS.
- Make structural improvements such as inspecting the roof of the lift station buildings for repairs or replacement, erecting a canopy structure to provide cover protection for the screw pumps and the wet well, and rehabilitating the concrete walls of the wet wells. Evaluate the possibility of reconfiguring the wet wells at Paseo Padre LS to reduce the number of head gates needed to operate it from two to one.
- Make electrical improvements such as replacing the existing motor control centers and the existing standby generator transfer switches.
- Make site improvements such as replacing the existing fences, installing electric vehicle gates, and repaving both lift stations.
- Relocate the existing Fremont LS standby generator from inside the lift station building to outside.
- Evaluate the existing 208-volt electrical service in both lift stations to convert it to 480-volt service at both stations and consolidate existing electrical panels and equipment inside the lift station buildings.

- Perform condition assessments of the aboveground fuel storage tank and the headgate hydraulic power unit at Paseo Padre LS.

Design Services

Staff conducted a consultant selection process and invited four consultants, Brown and Caldwell, Carollo Engineers, RMC Water and Environment, and West Yost and Associates, to participate. Brown and Caldwell declined the invitation because of a lack of personnel available to work on the Project. The other three firms submitted proposals. Staff evaluated the three proposals and selected Carollo due to the experience of their engineering staff and their proposed approach to the Project.

Carollo prepared a scope of services for the design of the Project and the fee of Task Order No. 1 is summarized below:

Task No.	Task Description	Fee
1	Project Management	\$8,808
2	Kickoff Meeting	\$3,379
3	Preliminary Design	\$26,726
4	Final Design	\$139,048
5	Bid Period Services	\$6,545
Total Fee of Tasks 1-5		\$184,506
6	Optional Services – additional PG&E coordination and Generator Permitting	\$14,293
Total Task Order Not to Exceed Fee (Tasks 1-6)		\$198,799

Task Order No. 1 includes 1,032 hours of effort at a total not to exceed fee of \$198,799 or 8.9% of the preliminary construction cost estimate of \$2.24 million. For a project of this scope and size, staff estimated the design services to be approximately 9% to 10% of the cost estimate.

The Task Order includes an optional task for a couple of items. If required, Carollo will coordinate with PG&E to apply for a new 480-volt service at both stations. In addition, Carollo may assist with any air permit application if the generator relocation at Fremont LS requires it.

Carollo will complete the design of the Project in June 2015. Staff anticipates construction to begin in the summer of 2015.

Staff recommends the Board authorize the General Manager to execute an Agreement and Task Order No. 1 with Carollo Engineers in the amount of \$198,799 for providing engineering services for the design of the Fremont and Paseo Padre Lift Stations Improvements Project.

PRE/SG/RC/DC;ks

Attachments: Agreement
Task Order No. 1
Figures 1 through 5

FREMONT AND PASEO PADRE LIFT STATIONS IMPROVEMENTS PROJECT

PROJECT NO. 800-444

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

THIS IS AN AGREEMENT MADE AS OF January _____, 2015, BETWEEN UNION SANITARY DISTRICT (hereinafter referred to as District), and Carollo Engineers, Inc. (hereinafter referred to as Engineer).

WITNESSETH:

WHEREAS, District intends to construct the Fremont and Paseo Padre Lift Stations Improvements Project (hereinafter referred to as Project), and,

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

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

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

ARTICLE 1 - SERVICES TO BE PERFORMED BY ENGINEER

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

ARTICLE 2 - COMPENSATION

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

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

Definitions are as follows:

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

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

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

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

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

ARTICLE 3 - PERIOD OF SERVICE

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

ARTICLE 4 - DISTRICT'S RESPONSIBILITIES

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

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

and rely upon all such information and services provided by District or others in performing Engineer's services under this Agreement.

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

ARTICLE 5 - STANDARD OF CARE

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

ARTICLE 6 - OPINIONS OF COST AND SCHEDULE

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

ARTICLE 7 - SUBCONTRACTING

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

ARTICLE 8 - ENGINEER-ASSIGNED PERSONNEL

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

ARTICLE 9 - OWNERSHIP OF DOCUMENTS

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

ARTICLE 10 - RECORDS OF LABOR AND COSTS

- 10.1 Engineer shall maintain for all Task Orders, records of all labor and costs used in claims for compensation under this Agreement. Records

shall mean a contemporaneous record of time for personnel; a methodology and calculation of the Multiplier for fringe benefits and indirect costs; and invoices, time sheets, or other factors used as a basis for determining other non-labor Project charges. These records must be made available to the District upon reasonable notice of no more than 48 hours during the period of the performance of this Agreement.

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

ARTICLE 11 - INSURANCE

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

- 11.1 Workers' Compensation and Employer's Liability Insurance for protection of Engineer's employees as required by law and as will protect Engineer from loss or damage because of personal injuries, including death to any of his employees.
- 11.2 Comprehensive Automobile Liability Insurance. Engineer agrees to carry a Comprehensive Automobile Liability Policy providing bodily injury liability. This policy shall protect Engineer against all liability arising out of the use of owned or leased automobiles both passenger and commercial. Automobiles, trucks, and other vehicles and

equipment (owned, not owned, or hired, licensed or unlicensed for road use) shall be covered under this policy. Limits of liability for Comprehensive Automobile Liability Insurance shall not be less than \$1,000,000 Combined Single Limit.

11.3 Comprehensive General Liability Insurance as will protect Engineer and District from any and all claims for damages or personal injuries, including death, which may be suffered by persons, or for damages to or destruction to the property of others, which may arise from the Engineer's operations under this Agreement, which insurance shall name the District as additional insured. Said insurance shall provide a minimum of \$1,000,000 Combined Single Limit coverage for personal injury, bodily injury, and property damage for each occurrence and aggregate. Such insurance will insure Engineer and District from any and all claims arising from the following:

1. Personal injury;
2. Bodily injury;
3. Property damage;
4. Broad form property damage;
5. Independent contractors;
6. Blanket contractual liability.

11.4 Engineer shall maintain a policy of professional liability insurance, protecting it against claims arising out of negligent acts, errors, or omissions of Engineer pursuant to this Agreement, in an amount of not less than \$1,000,000. The said policy shall cover the indemnity provisions under this Agreement.

11.5 Engineer agrees to maintain such insurance at Engineer's expense in full force and effect in a company or companies satisfactory to the District. All coverage shall remain in effect until completion of the Project.

11.6 Engineer will furnish the District with certificates of insurance and endorsements issued by Engineer's insurance carrier and countersigned by an authorized agent or representative of the insurance company. The certificates shall show that the insurance will not be cancelled without at least thirty (30) days' prior written notice to the District. The certificates for liability insurance will show that liability assumed under this Agreement is included. The endorsements will show the District as an additional insured on Engineer's insurance policies for the coverage required in Article 11 for services performed under this Agreement, except for workers' compensation and professional liability insurance.

- 11.7 Waiver of Subrogation: Engineer hereby agrees to waive subrogation which any insurer of Engineer may acquire from Engineer by virtue of the payment of any loss. Engineer agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation.

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

ARTICLE 12 - LIABILITY AND INDEMNIFICATION

- 12.1 Having considered the risks and potential liabilities that may exist during the performance of the Services, and in consideration of the promises included herein, District and Engineer agree to allocate such liabilities in accordance with this Article 12. Words and phrases used in this Article shall be interpreted in accordance with customary insurance industry usage and practice.
- 12.2 Engineer shall indemnify and save harmless the District and all of their agents, officers, and employees from and against all claims, demands, or causes of action of every name or nature to the extent caused by the negligent error, omission, or act of Engineer, its agents, servants, or employees in the performance of its services under this Agreement.
- 12.3 In the event an action for damages is filed in which negligence is alleged on the part of District and Engineer, Engineer agrees to defend District. In the event District accepts Engineer's defense, District agrees to indemnify and reimburse Engineer on a pro rata basis for all expenses of defense and any judgment or amount paid by Engineer in resolution of such claim. Such pro rata share shall be based upon a final judicial determination of negligence or, in the absence of such determination, by mutual agreement.
- 12.4 Engineer shall indemnify District against legal liability for damages arising out of claims by Engineer's employees. District shall indemnify Engineer against legal liability for damages arising out of claims by District's employees.
- 12.5 Indemnity provisions will be incorporated into all Project contractual arrangements entered into by District and will protect District and Engineer to the same extent.
- 12.6 Upon completion of all services, obligations and duties provided for in the Agreement, or in the event of termination of this Agreement for any reason, the terms and conditions of this Article shall survive.

- 12.7 To the maximum extent permitted by law, Engineer's liability for District's damage will not exceed the aggregate compensation received by Engineer under this Agreement or the maximum amount of professional liability insurance available at the time of any settlement or judgment, which ever is greater.

ARTICLE 13 - INDEPENDENT CONTRACTOR

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

ARTICLE 14 - COMPLIANCE WITH LAWS

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

ARTICLE 15 - NONDISCLOSURE OF PROPRIETARY INFORMATION

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

ARTICLE 16 - TERMINATION OF CONTRACT

- 16.1 The obligation to continue Services under this Agreement may be terminated by either party upon seven days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.

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

ARTICLE 17 - UNCONTROLLABLE FORCES

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

ARTICLE 18 - MISCELLANEOUS

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

ARTICLE 19 - INTEGRATION AND MODIFICATION

- 19.1 This Agreement (consisting of pages 1 to 13), together with all Task Orders executed by the undersigned, is adopted by District and Engineer as a complete and exclusive statement of the terms of the Agreement between District and Engineer. This Agreement supersedes all prior agreements, contracts, proposals, representations, negotiations, letters, or other communications between the District and Engineer pertaining to the Services, whether written or oral.
- 19.2 The Agreement may not be modified unless such modifications are evidenced in writing signed by both District and Engineer.

ARTICLE 20 - SUCCESSORS AND ASSIGNS

- 20.1 District and Engineer each binds itself and its directors, officers, partners, successors, executors, administrators, assigns and legal representatives to the other party to this Agreement and to the partners, successors, executors, administrators, assigns, and legal representatives of such other party, in respect to all covenants, agreements, and obligations of this Agreement.
- 20.2 Neither District nor Engineer shall assign, sublet, or transfer any rights under or interest in (including, but without limitation, monies that may become due or monies that are due) this Agreement without the written consent of the other, except to the extent that the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will

release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent Engineer from employing such independent engineers, associates, and subcontractors as he may deem appropriate to assist him/her in the performance of the Services hereunder and in accordance with Article 7.

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

ARTICLE 21 – NOT USED

ARTICLE 22 – NOT USED

ARTICLE 23 - EXCEPTIONS

No exceptions.

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

UNION SANITARY DISTRICT

CAROLLO ENGINEERS, INC.

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

By: _____
Name: _____

Title: _____

Date: _____

Date: _____

FREMONT AND PASEO PADRE LIFT STATIONS IMPROVEMENTS PROJECT

PROJECT NO. 800-444

TASK ORDER NO. 1

**UNION SANITARY DISTRICT
AND
CAROLLO ENGINEERS, INC.**

DESIGN AND BID PERIOD SERVICES

This Task Order No. 1 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 ____ day of January 2015, associated with the Fremont and Paseo Padre Lift Stations Improvements Project (Project).

PURPOSE

The purpose of this Task Order is to provide design and bid period engineering services associated with 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.

PROJECT UNDERSTANDING

The District employs a number of small lift stations to move wastewater in the collections system to larger pump stations that convey flow to the Alvarado Wastewater Treatment Plant. The Fremont Lift Station and Paseo Padre Lift Station were both constructed in the 1980s and are in need of improvements to maintain reliability. Each lift station has two Internalift Screw Pumps that are in need of replacement. The District identified a list of improvements that are included in the scope of services outlined in the following sections. The goal of this project is to design and construct these improvements for the Fremont and Paseo Padre Lift Stations.

Anticipated major improvements and modifications included under the final design are:

Paseo Padre Lift Station

- Replace the two 30" Internallift Screw Pumps.
- Add air conditioning to the lift station building.
- Add hose bibb and eyewash station.
- Relocate hydraulic power unit next to the lift station building. Reroute hydraulic lines in a trench. Evaluate the reuse or replacement of the existing hydraulic power unit.
- Perform condition assessment of the aboveground fuel storage tank. If necessary, replace fuel storage tank.
- Evaluate the possibility of reconfiguring the lift station from two wet wells into a single wet well. Replace the two existing head gates with a single head gate.
- Evaluate the existing 208V electrical service in the lift station to convert it to 480V service.
- Replace the existing MCC.
- Replace the existing generator transfer switch.
- Relocate existing external gas detector panels to inside the building.
- Change out the lights in the lift station to LED lights. If there are lights located inside the wet well, relocate them outside the wet well.
- Evaluate existing electrical panels and equipment inside the lift station building for possible consolidation to free up space. Add storage space to the building if possible.
- Replace the existing gate with an electric gate for access into the lift station.
- Replace the existing fencing with new fencing, which will visually conceal the lift station.
- Replace hand railing throughout the lift station.
- Inspect the roof of the building for repairs or replacement.
- Erect a canopy structure to provide cover for the Internallift Pumps and the wet well. Structure shall have removable panels or other similar features to provide access to the pumps in the wet well.
- Repave the lift station.
- Remove all existing coatings and rehabilitate the concrete walls of the wet well . USD prefers uncoated concrete walls inside the wet well.
- Replace two existing aluminum wet well access hatches with new FRP hatches.

Fremont Lift Station

- Replace the two 24" Internallift Screw Pumps.
- Relocate the existing standby generator from inside the lift station building to outside by the existing fuel tank.
- Add air conditioning to the lift station building.
- Add eyewash station.
- Replace the hydraulic cylinder on the existing headgate.
- Demolish various items including the out of service at-grade odor scrubber and piping inside

the wet well. Evaluate all items in the wet well that can be removed.

- Replace toilet and fixtures inside the lift station building. Relocate hot water heater or replace if necessary.
- Evaluate the existing 208V electrical service in the lift station to convert it to 480V service.
- Replace the existing MCC.
- Replace the existing generator transfer switch.
- Relocate existing external gas detector panels to inside the building.
- Change out the lights in the lift station to LED lights. If there are lights located inside the wet well, relocate them outside the wet well.
- Add variable frequency drives for the two Internalift Screw Pumps.
- Install an electric gate for access into the lift station.
- Replace hand railing throughout the lift station.
- Inspect the roof of the building for repairs or replacement.
- Erect a canopy structure to provide cover for the Internalift Pumps and the wet well. Structure shall have removable panels or other similar features to provide access to the pumps in the wet well.

Newark Pump Station

- Replace the existing gate with an electric access gate at the Newark Pump Station.

ENGINEER'S SCOPE OF SERVICES

Engineer will provide the following specific services.

TASK 1.0 – PROJECT MANAGEMENT

Task 1.1 -- Project Management Plan

Engineer shall prepare a project management plan that covers key activities. The plan will define the personnel, project schedule, scope of services, QA/QC control, field work safety, communication protocol, and other procedures required to effectively conduct the study.

Task 1.2 – Progress Meetings

Engineer shall conduct monthly meetings in person or by teleconference to review progress and any deviations from the schedule and budget. The Project Manager shall maintain decision and action logs as well as a critical issue log that will be updated at these monthly meetings.

Task 1.3 -- Monthly Progress Reports

Engineer shall prepare and submit a written monthly invoice to the District which will show the percentage of work completed and the percentage of contract billed, summarize the work completed during the month, and summarize the work to be completed during the following month.

Task 1.4 -- Monitor Budget, Schedule, and Decision Log

Engineer shall monitor and track the overall project scope, budget, and schedule, and update on a monthly basis. A log will be maintained throughout the project to record the decisions made by the project team. The log will contain decisions made during workshops and project meetings as well as during telephone conversations or emails.

Deliverables

- Monthly invoice (pdf).
- Monthly progress summary report (pdf).

TASK 2.0 – KICKOFF MEETING

Engineer shall conduct a Kickoff Meeting with key project participants. The meeting will address the overall approach to managing the project tasks, schedule, and budget, as well as communication and project team roles/responsibilities. The group will discuss the overall vision the District has for the project, the drivers, and goals. Group will discuss available information and identify key points of contact for necessary data.

Deliverables

- Agenda, information material, and meeting minutes.

TASK 3.0 – PRELIMINARY DESIGN

The purpose of this task is to collect data, conduct site visits, and evaluate alternatives identified in District's Request for Proposal as described in the following sections. Recommendations for final design (Task 4) will be jointly developed with the District and documented in a Preliminary Design Memorandum.

Task 3.1 – Data Review and Field Investigations

Engineer shall review existing District data, drawings, and other pertinent information. Engineer shall conduct field investigations as needed to confirm existing system features and dimensions related to design.

Task 3.2 – Alternatives Evaluations

Engineer shall conduct alternatives evaluations as described below. Final recommendations shall be developed at the Alternatives Evaluation Workshop (Task 3.3) and documented in the Preliminary Design Memorandum (Task 3.4).

- Power Supply Evaluation
Converting the power supply from 208V to 480V at each site requires either a new 480V service from PG&E or installing a new transformer. Engineer shall evaluate the cost, schedule, and long term maintenance considerations for both alternatives at each site. Engineer shall hold discussions with PG&E to obtain schedule and cost information as needed. Engineer shall hold discussions with District staff to reach consensus on a preferred approach.
- Temporary Bypass Evaluation

By providing a temporary bypass around the pump station during construction, the contractor can work normal hours which saves the District cost and reduces risks compared to other alternatives. In particular, at Paseo Padre a temporary bypass could be beneficial during replacement of electrical gear, hydraulic system, and modifications to the wet well. Engineer shall work closely with the District to develop details and scheduling for the bypass. Engineer shall evaluate a potential construction sequence at Fremont to minimize the need for a bypass by first removing the standby generator from the building and using the freed space for new electrical gear while the existing gear remains in operation. A short shutdown may be required while the new gear is placed into service. Engineer shall investigate the possibility of conducting the cutover work at night when flows are lowest.

- Lift Station Wet Well Evaluation

The two existing wet wells can be reconfigured into a single wet well at Paseo Padre while operating a temporary bypass system. Engineer shall evaluate the possibility of core drilling holes through the divider wall and other alternatives to save the cost of forming a new wall. Engineer shall evaluate concrete spalling at Paseo Padre to confirm the extent of damage and plan accordingly. Field work will be completed as part of Task 3.1.

- Electrical Panel Evaluation

Engineer shall evaluate consolidating the existing electrical panels and equipment inside the buildings.

- Standby Generator Evaluation

Engineer shall evaluate permitting and noise abatement for the relocated standby generator at Fremont. Engineer shall evaluate whether it would be more cost effective to purchase a new system. Engineer shall also evaluate whether replacement of the fuel storage tank at Paseo Padre may trigger permitting.

- Equipment Procurement Evaluation

Engineer shall evaluate potential benefits of sole source purchase of the pumps and approaches for ensuring fair pricing.

- Canopy Structure Evaluation

Engineer shall evaluate alternatives for constructing canopy structures at each site to provide cover for the Internalift Pumps and the wet well. Structure shall have removable panels or other similar features to provide access to the pumps in the wet well.

- Hydraulic Power Unit Evaluation

Engineer shall evaluate whether to re-use or replace the existing hydraulic power supply unit at Paseo Padre.

Deliverables

- Information for discussion at the Alternatives Evaluation Workshop.

Assumptions

- District will provide necessary GIS and site survey baseline information as needed for design.

- District will provide necessary pot holing of utilities during final design.
- District will be the main contact and will obtain all necessary permits and prepare CEQA documents prior to construction.
- District will be the main point of contact with PG&E and other utilities as needed to apply for permits or new power service if necessary.

Task 3.3 – Alternatives Evaluation Workshop

Engineer shall conduct a workshop with key project participants to develop final recommendations for alternatives described in Task 3.2.

Deliverables

- Agenda, information material, and meeting minutes.

Task 3.4 – Preliminary Design Memorandum

Engineer shall prepare a Preliminary Design Memorandum (PDM) based on selected alternatives in Task 3.3. The PDM will succinctly summarize the work completed during Preliminary Design and serve as the basis for Final Design (Task 4). The PDM will also include following:

- Design criteria
- Preliminary sizing calculations
- Civil, mechanical, architectural, and electrical layout sketches
- Preliminary electrical single-line diagrams
- Preliminary construction sequencing and constraints
- Preliminary project schedule for final design and construction
- Meetings, workshops, and site visit minutes will be included in the appendix of the PDM

Deliverables

- Draft PDM (pdf)
- Final PDM (pdf)

Assumptions

- Meeting minutes from the Alternatives Evaluation Workshop will serve as documentation of the alternatives analysis and preferred alternative selection.
- The TM will be based on the selected alternative for each element and will refer to the meeting minutes for details of the alternatives analysis. The alternatives analysis will not be detailed in the TM.
- District shall provide one compiled set of review comments to the Draft TM in Microsoft Word format for Engineer to include response comments.
- Sketches will be developed to convey design intent.
- Sketches will be prepared by redlining existing drawings where possible.

- The Final TM will be comprised of the draft TM documents and District review comments included as appendix. Major revisions to the draft TM are not anticipated.
- Technical specifications will not be part of the TM.

Task 4.0 – Final Design

The purpose of this task is to prepare design drawings, specifications, and cost estimates for the improvements identified in Task 3. The final design documents shall be stamped by California Professional Engineers and provided to the District for public advertisement and bid. Electrical and instrumentation engineering services shall be provided by Beecher Engineering.

Task 4.1 – 50 Percent Design Submittal

Engineer shall prepare and submit 50 percent complete design drawings, specifications, and cost estimate for District review.

Task 4.2 – 90 Percent Design Submittal

Engineer shall prepare and submit 90 percent complete design drawings, specifications, and cost estimate for District review.

Task 4.3 – Final Design Submittal

Engineer shall prepare and submit 100 percent design drawings, specifications, and cost estimate for District printing and solicitation of bid.

Deliverables

- Design review submittals at 50 percent and 90 percent completion will include 11-inch by 17-inch sets of progress drawings, progress technical specifications, and Engineer's estimate of probable construction cost. (10 copies and .pdf electronic).
- Electronic drawings and technical specifications for the project will be submitted for the final submittal. Electronic specifications will be in Word 2007 format and electronic drawings will be in AutoCAD 2007 format.
- Meeting to present 50 percent and 90 percent design submittals, including construction constraints and construction cost estimate.
- District will provide printing of final design documents for bidding.

Assumptions

- Drawings and Specifications shall utilize District design standards criteria dated June 2012.
- Design to be in accordance with approved recommendations from Task 3.
- Technical specifications will be prepared in Engineer's standard CSI MF95 format. Engineer will prepare modifications to District's front-end documents to conform to Project requirements.
- AutoCAD drawings will be prepared in Engineer's standard CAD standards, incorporating District's Design Standards where necessary.
- District will provide necessary GIS and site survey baseline information.
- District will provide potholing of existing utilities if necessary.

- District will provide necessary drawings, engineering data, and other necessary information regarding existing facilities.
- Consolidated review comments from the District will be provided within 2 weeks of submittals.
- Coordination with PG&E does not require significant effort. Optional services budget will be required if PG&E coordination requires more than one meeting or approximately 8 hours of labor.

Task 5.0 – Bid Period Services

5.1 Respond to Bidder Inquiries & Prepare Addenda – Engineer shall be the primary contact for contractor’s technical questions during the bid period. Engineer shall prepare up to two addenda respond formally to contractor’s questions. Addenda will be distributed by the District.

5.2 Prebid Meeting & Bid Evaluation – Prepare agenda and conduct one prebid meeting. Prepare meeting minutes for distribution by the District. If requested, Engineer shall assist in evaluating the bids after bid opening to make a recommendation for award.

Deliverables

- Addenda (up to 2).
- Responses to bidder inquiries.
- Prebid meeting agenda and minutes.

Assumptions

- District will manage bid period effort, including answering questions from bidders and the distribution of documents. Engineer shall provide answers for questions that District refers to Engineer.
- Bid period services will be provided by Beecher Engineering for electrical and instrumentation design related items.
- District will print and distribute bid documents and addenda. Engineer will coordinate printing of documents.

TASK 6.0 – OPTIONAL SERVICES

At the District’s request, Engineer shall provide optional services not included in the tasks described above. The optional services may include, but are not limited to, the following tasks:

- Task 6.1 – PG&E Service Coordination. If a new service is selected during Task 3, Engineer shall participate in meetings with the District and PG&E to discuss new electric service coordination issues. Engineer shall prepare preliminary electrical service application.
- Task 6.2 - Generator permitting. Engineer shall hire Mizutani Environmental to provide technical support and analyses as needed to obtain permits from the BAAQMD for the relocated backup generator and/or fuel tanks.

TIME OF PERFORMANCE

Anticipated schedule for completion of Engineer's scope of services is shown in Exhibit A and summarized as follows:

- Notice to Proceed (NTP): January 13, 2015
- Kickoff Meeting: January 22, 2015
- Alternatives Evaluation Workshop: March 3, 2015
- Preliminary Design Draft TM: March 13, 2015
- Submit 50 percent Design Submittal: April 10, 2015
- Submit 90 percent Design Submittal: May 15, 2015
- Final Design Submittal: June 5, 2015

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 B. Task Order No. 1 Firm Ceiling shall not exceed \$198,799.

EFFECTIVE DATE

This Task Order is effective as of the _____ day of January 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

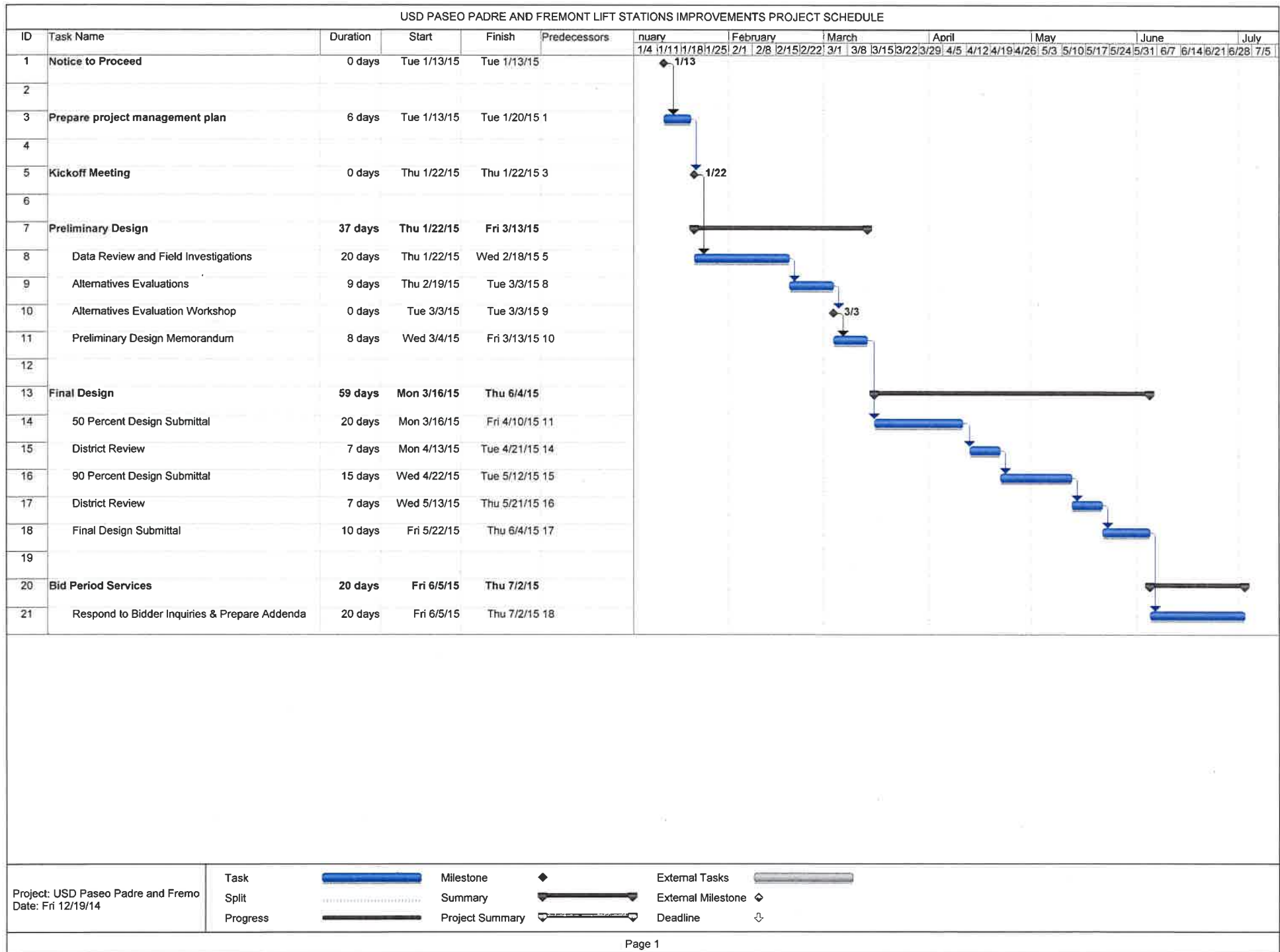
Accepted this _____ day of January 2015

By: _____
Vice President

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

By: _____
Senior Vice President

EXHIBIT A - SCHEDULE



PASEO PADRE AND FREMONT LIFT STATIONS IMPROVEMETS PROJECT

Task Order No.1
Union Sanitary District and Carollo Engineers

Exhibit B

Task Description		PIC	PM/PE	SE	CAD	Support	Total	Labor	Other Direct Costs (ODC)						Total	Total
									Subconsultants		PECE	Mileage			ODC	
Task No.		\$244	\$244	\$224	\$115	\$102	Hours	Cost	Beecher	Other	Amount	Trips	Amount	Printing		Amount
Task 1	Project Management															
1.1	Project Management Plan	1	2			2	5	\$ 936			\$ 59		\$ -	\$ -	\$ 59	\$ 995
1.2	Progress Meetings	1	8				9	\$ 2,196			\$ 105		\$ -	\$ -	\$ 105	\$ 2,301
1.3	Monthly Progress Reports	1	8			4	13	\$ 2,604			\$ 152		\$ -	\$ -	\$ 152	\$ 2,756
1.4	Monitor Budget, Schedule, and Decision Log	1	8			4	13	\$ 2,604			\$ 152		\$ -	\$ -	\$ 152	\$ 2,756
Task 1 Subtotal =		4	26	0	0	10	40	\$ 8,340	\$ -	\$ -	\$ 468	-	\$ -	\$ -	\$ 468	\$ 8,808
Task 2	Kickoff Meeting	1	8			2	11	\$ 2,400	\$ 1,000		\$ 878	2	\$ 101	\$ -	\$ 979	\$ 3,379
Task 3	Preliminary Design															
3.1	Data Review and Field Investigations		8	8			16	\$ 3,744	\$ 6,000		\$ 187	2	\$ 101	\$ -	\$ 6,288	\$ 10,032
3.2	Alternatives Evaluations	1	8	8	4		21	\$ 4,448	\$ 1,000		\$ 246		\$ -	\$ -	\$ 1,246	\$ 5,694
3.3	Alternatives Evaluation Workshop		8	8	4		20	\$ 4,204	\$ 1,000		\$ 234	2	\$ 101	\$ -	\$ 1,335	\$ 5,539
3.4	Preliminary Design Memorandum	2	8	4	4	4	22	\$ 4,204	\$ 1,000		\$ 257		\$ -		\$ 1,257	\$ 5,461
Task 3 Subtotal =		3	32	28	12	4	79	\$ 16,600	\$ 9,000	\$ -	\$ 924	4	\$ 202	\$ -	\$ 10,126	\$ 26,726
Task 4	Final Design															
4.1	50 Percent Design Submittal	2	40	18	80	24	164	\$ 25,928	\$ 30,000		\$ 1,919	1	\$ 51	\$ 1,000	\$ 32,969	\$ 58,897
4.2	90 Percent Design Submittal	2	40	24	80	16	162	\$ 26,456	\$ 25,000		\$ 1,895	1	\$ 51	\$ 1,000	\$ 27,946	\$ 54,402
4.3	Final Design Submittal	1	24	12	40	8	85	\$ 14,204	\$ 10,000		\$ 995	1	\$ 51	\$ 500	\$ 11,545	\$ 25,749
Task 4 Subtotal =		5	104	54	200	48	411	\$ 66,588	\$ 65,000	\$ -	\$ 4,809	3	\$ 152	\$ 2,500	\$ 72,460	\$ 139,048
Task 5	Bid Period Services															
5.1	Respond to Bidder Inquiries & Prepare Addenda		8	4		2	14	\$ 3,052	\$ 2,000		\$ 164		\$ -	\$ -	\$ 2,164	\$ 5,216
5.2	Prebid Meeting & Bid Evaluation	1	4				5	\$ 1,220			\$ 59	1	\$ 51	\$ -	\$ 109	\$ 1,329
Task 5 Subtotal =		1	12	4	0	2	19	\$ 4,272	\$ 2,000	\$ -	\$ 222	1	\$ 51	\$ -	\$ 2,273	\$ 6,545
Total Without Optional Services		14	182	86	212	66	560	\$ 98,200	\$ 77,000	\$ -	\$ 7,301	10	\$ 505	2,500	\$ 86,306	\$ 184,506
Task 6	Optional Services															
	PG&E Coordination		8				8	\$ 1,952	\$ 5,000		\$ 94	2	\$ 101	\$ -	\$ 5,195	\$ 7,147
	Generator permitting		8				8	\$ 1,952		\$ 5,000	\$ 94	2	\$ 101	\$ -	\$ 5,195	\$ 7,147
Task 6 Subtotal =		0	16	0	0	0	16	\$ 3,904	\$ 5,000	\$ 5,000	\$ 187	4	\$ 202	\$ -	\$ 10,389	\$ 14,293
Total with Optional Services		14	198	86	212	66	576	\$ 102,104	\$ 82,000	\$ 5,000	\$ 7,488	14	\$ 707	\$ 2,500	\$ 96,695	\$ 198,799

Mileage based on 100 miles per trip @ \$0.505/mile
Multiplier = 3.21



Figure 1 – Inside the Existing 24-Inch Diameter Enclosed Screw Pump at Fremont Lift Station
Note the significant corrosion of the internal flights of the pump.



Figure 2 – Inside a New 60-Inch Diameter Enclosed Stainless Steel Screw Pump
at the Alvarado WWTP's Lift Station No. 2



Figure 3 – Hydraulic Power Unit with the Enclosed Screw Pumps in the Background at Paseo Padre LS



Figure 4 – View of the Paseo Padre LS Wetwell

Figure 5 – USD Facilities





Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

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

David M. O'Hara
Attorney

DATE: January 5, 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
Curtis Bosick, Associate Engineer
Thomas Lam, Associate Engineer

SUBJECT: Agenda Item No. 10 – Meeting of January 12, 2015
Resolution No. _____, Accept the Construction of the Boyce Road Lift Station Project - Phase 2 from Pacific Infrastructure Corporation and Authorize the Attorney for the District to Record a Notice of Completion

Recommendation

Staff recommends the Board accept the construction of the Boyce Road Lift Station Project - Phase 2 (Project) from Pacific Infrastructure Corporation (PIC) by resolution, and authorize the Attorney for the District to record a Notice of Completion at the Alameda County Recorder's Office.

Background

On May 12, 2014, the Board awarded the Project's construction contract to PIC in the amount of \$330,000. The purpose of the project was to make additional improvements that were deemed necessary for properly maintaining the Boyce Road Lift Station.

The Boyce Road Lift Station is situated on the corner of Boyce Road and Weber Road in Fremont. It is located in the Irvington drainage basin, which is the southernmost of the three drainage basins in the District's service area. The lift station receives wastewater from two existing 21-inch and 24-inch diameter gravity sewers and pumps it to a higher 30-inch diameter gravity sewer that eventually drains into the Irvington Pump Station, which is located approximately three miles to the south.

Due to the age of the existing lift station facility and the difficulties in accessing equipment for maintenance activities, a new lift station was constructed and placed into

operation in early June 2013. Towards the latter part of construction, staff identified a few additional improvements that were deemed necessary for properly maintaining the lift station. Staff made the decision to address these improvements in a follow-up Phase 2 project.

The Phase 2 project scope included the following:

- Outdoor Resistive Load Bank for Existing Standby Generator;
- Motorized Actuators for Existing Plug Valves and Weir Gates;
- Gas Detection System Upgrade;
- Local Control Panel and Piping Improvements for Drywell Sump Pumps;
- Emergency Lights;
- Protective Coatings for Influent Box.

GHD Inc. completed the design of the Project in March 2014.

Construction Contract

Staff issued the Notice to Proceed to PIC on June 16, 2014. The 120-day project was scheduled to be completed on October 13, 2014. Staff granted a time extension of fifty seven (57) additional days to complete Contract Change Order No. 3, and PIC substantially completed the project on December 9, 2014. District staff provided construction management services for the project.

Some photos of the completed project are attached.

Change Orders

The Project included five (5) change orders at a total cost of \$10,227.44, which is 3.1% of the original contract amount. A summary of these change orders follows in Table 1:

Table 1
Change Order Summary

No.	Description	Amount
1	Installation of an Additional Traffic Bollard	\$837.28
2	Demolition of 2-inch PVC Pipe	\$732.72
3	Providing Motorized Actuators for Existing Plug Valves Rated for a Class I, Division 2 Hazardous Location	\$2,272.34
4	Installation of Conduit Seals, Boxes and a Receptacle Rated for a Class I, Division 2 Hazardous Location	\$5,200.00
5	Installation of Check Valve Inside the Influent Structure	\$1,185.10
	Total Cost of Change Orders	\$10,227.44

During construction, staff identified the lift station's underground vault to be a Class I, Division 2 hazardous location. Therefore, the motorized actuators, as well as all conduit seals, electrical boxes, flexible couplings and receptacles installed in this vault were required to be rated to operate in a Class I, Division 2 hazardous location.

Change Order No. 3 was for additional material costs associated with modifying the two motorized actuators for the plug valves inside the underground vault to be rated to operate in a Class I, Division 2 hazardous location. This change order also extended the project's substantial completion by 57 days to accommodate the added procurement time for the motorized actuators.

Change Order No. 4 was for the additional material and labor costs associated with the installation of two conduit seals, two electrical boxes, two flexible couplings and a receptacle outlet that were rated for a Class I, Division 2 hazardous location.

Change Order No. 5 was for the installation a 2-inch check valve on the drywell sump pump discharge line inside the influent structure. This check valve was installed to serve as a second level of protection in preventing wastewater from flooding the drywell during the event of a headgate closure.

Outstanding Items

The District has assumed beneficial use of the Project. However, some punch list work and administrative requirements remain to be completed.

Staff recommends the Board accept the Boyce Road Lift Station Project - Phase 2 from Pacific Infrastructure Corporation and authorize the Attorney for the District to record a Notice of Completion at the Alameda County Recorder's Office.

PRE/SEG/RC/CB/TL;ks

Attachments: Photos
 Resolution
 Notice of Completion

Photos



Motorized Actuators for Existing Weir Gates



Motorized Actuators for Existing Plug Valves

Boyce Road Lift Station Project Photos
Page 2



Gas Detection System



Drywell Sump Pumps Control Panel



Emergency Lights



Protective Coatings for Influent Box



Outdoor Resistive Load Bank

RESOLUTION NO. ____

**ACCEPT CONSTRUCTION OF THE
BOYCE ROAD LIFT STATION PROJECT - PHASE 2
FROM PACIFIC INFRASTRUCTURE CORPORATION
LOCATED IN FREMONT, CALIFORNIA**

RESOLVED: That the Board of Directors of the UNION SANITARY DISTRICT hereby accepts the Boyce Road Lift Station Project - Phase 2 from Pacific Infrastructure Corporation, effective January 12, 2015; and be it

FURTHER RESOLVED: That the attorney for the District is authorized to file a "Notice of Completion" for the project.

On motion duly made and seconded, this resolution was adopted by the following vote on January 12, 2015:

AYES:

NOES:

ABSENT:

ABSTAIN:

MANNY FERNANDEZ
President, Board of Directors
Union Sanitary District

Attest:

TOM HANDLEY
Secretary, Board of Directors
Union Sanitary District



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

**DAVID M. O'HARA
Attorney at Law
975 Centennial Drive
Brentwood, CA 94513**

NO RECORDING FEE - PER GOVERNMENT CODE SECTIONS 6103 & 27283

NOTICE OF COMPLETION

NOTICE IS HEREBY GIVEN BY UNION SANITARY DISTRICT, Alameda County, California, that the work hereinafter described, the contract for the construction of which was entered into on May 12, 2014, by said District and **PACIFIC INFRASTRUCTURE CORPORATION**, Contractor for the Project, "**BOYCE ROAD LIFT STATION PROJECT - PHASE 2**," was substantially completed on December 9, 2014 and accepted by said District on January 12, 2015.

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

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

The description of the site where said work was performed and completed is the Boyce Road Lift Station, located at 41997 Boyce Road, Fremont, CA 94538, County of Alameda, State of California.

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

Executed on _____ at UNION CITY, CALIFORNIA.

DAVID M. O'HARA,
Agent of UNION SANITARY DISTRICT

**Directors**

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
*General Manager/
District Engineer*

David M. O'Hara
Attorney

DATE: January 5, 2015

MEMO TO: Board of Directors - Union Sanitary District

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

SUBJECT: Agenda Item No. 11 – Meeting of January 12, 2015
Authorize the General Manager to Execute an Agreement and Task Order No. 1 with Carollo Engineers for the Pump Station Master Plan

Recommendation

Staff recommends the Board authorize the General Manager to execute an agreement and Task Order No. 1 in the amount of \$175,465 with Carollo Engineers for the Pump Station Master Plan. This project is budgeted in the Special Project Fund in FY 15.

Background

The District operates and maintains a transport system that collects and pumps influent wastewater from the three drainage basins to the Alvarado Wastewater Treatment Plant. The portion of the transport system that collects and pumps the wastewater within and from the Newark and Irvington drainage basins consists of six pump and lift stations and twin 33- and 39-inch diameter force mains. The Alvarado Influent Pump Station, located within the plant, collects the wastewater from the Alvarado drainage basin and pumps it to the plant headworks process. The attached Figure 1 shows the location of these facilities.

The transport system facilities were constructed between 1980 and 1990 with the exception of the Boyce Road Lift Station which was newly constructed in 2013 and replaced the original lift station constructed in 1959. In addition, the District upgraded the three major pump stations – Alvarado Influent, Newark, and Irvington – between 2000 and 2009.

The District had conducted a pump station evaluation as part of the Wastewater Collection System and Transport System Master Plan in 1989. The evaluation included recommendations to improve capacity and reliability of the stations. Having carried out these recommendations, subsequent major pump station upgrades, and the

replacement of the Boyce Road Lift Station, staff is recommending that a Pump Station Master Plan be conducted to plan and budget for future improvements in order to maintain long-term capacity and reliability of the pump stations.

In summer 2014, staff prepared and issued a Request for Proposal to Brown and Caldwell, Carollo Engineers, Hazen and Sawyer, RMC Environmental, and Water Works Engineers. Staff reviewed the proposals and invited Brown and Caldwell and Carollo for an interview. Because of their prior experience designing several pump station and force main projects for the District and their personnel qualifications, staff selected Carollo.

Task Order No. 1

The Pump Station Master Plan scope of services will include the following elements:

1. Provide an inventory of the critical assets of the District's transport system.
2. Conduct a condition and operational assessment of the facilities.
3. Conduct a capacity analysis of the transport system.
4. Identify capacity and structural deficiencies of the facilities.
5. Develop a renewal and replacement plan to address the deficiencies and recommend a replacement schedule for the major equipment.

Carollo's Task Order No. 1 will include the following tasks:

Task No.	Description	Fee
1	Project Management	\$8,763
2	Kickoff Meeting	\$9,862
3	Transport System Hydraulic Evaluation	\$43,878
4	Condition Assessment	\$52,351
5	CIP Packaging	\$27,825
6	Prepare Master Plan Report	\$17,428
7	Optional Services: Surge Analysis and Board Presentation	\$15,357
	Total Fee	\$175,465

There are two optional tasks in the Task Order. One optional task is to hire a subconsultant to conduct a surge analysis of the force mains. The subconsultant will identify operating conditions that could introduce high pressure surges in the force mains and will recommend measures to mitigate any potential damage to the transport system facilities. The second optional task includes hours for Carollo to prepare and present the master plan findings and recommendations to the Board.

Carollo estimates a total of 750 hours of its own forces and 115 hours of their subconsultants for the scope of services at a total Task Order fee of \$175,465. Staff believes this level of effort is reasonable considering the multiple sites Carollo will need to visit, the number of assets located at the pump stations, and the time required to gather information for these assets.

Carollo estimates the completion of the tasks by July 2015.

Staff recommends the Board authorize the General Manager to execute an agreement and Task Order No. 1 in the amount of \$175,465 with Carollo Engineers for the Pump Station Master Plan.

PRE/SG/RC;ks

Attachments: Agreement
 Task Order No. 1
 Figure 1

PUMP STATION MASTER PLAN

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

THIS IS AN AGREEMENT MADE AS OF January _____, 2015, BETWEEN UNION SANITARY DISTRICT (hereinafter referred to as District), and Carollo Engineers, Inc. (hereinafter referred to as Engineer).

WITNESSETH:

WHEREAS, District intends to complete a Pump Station Master Plan (hereinafter referred to as Project), and,

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

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

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

ARTICLE 1 - SERVICES TO BE PERFORMED BY ENGINEER

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

ARTICLE 2 - COMPENSATION

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

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

Definitions are as follows:

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

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

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

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

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

ARTICLE 3 - PERIOD OF SERVICE

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

ARTICLE 4 - DISTRICT'S RESPONSIBILITIES

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

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

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

ARTICLE 5 - STANDARD OF CARE

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

ARTICLE 6 - OPINIONS OF COST AND SCHEDULE

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

ARTICLE 7 - SUBCONTRACTING

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

ARTICLE 8 - ENGINEER-ASSIGNED PERSONNEL

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

ARTICLE 9 - OWNERSHIP OF DOCUMENTS

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

ARTICLE 10 - RECORDS OF LABOR AND COSTS

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

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

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

ARTICLE 11 - INSURANCE

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

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

road use) shall be covered under this policy. Limits of liability for Comprehensive Automobile Liability Insurance shall not be less than \$1,000,000 Combined Single Limit.

11.3 Comprehensive General Liability Insurance as will protect Engineer and District from any and all claims for damages or personal injuries, including death, which may be suffered by persons, or for damages to or destruction to the property of others, which may arise from the Engineer's operations under this Agreement, which insurance shall name the District as additional insured. Said insurance shall provide a minimum of \$1,000,000 Combined Single Limit coverage for personal injury, bodily injury, and property damage for each occurrence and aggregate. Such insurance will insure Engineer and District from any and all claims arising from the following:

1. Personal injury;
2. Bodily injury;
3. Property damage;
4. Broad form property damage;
5. Independent contractors;
6. Blanket contractual liability.

11.4 Engineer shall maintain a policy of professional liability insurance, protecting it against claims arising out of negligent acts, errors, or omissions of Engineer pursuant to this Agreement, in an amount of not less than \$1,000,000. The said policy shall cover the indemnity provisions under this Agreement.

11.5 Engineer agrees to maintain such insurance at Engineer's expense in full force and effect in a company or companies satisfactory to the District. All coverage shall remain in effect until completion of the Project.

11.6 Engineer will furnish the District with certificates of insurance and endorsements issued by Engineer's insurance carrier and countersigned by an authorized agent or representative of the insurance company. The certificates shall show that the insurance will not be cancelled without at least thirty (30) days' prior written notice to the District. The certificates for liability insurance will show that liability assumed under this Agreement is included. The endorsements will show the District as an additional insured on Engineer's insurance policies for the coverage required in Article 11 for services performed under this Agreement, except for workers' compensation and professional liability insurance.

- 11.7 Waiver of Subrogation: Engineer hereby agrees to waive subrogation which any insurer of Engineer may acquire from Engineer by virtue of the payment of any loss. Engineer agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation.

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

ARTICLE 12 - LIABILITY AND INDEMNIFICATION

- 12.1 Having considered the risks and potential liabilities that may exist during the performance of the Services, and in consideration of the promises included herein, District and Engineer agree to allocate such liabilities in accordance with this Article 12. Words and phrases used in this Article shall be interpreted in accordance with customary insurance industry usage and practice.
- 12.2 Engineer shall indemnify and save harmless the District and all of their agents, officers, and employees from and against all claims, demands, or causes of action of every name or nature to the extent caused by the negligent error, omission, or act of Engineer, its agents, servants, or employees in the performance of its services under this Agreement.
- 12.3 In the event an action for damages is filed in which negligence is alleged on the part of District and Engineer, Engineer agrees to defend District. In the event District accepts Engineer's defense, District agrees to indemnify and reimburse Engineer on a pro rata basis for all expenses of defense and any judgment or amount paid by Engineer in resolution of such claim. Such pro rata share shall be based upon a final judicial determination of negligence or, in the absence of such determination, by mutual agreement.
- 12.4 Engineer shall indemnify District against legal liability for damages arising out of claims by Engineer's employees. District shall indemnify Engineer against legal liability for damages arising out of claims by District's employees.
- 12.5 Indemnity provisions will be incorporated into all Project contractual arrangements entered into by District and will protect District and Engineer to the same extent.
- 12.6 Upon completion of all services, obligations and duties provided for in the Agreement, or in the event of termination of this Agreement for any reason, the terms and conditions of this Article shall survive.

- 12.7 To the maximum extent permitted by law, Engineer's liability for District's damage will not exceed the aggregate compensation received by Engineer under this Agreement or the maximum amount of professional liability insurance available at the time of any settlement or judgment, which ever is greater.

ARTICLE 13 - INDEPENDENT CONTRACTOR

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

ARTICLE 14 - COMPLIANCE WITH LAWS

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

ARTICLE 15 - NONDISCLOSURE OF PROPRIETARY INFORMATION

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

ARTICLE 16 - TERMINATION OF CONTRACT

- 16.1 The obligation to continue Services under this Agreement may be terminated by either party upon seven days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.

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

ARTICLE 17 - UNCONTROLLABLE FORCES

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

ARTICLE 18 - MISCELLANEOUS

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

ARTICLE 19 - INTEGRATION AND MODIFICATION

- 19.1 This Agreement (consisting of pages 1 to 13), together with all Task Orders executed by the undersigned, is adopted by District and Engineer as a complete and exclusive statement of the terms of the Agreement between District and Engineer. This Agreement supersedes all prior agreements, contracts, proposals, representations, negotiations, letters, or other communications between the District and Engineer pertaining to the Services, whether written or oral.
- 19.2 The Agreement may not be modified unless such modifications are evidenced in writing signed by both District and Engineer.

ARTICLE 20 - SUCCESSORS AND ASSIGNS

- 20.1 District and Engineer each binds itself and its directors, officers, partners, successors, executors, administrators, assigns and legal representatives to the other party to this Agreement and to the partners, successors, executors, administrators, assigns, and legal representatives of such other party, in respect to all covenants, agreements, and obligations of this Agreement.
- 20.2 Neither District nor Engineer shall assign, sublet, or transfer any rights under or interest in (including, but without limitation, monies that may become due or monies that are due) this Agreement without the written consent of the other, except to the extent that the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will

release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent Engineer from employing such independent engineers, associates, and subcontractors as he may deem appropriate to assist him/her in the performance of the Services hereunder and in accordance with Article 7.

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

ARTICLE 21 – NOT USED

ARTICLE 22 – NOT USED

ARTICLE 23 - EXCEPTIONS

No exceptions.

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

UNION SANITARY DISTRICT

CAROLLO ENGINEERS, INC.

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

By: _____
Name: _____

Title: _____

Date: _____

Date: _____

PUMP STATION MASTER PLAN

TASK ORDER NO. 1

UNION SANITARY DISTRICT AND CAROLLO ENGINEERS, INC.

PUMP STATION MASTER PLAN

This Task Order No. 1 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 _____ day of January, 2015, associated with the Pump Station Master Plan (Project).

PURPOSE

The purpose of this Task Order No. 1 is to provide engineering services for the District's Pump Station Master Plan.

PROJECT UNDERSTANDING

The District serves the wastewater needs of the cities of Fremont, Newark, and Union City in southern Alameda County. The service area is divided into three drainage basins: Alvarado, Irvington, and Newark. The wastewater is collected in the drainage basins and flows directly to a major pump station located on the western end of each basin. The District's Cherry Street Pump Station collects wastewater from a small area in the northwest portion of the Irvington drainage basin and pumps directly into the force mains. The District has three smaller lift stations that are located within the collection system to provide intermediate lift of wastewater prior to draining into one of the major pump stations.

The Newark and Irvington Pump Stations pump wastewater through twin force mains to the Alvarado Wastewater Treatment Plant (WWTP). The twin force mains are 33-inch diameter reinforced concrete pipelines (RCP) between Irvington and Newark Pump Stations and 39-inch diameter RFP between Newark Pump Station and the Alvarado WWTP. The Alvarado Influent Pump Station is located within the Alvarado WWTP and pumps wastewater to the WWTP influent facilities through a 42-inch diameter welded steel pipeline.

PROJECT GOALS

The main goals of District's Pump Station Master Plan are as follows:

- Provide an inventory of the critical assets of the District's transport system, which includes the pump stations, lift stations, and force main facilities described above.
- Capacity Assessment - Conduct hydraulic modeling to identify capacity and potential deficiencies of the facilities.
- Condition Assessment - Conduct site assessments to identify structural deficiencies of the facilities.
- Develop a Renewal and Replacement plan to address deficiencies and provide a recommended schedule for equipment replacement or upgrade, and schedule for future inspections and assessments of the critical assets.

PROJECT COORDINATION

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

KEY PERSONNEL

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

Scott Parker, Principal-in-Charge

Scott Weddle, Project Manager

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

ENGINEER'S SCOPE OF SERVICES

Engineer shall provide the following specific services.

TASK 1.0 – PROJECT MANAGEMENT

Task 1.1 -- Project Management Plan

Engineer shall prepare a project management plan that covers key activities. The plan will define the personnel, project schedule, scope of services, QA/QC control, field work safety, communication protocol, and other procedures required to effectively conduct the study.

Task 1.2 – Progress Meetings

Engineer shall conduct monthly meetings in person or by teleconference to review progress and any deviations from the schedule and budget. The Project Manager shall maintain decision and action logs as well as a critical issue log that will be updated at these monthly meetings.

Task 1.3 -- Monthly Progress Reports

Engineer shall prepare and submit a written monthly invoice to the District which will show the percentage of work completed and the percentage of contract billed, summarize the work completed during the month, and summarize the work to be completed during the following month.

Task 1.4 -- Monitor Budget, Schedule, and Decision Log

Engineer shall monitor and track the overall project scope, budget, and schedule, and update on a monthly basis. A log will be maintained throughout the project to record the decisions made by the project team. The log will contain decisions made during workshops and project meetings as well as during telephone conversations or emails.

Deliverables

- Monthly invoice (pdf).
- Monthly progress summary report (pdf).

TASK 2.0 – KICKOFF MEETING

Engineer shall conduct a Kickoff Meeting with key project participants. The meeting will address the overall approach to managing the project tasks, schedule, and budget, as well as communication and project team roles/responsibilities. The group will discuss the overall vision the District has for the master plan, the drivers, and the long-term goals. Group will discuss available information and identify key points of contact for necessary data.

Deliverables

- Agenda, information material, and meeting minutes.

TASK 3.0 – TRANSPORT SYSTEM HYDRAULIC EVALUATION

The objectives of this task are to conduct hydraulic analysis of the transport system (twin force mains from Irvington Pump Station and Newark Pump Station to the wastewater treatment plant). This task analyzes the existing maximum hydraulic capacity of the transport system in the normal and boost modes with single and dual barrels of the force mains in operation, and, analyzes the reliable and maximum capacities of the pump stations in each of the four modes.

Task 3.1 – Data Collection and Background Review

ENGINEER shall prepare a data request list that will include (but is not limited to) items such as:

- District GIS data;
- Record drawings for pump stations, valve boxes, forcemains.
- Pump station control methodologies.
- VFD controls.
- Pump curves, pump capacity (flow and horse power).
- Previous studies and reports on diurnal flows into the Irvington and Newark wet wells.
- Electronic flow monitoring data from the largest wet weather events used for model verification in the (B&C report).
- Forcemain pressure ratings.
- SCADA data from historical wet weather events for the Irvington and Newark Surge Towers and pump stations.
- SCADA data for recorded flows during average and peak flow events (Dates of requested data will be provided later).
- Hydraulic Grade of discharge conditions at the Alvarado Wastewater Treatment Plant.
- Forcemain surge analysis report (if optional task for surge analysis is used)
- B&C Flow EQ Report.
- Facilities Assessment Program – Facilities Corrosion Condition Assessment Plan.

Task 3.2 -- Model Construction

ENGINEER shall construct a hydraulic model of the transport system using Innovyz's InfoSWMM hydraulic modeling software. The forcemain network in the hydraulic model will be constructed to scale, based on the record drawings and the District's GIS data. The model will include the forcemain diameters and invert elevations along the entire network, pump stations, pump station controls, wet well geometry and volume, pipeline roughness factors, surge tower geometry, and hydraulic boundary conditions at the discharge location.

Flows in the model will be allocated at the wet wells of the Irvington and Newark Pump Stations, based on the flows developed as part of the Final Flow Equalization Update Project (B&C Flow EQ Report, November 2013). Flows will be provided to the ENGINEER by District staff as electronic files for the average dry weather flow, model calibration storm events, and the design storm events.

Once the model network has been constructed, the ENGINEER shall present a system map to District for confirmation. The District will also verify pump station configuration, pump sizing and pump control methodology.

Assumptions:

- No field data will be collected as part of the model construction. Should data need to be acquired with field visits; District staff will be responsible for collection of data.
- All flow data will be from the influent flows generated as part of the B&C Flow EQ Report.

Task 3.3 -- Model Calibration

ENGINEER shall calibrate the InfoSWMM model for average dry and wet weather conditions, based on the storm events in B&C Flow EQ Report. For the wet weather calibration, the December 23, 2012 storm event as well as a second rainfall event to be determined at a later date.

ENGINEER shall compare the model simulated results to field measured data for the pump station discharge rates, surge tower levels, and other available measured data points, such as the influent at the Alvarado WWTP. The ENGINEER will adjust the model parameters until measured data and model simulated data match to an agreed upon level of accuracy.

Assumption:

- ENGINEER and District will jointly develop a set of evaluation criteria to determine the Transport System's capacity. The criteria will be a combination of surge tower levels, forcemain pressure ratings, and pumping capacity. Model simulations will determine the governing criteria.

Task 3.4 -- Capacity Analysis

ENGINEER shall develop model scenarios for the four main Transport System operating configurations. The operating configurations include the following:

- Single Barrel, Normal Mode
- Double Barrel, Normal Mode
- Single Barrel, Boost Mode
- Double Barrel, Boost Mode

For each scenario, the maximum capacity of the Transport System will be determined and documented based on the analysis criteria developed in Task 3.3.

Assumptions:

- Only the scenarios listed above will be evaluated as part of this scope. Should other alternatives be discussed and need evaluation, a separate task item will be developed that addresses other alternatives.

Task 3.5 – Document Analysis Findings

ENGINEER shall prepare a draft report that documents the construction and calibration of the hydraulic model as well as summarize the analysis findings. A meeting will be held with the District to review results and develop conclusions.

Deliverables

- Documentation will be included as a chapter in the Master Plan memorandum in Task 6.
- Meeting agenda, notes.

TASK 4.0 – CONDITION ASSESSMENT

The objectives of this task are to conduct performance and/or condition assessment of the transport system components, including but not limited to mechanical systems including pumps, hydraulic power units, HVAC, pressure pipes, valves, sluice/weir gates, chemical feed, odor control; electrical systems including switchgears, MCCs, VFDs, PLCs, control panels, diesel engine generators, solar, lighting, smoke detection, cathodic protection, instrumentation; structural systems including reinforced concrete, structural steel, hatches/ covers, supports, anchors, coating, roof, safety; and site facilities including fences, access gates, security, pavement, etc. The condition of assets will be evaluated and risk levels will be assessed and used to prioritize rehabilitation needs.

Task 4.1 – Prepare for Condition Assessment

Engineer shall review existing data sources for visible assets (i.e. assets that do not require confined space entry for inspection) at the Alvarado Pump Station; Alvarado WWTP Influent Box, Control Box 1, and Headworks; Cherry Street Pump Station; Irvington Pump Station; and Newark Pump Station. Data

will be compiled into an inventory with a level of detail suitable for capital planning. Engineer shall review the history of replacements and major rehabilitations with District staff and will identify data gaps or areas of uncertainty for focus during the field assessment.

Deliverables:

- Inventory will be included in the Master Plan report in Task 6.

Assumptions:

- The District will provide data from drawings, Computerized Maintenance Management System (CMMS) exports, and Operations and Maintenance (O&M) Manuals.
- Where possible, existing references will be used to identify design and sizing criteria, age, capacity, and other information prior to the assessment.
- The Paseo Padre and Fremont Lift Stations will be rehabilitated next year and do not require assessment. ,
- Boyce Road Lift Station underwent rehabilitation in 2013 and does not require a condition assessment.
- The District has procured the services of Degenkolb Engineers to conduct a seismic study of the District's structures and major pipelines. The results from this study may be applicable to the Pump Station Master Plan.
- The District conducted a condition assessment of the twin force mains in 2004 and will conduct an assessment every ten years. Additional assessment is not required at this time and is not included in the scope of work. Engineer shall review the 2004 report and reference relevant information in the Master Plan memorandum in Task 6.

Task 4.2 – Conduct Condition Assessment

Engineer shall conduct a 3-day site visit to the sites listed in Task 4.1. The Engineer's assessment team shall consist of an assessment lead/coordinator, a process/mechanical engineer, a structural engineer, and an electrical engineer. The team will also include Villalobos & Associates (V&A) to conduct visual inspections of valve vaults at the Headworks, CB1, Newark PS, and Irvington PS to assess whether corrosion since their previous detailed inspections. Master Plan recommendations will be based on the previous detailed condition assessments by V&A with input from the visual inspections completed as part of this Task. The District will provide staff members highly knowledgeable of the facilities who will be available for the assessment team to ask questions to capture anecdotal maintenance and performance history. The team will verify design and sizing criteria for each asset and will note typical condition parameters, which can be used to standardize the procedure for future assessments.

Engineer shall assess condition of below-ground assets by reviewing the force main condition assessment report prepared in 2004.

Deliverables:

- Condition assessment results will be included in the Master Plan report in Task 6.

Assumptions:

- Prior to starting assessment work, the District will identify their preferred format for registering assets (Excel, WAM, CMMS, other).
- The condition of each asset will be evaluated on a 1 to 5 ranking scale, based on the International Infrastructure Management Manual (IIMM).
- The District will provide knowledgeable staff to assist with the site assessments.
- Inspections that require confined space entry are not included.

Task 4.3 – Conduct Risk Assessment

Using the condition information combined with industry standard life expectancies for assets typically found at wastewater pump stations, Engineer shall estimate remaining useful life for each above-ground asset and work with the District to assign vulnerability scores that reflect the likelihood of failure and ability to reliably meet performance objectives. Engineer and District will jointly establish criticality, performance objectives, or consequence of asset failure, scores based on the impact of failure to the environment, customers, health and safety, the ability to return the asset to service, and repair costs. Vulnerability and criticality scores will be multiplied to estimate risk.

Deliverables:

- Risk assessment results will be included in the Master Plan report in Task 6.

Task 4.4 - Prioritize Renewal and Replacement Needs

Engineer shall develop a preliminary, prioritized list of recommended short term and long term projects. The projects will be prioritized based on risk, condition, and other factors as identified in discussions with District staff. Additionally, any applicable federal, state, or local regulations that are identified during the assessment will also be factored into the recommendations. This list will be provided to the District for review prior to the CIP Packaging Workshop in Task 5. Final recommendations will be developed based on results of the Task 5 work.

Deliverables

- Preliminary priority list of recommended projects for District review.

- Final priority list based on District input on the preliminary list.

TASK 5.0 – CIP PACKAGING

The objective of this task is to prepare planning-level cost estimates and develop a renewal and replacement program based on results of hydraulic modeling in Task 3 and the asset renewal and replacement priorities in Task 4. Projects will be recommended for implementation within the next 10 years and beyond through the District's Improvement Plan (CIP). Projects will be grouped into like components and/or any sub-components taking into consideration the current capital improvement budget process and funding levels. Planning level project cost estimates will be prepared with consideration given to complexities or unknowns that will affect the cost estimates. A workshop will be conducted to review preliminary recommendations and schedule prior to finalizing the recommendations.

Task 5.1 – Develop 5-Year CIP Recommendations

Engineer shall develop a program and cash flows for implementing high priority projects from Tasks 3 and 4 within the next 5 years through the District's CIP. Recommendations will be packaged into projects based on the type of work, location, risks, and available annual CIP budgets over the next 5 years.

Deliverables

- Preliminary planning level cost estimates and recommended cash flow for implementation of projects over the next 5 years.
- Final recommendations will be presented in the Task 6 report after the CIP workshop in Task 5.3.

Task 5.2 – Develop 20-Year CIP Recommendations

Engineer shall develop a program to implement projects recommended in Tasks 3 and 4 within the 6-year to 20-year timeframe. Projects will not be packaged into larger efforts, rather an annual sum will be calculated based on the estimated replacement costs and timing of each asset due for renewal in this timeframe. This long-term outlook is designed for budgetary planning.

Deliverables

- Preliminary planning level cost estimates and recommended cash flow for implementation of projects in the 6-year to 20-year timeframe.
- Final recommendations will be presented in the Task 6 report after the CIP workshop in Task 5.3.

Task 5.3 – CIP Workshop

Engineer shall conduct a workshop with District staff to review preliminary recommendations from Tasks 5.1 and 5.2. The workshop is anticipated to last 3 to 4 hours and will be held at the District office.

Deliverables

- Preliminary cost estimates and cash flows from Tasks 5.1 and 5.2 will be provided to the District approximately 2 weeks prior to the workshop.
- Agenda, information material, and meeting minutes.

TASK 6.0 – PREPARE MASTER PLAN REPORT

The objective of this task is to prepare the Master Plan Report which will summarize the results of Tasks 3 through 5. The table of contents for the report will be developed for review by the District prior to starting work on this task. A presentation of the final report will be made to the District's Board of Directors as an optional service of desired by the District.

Task 6.1 – Prepare Draft Report

Engineer shall prepare the draft Master Plan Report for review by the District

Deliverables

- Draft Table of Contents for the Master Plan Report will be submitted for District review and comment prior to Engineer starting work on this task.
- Ten hard copies of draft report.
- One electronic copy of draft report (pdf).

Task 6.2 – Prepare Final Report

Following receipt of District comments on the draft report, Engineer shall prepare the Final Master Plan Report.

Deliverables

- Ten hard copies of final report.
- One electronic copy of final report (pdf).

TASK 7.0 – OPTIONAL SERVICES

At the District's request, Engineer shall provide optional services not included in the tasks described above. The optional services may include, but are not limited to, the following tasks:

- **Surge Analysis.** Engineer shall hire Northwest Hydraulic Consultants (NHC) to run surge analysis models for transport system operational scenarios to be defined by the District. NHC will utilize the model developed under the previous surge analysis study (Transport System Pressure Surge Analysis – Draft, August 6, 2013).
- **Board presentation.** Engineer shall present findings and recommendations from the Master Plan to the District’s Board of Directors.

TIME OF PERFORMANCE

The anticipated schedule for completion of Engineer’s scope of services is as follows. Exhibit A shows the anticipated work sequence.

- Notice to Proceed (NTP): January 13, 2015
- Kickoff Meeting: January 20, 2015
- Complete Site Assessments: February 17, 2015
- CIP Workshop: May 5, 2015
- Submit Draft Master Plan Report: May 26, 2015
- Final Master Plan Report: Two weeks following receipt of District comments on draft report.

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 B. Task Order No. 1 Firm Ceiling shall not exceed \$175,465, including Optional services. .

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? (Yes/No)	District Staff Approval
Task Order No. 1	\$175,465	Yes	Paul R. Eldredge
Total	\$175,465		

EFFECTIVE DATE

This Task Order No. 1 is effective as of the _____ day of January 2015.

IN WITNESS THEREOF, duly authorized representatives of the District and the Engineer have executed this Task Order No. 1 evidencing its issuance by the District and acceptance by the Engineer.

CAROLLO ENGINEERS, INC.

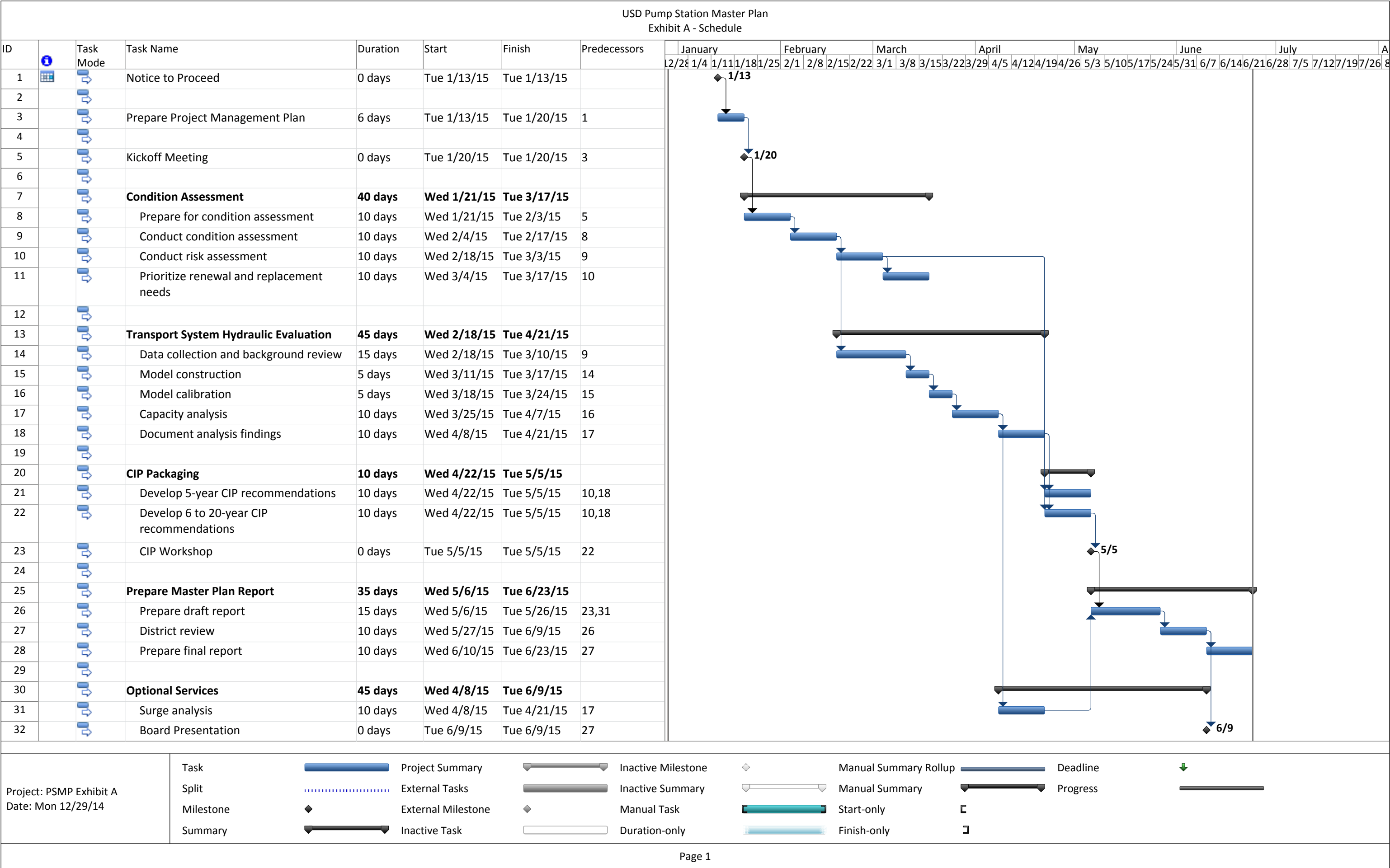
UNION SANITARY DISTRICT

Accepted this _____ day of January 2015

By: _____

By: _____

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



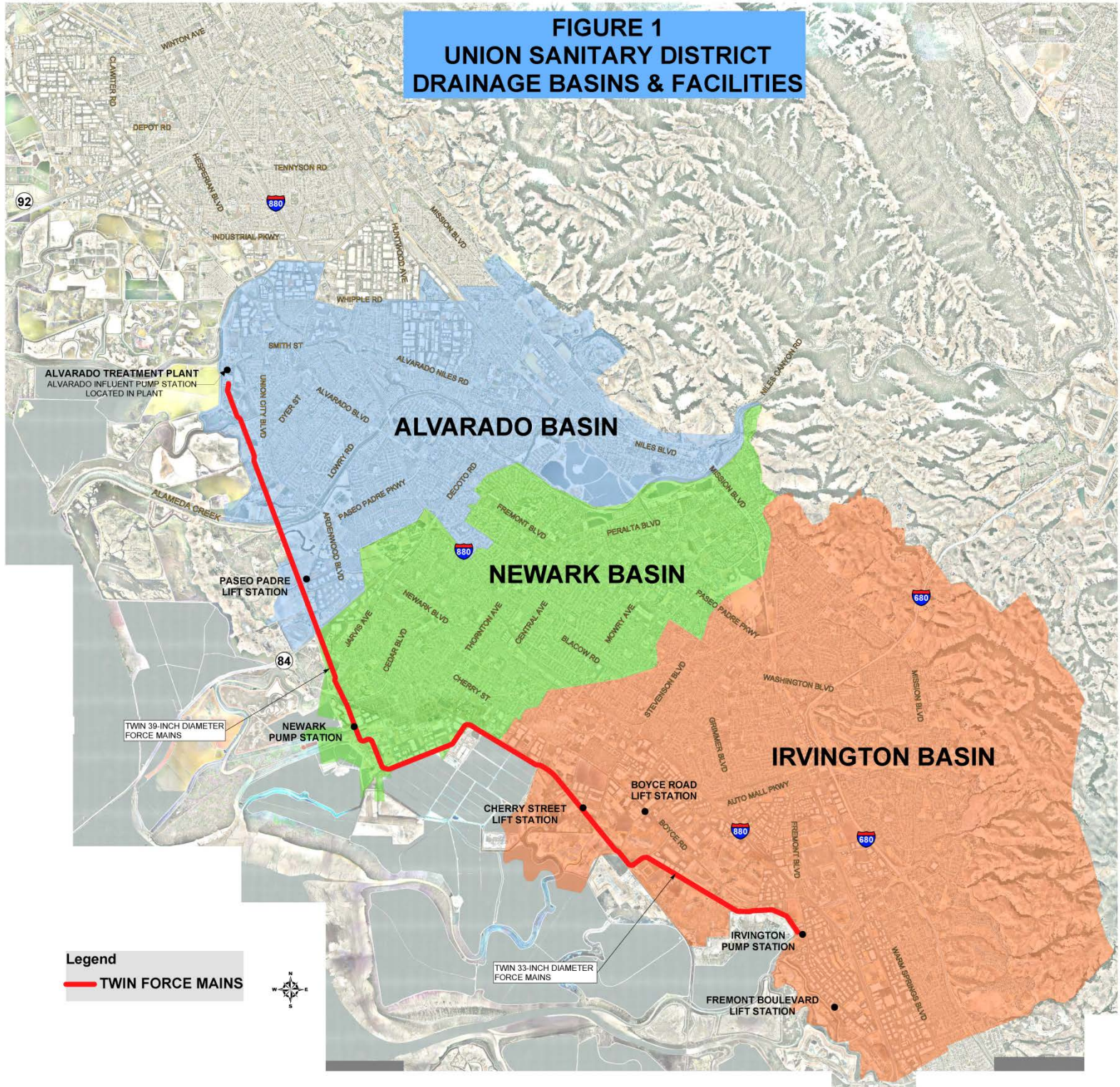
PUMP STATION MASTER PLAN
Task Order No.1
Union Sanitary District and Carollo Engineers

Exhibit B

Task Description		PIC	PM	PE	ENG	SE	EE	ME	CAD	Support	Total	Labor	Other Direct Costs (ODC)										Total
													Subconsultants				PECE	Mileage			Total		
Task No.		\$265	\$244	\$188	\$162	\$244	\$244	\$244	\$115	\$102	Hours	Cost	Beecher	V&A	NHC	Cost	Amount	Trips	Amount	Printing	ODC	Amount	
Task 1	Project Management																						
1.1	Project Management Plan	1	2								3	\$ 753				\$ -	\$ 35			\$ -	\$ 35	\$ 788	
1.2	Progress Meetings	1	8								9	\$ 2,217				\$ -	\$ 105			\$ -	\$ 105	\$ 2,322	
1.3	Monthly Progress Reports	2	8							4	14	\$ 2,890				\$ -	\$ 164			\$ -	\$ 164	\$ 3,054	
1.4	Monitor Budget, Schedule, and Decision Log	2	8								10	\$ 2,482				\$ -	\$ 117			\$ -	\$ 117	\$ 2,599	
Task 1 Subtotal =		6	26	0	0	0	0	0	0	4	36	\$ 8,342	\$ -	\$ -	\$ -	\$ -	\$ 421		\$ -	\$ -	\$ 421	\$ 8,763	
Task 2 Kickoff Meeting		2	8	24	8					4	2	48	\$ 8,954	\$ -			\$ -	\$ 807	2	\$ 101	\$ -	\$ 908	\$ 9,862
Task 3 Transport System Hydraulic Evaluation																							
3.1	Data Collection and Background Review			8	16					2	26	\$ 4,300				\$ -	\$ 304			\$ -	\$ 304	\$ 4,604	
3.2	Model Construction			28	40						68	\$ 11,744				\$ -	\$ 796			\$ -	\$ 796	\$ 12,540	
3.3	Model Calibration			8	8						16	\$ 2,800				\$ -	\$ 187			\$ -	\$ 187	\$ 2,987	
3.4	Capacity Analysis			24	40						64	\$ 10,992				\$ -	\$ 749			\$ -	\$ 749	\$ 11,741	
3.5	Document Analysis Findings	0	0	24	36	0	0	0	0	8	68	\$ 11,160				\$ -	\$ 796	1	\$ 51	\$ -	\$ 846	\$ 12,006	
Task 3 Subtotal =		0	0	92	140	0	0	0	0	10	242	\$ 40,996	\$ -	\$ -	\$ -	\$ -	\$ 2,831		\$ 51	\$ -	\$ 2,882	\$ 43,878	
Task 4 Condition Assessment																							
4.1	Prepare for Condition Assessment	0	2	11	11	2		2			28	\$ 5,314				\$ -	\$ 328			\$ -	\$ 328	\$ 5,642	
4.2	Conduct Condition Assessment	0	0	22	22	8		8			60	\$ 11,604	\$ 7,875	\$ 5,250		\$ 13,125	\$ 702			\$ -	\$ 13,827	\$ 25,431	
4.3	Conduct Risk Assessment	2	2	12	12	4		8			40	\$ 8,146				\$ -	\$ 468			\$ -	\$ 468	\$ 8,614	
4.4	Prioritize Renewal and Replacement Needs	2	2	16	16	4	2	16			58	\$ 11,986				\$ -	\$ 679			\$ -	\$ 679	\$ 12,665	
Task 4 Subtotal =		4	6	61	61	18	2	34	0	0	186	\$ 37,050	\$ 7,875	\$ 5,250	\$ -	\$ 13,125	\$ 2,176		\$ -	\$ -	\$ 15,301	\$ 52,351	
Task 5 CIP Packaging																							
5.1	Develop 5-year CIP Recommendations	1	16	40	8						65	\$ 12,985	\$ 2,625			\$ 2,625	\$ 761			\$ -	\$ 3,386	\$ 16,371	
5.2	Develop 6 to 20-year CIP Recommendations	1	8	8	8						25	\$ 5,017				\$ -	\$ 293			\$ -	\$ 293	\$ 5,310	
5.3	CIP Workshop	1	8	8	8				4	2	31	\$ 5,681				\$ -	\$ 363	2	\$ 101	\$ -	\$ 464	\$ 6,145	
Task 5 Subtotal =		3	32	56	24	0	0	0	4	2	121	\$ 23,683	\$ 2,625	\$ -	\$ -	\$ 2,625	\$ 1,416	2	\$ 101	\$ -	\$ 4,142	\$ 27,825	
Task 6 Prepare Master Plan Report																							
6.1	Prepare Draft Report	3	16	24					8	16	67	\$ 11,763				\$ -	\$ 784			\$ -	\$ 784	\$ 12,547	
6.2	Prepare Final Report	1	8	8					4	4	25	\$ 4,589				\$ -	\$ 293			\$ -	\$ 293	\$ 4,882	
Task 6 Subtotal =		4	24	32	0	0	0	0	12	20	92	\$ 16,352	\$ -	\$ -	\$ -	\$ -	\$ 1,076		\$ -	\$ -	\$ 1,076	\$ 17,428	
Total Without Optional Services		19	96	265	233	18	2	34	20	38	725	\$ 135,377	\$ 10,500	\$ 5,250	\$ -	\$ 15,750	\$ 8,728	4	\$ 253	\$ -	\$ 24,731	\$ 160,108	
Task 7 Optional Services																							
	Surge Analysis		1	2							3	\$ 620			\$ 10,000	\$ 10,000	\$ 35		\$ -	\$ -	\$ 10,035	\$ 10,655	
	Board presentation	2	8	8						4	22	\$ 4,394				\$ -	\$ 257	1	\$ 51	\$ -	\$ 308	\$ 4,702	
Task 7Subtotal =		2	9	10	0	0	0	0	0	4	25	\$ 5,014	\$ -	\$ -	\$ 10,000	\$ 10,000	\$ 293	1	\$ 51	\$ -	\$ 10,343	\$ 15,357	
Total with Optional Services		21	105	275	233	18	2	34	20	42	750	\$ 140,391	\$ 10,500	\$ 5,250	\$ 10,000	\$ 25,750	\$ 9,021	5	\$ 303	\$ -	\$ 35,074	\$ 175,465	

Mileage based on 100 miles per trip @ \$0.505/mile
Multiplier = 3.21

**FIGURE 1
UNION SANITARY DISTRICT
DRAINAGE BASINS & FACILITIES**



**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156165	12/18/2014	35982	DW NICHOLSON CORP	PRIMARY DIGESTER #5 REHABILITATION	\$209,905.54	\$625,643.68
	12/18/2014	39584		COGENERATION PROJECT	\$191,339.54	
	12/18/2014	3888		PRIMARY DIGESTER #5 REHABILITATION	\$224,398.60	
156296	1/2/2015	20141120.1	SWRCB - STATE WATER RESOURCES	SRF LOAN #C065219110 - PRIMARY CLARIFIER	\$589,782.72	\$589,782.72
156229	12/18/2014	13542	SAK CONSTRUCTION LLC	UPPER HETCH HETCHY SS REHABILITATION	\$345,778.15	\$345,778.15
156177	12/18/2014	800394.4	GSE CONSTRUCTION CO INC	THICKENER CONTROL BLDG IMPROV PHASE II	\$170,946.80	\$170,946.80
156162	12/18/2014	800403.3	D'ARCY & HARTY CONSTRUCTION	MISC. SS SPOT REPAIRS PHASE V PROJECT	\$137,176.42	\$137,176.42
156251	12/18/2014	2026297	WEST YOST & ASSOCIATES	NEWARK BACKYARD SS RELOCATION - PHASE 2	\$40,384.90	\$64,837.90
	12/18/2014	2026299		ALVARADO-NILES ROAD SS REHABILITATION	\$22,260.50	
	12/18/2014	2026447		UPPER HETCH HETCHY SS REHABILITATION	\$1,673.50	
	12/18/2014	2026298		MISC SS SPOT REPAIRS PHASE V	\$519.00	
156224	12/18/2014	18918	RMC WATER AND ENVIRONMENT	HAYWARD MARSH REHABILITATION OPTIONS	\$10,068.30	\$51,997.56
	12/18/2014	18967		ALVARADO TREATMENT PLANT SITE USE STUDY	\$28,319.69	
	12/18/2014	18987		IRVINGTON BASIN SEWER MASTER PLAN UPDATE	\$13,609.57	
156110	12/11/2014	926929	POLYDYNE INC	44,860 LBS CLARIFLOC C-6267	\$49,121.70	\$49,121.70
156267	12/26/2014	20141218	LAKHA PROPERTIES	THIRD PARTY CLAIM	\$48,910.00	\$48,910.00
156297	1/2/2015	30102968	SYNAGRO WEST LLC	OCTOBER 2014 BIOSOLIDS DISPOSAL	\$45,625.66	\$45,625.66

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156158	12/18/2014	201300821	COVELLO GROUP INC	COGENERATION PROJECT	\$24,290.50	\$44,687.06
	12/18/2014	201330357		THICKENER CONTROL BUILDING IMPROVEMENTS PHASE II	\$20,396.56	
156038	12/4/2014	800394.3	GSE CONSTRUCTION CO INC	THICKENER CONTROL BLDG IMPROV PHASE II	\$43,225.00	\$43,225.00
156268	12/26/2014	013720141206	PACIFIC GAS AND ELECTRIC	SERV TO 12/05/14 BOYCE RD PS	\$1,578.71	\$43,189.96
	12/26/2014	380420141205		SERV TO 12/01/14 CHERRY ST PS	\$138.10	
	12/26/2014	140120141208		SERV TO 12/04/14 IRVINGTON PS	\$26.60	
	12/26/2014	170120141210		SERV TO 11/20/14 PLANT	\$41,446.55	
156064	12/4/2014	13677	SYSTEMATES INC	CAPITAL PROGRAM MANAGEMENT SYSTEM	\$39,775.00	\$39,775.00
156141	12/18/2014	493302	A-PRO PEST CONTROL INC	INSTALL BIRD NETTING	\$36,367.00	\$37,372.00
	12/18/2014	492628		NOV PEST CONTROL	\$1,005.00	
156153	12/18/2014	138187	CAROLLO ENGINEERS	THICKENER CONTROL BUILDING IMPROVEMENTS PHASE II	\$32,822.85	\$32,822.85
156182	12/18/2014	26802	HARRIS & ASSOCIATES	MISC. SS SPOT REPAIRS PHASE V - JARVIS	\$10,350.00	\$32,620.00
	12/18/2014	26805		TEMPORARY CONST INSPECT SRVCS - BECKWITH, BOB, 11/14	\$22,270.00	
156063	12/4/2014	104270	SWRCB - STATE WATER RESOURCES	FY15 ANNUAL WDR FEES	\$1,996.00	\$31,996.00
	12/4/2014	103902		FY15 ANNUAL WDR FEES	\$20,000.00	
	12/4/2014	103908		FY15 ANNUAL WDR FEES	\$10,000.00	
156243	12/18/2014	45122335	TYLER TECHNOLOGIES INC	EDEN SOFTWARE MAINTENANCE SUPPORT	\$27,568.36	\$27,568.36
156104	12/11/2014	103006	MUNIQUEIP, LLC	IPS PUMP 2 OVERHAUL PARTS	\$26,465.82	\$26,465.82

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156284	1/2/2015	901950941	EVOQUA WATER TECHNOLOGIES	2,421 GALS HYDROGEN PEROXIDE	\$11,240.22	\$23,594.71
	1/2/2015	901975013		2,661 GALS HYDROGEN PEROXIDE	\$12,354.49	
156129	12/11/2014	533620141124	US BANK CORP PAYMENT SYSTEM	MONTHLY CAL CARD STMT - NOV 2014	\$21,641.65	\$21,641.65
156100	12/11/2014	10900042	KRONOS INC	WORKFORCE TIMEKEEPING SYSTEM- USER LICENSES	\$21,438.20	\$21,438.20
156189	12/18/2014	9017423248	KEMIRA WATER SOLUTIONS, INC.	7.79 DRY TONS FERROUS CHLORIDE	\$5,094.66	\$20,274.00
	12/18/2014	9017422602		7.75 DRY TONS FERROUS CHLORIDE	\$5,068.50	
	12/18/2014	9017424532		7.61 DRY TONS FERROUS CHLORIDE	\$4,976.94	
	12/18/2014	9017424331		7.85 DRY TONS FERROUS CHLORIDE	\$5,133.90	
156055	12/4/2014	62710	RANGER PIPELINES INC	NEWARK FLAT TOPS AREA SEWER RELOCATION	\$19,460.56	\$19,460.56
156163	12/18/2014	XJKCNFWK1	DELL MARKETING LP C/O DELL USA	8 Q2 STANDARD DESKTOPS	\$13,593.49	\$19,127.88
	12/18/2014	XJKPC2879		2 Q2 LAPTOPS	\$5,534.39	
156018	12/4/2014	20141104	CASA	CASA MEMBERSHIP DUES FOR FY 2015	\$18,720.00	\$18,720.00

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156245	12/18/2014	655938	UNIVAR USA INC	4,939 GALS SODIUM HYPOCHLORITE	\$2,282.81	\$18,538.84
	12/18/2014	658483		5,050 GALS SODIUM HYPOCHLORITE	\$2,334.11	
	12/18/2014	658705		5,001 GALS SODIUM HYPOCHLORITE	\$2,311.46	
	12/18/2014	658332		5,012 GALS SODIUM HYPOCHLORITE	\$2,316.55	
	12/18/2014	656577		5,002 GALS SODIUM HYPOCHLORITE	\$2,311.92	
	12/18/2014	656004		5,015 GALS SODIUM HYPOCHLORITE	\$2,317.93	
	12/18/2014	658699		5,055 GALS SODIUM HYPOCHLORITE	\$2,336.42	
	12/18/2014	658701		5,036 GALS SODIUM HYPOCHLORITE	\$2,327.64	
156137	12/18/2014	62808	3T EQUIPMENT COMPANY INC	35 PIPEPATCH KIT - WINTER	\$17,476.20	\$17,476.20
156167	12/18/2014	40712270	EATON CORPORATION	UPGRADE IQ DATA UNITS IN BLOWER 9	\$16,796.19	\$16,796.19
156192	12/18/2014	73240	NORCAL VENTURES LLC, DBA LINE-X OF : 2 EA ROAD CROSSING STRUCTURES - LINE - X COATING		\$16,061.40	\$16,061.40
156008	12/4/2014	62623	3T EQUIPMENT COMPANY INC	32 PIPEPATCH KIT - WINTER	\$15,978.24	\$15,978.24
156070	12/11/2014	62792	3T EQUIPMENT COMPANY INC	10 PIPEPATCH KIT - WINTER	\$4,993.20	\$15,603.75
	12/11/2014	62793		20 PIPEPATCH KIT - WINTER	\$10,610.55	
156025	12/4/2014	1003687A	DELTA DENTAL SERVICE	NOVEMBER 2014 DENTAL	\$1,747.71	\$15,401.71
	12/4/2014	1003687C		NOVEMBER 2014 DENTAL	\$13,654.00	
156276	12/26/2014	28578	VALLEY OIL COMPANY	1 DRUM TURBO 5/30 ALL SEASON OIL	\$545.16	\$14,850.71
	12/26/2014	28582		15 DRS MOBIL PEGASUS 805 OIL	\$14,305.55	
156032	12/4/2014	901942286	EVOQUA WATER TECHNOLOGIES	2,681 GALS HYDROGEN PEROXIDE	\$12,447.35	\$12,447.35

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156108	12/11/2014	761520141126	PACIFIC GAS AND ELECTRIC	SERV TO 11/25/14 NEWARK PS	\$11,585.48	\$11,585.48
156124	12/11/2014	101831	SWRCB - STATE WATER RESOURCES	FY15 ANNUAL WDR FEES	\$11,195.00	\$11,195.00
156044	12/4/2014	9017420547	KEMIRA WATER SOLUTIONS, INC.	8.02 DRY TONS FERROUS CHLORIDE	\$5,245.08	\$10,150.08
	12/4/2014	9017420041		7.50 DRY TONS FERROUS CHLORIDE	\$4,905.00	
156212	12/18/2014	10964	PACIFIC INFRASTRUCTURE CORP	BOYCE ROAD LIFT STATION	\$9,025.00	\$9,025.00
156178	12/18/2014	300394.4E	GSE CONSTRUCTION CO INC	THICKENER CONTROL BLDG IMPROV PHASE II - ESCROW PYMT	\$8,997.20	\$8,997.20
156011	12/4/2014	4071037120141119	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 11/18/14-BENSON ROAD	\$438.04	\$8,503.85
	12/4/2014	4071036120141118		SERV TO: 11/18/14-BENSON ROAD	\$8,065.81	
156099	12/11/2014	126747	KNAPP POLLY PIG INC	1 EA PIG	\$8,400.80	\$8,400.80
156027	12/4/2014	22180	DOUGLAS PRODUCTS AND PACKAGING	24 EA SANAFOAM VAPOROOTER II, GALLON	\$7,890.96	\$7,890.96
156114	12/11/2014	7543	ROBSON HOMES LLC	REFUND # 17656	\$2,500.00	\$7,800.00
	12/11/2014	6634		REFUND # 17657	\$2,800.00	
	12/11/2014	7098		REFUND # 17653	\$2,500.00	
156128	12/11/2014	654782	UNIVAR USA INC	275 GALS SULFURIC ACID 36%	\$659.47	\$7,613.73
	12/11/2014	654218		4,974 GALS SODIUM HYPOCHLORITE	\$2,298.99	
	12/11/2014	654084		5,014 GALS SODIUM HYPOCHLORITE	\$2,317.47	
	12/11/2014	654213		5,058 GALS SODIUM HYPOCHLORITE	\$2,337.80	
156054	12/4/2014	140306	RAFTELIS FINANCIAL CONSULTANTS	SSC COST OF SERVICE STUDY	\$7,473.00	\$7,473.00
156157	12/18/2014	471941	COKER PUMP AND EQUIPMENT	2 0GBT POLY FEED PUMP REBUILD KIT	\$7,426.19	\$7,426.19

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156130	12/11/2014	768672	VALLEY OIL COMPANY	CLEANING & POLISHING OF 3 TANKS	\$7,405.50	\$7,405.50
156047	12/4/2014	37432220141201	LINCOLN NATIONAL LIFE INS COMP	LIFE & DISABILITY INSURANCE - DEC 2014	\$7,377.73	\$7,377.73
156074	12/11/2014	2394	ALPHA OMEGA WIRELESS	RENEW SUPPORT CONTRACT MICROWAVE DEVICES	\$6,000.00	\$6,000.00
156206	12/18/2014	97720141202	DAVID M O'HARA ATTY AT LAW	CIP LEGAL - NOV 2014	\$619.50	\$5,911.50
	12/18/2014	86420141202		GENERAL LEGAL - NOV 14	\$5,292.00	
156216	12/18/2014	928744	POLYDYNE INC	43,300 LBS CLARIFLOC WE-539	\$5,689.62	\$5,689.62
156086	12/11/2014	XJKC6X9R5	DELL MARKETING LP C/O DELL USA	2 Q2 DUAL MONITOR DESKTOPS	\$3,898.11	\$5,582.74
	12/11/2014	XJK9N6D85		1 DELL LATITUDE ULTRABOOK	\$1,577.88	
	12/11/2014	XJK8N2RT4		1 TABLET KEYBOARD	\$106.75	
156247	12/18/2014	15016	V&A CONSULTING ENGINEERS INC	PLANT FACILITIES IMPROVEMENTS	\$5,543.70	\$5,543.70
156144	12/18/2014	72187	AZTEC CONTAINERS	STEEL CONTAINER W/CARGO DOORS	\$5,482.67	\$5,482.67
156073	12/11/2014	5107650	ALL INDUSTRIAL ELECTRIC SUPPLY	1 EA DP1 BREAKER IN SWBD3 REPAIR	\$5,447.63	\$5,447.63
156069	12/4/2014	4117	WATER WORKS ENGINEERS LLC	PRIMARY DIGESTER #5 REHABILITATION	\$5,254.95	\$5,254.95
156097	12/11/2014	9017421489	KEMIRA WATER SOLUTIONS, INC.	7.63 DRY TONS FERROUS CHLORIDE	\$4,990.02	\$4,990.02

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156072	12/11/2014	4104550320141126	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 11/26/14-MTR HYD 29389772	\$894.43	\$4,917.46
	12/11/2014	4104550220141126		SERV TO: 11/26/14-MTR HYD 19866550	\$603.12	
	12/11/2014	4104560920141126		SERV TO: 11/26/14-MTR HYD 19866549	\$587.79	
	12/11/2014	4104560720141126		SERV TO: 11/26/14-MTR HYD B32896064	\$787.11	
	12/11/2014	4104983520141126		SERV TO: 11/26/14-MTR HYD 19866540	\$808.10	
	12/11/2014	4104550420141126		SERV TO: 11/26/14-MTR HYD 29389774	\$534.13	
	12/11/2014	4104560820141126		SERV TO: 11/26/14-MTR HYD B33476241	\$702.78	
156217	12/18/2014	141124	PROSAFE	UPDATE HMBP TO INCLUDE COGEN BUILDING	\$1,500.00	\$4,900.00
	12/18/2014	141126		32 HRS INSPECTIONS & 2 HRS SPCC	\$3,400.00	
156140	12/18/2014	5108037	ALL INDUSTRIAL ELECTRIC SUPPLY	44 EA LOBBY 2PIN LED'S	\$2,168.10	\$4,863.99
	12/18/2014	5107996		1 EA FXLED150T	\$582.54	
	12/18/2014	5108132		50 EA LED BULBS	\$2,113.35	
156257	12/26/2014	5107739	ALL INDUSTRIAL ELECTRIC SUPPLY	1 HM 3 BREAKER STARTER	\$4,691.07	\$4,691.07
156065	12/4/2014	653135	UNIVAR USA INC	4,978 GALS SODIUM HYPOCHLORITE	\$2,300.82	\$4,621.52
	12/4/2014	653139		5,021 GALS SODIUM HYPOCHLORITE	\$2,320.70	
156081	12/11/2014	BPI473826	BRENNTAG PACIFIC, INC.	5128 LBS SODIUM HYDROXIDE	\$2,833.89	\$4,250.84
	12/11/2014	BPI473827		2564 LBS SODIUM HYDROXIDE	\$1,416.95	
156201	12/18/2014	2275	M-I-C INC	1 KIT - VAREC FLAME ARRESTOR	\$4,013.23	\$4,013.23
156209	12/18/2014	8464589	OVIVO USA LLC	222 EA ASTD CLARIFIER LIP SEALS	\$3,912.30	\$3,912.30

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156160	12/18/2014	251788	CURTIS & TOMPKINS LTD	12 LAB SAMPLE ANALYSIS	\$325.00	\$3,902.50
	12/18/2014	251882		3 LAB SAMPLE ANALYSIS	\$120.00	
	12/18/2014	251903		6 EA LAB ANALYSIS	\$100.00	
	12/18/2014	251886		5 LAB SAMPLE ANALYSIS	\$750.00	
	12/18/2014	251783		3 LAB SAMPLE ANALYSIS	\$120.00	
	12/18/2014	252226		6 LAB SAMPLE ANALYSIS	\$420.00	
	12/18/2014	251785		4 LAB SAMPLE ANALYSIS	\$75.00	
	12/18/2014	252075		3 LAB SAMPLE ANALYSIS	\$120.00	
	12/18/2014	251885		2 LAB SAMPLE ANALYSIS	\$90.00	
	12/18/2014	252202		3 LAB SAMPLE ANALYSIS	\$120.00	
	12/18/2014	251965		3 EA LAB ANALYSIS	\$120.00	
	12/18/2014	251962		1 LAB SAMPLE ANALYSIS	\$20.00	
	12/18/2014	252123		10 LAB SAMPLE ANALYSIS	\$1,522.50	
156116	12/11/2014	7547655191	ROYAL WHOLESALE ELECTRIC	2 PRODUCT SUPPORT	\$2,118.83	\$3,835.24
	12/11/2014	7547655336		1 36PIN 16PT ANALOG INPUT	\$1,716.41	
156022	12/4/2014	50011772	CORELOGIC INFORMATION SOLUTION	METROSCAN ONLINE RENEWAL	\$3,780.00	\$3,780.00
156252	12/18/2014	3394945	WESTERN ENERGY SYSTEMS	COGENERATION PROJECT	\$3,695.00	\$3,695.00
156126	12/11/2014	130715	TOTAL WASTE SYSTEMS INC	NOVEMBER 2014 GRIT DISPOSAL	\$3,664.55	\$3,664.55
156215	12/18/2014	103097	PIIAN SYSTEMS LLC	6 ODOR NEUTRALIZER - INDUSTRIAL CONCENTRATE (5 GALLON PAIL)	\$3,614.70	\$3,614.70

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156261	12/26/2014	47538	CITYLEAF INC	PLANT MAINTENANCE - DEC 2014	\$429.65	\$3,469.37
	12/26/2014	47693		HOLIDAY DECORATIONS FOR LOBBY	\$3,039.72	
156154	12/18/2014	7265	CATELLUS DEVELOPMENT CORP	REFUND # 17662	\$3,395.00	\$3,395.00
156083	12/11/2014	54377765	CINTAS CORPORATION	UNIFORM LAUNDERING SERVICE	\$343.20	\$3,391.76
	12/11/2014	54380054		JACKETS - GASKINS, NOEGEL & SEPULVEDA	\$496.49	
	12/11/2014	54384585		UNIFORM LAUNDERING SERVICE	\$320.29	
	12/11/2014	54377767		ASTD DUST MOPS, WET MOPS & TERRY TOWELS	\$97.16	
	12/11/2014	54384586		UNIFORM LAUNDERING SERVICE	\$293.87	
	12/11/2014	54377766		UNIFORM LAUNDERING SERVICE	\$383.84	
	12/11/2014	54380061		UNIFORM LAUNDERING SERVICE	\$296.08	
	12/11/2014	54382320		UNIFORM LAUNDERING SERVICE	\$333.76	
	12/11/2014	54380060		UNIFORM LAUNDERING SERVICE	\$322.79	
	12/11/2014	54382321		UNIFORM LAUNDERING SERVICE	\$416.28	
	12/11/2014	54382322		ASTD DUST MOPS, WET MOPS & TERRY TOWELS	\$88.00	
156113	12/11/2014	18903	RMC WATER AND ENVIRONMENT	LOCAL LIMITS & WASTEWATER TREATABILITY	\$3,304.50	\$3,304.50

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156260	12/26/2014	10492781	BLAISDELL'S	23 2015 DIARY/CALENDARS	\$900.36	\$3,159.59
	12/26/2014	10492780		12 2015 DIARY/CALENDARS	\$172.25	
	12/26/2014	10456090		1 CHAIR	\$480.38	
	12/26/2014	10473780		3 HP 645A LASER JET TONER CARTRIDGES	\$980.57	
	12/26/2014	10473410		ASTD OFFICE SUPPLIES	\$67.93	
	12/26/2014	10475980		ASTD BREAKROOM SUPPLIES	\$558.10	
156067	12/4/2014	20141201	VISION SERVICE PLAN - CA	DECEMBER 2014 VISION STMT	\$3,136.74	\$3,136.74
156208	12/18/2014	62011	OPTIMUM SOLUTIONS INC	OPTIMUM ANNUAL SUPPORT FEE	\$3,044.00	\$3,044.00
156249	12/18/2014	30290	VOX NETWORK SOLUTIONS INC	PHONE SYSTEM ANNUAL SOFTWARE ASSURANCE	\$3,001.92	\$3,001.92
156049	12/4/2014	713524	NEOGOV	NEOGOV ANNUAL RENEWAL	\$3,000.00	\$3,000.00
156230	12/18/2014	20141217	MARIA SCOTT	TUITION REIMB - FALL QTR 2014	\$3,000.00	\$3,000.00

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156176	12/18/2014	9597271460	GRAINGER INC	1 EA PORTABLE TOOL BOX	\$128.13	\$2,987.41
	12/18/2014	9597577502		ASTD SAFETY SIGNS - COGEN BLDG	\$181.41	
	12/18/2014	9597271452		2 PR READING GLASSES	\$38.12	
	12/18/2014	9599248870		2 EA COUPLINGS	\$2.63	
	12/18/2014	9599913895		4 EA PHOTOCONTROLER	\$34.52	
	12/18/2014	9587930000		3 EA WEATHERPROOF COVERS	\$42.34	
	12/18/2014	9590827573		2 PACKS SKT CAP SCREWS	\$25.47	
	12/18/2014	9598155175		2 EA PHOTOCONTROLER	\$17.26	
	12/18/2014	9603600942		1 EA PLASTIC TURBINE METER	\$129.10	
	12/18/2014	9595028615		ASTD PARTS & MATERIALS	\$36.69	
	12/18/2014	9600506514		1 EA PLASTIC NOZZLE	\$16.78	
	12/18/2014	9589256552		6 EA SHELF BINS	\$22.01	
	12/18/2014	9590827565		ASTD PARTS & MATERIALS	\$27.51	
	12/18/2014	9597577510		ASTD DISPOSABLE GLOVES	\$268.73	
	12/18/2014	9603833444		20 EA OSHA DANGER SIGNS	\$867.24	
	12/18/2014	9590383601		1 EA PLATEN, PAD	\$65.36	
	12/18/2014	9603833436		1 EA REPLACEMENT DIFFUSER	\$28.07	
	12/18/2014	9604922865		1 EA SPRING LOADED FOLDING PULL HANDLE	\$12.28	
	12/18/2014	9598155159		2 EA LED FLOOD LIGHTS	\$401.40	

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156176	12/18/2014	9597035808	GRAINGER INC	ASTD PARTS & MATERIALS	\$186.67	\$2,987.41
	12/18/2014	9599913887		ASTD PARTS & MATERIALS	\$195.84	
	12/18/2014	9598155167		11 EA HEADLAMPS	\$149.36	
	12/18/2014	9599248888		1 EA DRUM DOLLY	\$74.75	
	12/18/2014	9592715263		2 EA HAT LIGHTS	\$35.74	
156199	12/18/2014	19131899	MCMASTER SUPPLY INC	2 PACKS BLANK ENGRAVING & STAMPING TAGS	\$25.27	\$2,868.30
	12/18/2014	17613957		6 EA FIRE-FIGHTING HOSE NOZZLES	\$85.60	
	12/18/2014	18873398		1 PACK O-RINGS	\$16.07	
	12/18/2014	18972002		15 EA ASTD PIPE FITTINGS	\$502.21	
	12/18/2014	18752474		ASTD PARTS & MATERIALS	\$159.65	
	12/18/2014	18831132		ASTD PARTS & MATERIALS	\$552.10	
	12/18/2014	18804249		ASTD PARTS & MATERIALS	\$233.51	
	12/18/2014	18972001		ASTD WIRE ROPE THIMBLES & CLIPS	\$761.82	
	12/18/2014	19077508		1 EA GALVANIZED STEEL WIRE ROPE	\$217.16	
	12/18/2014	18752475		ASTD PARTS & MATERIALS	\$130.42	
	12/18/2014	18899663		5 EA COGGED V-BELTS	\$67.98	
	12/18/2014	18661176		1 EA LEVELING JACK	\$104.58	
	12/18/2014	18917448		1 PACK LABEL INSERTS - KEYRINGS	\$11.93	
156017	12/4/2014	11227033	BROWN & CALDWELL CONSULTANTS	PLANT GROUNDWATER WELLS MONITORING	\$2,852.57	\$2,852.57

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156088	12/11/2014	156895	EAST BAY TRUCK CENTER	DIAGNOSE AND REPAIR TRUCK T3252	\$2,804.47	\$2,804.47
156148	12/18/2014	111456	BEECHER ENGINEERING	MCC & PLC REPLACEMENT - PHASE 3	\$2,720.00	\$2,720.00
156147	12/18/2014	1795	BEAR ELECTRICAL SOLUTIONS INC	REPAIR TRAFFIC LOOP AT WARM SPRING & MISSION CT IN FREMONT	\$2,700.00	\$2,700.00
156142	12/18/2014	5968821	AT&T	SERV: 10/20/14 - 11/19/14	\$16.75	\$2,665.55
	12/18/2014	5963109		SERV: 10/20/14 - 11/19/14	\$2,648.80	
156036	12/4/2014	9579814949	GRAINGER INC	1 EA JOBSITE CABINET	\$1,966.89	\$2,636.88
	12/4/2014	9576040225		ASTD PARTS & MATERIALS	\$35.41	
	12/4/2014	9579814931		7 EA CAUTION SIGNS	\$52.28	
	12/4/2014	9580603687		2 EA PLUG-IN CFL'S	\$3.51	
	12/4/2014	9580289008		ASTD SIGNS & FIRE EXTINGUISHERS FOR COGEN BLDG	\$578.79	
156096	12/11/2014	1411091114	KELCO SERVICES INC	HAZARDOUS MATERIAL TESTING - COGEN PROJECT	\$2,580.00	\$2,580.00
156172	12/18/2014	20141218	MICHAEL GILL	EXP REIMB: WICS FOR REMOTE SITE ROUTERS	\$2,561.13	\$2,561.13
156272	12/26/2014	20772	SERVICEWRKX	SERVICE REQUEST: BLDG 70 AHU-O2 NO HEATING	\$375.00	\$2,532.20
	12/26/2014	20861		SERVICE REQUEST: BLDG 83 WATER HEATER NOT OPERATING	\$828.91	
	12/26/2014	20840		SERVICE REQUEST: BLDG 70 REPLACE VALVE & ACTUATOR	\$1,328.29	
156214	12/18/2014	7552	PERFORMANCE PIPING	REFUND # 17663	\$2,500.00	\$2,500.00
156203	12/18/2014	96555	MUNICIPAL MAINT EQUIPMENT INC	1 EA TURBINE SCRAPER - BODY ONLY	\$2,387.82	\$2,387.82
156030	12/4/2014	3857256	DWYER INSTRUMENTS, INC.	8 VA15419 GLASS FLOWMETER, 27.9 SCFH	\$2,296.68	\$2,296.68
156186	12/18/2014	1020902837	INTERIOR DOOR REPLACEMENT CO	INSTALL SWING DOORS IN THE CONTROL BUILDING WOMAN'S LOCKER	\$2,285.25	\$2,285.25

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156210	12/18/2014	XCTZ00D	PACHECO BROTHERS GARDENING INC	WEED ABATEMENT WORK DEC 2014	\$915.00	\$2,280.00
	12/18/2014	XCTZ00C		LANDSCAPE MAINTENANCE SERVICES DEC 2014	\$1,365.00	
156039	12/4/2014	800394.3E	GSE CONSTRUCTION CO INC	THICKENER CONTROL BLDG IMPROV PHASE II - ESCROW PYMT	\$2,275.00	\$2,275.00
156092	12/11/2014	9586287873	GRAINGER INC	8 EA BIMETAL THERMOMETERS	\$1,277.21	\$2,226.64
	12/11/2014	9586287881		8 EA SHELF BINS	\$38.32	
	12/11/2014	9582580917		2 EA CONNECTORS	\$18.46	
	12/11/2014	9586767080		2 SPOOLS BLDG WIRE	\$122.12	
	12/11/2014	9583947305		1 EA HYDROCHLORIC ACID	\$13.45	
	12/11/2014	9585482830		1 EA MICRO INSPECTION CAMERA AND CABLE EXTENSION	\$757.08	
156150	12/18/2014	477529	BRENNTAG PACIFIC, INC.	3846 LBS SODIUM HYDROXIDE	\$2,125.41	\$2,125.41
156151	12/18/2014	476362	BRENNTAG PACIFIC, INC.	1282 LBS SODIUM HYDROXIDE	\$708.46	\$2,125.41
	12/18/2014	476363		2564 LBS SODIUM HYDROXIDE	\$1,416.95	
156155	12/18/2014	QW64007	CDW GOVERNMENT LLC	1 EA MED SWITCH GENERATOR DIRECT COMM	\$1,837.82	\$2,057.82
	12/18/2014	QX42323		E-DISTRIBUTION MED SWITCH GENERATOR DIRECT COMM	\$220.00	
156181	12/18/2014	3H9302	HARRINGTON INDUSTRIAL PLASTICS	RENTAL OF PLASTIC FUSION MACHINE	\$1,357.80	\$2,026.45
	12/18/2014	3H9278		ASTD PARTS & MATERIALS	\$130.01	
	12/18/2014	3H9141		ASTD PARTS & MATERIALS	\$538.64	

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156250	12/18/2014	8059742224	VWR INTERNATIONAL LLC	3 CS CONTAINERS & 6 PKS PIPET BRUSHES	\$396.54	\$2,010.46
	12/18/2014	8059703188		1 PK MEDIUM TSB DBL STR GLASS BTL	\$61.55	
	12/18/2014	8059724904		12 PKS FILTER GLASS FIBR 4.25CM	\$803.25	
	12/18/2014	8059768558		1 CS POTASSIUM PHOSPHATE RE MONO XT 500GM	\$78.14	
	12/18/2014	8059785611		1 POTASSIUM PHOSPHATE RE MONO XT 500GM	\$19.53	
	12/18/2014	8059784960		1 CS POTASSIUM PHOSPHATE RE MONO XT	\$-78.14	
	12/18/2014	8059765698		1 CS DEXTROSE RE ANHYD GRAN 500GM	\$99.70	
	12/18/2014	8059721838		2 PKS MICROFIBRE GLS GF 12.5CM	\$620.32	
	12/18/2014	8059729562		2 BATTERY LITH 2032 3V	\$9.57	
156117	12/11/2014	7541032604	RS HUGHES CO INC	2 MEDIUM DUTY GEN PURP PAD GRY	\$132.73	\$2,008.03
	12/11/2014	7545841503		12 PRS GLOVES SOL-VEX NITRILE	\$105.74	
	12/11/2014	7541032603		1 PR KNEE BOOTS SIZE 10 RUBBER WITH SAFETY TOE	\$65.83	
	12/11/2014	7547538600		ASTD SAFETY SUPPLIES	\$1,642.79	
	12/11/2014	7545841501		1 PR KNEE BOOTS SIZE 10 RUBBER WITH SAFETY TOE	\$60.94	
156207	12/18/2014	8337590	OPEN TEXT	OPENTEXT ALCHEMY GOLD ANNUAL SUPPORT	\$2,000.00	\$2,000.00
156112	12/11/2014	916002254926	REPUBLIC SERVICES #916	RECYCLE & ROLL OFF - NOVEMBER 2014	\$1,977.27	\$1,977.27
156052	12/4/2014	7947791	PILLSBURY WINTHROP SHAW PITTM	LABOR & EMPLOYMENT LAW FEES	\$1,956.50	\$1,956.50
156125	12/11/2014	2205	TNT SAFETY ENTERPRISES INC	15 EXCAVATION (TRENCH SAFETY) TRAINING	\$1,950.00	\$1,950.00

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156270	12/26/2014	7550155402	RS HUGHES CO INC	4 BXS EAR PLUGS FOAM CORDED	\$87.32	\$1,941.61
	12/26/2014	7545841504		4 DZ GLOVE COTTON LATEX DIP X LRG	\$108.30	
	12/26/2014	7550155400		ASTD SAFETY SUPPLIES	\$1,745.99	
156191	12/18/2014	20141103	CONGNA LI	EXP REIMB: MOVING EXPENSES, DETROIT TO FREMONT	\$1,885.92	\$1,885.92
156115	12/11/2014	1114300	ROYAL TRUCK BODY	INSTALL BACK-UP CAMERA FORD F350	\$942.80	\$1,885.60
	12/11/2014	1114299		INSTALL BACK-UP CAMERA T1358	\$942.80	
156226	12/18/2014	1214005	ROYAL TRUCK BODY	INSTALL BACK-UP CAMERA & FLASHERS T1369	\$1,885.60	\$1,885.60
156293	1/2/2015	1214132	ROYAL TRUCK BODY	INSTALL BACK-UP CAMERA & FLASHERS T1372	\$1,885.60	\$1,885.60
156034	12/4/2014	3056	GEOSPHERE CONSULTANTS INC	JARVIS AVENUE SS REPLACEMENT (MISC. SS SPOT REPAIRS - PHASE V	\$1,699.04	\$1,699.04
156174	12/18/2014	1841069530	GOODYEAR COMM TIRE & SERV CTRS	1 EA TIRE	\$390.96	\$1,671.62
	12/18/2014	1841069446		1 EA TIRE	\$256.59	
	12/18/2014	1841069447		2 EA TIRES	\$767.48	
	12/18/2014	1841069445		1 EA TIRE	\$256.59	

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156149	12/18/2014	1049176-0	BLAISDELL'S	ASSORTED OFFICE SUPPLIES	\$48.66	\$1,561.65
	12/18/2014	1049626-0		30 EA PLANNERS/CALENDARS	\$263.54	
	12/18/2014	10504490		1 WINNERS DESK PD	\$28.46	
	12/18/2014	10512590		ASTD OFFICE SUPPLIES	\$121.05	
	12/18/2014	1049368-0		ASSORTED OFFICE SUPPLIES	\$31.65	
	12/18/2014	10507190		1 TONER	\$168.86	
	12/18/2014	1049430		ASSORTED OFFICE SUPPLIES	\$415.52	
	12/18/2014	10500701		ASTD OFFICE SUPPLIES	\$19.70	
	12/18/2014	10485550		ASTD OFFICE SUPPLIES	\$42.76	
	12/18/2014	1049403-0		2 DZN PENS	\$25.60	
	12/18/2014	1049791-0		2 EA MAGNET TAPE	\$20.35	
	12/18/2014	10500700		ASTD OFFICE SUPPLIES	\$95.17	
	12/18/2014	1049749-0		11 EA CALENDARS/ORGANIZERS	\$182.51	
	12/18/2014	1049073-1		1 EA PROJECT ORGANIZER 10-PACK	\$20.25	
	12/18/2014	10500702		1 DAILY DIARY	\$52.93	
	12/18/2014	10507690		10 VIEW BINDERS	\$24.64	

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156048	12/4/2014	17761240	MCMASTER SUPPLY INC	ASTD PARTS & MATERIALS	\$101.71	\$1,340.87
	12/4/2014	18222578		ASTD PARTS & MATERIALS	\$501.64	
	12/4/2014	18006405		6 EA RECHARGEABLE SEALED LEAD-ACID BATTERIES	\$155.83	
	12/4/2014	17761241		ASTD PARTS & MATERIALS	\$581.69	
156200	12/18/2014	52215	METROMOBILE COMMUNICATIONS INC	RADIO EQUIPMENT FOR TPO SATELLITE PHONE	\$330.76	\$1,281.69
	12/18/2014	52202		RADIO EQUIP & INSTALLATION FOR EOC & TPO SATELLITE PHONES	\$118.18	
	12/18/2014	141245		MOTOROLA SERVICE CONTRACT	\$582.75	
	12/18/2014	36400		COVERAGE STUDY FOR NEW RADIO TOWER LOCATION	\$250.00	
156170	12/18/2014	225752	CITY OF FREMONT	UPPER HETCH HECTCHY SS REHABILITATION	\$1,263.91	\$1,263.91
156298	1/2/2015	28631	VALLEY OIL COMPANY	1 DR ALLIANCE AW 46 & 1 DR ALLIANCE XLD 15/40 OIL	\$1,233.66	\$1,233.66
156122	12/11/2014	3250140232	STAPLES CONTRACT & COMMERCIAL	11 CALENDARS - R&S	\$171.19	\$1,203.27
	12/11/2014	3250140230		ASTD JANITORIAL SUPPLIES - INVENTORY	\$601.64	
	12/11/2014	3250140231		ASTD JANITORIAL SUPPLIES - INVENTORY	\$430.44	
156161	12/18/2014	20141125.25	DALE HARDWARE INC	11/14 - ASTD PARTS & MATERIALS	\$1,173.14	\$1,173.14
156282	1/2/2015	1412343	ELECTRO-MOTION INC	FREMONT LIFT STATION GENERATOR PRIMING PUMP AND INSTALLATION	\$1,164.54	\$1,164.54
156228	12/18/2014	2510785003	S & S SUPPLIES & SOLUTIONS	40 HARD HATS FULL BRIM	\$1,050.76	\$1,050.76
156075	12/11/2014	8480050815	ANDRITZ-RUTHNER INC	2 EA TEMPERATURE SENSOR	\$1,035.48	\$1,035.48
156031	12/4/2014	944045142014	EMPLOYMENT DEVELOPMENT DEPT	UI 3RD Q 2014 - T. DOUGLAS	\$1,024.00	\$1,024.00

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156227	12/18/2014	7546049301	RS HUGHES CO INC	13 BXS GLOVES SAFEGRIP XL	\$194.70	\$1,017.06
	12/18/2014	7543243700		7 RAIN SUIT JACKETS & 20 RAIN SUIT OVERALLS	\$822.36	
156258	12/26/2014	495375	A-PRO PEST CONTROL INC	DEC PEST CONTROL	\$1,005.00	\$1,005.00
156068	12/4/2014	8059493760	VWR INTERNATIONAL LLC	3 PKS VIAL COD DIGESTION	\$645.41	\$1,002.16
	12/4/2014	8059517550		5 BXS HYDROGEN SULFUR DETECTOR TUBES	\$358.75	
156266	12/26/2014	20141222	CITY OF FREMONT	ALVARADO-NILES ROAD SS REHABILITATION	\$1,000.00	\$1,000.00
156273	12/26/2014	7630	STAR ROOTER AND PLUMBING	REFUND # 17690	\$500.00	\$1,000.00
	12/26/2014	7632		REFUND # 17703	\$500.00	
156274	12/26/2014	7560	STREAMLINE PLUMBING & DRAIN	REFUND: 17681 & 17682	\$1,000.00	\$1,000.00
156236	12/18/2014	20062073	TELEDYNE INSTRUMENTS INC	3 TUBING VINYL 3/8 X 50 FT	\$967.82	\$967.82
156237	12/18/2014	621590080	TELEPACIFIC COMMUNICATIONS	WIRELESS INTERNET BACKUP - DECEMBER	\$960.00	\$960.00
156077	12/11/2014	5933629	AT&T	SERV: 10/13/14 - 11/12/14	\$790.95	\$926.73
	12/11/2014	5942802		SERV: 10/13/14 - 11/12/14	\$94.59	
	12/11/2014	5946899		SERV: 10/13/14 - 11/12/14	\$41.19	
156184	12/18/2014	601409781	HILLYARD/SAN FRANCISCO	ASTD JANITORIAL SUPPLIES	\$526.04	\$926.05
	12/18/2014	601413566		ASTD JANITORIAL SUPPLIES	\$61.22	
	12/18/2014	601413567		2 CS PAPER PLATES	\$338.79	
156187	12/18/2014	4110	IRON MOUNTAIN	OFF-SITE STORAGE AND SERVICES NOV 2014	\$637.71	\$925.00
	12/18/2014	6386		OFF-SITE STORAGE AND SERVICES NOV 2014	\$287.29	

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156223	12/18/2014	256046	RKI INSTRUMENTS INC	10 LEL SENSORS, H2S	\$903.38	\$903.38
156037	12/4/2014	1043941	GROENIGER AND COMPANY	20 EA - 4" SDR 26 HW 45 DEG PE X PE 17" LL LAY	\$705.25	\$870.54
	12/4/2014	3132420		ASTD PARTS & MATERIALS	\$165.29	
156159	12/18/2014	813007	CUMMINS PACIFIC LLC	GEN 5 & 6 COLLANT TUBES AND GASKETS	\$860.71	\$860.71
156135	12/11/2014	3389967	WESTERN ENERGY SYSTEMS	1 HIGH-VOLTAGE MEASURING PLIERS	\$859.90	\$859.90
156281	1/2/2015	11230126	BROWN & CALDWELL CONSULTANTS	ALVARADO POTABLE WATER TANK/USE STUDY	\$855.11	\$855.11
156136	12/11/2014	10871	WESTERN MACHINE & FAB INC	MACHINE & REMOVE BROKEN BOLT	\$165.00	\$854.85
	12/11/2014	10870		MFG SS MOUNTING BRACKETS	\$689.85	
156101	12/11/2014	23998	MAR-LEN SUPPLY INC	REPAIR CYLINDRICAL WATER RESEVOIR TANK	\$843.97	\$843.97
156134	12/11/2014	4174	WATER WORKS ENGINEERS LLC	PRIMARY DIGESTER #5 REHABILITATION	\$842.73	\$842.73
156253	12/18/2014	2136091	WHAT'S HAPPENING INC	30 COLUMN INCH ADVERTISEMENT	\$830.00	\$830.00
156057	12/4/2014	2502394005	S & S SUPPLIES & SOLUTIONS	24 PRS AZTEC BROWN SAFETY GLASSES	\$57.29	\$828.35
	12/4/2014	2510785001		7 DZ LEATHER GLOVES & 384 AA BATTERIES	\$629.41	
	12/4/2014	2510785002		24 PRS GLOVES DRIVER GRAIN SPLIT	\$141.65	
156283	1/2/2015	12009	EUROFINS AIR TOXICS INC	3 LAB SAMPLE ANALYSIS	\$825.00	\$825.00
156059	12/4/2014	1622708001	SAN LEANDRO ELECTRIC SUPPLY	1 WELDING PLUG	\$330.16	\$811.79
	12/4/2014	1617678008		13 LAMPS FLUORESCENT F40T12/DX/ALTO	\$30.47	
	12/4/2014	1619540001		94 ASTD LAMPS	\$445.01	
	12/4/2014	1617678007		1 STRAIN RELIEF CONNECTOR 1/2 RANGE .31 -.56	\$6.15	

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156288	1/2/2015	10902466	KRONOS INC	TIMEKEEPING SYSTEM - PROJECT MGMT FEE	\$315.00	\$810.00
	1/2/2015	10906521		KRONOS TRNG - FUNDAMENTALS/LEAVES: HOLSLAG & WEST	\$495.00	
156289	1/2/2015	19858384	MCMASTER SUPPLY INC	ASTD PARTS & MATERIALS	\$790.37	\$790.37
156244	12/18/2014	14128	CITY OF UNION CITY	CAST IRON LINING PHASE VI	\$772.00	\$772.00
156198	12/18/2014	9667	MCINERNEY & DILLON, P.C.	LEGAL SERVICES - COGEN - WESTERN ENERGY SYSTEMS	\$770.00	\$770.00
156256	12/26/2014	9923278033	AIRGAS NCN	CYLINDER RENTAL	\$763.71	\$763.71
156040	12/4/2014	1515867	HANSON AGGREGATES INC	10.07 TONS 3/4 MED TYPE A	\$732.61	\$732.61
156146	12/18/2014	312874	BAY AREA BARRICADE SERVICE INC	ASTD MARKER POSTS & PAINT	\$699.16	\$699.16
156291	1/2/2015	1147524	ROCHESTER MIDLAND CORPORATION	HOT WATER LOOP SERVICE	\$685.90	\$685.90
156013	12/4/2014	87896581211252014 AT&T		SERV: 10/18/14 - 11/17/14	\$678.84	\$678.84
156021	12/4/2014	44600004	CINTAS FIRE PROTECTION	INSPECTION,QTRLY,SPRINKLER SYSTEM WET TYPE	\$250.00	\$670.00
	12/4/2014	44075986		24-HOUR MONITORING ANNUAL NOV 2014 - OCT 2015	\$420.00	
156231	12/18/2014	4868173120414	SIERRA SPRING WATER COMPANY	WATER SERVICE 11/07/14 - 12/04/14	\$427.25	\$669.26
	12/18/2014	8122768120414		BOTTLESS COOLERS RENTAL	\$242.01	
156078	12/11/2014	20141205	JUDI BERZON	TRAVEL REIMB: CALPELRA CONFERENCE, LODGING/MEALS/MILEAGE	\$637.45	\$637.45
156156	12/18/2014	33807	CLAREMONT BEHAVIORAL SERVICES	DEC 2014 EAP PREMIUM	\$634.80	\$634.80
156262	12/26/2014	33833	CLAREMONT BEHAVIORAL SERVICES	JAN 2015 EAP PREMIUM	\$630.20	\$630.20
156205	12/18/2014	41795772	OFFICE TEAM	TEMP LABOR-BLANCHETTE, V., WKEND 11/21/14	\$304.80	\$623.89
	12/18/2014	41815566		TEMP LABOR-BLANCHETTE, V., WKEND 11/28/14	\$319.09	

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156050	12/4/2014	41688002	OFFICE TEAM	TEMP LABOR-BLANCHETTE, V., WKEND 11/07/14	\$609.60	\$609.60
156041	12/4/2014	601377874	HILLYARD/SAN FRANCISCO	ASTD JANITORIAL SUPPLIES	\$608.21	\$608.21
156089	12/11/2014	20141208	PAUL ELDREDGE	TRVEL REIMB: LODGINIG CASA CONFERENCE	\$598.08	\$598.08
156102	12/11/2014	18378589	MCMASTER SUPPLY INC	ASTD PARTS & MATERIALS	\$171.95	\$597.11
	12/11/2014	17792464		1 EA EXTRA SHELF FOR SHELF CABINET	\$91.09	
	12/11/2014	18185714		ASTD PARTS & MATERIALS	\$26.71	
	12/11/2014	18089940		1 EA ANTISLIP ALUMINUM PLANK GRATING	\$359.10	
	12/11/2014	18500389		10 PACKS SEALING/DRILLNIG SCREWS	\$98.26	
	12/11/2014	18344906		1 EA RECHARGEABLE NICAD BATTERY PACK	\$61.45	
	12/11/2014	18518112		CREDIT FOR ANTISLIP ALUMINUM PLANK GRATING INV 16264959	\$-327.75	
	12/11/2014	18590622		20 PACKS SCREWS	\$116.30	
156220	12/18/2014	8200000007933	RED WING SHOE STORE	SAFETY SHOES - LULLO, DEJESUS & NICOLETTI	\$584.56	\$584.56
156279	1/2/2015	58940	BARNETT MEDICAL SERVICES LLC	40 LBS PHARMACEUTICAL WASTE REMOVAL	\$85.00	\$577.00
	1/2/2015	58659		120 LBS PHARMACEUTICAL WASTE REMOVAL	\$164.00	
	1/2/2015	59169		60 LBS PHARMACEUTICAL WASTE REMOVAL	\$164.00	
	1/2/2015	58152		100 LBS PHARMACEUTICAL WASTE REMOVAL	\$164.00	
156168	12/18/2014	9532	FREMONT EXPRESS COURIER SVC	COURIER SERVICES: NOV 2014	\$570.00	\$570.00
156290	1/2/2015	41895912	OFFICE TEAM	TEMP LABOR-BLANCHETTE, V., WKEND 12/05/14	\$561.98	\$561.98

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156023	12/4/2014	251492	CURTIS & TOMPKINS LTD	6 LAB SAMPLE ANALYSIS	\$240.00	\$560.00
	12/4/2014	251360		12 LAB SAMPLE ANALYSIS	\$200.00	
	12/4/2014	251393		3 LAB SAMPLE ANALYSIS	\$120.00	
156132	12/11/2014	8059600651	VWR INTERNATIONAL LLC	8 BXS HYDROGEN SULFUR DETECTOR TUBES	\$551.35	\$551.35
156254	12/18/2014	24461	WILEY PRICE & RADULOVICH LLP	LABOR & EMPLOYMENT LAW FEES	\$548.00	\$548.00
156241	12/18/2014	20141216	KIM TRUONG	TUITION REIMB - FALL QTR 2014	\$545.96	\$545.96
156180	12/18/2014	255870	HANIGAN COMPANY INC	5000 SHEETS - DISTRICT LETTERHEAD	\$473.35	\$541.75
	12/18/2014	255902		2 LOTS BUSINESS CARDS: TRINH & HWANG	\$68.40	
156087	12/11/2014	20141209	KATHRYN DESTAFNEY	EXP REIMB: BS WORK GROUP RECOGNITION	\$529.00	\$529.00
156105	12/11/2014	20141130	NAPA AUTO PARTS	MONTHLY AUTO PARTS STMT - NOV 2014	\$517.38	\$517.38
156107	12/11/2014	20141208	PAT O'NEAL	EXP REIMB: CALPELRA CONF - LODGING AND MEALS	\$514.03	\$514.03
156171	12/18/2014	20141209	GFOA-GOV FIN OFFICERS ASSOC	CAFR SUBMISSION FEE	\$505.00	\$505.00
156028	12/4/2014	7616	DRAIN DOCTOR	REFUND # 17646	\$500.00	\$500.00
156045	12/4/2014	7614	ISRAR KHAN	REFUND # 17645	\$500.00	\$500.00
156046	12/4/2014	7525	LALO'S SEWER & DRAIN	REFUND # 17643	\$500.00	\$500.00
156061	12/4/2014	7414	TYSON SHIEH	REFUND # 17642	\$500.00	\$500.00
156062	12/4/2014	7591	SIGMA CORPORATION	REFUND # 17644	\$500.00	\$500.00
156084	12/11/2014	7524	DONALD CRISP	REFUND # 17655	\$500.00	\$500.00
156145	12/18/2014	2521831282	BANK OF NEW YORK	JUNE 2014 SERVICE FEE	\$500.00	\$500.00

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156164	12/18/2014	7627	DRAIN DOCTOR	REFUND # 17661	\$500.00	\$500.00
156166	12/18/2014	7621	E Z PLUMBING	REFUND # 17670	\$500.00	\$500.00
156193	12/18/2014	10785	LOOKINGPOINT INC	MONTHLY PREMIER SUPPORT - DEC 2014	\$500.00	\$500.00
156235	12/18/2014	7626	STAR ROOTER AND PLUMBING	REFUND - WYE REPLACEMENT	\$500.00	\$500.00
156286	1/2/2015	7548	GEE HOEY	REFUND # 17709	\$500.00	\$500.00
156295	1/2/2015	7638	STAR ROOTER AND PLUMBING	REFUND # 17705	\$500.00	\$500.00
156211	12/18/2014	096020141203	PACIFIC GAS AND ELECTRIC	SERV TO 12/02/14 CATHODIC PROJECT	\$52.88	\$494.34
	12/18/2014	892820141203		SERV TO 12/02/14 HAYWARD MARSH	\$51.39	
	12/18/2014	898220141203		SERV TO 12/02/14 FREMONT PS	\$218.10	
	12/18/2014	666720141203		SERV TO 12/02/14 PASEO PADRE PS	\$171.97	
156204	12/18/2014	20141212	SHAWN NESGIS	EXP REIMB: RETIREMENT GIFT - J. ROLETT	\$394.94	\$484.94
	12/18/2014	20141212.2		EXP REIMB: MSA GENERAL MTG - NESGIS/SCHOFIELD/MORRISON	\$90.00	
156119	12/11/2014	1818474468	SAFELITE GLASS CORPORATION	REPLACE WINDSHIELD T1271	\$248.52	\$477.53
	12/11/2014	1818474469		REPLACE WINDSHIELD T2054	\$229.01	
156098	12/11/2014	1257	KEN GRADY CO INC	1 EA MSA 02 SENSOR	\$475.23	\$475.23
156213	12/18/2014	10964E	PACIFIC INFRASTRUCTURE CORP	BOYCE ROAD LIFT STATION	\$475.00	\$475.00
156103	12/11/2014	618353	MOBILE MODULAR MANAGEMENT CORP	FMC TRAILER RENTAL - NOV 2014	\$467.57	\$467.57
156143	12/18/2014	87707	ATS ELECTRO LUBE INC	10 EA AUTOLUBERS	\$464.39	\$464.39
156033	12/4/2014	116521853	FREMONT URGENT CARE CENTER	2 NEW HIRE PHYSICALS	\$464.00	\$464.00

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156169	12/18/2014	116521990	FREMONT URGENT CARE CENTER	1 NEW HIRE PHYSICAL/1 DOT PHYSICAL	\$442.00	\$442.00
156060	12/4/2014	20141204	JAMES SCHOFIELD	EXP REIMB: RETIREMENT GIFT - A MORRISON	\$439.94	\$439.94
156278	1/2/2015	9034257876	AIRGAS NCN	1 CYL ARGON	\$421.40	\$421.40
156043	12/4/2014	283014351	IDEXX DISTRIBUTION INC	ASTD ENTEROLERT & COLILERT-18 MEDIA	\$387.88	\$414.46
	12/4/2014	283014342		1 EA QUANTI-TRAY/2000 COMPARATOR	\$26.58	
156076	12/11/2014	7003821302	APPLIED INDUSTRIAL TECHNOLOGIE	6 EA BELTS	\$143.63	\$414.37
	12/11/2014	7003784699		8 CLARIFIER BELTS	\$270.74	
156255	12/18/2014	77269295	XEROX CORPORATION	MTHLY MAINTENANCE BASED ON USE	\$274.91	\$413.38
	12/18/2014	77269296		MTHLY MAINTENANCE BASED ON USE	\$22.34	
	12/18/2014	77155925		MTHLY MAINTENANCE BASED ON USE	\$87.90	
	12/18/2014	77155923		MTHLY MAINTENANCE BASED ON USE	\$28.23	
156082	12/11/2014	QV48208	CDW GOVERNMENT LLC	2 EA NAS BU DRIVES	\$404.18	\$404.18
156202	12/18/2014	2862723	MIELE PROFESSIONAL PRODUCTS	25 EA REACTIVATION SALTS - LAB SUPPLIES	\$383.65	\$383.65
156183	12/18/2014	17545	HAYWARD PIPE AND SUPPLY	ASTD PARTS & MATERIALS	\$376.62	\$376.62
156014	12/4/2014	20141111	JUDITH BECK	PHOTOGRAPHY SERVICE - BOARD & GM	\$375.00	\$375.00
156131	12/11/2014	9735807449	VERIZON WIRELESS	WIRELESS SERV 10/21/14-11/20/14	\$356.76	\$356.76
156080	12/11/2014	20141118	LAURIE BRENNER	EXP REIMB: AIRFARE - UTILITY MANAGEMENT CONFERENCE	\$353.20	\$353.20
156264	12/26/2014	99032	EUROFINS AIR TOXICS INC	5 LAB SAMPLE ANALYSIS	\$350.00	\$350.00
156024	12/4/2014	20141125.10	DALE HARDWARE INC	11/14 - ASTD PARTS & MATERIALS	\$337.76	\$337.76

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156188	12/18/2014	20141215	PAULETTE JACOBS-ROBERSON	EXP REIMB: FOOD & SUPPLIES FOR J. ROLETTO'S RETIREMENT PARTY	\$337.12	\$337.12
156109	12/11/2014	20141209	PETTY CASH	PETTY CASH REPLENISHMENT	\$335.03	\$335.03
156133	12/11/2014	20141208	JANINNE WARD	EXP REIMB: RETIREMENT GIFT - D LIVINGSTON	\$330.00	\$330.00
156194	12/18/2014	20141209	MARVIN C MAH, OD	SAFETY GLASSES - G. MOY	\$330.00	\$330.00
156091	12/11/2014	76318	GORILLA METALS	ASTD METAL, STEEL, STAINLESS, AND ALUMINUM	\$141.88	\$317.44
	12/11/2014	76354		ASTD METAL, STEEL, STAINLESS, AND ALUMINUM	\$117.61	
	12/11/2014	76374		ASTD METAL, STEEL, STAINLESS, AND ALUMINUM	\$57.95	
156015	12/4/2014	10473900	BLAISDELL'S	ASTD OFFICE SUPPLIES	\$45.85	\$307.98
	12/4/2014	10472110		2 - 3 MONTH WALL CALENDARS	\$31.73	
	12/4/2014	1046529		1 EA WORKSTATION & INSTALLATION FEE	\$129.74	
	12/4/2014	1047942-0		2 DZN PENS	\$25.60	
	12/4/2014	10477570		ASTD OFFICE SUPPLIES	\$75.04	
156106	12/11/2014	41740634	OFFICE TEAM	TEMP LABOR-BLANCHETTE, V., WKEND 11/14/14	\$304.80	\$304.80
156012	12/4/2014	277843	ALLIANT INSURANCE SERVICES INC	QUARTERLY REPORT&PREMIUM-PHYSICAL DAMAGE POLICY	\$301.00	\$301.00
156029	12/4/2014	13383	DUBLIN SAN RAMON SVCS DISTR	2015 ALAMEDA CTY SCIENCE & ENGR FAIR SPONSORSHIP	\$300.00	\$300.00
156090	12/11/2014	1841069323	GOODYEAR COMM TIRE & SERV CTRS	1 EA TIRE	\$299.98	\$299.98
156094	12/11/2014	997720141127	HOME DEPOT CREDIT SERVICES	MONTHLY HARDWARE STMT - NOV 2014	\$298.56	\$298.56

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156175	12/18/2014	76453	GORILLA METALS	ASTD METAL, STEEL, STAINLESS, AND ALUMINUM	\$66.05	\$298.44
	12/18/2014	76468		ASTD METAL, STEEL, STAINLESS, AND ALUMINUM	\$207.06	
	12/18/2014	76497		ASTD METAL, STEEL, STAINLESS, AND ALUMINUM	\$25.33	
156269	12/26/2014	99597	PREFERRED ALLIANCE INC	NOVEMBER 2014 SERVICE FEE	\$273.00	\$273.00
156299	1/2/2015	20141223	WEF-WATER ENVIRONMENT FEDERATI	WEF MEMBERSHIP C LI	\$272.00	\$272.00
156053	12/4/2014	20141202	MICHELLE POWELL	EXP REIMB: BOARD RECOGNITION FOR FAMILY	\$67.45	\$266.81
	12/4/2014	20141201		EXP REIMB: CASA CONFERENCE LODGING	\$199.36	
156239	12/18/2014	87242	TOYOTA MATERIAL HANDLING INC	REPAIR ELECTRIC CART	\$258.00	\$258.00
156240	12/18/2014	15620481	TRI DIM FILTER CORPORATION	100 TRI-DEK 15/40 2 PLY PADS	\$252.45	\$252.45
156242	12/18/2014	5603	TURNER RISK CONSULTING INC	TRAFFIC FLAGGER TRAINING - SOTO	\$250.00	\$250.00
156275	12/26/2014	20141218	KIM TRUONG	EXP REIMB: LUNCH IT BROWN BAG	\$239.00	\$239.00
156127	12/11/2014	20141208	KIM TRUONG	EXP REIMB: TEAM SAFETY RECOGNITION	\$235.00	\$235.00
156285	1/2/2015	3H9382	HARRINGTON INDUSTRIAL PLASTICS	ASTD PVC FITTINGS	\$232.83	\$232.83
156287	1/2/2015	200477373	IRON MOUNTAIN	DATA/MEDIA OFF-SITE STORAGE~	\$224.58	\$224.58
156234	12/18/2014	20141201	SPOK INC	DECEMBER 2014 PAGER SERVICE	\$220.80	\$220.80
156222	12/18/2014	916002272067	REPUBLIC SERVICES #916	ROLL OFF ON CALL - NOVEMBER 2014	\$220.32	\$220.32
156020	12/4/2014	340958	CHEMETRICS INC	8 EA SULFIDE AMPOULES FOR HEADWORKS	\$212.63	\$212.63
156219	12/18/2014	14542	R & S ERECTION OF S ALAMEDA	REPAIR: DOOR NOT CLOSING WITH OPERATOR	\$211.00	\$211.00
156095	12/11/2014	842601	INTERNATIONAL PAINT LLC	ASTD PAINT SUPPLIES	\$209.50	\$209.50

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156111	12/11/2014	1690000009080	RED WING SHOE STORE	SAFETY SHOES - COGGINS	\$208.00	\$208.00
156221	12/18/2014	1690000009145	RED WING SHOE STORE	SAFETY SHOES - COSTELLO	\$208.00	\$208.00
156277	12/26/2014	20141218.1	AUDREY VILLANUEVA	EXP REIMB: IAC LUNCH MEETING	\$184.47	\$205.84
	12/26/2014	20141218.2		EXP REIMB: 7 KEYS TO PRODUCTIVITY	\$21.37	
156196	12/18/2014	123261	MAZZEI INJECTOR	10 EA CR-2 CHECK VALVE ASSEMBLY FOR THE	\$199.52	\$199.52
156292	1/2/2015	20141229	JOSE RODRIGUES JR	EXP REIMB: FINAL INSPECTION 2 TRUCKS - LA	\$191.80	\$191.80
156138	12/18/2014	9033307412	AIRGAS NCN	2 CYL OXYGEN	\$190.12	\$190.12
156173	12/18/2014	1186432401	GLACIER ICE COMPANY INC	138 EA 7-LB BAGS OF ICE	\$182.16	\$182.16
156238	12/18/2014	1281324	TOTAL FILTRATION SERVICES INC	10 FILTER HVAC EXHAUST OVERSPRAY	\$176.29	\$176.29
156121	12/11/2014	20141210	KRISTINA SILVA	EXP REIMB: MANAGEMENT MEETING LUNCH	\$176.23	\$176.23
156118	12/11/2014	20141208	RT NAHAS COMPANY	SEWER SERVICE CHARGE REFUND	\$174.27	\$174.27
156294	1/2/2015	85340220141219	SAN FRANCISCO WATER DEPT	SERVICE 11/21/14 TO 12/19/14	\$170.93	\$170.93
156123	12/11/2014	20141204	SWRCB - CERTIFICATIONS	GRADE I RENEWAL-VERRELLI	\$170.00	\$170.00
156058	12/4/2014	85340220141121	SAN FRANCISCO WATER DEPT	SERVICE 10/22/14 TO 11/20/14	\$166.04	\$166.04
156233	12/18/2014	11061699	SPECTRUM LABORATORY PRODUCTS	1 MAGNESIUM CHLORIDE, HEXAHYDRATE, CRYSTAL, REAGENT	\$140.70	\$140.70
156232	12/18/2014	20141218	KRISTINA SILVA	EXP REIMB: CIP DECEMBER BIRTHDAYS	\$27.98	\$127.88
	12/18/2014	20141211		EXP REIMB: 2014 HOLIDAY POTLUCK	\$99.90	
156085	12/11/2014	251707	CURTIS & TOMPKINS LTD	3 EA LAB ANALYSIS	\$120.00	\$120.00
156016	12/4/2014	20141202	LAURIE BRENNER	EXP REIMB: SNACKS FOR ALT COMP CEREMONY	\$119.76	\$119.76

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156120	12/11/2014	845400541	SHARP BUSINESS SYSTEMS	MTHLY MAINTENANCE BASED ON USE	\$115.71	\$115.71
156259	12/26/2014	20141201	ARGUS, THE	24 WEEK SUBSCRIPTION END 06/2015	\$114.00	\$114.00
156265	12/26/2014	285344424	FEDERAL EXPRESS CORPORATION	SHIPPING SERVICE - FMC	\$102.17	\$102.17
156056	12/4/2014	69303	REMOTE SATELLITE SYSTEMS INT'L	IRIDIUM SVC FEE DECEMBER 2014	\$97.90	\$97.90
156225	12/18/2014	20141215	JOSE RODRIGUES JR	EXP REIMB: UTILITY MGMT COURSE	\$91.18	\$91.18
156271	12/26/2014	20141222	JAMES SCHOFIELD	EXP REIMB: LUNCH EPA PRESENTATION HELP	\$90.11	\$90.11
156079	12/11/2014	1048483-0	BLAISDELL'S	3 EA 3-MO WALL CALENDAR	\$47.60	\$88.37
	12/11/2014	1048420-0		ASSORTED OFFICE SUPPLIES	\$31.20	
	12/11/2014	1049122-0		3 EA WHITE-OUT	\$19.02	
	12/11/2014	1049073		ASSORTED OFFICE SUPPLIES	\$65.55	
	12/11/2014	1046529-0		CREDIT FOR FURNITURE INSTALLATION	\$-75.00	
156139	12/18/2014	4047286120141205	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 12/03/14 - PASEO PADRE	\$31.95	\$87.90
	12/18/2014	4071038120141201		SERV TO: 11/18/14-BENSON ROAD	\$55.95	
156280	1/2/2015	10509720	BLAISDELL'S	ASTD OFFICE SUPPLIES	\$78.59	\$78.59
156009	12/4/2014	9033307413	AIRGAS NCN	ASTD PARTS & MATERIALS	\$75.05	\$75.05
156190	12/18/2014	1372089	LAMOTTE CHEMICAL	ASTD SULFIDE TEST SOLUTIONS	\$70.44	\$70.44
156042	12/4/2014	519591	HULBERT LUMBER SUPPLY	ASTD LUMBER SUPPLIES	\$67.96	\$67.96
156179	12/18/2014	9129437	HACH COMPANY	1 EA PAO 0.00564N	\$59.01	\$59.01
156197	12/18/2014	20141218	REGINA MCEVOY	EXP REIMB: LUNCH FOR BOARD CLOSED SESSION	\$57.38	\$57.38

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
156035	12/4/2014	76246	GORILLA METALS	ASTD METAL, STEEL, STAINLESS, AND ALUMINUM	\$54.87	\$54.87
156010	12/4/2014	20141202	ALAMEDA COUNTY TREASURER	CEQA NOTICE OF EXEMPTION-JARVIS	\$50.00	\$50.00
156071	12/11/2014	20141211	ALAMEDA COUNTY TREASURER	ALVARADO-NILES ROAD SS REHABILITATION	\$50.00	\$50.00
156263	12/26/2014	20141201	CSDA CAL SPECIAL DIST ASSOC	MEMBERSHIP DUES 7/01/14-6/30/15	\$50.00	\$50.00
156246	12/18/2014	9853494	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 12/06/14	\$23.85	\$47.62
	12/18/2014	9853474		SHIPPING CHARGES W/E 11/22/14	\$23.77	
156026	12/4/2014	615320141118	DISH NETWORK	DEC 2014 - SERVICE FEE	\$45.85	\$45.85
156093	12/11/2014	255824	HANIGAN COMPANY INC	1 LOT BUSINESS CARDS	\$38.24	\$38.24
156195	12/18/2014	77746591	MATHESON TRI-GAS INC	MONTHLY CYLINDER RENTAL - NOV 2014	\$34.30	\$34.30
156152	12/18/2014	72072	STATE OF CALIFORNIA	1 NEW HIRE FINGERPRINTS	\$32.00	\$32.00
156019	12/4/2014	274565	CENTERVILLE LOCKSMITH	ASTD KEYS & SUPPLIES	\$31.70	\$31.70
156185	12/18/2014	5503050	HOSE & FITTINGS ETC	1 EA F471TC-06-06-08-08-20.5	\$28.84	\$28.84
156051	12/4/2014	224720141122	PACIFIC GAS AND ELECTRIC	SERV TO 11/21/14 CS TRAINING TRAILER	\$27.32	\$27.32
156218	12/18/2014	594783	PUBLIC SURPLUS AUCTION	SURPLUS SALE FEE: HACH LDO PROBES	\$21.09	\$21.09
156248	12/18/2014	9736320580	VERIZON WIRELESS	WIRELESS SERV 11/02/14-12/01/14	\$14.04	\$14.04
156066	12/4/2014	9853454	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 11/08/14	\$12.31	\$12.31

**UNION SANITARY DISTRICT
CHECK REGISTER
11/29/2014-1/02/2015**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
Invoices:				Checks:		
Credit Memos :		3	-480.89			
\$0 - \$1,000 :		366	108,902.24	\$0 - \$1,000 :	160	65,764.59
\$1,000 - \$10,000 :		111	360,055.03	\$1,000 - \$10,000 :	93	323,991.50
\$10,000 - \$100,000 :		37	861,836.53	\$10,000 - \$100,000 :	34	940,556.82
Over \$100,000 :		7	1,869,327.77	Over \$100,000 :	5	1,869,327.77
Total:		524	3,199,640.68	Total:	292	3,199,640.68



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers
Paul R. Eldredge
General Manager
District Engineer

David M. O'Hara
Attorney

DATE: January 5, 2015

MEMO TO: Board of Directors - Union Sanitary District

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

SUBJECT: Agenda Item No. 12b – Meeting of January 12, 2015
Information Item: **Pine Street Easement Improvements Project**

Recommendation

This is an information item.

Background

Union Sanitary District (District) owns and maintains a 12-inch diameter VCP sewer main that parallels Mammoth Creek in eastern 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

The project's original purpose was to restore erosion protections around the pipe bridge's eastern foundation by working within the creek channel. An initial, simple design concept utilizing gabion baskets was abandoned due to the Regional Water Quality Control Board's (RWQCB) prohibition of such installations in creek channels. Gabion baskets consist of wire mesh containers that are filled with riprap and can be utilized to control soil erosion. When placed in a creek channel, however, they become an obstacle to wildlife passage, and either merely displace the existing soil erosion problem or potentially cause an entirely new one in another part of the channel.

Staff then solicited proposals for other in-channel design alternatives. Four slightly more complex concepts (rock stop grade control and direction flow weir, channel realignment, micro piles, and soil nail wall) were identified and presented to the RWQCB; however, these were not preferred by the RWQCB since they did not offer a viable, stable, and long-term solution adequate to handle the nature of the changing watershed.

As a result, staff modified its approach and sought structural design alternatives that kept the sewer pipe support system out of the stream channel entirely during construction, as well as eliminated the need for intermediate foundations within the stream channel (such as the existing pipe bridge). Several design concepts were carefully evaluated and two preferred alternatives were identified: a casing and carrier pipe bridge, or an I-beam frame bridge. Staff presented these two design alternatives to the RWQCB, proposing to replace the existing pipe bridge with a new one, and received tacit concurrence to proceed.

Design & Construction Schedule

Staff solicited proposals for providing design services for the Pine Street Easement Improvements Project, 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. The scope of services for Task Order No. 1 includes agency coordination and permitting, a detailed evaluation of the two design alternatives, field surveying, geotechnical investigation, and initial project design including plans and specifications. Task Order 1 work is expected to be completed by late April, 2015.

A second task order for final project design will follow, with full design completion expected by summer, 2015, barring any delays by permitting agencies.

Construction completion is expected by fall, 2015.

PRE/SG/RC/CE;ks

Attachments: Exhibit A – Location Map
Exhibit B – Photos



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



**Directors**

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
*General Manager/
District Engineer*

David M. O'Hara
Attorney

DATE: January 5, 2015

MEMO TO: Board of Directors - Union Sanitary District

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

SUBJECT: Agenda Item No. 12c - Meeting of January 12, 2015
Information Item: **High Speed Aeration Blower Project**

Recommendation

This is an information item.

Background

In January 2015, the General Manager will execute an Agreement and Task Order No. 1 with Carollo Engineers in the amount of \$96,500 to design the High Speed Aeration Blower Project. The purpose of the Project is to install one (1) 700-horsepower (hp) high speed aeration blower at the west aeration blower room, improve the blower room's ventilation system, and replace existing pipe gaskets and check valves on the aeration pipe header. The Project is budgeted in the Renewal and Replacement Fund in FY 15 as part of a larger Aeration System Rehabilitation project that includes the replacement of all west aeration building blowers and the rehabilitation of concrete and piping in the aeration basins.

The project is being completed for the following reasons:

1. The plant process that uses the most energy is the activated sludge process where large aeration blowers continuously deliver air to the activated sludge in the aeration basins. The installation of high speed aeration blowers should improve the energy efficiency of the activated sludge process. Due to the use of either air or magnetic bearings, high speed aeration blowers typically rotate

between 10,000 and 60,000 rotations per minute (rpm) compared to 3,600 rpm of the District's existing multi-stage aeration blowers. This new bearing technology makes the high speed blowers more efficient over a wide range of flows. Additionally, high speed blowers incorporate variable frequency drives and controls to maintain efficiency when wastewater flows are lower.

2. The three (3) existing 700-hp multi stage aeration blowers are approximately twenty years old and are at the end of their useful life. As mentioned above, they are currently on the ten-year CIP plan for replacement. The installation of the new high speed blower allows the District to pilot the new blower technology for future replacement considerations. If the new blower is deemed by staff to be successful then the eventual replacement of the multi stage aeration blowers may be done with high speed aeration blowers. The District also has an existing 300-hp multi-stage "jockey" blower that supplements the air supplied by the larger units. This unit was installed in 2007 and will not be replaced.

Below is a comparison of the proposed high speed blower vs. the multi-stage blower:

	High Speed Blower	Multi-Stage Blower
Estimated Unit Cost	\$500,000	\$300,000 *
Horsepower Rating	700 hp	700 hp
Nominal Blower Efficiency	70% to 82%	50% to 70%
Annual Power Cost **	\$466,802	\$520,203

* Cost is for a new Hoffman multistage blower.

** Assuming an energy cost of \$0.08 per kW-hr, the difference in the annual operating cost is \$53,401. When factoring in PG&E demand charges and peak power pricing schedules, the potential annual energy savings could be up to \$80,000.

3. The Project may qualify for the California Performance Optimization Program (CalPOP) incentive with the installation of the high speed blower. CalPOP is administered by PG&E and provides engineering services to identify energy saving measures while also providing incentives for the implementation of measures that improve wastewater processes, reduce operating costs, and save energy. The initial study used to recommend the installation of a high speed blower was paid for by PG&E as part of CalPOP. If successful, the District may receive an incentive of approximately \$65,000.
4. Ventilation improvements will allow the west aeration blower room to operate at cooler temperatures. The cooler air is expected to improve long term performance of all the aeration blowers.

5. The District had previously deferred replacement of failing gaskets and check valves in the aeration piping due to the lack of any lifting mechanism or lifting points in the blower room. The failing gaskets allow the pressurized and heated air from the aeration blowers to escape into the blower room, which increases the room temperature. Staff decided to include this work in the Project.

Project Schedule

Carollo is anticipated to complete the detailed design of the Project by June of 2015. Construction is expected to take approximately 6 months, with a project completion date to occur in either late 2015 or early 2016.

Project Cost Estimate

At this time the Project construction costs are estimated to be approximately \$1,100,000. The construction cost estimate will be refined and updated as the Project's final design is completed.

PRE/SG/RC/CP;ks

Attachment: Figures 1 through 3



Figure 1 – Existing Multi Stage Aeration Blower



Figure 2 – New High Speed Aeration Blower



Figure 3 – New High Speed Aeration Blower (Internal View)



**Summary of the EBDA Commission Meeting
Thursday, December 18, 2014 at 9:30 a.m.**

Prepared by: P. Eldredge

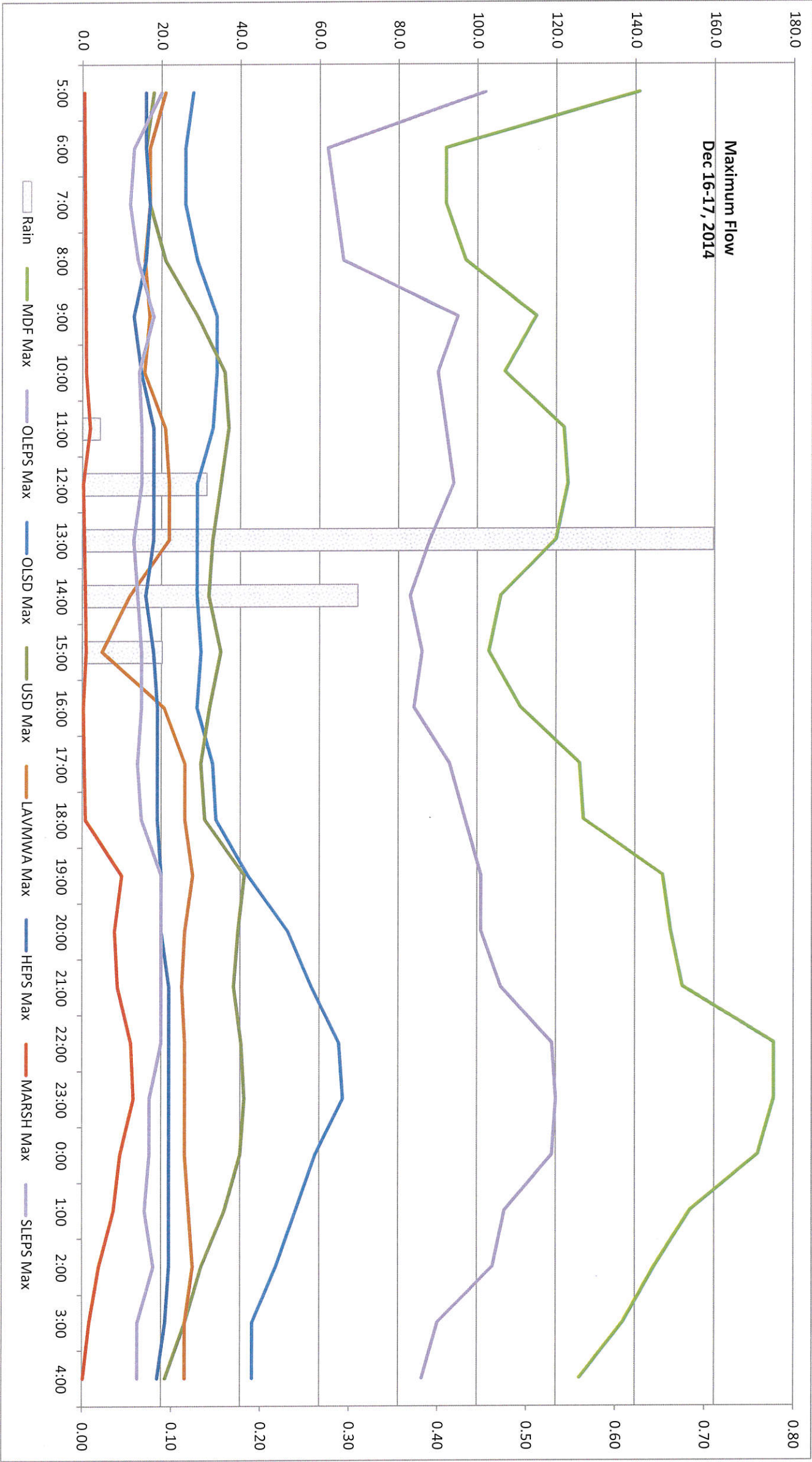
- Commissioners Dias, Johnson, Peixoto, Fernandez, and Prola were all present. Commissioner Handley was absent, and alternate Fernandez attended on behalf of USD.
- The Consent Calendar was approved unanimously and included the Commission Meeting Minutes, the List of Disbursements, the Treasurer's Report, and the final adjusted Treasurers Report for November 2014.
- The Commission unanimously approved the reports from the Managers Advisory Committee, Financial Management, Regulatory Affairs, and Operation & Maintenance Committees. The following items were discussed:
 - **Managers Advisory Committee (MAC)** Guest speaker David Schneider of Anaergia addressed the MAC with a presentation on Biogas Energy Maximization at the MAC meeting on Wednesday, December 17th. The MAC was also briefed on December storm response. The General Manager thanked Member Agency staff for their cooperation and hard work to get through the recent wet weather events.
 - **Financial Management Committee** approved the November List of Disbursements and Treasurer's Report. The Committee discussed CASA's revised assessment of membership dues (\$1,500 vs the proposed of \$8,500). The Committee recommends EBDA withdraw from CASA for one year. Staff will move forward with the Request for Proposal for independent auditing services. For public transparency the Authority's existing auditor, Chavan & Associates, LLP will not be invited to submit a proposal. The Authority's general counsel assured the Commission that there is no conflict of interest between the agencies they represent and there are *ethical walls* between attorneys. The Committee was also updated on the status of EBDA's Conflict of Interest code, which did not require changes during this biennial review. Lastly, EBDA's CalPERS retirement account is ~86% funded and the Unfunded Accrued Liability is \$485,531 and EBDA's anticipated rate for the next FY is approximately 12%.

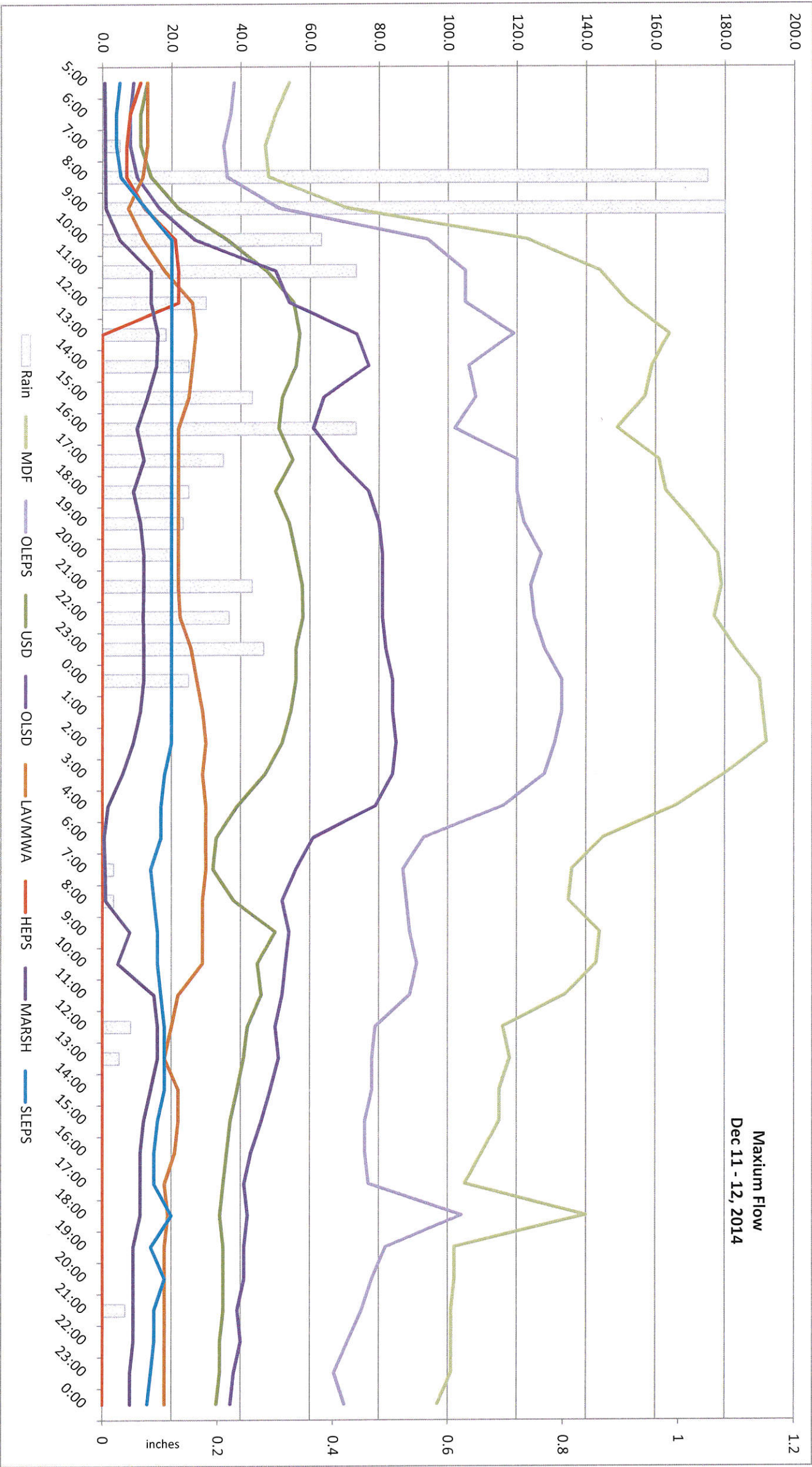
Commissioner Dias mentioned that all agencies should be closely looking into their unfunded PERS liabilities due to the long term costs of paying this off through PERS based upon Oro Loma's most recent experiences with PERS. He recommended that all agencies should be looking into this further.

- **Regulatory Affairs Committee** reviewed the status report (informational only, no action required) for the NPDES permit. EBDA staff did not determine any violations of the combined effluent in November of 2014. EBDA has not had any permit violations since April of 2006. The General Manager updated the Committee on the status of the State Coastal Conservancy grant and the results of the first technical review workshop that was held at the Hayward Shoreline Interpretive Center on November 7th. The next workshop will take place in the early part of 2015 and will include more member agency staff.
- **O&M Committee** and the General Manager reviewed recent wet weather events. Diversion to the Hayward Ponds was required due to the high flows throughout the system. There has been some discussion at the MAC level about putting together a long term wet weather action plan that would include utilizing the Hayward ponds, and possible other facilities, as ongoing flow buffer during these wet weather events. The General Manager acknowledged the efforts of EBDA's O&M Manager, David Stoops. Through the concerted efforts of all member agency staffs EBDA did not have any violations during this event, see attached charts for a summary of the EBDA flows during the most recent storm events. The GM mentioned that the new bisulfite pumps at the marina de-chlorination facility are working very well. On a typical day, the facility uses between 50 and 200 gallons per day. During this most recent storm event the facility used 3,500 gallons in one day due to a combination of high flows and a higher chlorine residual from some of the EBDA agencies (USD was not one of them). There will be some future discussions about chlorine residuals and wet weather events to make sure each agency is dosing the appropriate amount of chlorine.

Although not specifically mentioned at the meeting, the O&M report provided a brief update on the Alvarado Effluent Pump Station variable frequency drive (VFD) project. Bids were received for the VFD's, and Royal Wholesale from San Leandro was the lowest responsive responsible bidder. EBDA is currently anticipating the award of the contract for installation of the VFD's will be considered at the January EBDA meeting.

The Commission had no resolutions for consideration.





Undissolved flushable wipes challenge cities sewers

BY HENRY GOLDMAN
Bloomberg News

NEW YORK — The ancient Greeks used clay and stone; the Romans, sponges and salt water. Americans made do with rags, newspapers or mail-order catalogs until 1890, when the Scott brothers popularized toilet paper on a roll.

Only in the past decade have grownups seized upon moist “flushable” wipes similar to those that clean baby bottoms, a product that has become a prized asset in a flat market. Accelerating sales are demonstrated inside the world’s sewers, where tons clog equipment. From New York to London, the hygiene fad costs governments millions of dollars a year.

As profit drive collides with the public’s interest in functional wastewater infrastructure, officials are discussing regulation and how to assess the cost of ungunking the system.

At stake is nothing less than “the long-term viability of the product category,” said David Rousse, president of the Association of the Nonwoven Fabrics Industry, a Cary, N.C.-based trade group that represents manufacturers.

Wastewater officials in New York and other cities say products advertised as flushable aren’t, and that adults use products such as baby wipes that are too resilient to dissolve.

New York City, which runs the largest U.S. sewer system, has spent more than \$18 million during the past five years replacing and repairing sewer-plant pumps, gears, valves and screens clogged when the cloth-like material didn’t disintegrate.

“A growing number of adults think that if it’s good for baby, it’s good for them,” said Vincent Sapienza, deputy commissioner of the city Department of Environmental Protection. “Many brands may say they’re flushable, but they wind up in our sewer plants fully intact.”

Wipes compose about a third of the debris choking screens and pumps in U.S. treatment plants, and about 30 percent were sold as flushable, said Cynthia Finley, director of regulatory affairs for the National Association of Clean Water Agencies in Washington.

In New York, the city must pay workers to pull the stuff off screens and pumps and to cart it to landfills. Residual material extracted increased to more than 40,000 tons last year from 21,000 tons in 2008, Sapienza said.

The globs aren’t unique to New York, which processes 1.3 billion gallons of waste a day. In London, a 15-ton wad of wet wipes and cooking grease last year accumulated to the size of a school bus inside a sewer line, preventing neighborhood toilets from flushing. It took more than three weeks for Thames Water Utilities Ltd. to break up the “fatberg.”

Similar blockages have been experienced in Orange County; Columbus, Ga.; and Vancouver, Wash. Portland, Maine’s water district is still paying for the \$4.3 million it borrowed in 2009, an amount almost equal to half its annual operating costs, for screens to catch wipes before they ruin pumps. In Canada, the Municipal Enforcement Sewer Use Group, an association of 25 communities, estimated wipes clogs cost the public at least \$230 million a year.

Sales of moist flushable wipes are a source of sales growth in the household paper-products industry, rising 23 percent to \$367 million from 2008 to 2013, according to Mintel Group Ltd., an international market-research firm.

“The average consumer believes if a product clears their toilet bowl, it’s flushable,” said Jamie Rosenberg, a Chicago-based household and personal-care analyst for Mintel.

Sales have grown thanks to frank and funny advertising, Rosenberg said.

As wastewater officials become vocal, manufacturers such as Kimberly-Clark and Procter & Gamble Co. have played defense.

“We have invested signifi-

cant time and resources to understand the difficult issues faced by agencies that process wastewater and to develop technologies to make sure that flushable wipes sold by K-C will be considered flushable," said Eric Bruner, a Kimberly-Clark spokesman.

The company is part of a task force organized to work with a group of municipal wastewater authorities to

quantify how much of the clogging is due to flushable wipes. The group will also develop labeling standards.

It would be technically possible to make all wipes flushable, Rousse said. The reason they're not, he said, is baby wipes' manufacturing is cheaper than the flushable kind, and "a low price point is necessary to move them."

Experiments on the wipes

have been conducted by Consumer Reports magazine and the Plainfield Area Regional Sewer Authority in New Jersey. Each found that Kimberly-Clark's Cottonelle Fresh Care and Scott Naturals flushable wipes did dissolve. Procter & Gamble's Charmin Freshmates and Wal-Mart Stores' Equate Flushable Wipes didn't.

"We put them into a mixer

filled with water and spun them at a slow speed to see how long it took for them to break down," said Cecilia Lehrman, Consumer Reports deputy editor for home and appliances. After standing in water for 24 hours, the Procter & Gamble and Wal-Mart wipes remained intact, she said.

The companies' websites advise consumers to discard

most wipes in the trash, and each say those advertised as flushable meet industry-set guidelines. They package nonflushable wipes with a logo on the box depicting a toilet with a line slashed through it, Rousse said.

Do-not-flush instructions are usually in small print in a hard-to-find place on the box, said Finley, of the Association of Clean Water Agencies.

Thursday, December 4, 2014

'WE HAVE A LONG WAY TO GO'

A lot of rain but little relief



Knee-deep: Moises Cruz, maintenance supervisor for Lake Royal Apartments, tries to clear a drain Wednesday at the complex in Oakland.

LAURA A. ODA/
STAFF

Storm packs punch, but barely makes a dent in area drought conditions

By Lisa M. Krieger

lkrieger@bayareanewsgroup.com

So much rain has fallen in the Santa Cruz Mountains that Terri Hunsinger captured 12,000 gallons on her metal roof to use for drinking, cleaning and household chores. Yet her family still only takes showers, not baths, to conserve. "I have gotten used to that," she says.

Parts of the Bay Area have gotten almost as much rain in the past two days as fell all of last year. Recent storms put us well above our normal rainfall average. And — yes — we're still in a drought.

The simple explanation behind that frustrating fact is this: Most of the water causing mudslides, downing trees and snarling traffic will not flow into our faucets.

The Wednesday morning commute was a headache, although the California Highway Patrol reported fewer crashes than the previous

morning. Standing water in roadways was a hazard, especially on heavily traveled Mission Boulevard in Fremont, where police closed the northbound lanes at 8 a.m.

San Francisco International Airport canceled 112 flights Wednesday, and flights in and out had delays of 30 to 60 minutes, according to an airport duty manager. Mineta San Jose International Airport and Oakland International Airport were doing business as usual.

See **STORM**, Page 8

Storm

Continued from Page 1

So why are we still taking short showers?

A lot of it is being absorbed by thirsty landscape. Only a little percolates down into wells and groundwater basins over a long period of time. "If you wet a dry sponge, it will take quite a while before you see water dripping down out of it," said Marty Grimes of the Santa Clara Valley Water District.

There's another big problem: These storms are too warm. To be truly useful, rain needs to turn into snow when it hits the Sierra — because that's where next summer's water is stored.

Snowpack is only 20 percent of normal. By comparison, rainfall here in the Bay Area is between 121 percent and 165 percent normal.

"It needs to be snow that acts as a bank that we can draw upon, in the spring," said National Weather Service meteorologist Steve Anderson.

Over the past five days,

San Jose has had 3.68 inches of rain; Oakland, 3.62 inches; Concord, 2.65 inches; San Francisco, 4.33 inches and Ben Lomond, a stunning 10.12 inches.

Thursday is expected to be mostly cloudy, with a chance of showers. Showers also are likely Friday.

The people who benefit most from the rain are folks like Hunsinger, who has filled five large rain barrels by capturing every drop that falls on her Los Gatos roof.

"We can now do laundry at home instead of laundromat, flush toilets after peeing and take more than a 3-minute shower," she said. "Rain washes our cars and waters our plants. There's no more fire fear."

"Life is more relaxed, water-wise, which is a big thing," she said. "Thank God for rain."

But residents who rely on wells say they've seen no improvement at all.

At Letha Welch's home, where a once-bountiful well no longer sustains a family of five, "we still ran short of rain to refill the aquifer."

People with even deeper wells will have to wait lon-



MIKE KOOZMIN/SAN FRANCISCO EXAMINER

Crews work around a sinkhole that formed Wednesday in the Richmond district of San Francisco after a night of heavy rains. A second day of rain fell across California on Wednesday, but the storms so far have had little impact on drought conditions.

ger.

In the rural Central Valley town of Alpaugh, "our wells are so deep — 1,320 and 1,100 feet — that water is going to percolate into them very slowly," said John Burchard, who manages the town's water supply. "It will take some time."

Urban water systems for

Bay Area cities rely on reservoirs and snow — and for them, it's as if no rain fell at all.

There's only about one percent more water in reservoirs in the Santa Clara Valley Water District than before the storms, Grimes said. Reservoirs in the valley gained about 800 acre

AND THE RAIN FELL

This week's storms have boosted rainfall totals well above average.

City	Rain to date	Normal to date
San Jose	4.94	3.02
Oakland	5.05	4.18
San Francisco	6.79	4.94

Source: National Weather Service

feet of water — a drop in the reservoirs' 169,000 acre-foot bucket.

Snow is the primary source of water for reservoirs owned by the San Francisco Public Utilities Commission and East Bay Municipal Utility District.

With so little snowpack, "we have a long way to go," said Andrea Pook of the East Bay agency. "Our reservoirs are only half full."

But farmers and ranchers welcome the rain. In the Salinas Valley, it is quenching the thirst of newly transplanted strawberry plants and aiding germination of oat seeds, an important cover crop, said April Mackie of the Monterey County Farm Bureau. Up in Siskiyou County, rivers are running, fish are swimming

and cattle have been released into dormant alfalfa fields.

Schoolchildren at Palo Alto's Walter Hayes Elementary School were excited to watch the movies "The Little Mermaid" and "Cars" instead of playing outside.

At The Book Shop in Hayward, clerk Beverly Hazell said, "At least this will spruce things up. My lawn looks better, even though it's mostly weeds."

"I love it!" said Castro Valley resident Jerry Burke. "I wish it would rain every day for six months."

Over in Alameda, Matthew Ramirez knew the score: "The rain is putting a dent in the drought, but it's not enough. We still need a lot more, like in biblical proportions."

"It's funny to see your topsoil washed away in the middle of a drought," said Los Gatos resident Greg Illes, "but it's all part of a bigger picture."

Staff writers Rebecca Parr and Katie Nelson contributed to this report. Contact Lisa M. Krieger at 650.409.1008

TREE RINGS REVEAL THE SEVERITY

How historic is this drought? 1,200 years

As area absorbs season's first big soaking, new study provides startling context

By Paul Rogers

progers@mercurynews.com

The last three years of drought were the most severe that California has experienced in at least 1,200 years, according to a new scientific study published Thursday.

The study provides the state with breathtaking new historical context for its low reservoirs and sinking water tables, even as

ONLINE EXTRA

Join San Jose Mercury News reporter Paul Rogers for an online chat today, 12-1 p.m., as he discusses all things drought at www.mercurynews.com.

California celebrated its first good soaking of the season.

Analyzing tree rings that date back to 800 A.D. — a time when

Vikings were marauding Europe and the Chinese were inventing gunpowder — there is no three-year period when California's rainfall has been as low and its temperatures as high as they have been from 2012 to 2014, the researchers found.

"We were really surprised. We didn't expect this," said one of the

See **DROUGHT**, Page 12



Researcher Kevin Anchukaitis collects a tree-ring sample from a 300-year-old blue oak as part of a new study of the state's drought.

COURTESY OF DANIEL GRIFFIN

Drought

Continued from Page 1

study's authors, Daniel Griffin, an assistant professor in the University of Minnesota's department of geography, environment and society.

The report, published in the journal of the American Geophysical Union, was written by researchers at Massachusetts' Woods Hole Oceanographic Institution and the University of Minnesota.

The scientists measured tree rings from 278 blue oaks in Central and Southern California. Tree rings show the age of trees, and their width shows how wet each year was because trees grow more during wet years.

The researchers compared the information to a database of other tree-ring records from longer-living trees such as giant sequoias and bristlecone pines, dating back 1,200 years.

Meanwhile, the rain that California received this week provided a promising start to a winter that water managers say needs to be relentless and drenching to break the drought cycle.

"It's a good beginning," said Art Hinojosa, chief of hydrology at the state Department of Water Resources. "But we need storm after storm after storm if we

have any hope of getting out of the drought this year."

By April, he said, California needs at least eight more major storm systems like the one this week — as well as many smaller storms — to fill its dangerously low reservoirs and break the drought. Rain and snow this winter need to be at least 150 percent of average for the reservoirs to fill, Hinojosa said.

Above normal

This week's storm was the biggest to hit California in roughly two years. Many parts of the state received between 2 and 4 inches of rain, doubling or tripling their totals since July. Through Thursday night, San Jose received 3.79 inches, San Francisco 4.43 inches and Oakland 3.01 inches, bringing each city's rainfall to above-normal levels for the first time this year.

More important, several of the state's large reservoirs began to receive moderate amounts of runoff as the parched ground became saturated. Lake Shasta gained about 6,000 acre-feet through midnight Wednesday, and Oroville Reservoir in Butte County added 17,000 acre-feet. But that new water boosted Shasta's storage by less than 1 percent, leaving it at only 23 percent full. It added 3 percent at Oroville, which is now 26 percent full, the lowest level in its history for

California rainfall totals

Storms this week pushed the rainfall totals in most California communities above seasonal normal levels to date. But the state has a long way to go before the drought is over.

City	Rainfall level		Seasonal total	% of normal
	July 1-Nov. 27	Nov. 27-Thursday		
San Jose	1.27 in.	3.79 in.	5.06 in.	169%
San Francisco	2.46 in.	4.43 in.	6.89 in.	136%
Oakland	2.41 in.	3.01 in.	5.42 in.	127%
Concord	1.56 in.	2.73 in.	4.29 in.	n/a
Outside the Bay Area				
Los Angeles	0.48 in.	1.82 in.	2.30 in.	105%
Fresno	1.08 in.	0.43 in.	1.51 in.	75%
Monterey	3.11 in.	1.33 in.	4.44 in.	n/a

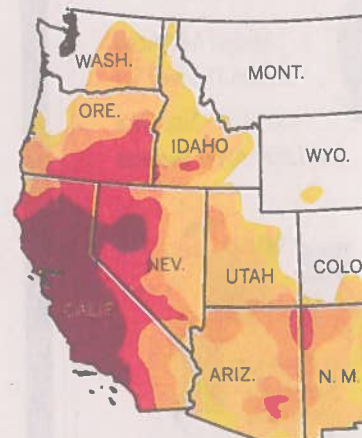
State still in drought

The majority of the state remains in "exceptional drought" — the worst condition, according to the federal government.

Drought intensity



As of Dec. 2



Source: National Weather Service, National Drought Mitigation Center and NOAA
BAY AREA NEWS GROUP

this time of year.

The Sierra snowpack told a similar story. A week ago, it was at 24 percent of the average for this time of year. Thursday, after a week of snow, it was at 39 percent — still far below normal.

But more rain and snow are on the way.

In the Bay Area, another cold front will be moving in on Friday and will hang around a couple of days, according to the National Weather Service.

"There will be rain Friday night and into Saturday and then partly clearing on Sunday," said forecaster Diana Henderson. "Then

there will be a few more showers on Monday, and the next system on the horizon will come in at the end of next week."

The Weather Service issued a report late Thursday saying that because of storms brewing as far away as Hawaii, projections out to Dec. 18 show that "wetter than normal conditions are favored."

Rainfall deficits

Experts emphasize that a three-year drought cannot be erased in a few days. Not only are reservoirs low, but there are huge "rainfall deficits" built up from the past three years.

San Jose normally receives 42.9 inches of rain in an average three-year period, for example. Between June 2011 and June 2014, it received just 22.8 inches, leaving the city 20 inches short. Similarly, San Francisco is 19 inches behind, Oakland 24 inches.

Overall, 94 percent of California remains in "severe drought," according to Thursday's edition of the Federal Drought Monitor, a weekly report from the U.S. Department of Agriculture and other agencies.

It was the tree-ring study showing California suffering its worst drought in 1,200 years, however, that received the most attention Thursday.

The researchers took core samples, which don't

harm the living trees, of oaks as old as 500 years and oak logs dating back more than 700 years, the University of Minnesota's Griffin said. And they sanded down the wood with extremely fine-grain sandpaper, magnifying the rings 40 times under a microscope and measuring them to within one one-thousandth of a millimeter.

They then compared the findings to the North American Drought Atlas, a detailed collection of other tree-ring data that goes back 1,200 years and includes measurements from ancient trees such as giant sequoias and bristlecone pines. The atlas calculates temperature and rainfall for those years by comparing the ancient tree rings with tree rings from the past 100 years, when modern records were kept.

Although there are 37 times over the past 1,200 years when there were three-year dry periods in California, no period had as little rainfall and as hot of temperatures as 2012-14, the scientists concluded.

With climate change already warming the Earth, the last three years in California could become a more recurring event, they said.

"This kind of drought is what we expect to see more of in the future," said Griffin. "Maybe the future is now."

Staff writer David E. Early contributed to this report.

DROUGHT MEASURES

Rate hike on tap for EBMUD customers

By Denis Cuff

dcuff@bayareanewsgroup.com

The price of water is going up next month for 1.3 million customers of the East Bay's largest water supplier.

The East Bay Municipal Utility District board on Tuesday agreed to impose a 14 percent surcharge starting in January to pay for an emergency water supply be pumped from the Sacramento River. The district is preparing for another increase in July if the drought persists.

Despite recent storms and another big one expected Wednesday,

officials said they face a serious risk of a water shortage if this turns out to be a dry winter.

"One storm doesn't end a shortage," said Eileen White, the district manager of water supply and operations. "It takes many storms."

The surcharge amounts to a \$4.30 increase in the monthly bill of an average single family home using 246 gallons per day. The 14 percent increase is applied to water volume charges, which make up the bulk of water bills.

See **WATER**, Page 2

Water

Continued from Page 1

The surcharge would be collected for up to six months.

The surcharge is the first real drought pain suffered by EBMUD, which until now had avoided rate increases and high-use penalties approved in some other Northern California water districts with more severe water shortages.

But White said the district can turn off the pumps and phase out the surcharge if December and January end up being exceptionally wet months.

"We don't want to take supplemental water we don't need," White said. "But we are planning for the worse."

The district will pump in 16,000 acre feet of Sacramento River water during January and February, and if it stays dry, another 19,000 acre feet of water in March and April.

"(It's) like the old song: It's better to be safe than sorry," said EBMUD Director Doug Linney. "We're buying an insurance policy against the (worst) case."

In a related drought action Tuesday, the board decided to increase its vol-

untary conservation goal for customers to 15 percent from the current 10 percent. Fifteen percent is still below the 20 percent reduction that Gov. Jerry Brown has asked from Californians.

In another action, the water board approved the framework for increasing the surcharge to up to 25 percent if it turns out to be an extremely dry winter and spring. In spring, the district bought 16,000 acre feet of Sacramento River water and delivered it to the East Bay through a joint pump and pipeline project done with Sacramento County. The district paid for it out of reserves, but it can't afford to do that with another water purchase, officials said.

Many Northern California water districts wait until spring to reassess whether to add, drop or change rates or surcharges. That is the season the big state and federal water projects announce their annual water allocations to urban and agricultural water districts.

EBMUD supplies tap water to homes and businesses from San Leandro in the south through Oakland and Berkeley to Rodeo and Pinole in the north, and east to Orinda, the San Ramon Valley and most of Walnut Creek.

DROUGHT RELIEF

House OKs California water bill

Legislation faces resistance from state's senators

By Michael Doyle

McClatchy Washington Bureau

WASHINGTON — Legislation addressing California's drought reached an inconclusive high-water mark Tuesday, passing the House on a largely party-line vote before trickling off to a bleak fate in the Senate.

While the Republican-controlled House approved the California water bill by a 230-182 margin, California's two Democratic senators oppose it with varying degrees of severity.

The Senate resistance and the bill authors' inability to reconcile competing state interests effectively renders the stand-alone California Emergency Drought Relief Act a Capitol Hill orphan. Last-minute efforts to add similar language onto a separate spending bill continue.

"The people in the Central Valley are living through a disaster, and this measure provides the temporary relief they need," House Speaker John Boehner, R-Ohio, said Tuesday.

The 26-page bill introduced by freshman Rep. David Valadao, R-Bakersfield, that passed the House split lawmakers along lines that were both partisan and regional. The state's long-standing divisions showed no sign of healing during the many months the water legislation has been in the air. If anything, the divisions appear exacerbated.

"Our collective energies should be devoted to a long-term solution for California's water needs in a way that rewards working together, as opposed to dividing interests," John Laird, secretary of the California Department of Natural Resources, wrote Tuesday.

During House debate Monday, Rep. Devin Nunes,

R-Visalia, denounced the "1 percent of California" that has "dumped our water out into the ocean," while Rep. George Miller, D-Martinez, decried with equal vehemence the "small number of farmers in the Central Valley" that want to "eviscerate" environmental protections.

All of the Democrats who represent portions of the ecologically sensitive Sacramento-San Joaquin Delta voted against the measure Tuesday. These Democrats say they were cut out from the negotiations. At one point, Rep. Jared Huffman, D-San Rafael, said House Republicans refused to brief California Democratic Sen. Barbara Boxer when she insisted on inviting House Democrats.

"It's a bill intended to help one region of California at the expense of endangered species that can end up hurting millions of dollars worth of commercial fishing interests, farmers, tribes and neighboring states," Miller said Tuesday.

One of only six Democrats who supported the House bill was Rep. Jim Costa, whose district spans farmland south of the Delta. No other California Democrat voted for the bill.

"Urban water users in the Bay Area and Southern California will get water, the fish will get water, but my folks on the east and west side of the San Joaquin Valley will get zero water without some operational flexibility," Costa said.

The House bill boosts water exports south of the Delta, encourages the completion of water storage project feasibility studies and seeks to capture more runoff from early storms, among other provisions. It's designed to last 18 months, or as long as the California drought emergency remains in effect.

WEDNESDAY, DECEMBER 10, 2014

WATER RIGHTS

Colorado looks to protect its water

Plan limits supply to current levels for downstream states

By Dan Elliott
Associated Press

DENVER — With demand increasing across the West, Colorado is drawing up a strategy to keep some of the trillions of gallons of water that gushes out of the Rocky Mountains every spring — most of which flows downstream to drought-stricken California, Arizona, Nevada and Mexico.

Colorado wants to ensure its farms, wildlife and rapidly growing cities have enough water in the decades to come. It's pledging to provide downstream states every gallon they're



BRENNAN LINSLEY/ASSOCIATED PRESS

Pedestrians pass through Denver's Confluence Park, where Cherry Creek joins the South Platte River, a key channel in Colorado's water supply.

legally entitled to, but not a drop more.

"If anybody thought we were going to roll over and say, 'OK, California, you're in a really bad drought, you get to use the water that we

were going to use,' they're mistaken," said James Eklund, director of the Colorado Water Conservation Board, which wrote the draft after a series of public meetings.

Eklund's insistence on Colorado's water rights drew diplomatic responses from his colleagues in other states on the eve of a Las Vegas meeting of water managers. The managers, from seven states, are working on ways to ensure 40 million people in the parched Colorado River basin don't go thirsty.

"California has not sought any Colorado River water beyond its entitlement and has no intention of doing so," said Jeff Kightlinger, general manager of the Metropolitan Water District of Southern California. He referred to the Colorado River Compact of 1922 that covers water allocations to Colorado, California, New Mexico, Wyoming, Utah, Arizona and Nevada.

LOCAL NEWS

INSIDEBAYAREA.COM » OAKLANDTRIBUNE.COM » DAILYREVIEWONLINE.COM »

ALAMEDA COUNTY

Water rates may go up again

District officials say drought has increased agency's expenses

By Chris De Benedetti
cdebenedetti@
bayareanewsgroup.com

FREMONT — The cost of water in southern Alameda County might rise again soon, as the utility serving the area is considering a rate hike for the 13th consecutive year.

The Alameda County Water District's Board of Directors last week discussed a future rate increase, asking staffers to give

more details about the issue at board meetings early next year.

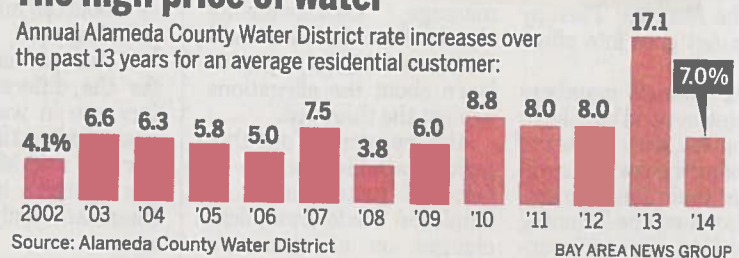
Although rainstorms have lashed the Bay Area for more than a week, the region remains mired in a drought that has increased the Fremont-based agency's expenses, district leaders said.

"Maintaining water supply and quality for us is not negotiable," water district General Manager Robert Shaver said. "That puts pressure on rates."

The utility's leaders have begun looking at how best to increase revenue by 8 percent, Shaver said.

The high price of water

Annual Alameda County Water District rate increases over the past 13 years for an average residential customer:



"We need to stay financially resilient and manage our reserves," he said. "Especially because we don't know how long this drought will last."

But ratepayer Eric Tsai says he is tired of the annual bill increases and wants the district to cut back on administrative costs.

"They say they're cutting

back, but their operating expenses continue to rise year in and year out," said Tsai, who last month lost his bid for election to the water district board. "They haven't really addressed their costs."

If the utility's five-member board pursues the rate hike, a public hearing would be scheduled in mid-April, with new rates starting May 1, Shaver said.

A drought surcharge approved last July likely would remain in effect, district leaders said.

The agency's leaders say they

See **RATES**, Page 2

THURSDAY, DECEMBER 18, 2014

Rates

Continued from Page 1

are trying myriad ways to save money, offsetting rising drought-related costs.

They have eliminated or frozen several positions, saving about \$1.5 million. They also delayed spending about \$20 million on system improvement projects, and are using their least expensive water supplies as much as possible, Shaver said.

Despite these efforts, the utility's operating budget for fiscal year 2014-15 will rise to \$83.4 million — about \$5 million more than last year.

"The primary reason for the difference is the increase in water supply costs during this drought period," said Michael Yee, the district's budget and financial analysis manager.

The agency last year

encouraged customers to reduce water use by 20 percent, and Tri-City ratepayers hit that target.

The bad news is that conserving water sometimes leads to higher rates, district leaders said.

"We have the weirdest business model in the world, in that reduced water sales result in reduced revenue," Shaver said.

Formed in 1914, the Alameda County Water District today serves about 335,000 people in Fremont, Newark and Union City.

To continue that service, agency leaders urge

Tri-City customers to continue to conserve.

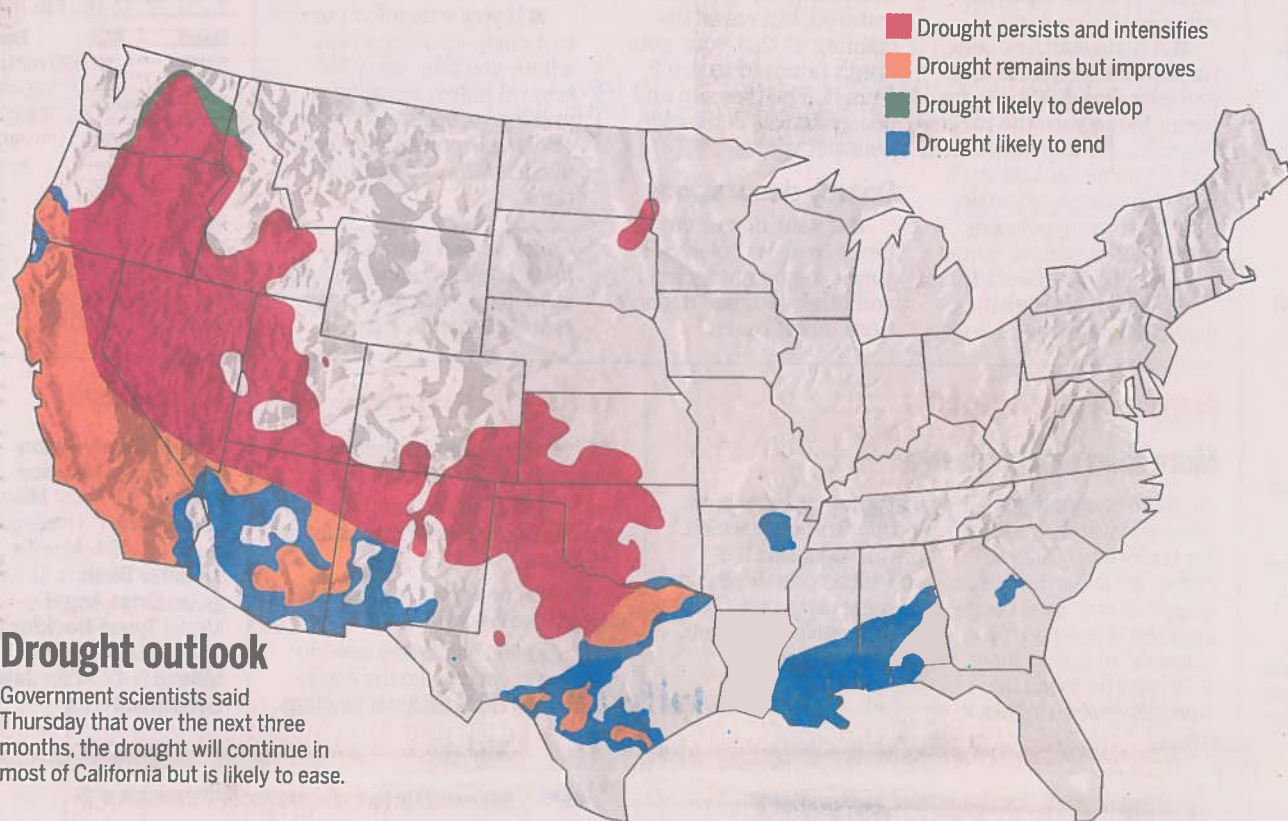
Even after several days of heavy rain, the state's reservoirs are still at historic lows, and it will take a lot more rain to get the state's water supply at healthy levels, Shaver said.

"It's important that our customers know that the drought is continuing, and we ask them to continue doing a great job of conserving water," he said.

Contact Chris De Benedetti at 510-293-2480. Follow him at [Twitter.com/cdebenedetti](https://twitter.com/cdebenedetti).

SEASONAL FORECASTER: WET WINTER

Rain, rain won't go away — but it's OK



Drought outlook

Government scientists said Thursday that over the next three months, the drought will continue in most of California but is likely to ease.

Source: NOAA

BAY AREA NEWS GROUP

New weather report: Precipitation through March has state 'moving in right direction'

By Paul Rogers

progers@mercurynews.com

There is a 75 percent probability of average or above-average precipitation between January and the end of March for California, according to a new report by federal scientists — the first time in five years such a wet outlook has been predicted in the state during the first three months of a year.

"This is good news," said Steve Baxter, a seasonal forecaster with the National Oceanic and Atmospheric Administration, which issued the report on Thursday predicting that the harsh reality of California's historic drought may finally be giving way to wetter days ahead.

ONLINE EXTRA

For more coverage of science and the environment, go to www.mercurynews.com/science.

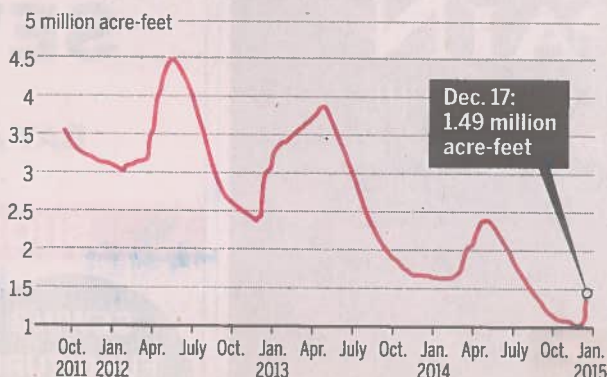
"There are not indications of a monster wet season," he said. "It's unlikely that the drought

ministration, which issued the report on Thursday predicting that the harsh reality of California's historic drought may finally be giving way to wetter days ahead.

See **DROUGHT**, Page 8

Reservoirs have a long way to go

A look at the water stored in Lake Shasta, the state's largest reservoir, over the past three years shows that despite recent rains it has a long way to go to fill back up.



Source: Department of Water Resources

BAY AREA NEWS GROUP

Drought

Continued from Page 1

will be broken this year, but it's likely that it will be improved."

Pacific Ocean temperatures, which are warmer than normal, along with satellite imagery and computer models, are showing a greater likelihood of low-pressure systems, which can draw storms to California, Baxter said. There still is also a 65 percent chance of mild El Niño conditions developing this winter, which could further increase chances.

Meanwhile, reservoirs continued to slowly rise across Northern California after three weeks of drenching rains. And another report out Thursday also offered an additional glimmer of hope. The U.S. Drought Monitor, a weekly map issued by the U.S. Department of Agriculture and other agencies, showed that 32 percent of California is in "exceptional drought," notably down from 55 percent last week, due to the recent rains.

The area showing improvement includes the Bay Area and communities from Monterey County to Humboldt County. Still, the Central Valley and the Los Angeles Basin, which have not received as much rain, remain in "exceptional drought." And 98 percent of California is still in "severe drought," the third most serious of five classifications.

But the update, which is based on soil moisture levels and other factors, was the first time in more than two years with such a large section of the state showing an improving trend.

"We've gone from real bad to just bad," said Bob Benjamin, a forecaster with the National Weather Service in Monterey. "If we would have had any more rainfall in the last few weeks, we would have had some major flooding. The trend is moving in the right direction. We're where we want to be. We need to keep it up into April."

Drought is easing

December rains have already eased California's drought, as shown by comparing a current Drought Monitor map with one from Dec. 2.

Dec. 2

Dec. 18



Source: National Drought Mitigation Center

BAY AREA NEWS GROUP

Weekend forecast

Looking ahead to the weekend, more rain is forecast for Friday, with half an inch or so in most Bay Area cities and one inch or more in the mountains. After that, Northern California can put away its umbrellas for about a week.

"We can expect dry conditions at least through Christmas Day," said Benjamin. "People will be able to enjoy some sun."

California is mired in one of its worst droughts in history and has been since 2011, with many parts of the state receiving only about half the rainfall as the historic average. As a result, when the winter rainy sea-

son began, reservoirs were at dangerously low levels, streams were dry and groundwater tables had fallen precipitously. Farmers and water planners were worrying about severe cutbacks and rationing if the state moved into a fourth year of below-normal rain in 2015.

That dire scenario still could play out if the wet weather stops.

But this winter season, so far, has begun with a deluge.

As of Wednesday night, San Jose's rainfall total since July 1 was 10 inches — 253 percent of the historic average for this time of year. Similarly, San Francisco was at 193 percent, Oakland at 191 percent.

With the ground finally saturated, much of the rain is pouring into reservoirs. The state's

ties, has seen its seven reservoirs increase from 52 percent full to 54 percent over the same time. The small increase is due to the fact that the district's largest, Pardee Reservoir, is in the Central Sierra Nevada, which has not had as much rain and snow as the Northern Sierra.

"Of course the recent storms are helping, but after two very dry years, nearly half of our reservoir space is empty," said Abby Figueroa, a spokeswoman for EBMUD. "We'd love it if Mother Nature would keep pouring it on."

Suspended fines

Overall, the Sierra Nevada snowpack on Thursday was at 50 percent of the historic average for this date, up from 24 percent three weeks ago — climbing, but still half of where it should be.

In Santa Cruz, which has had some of the strictest water rationing rules in the state, city officials suspended the tough restrictions and fines earlier this month, asking instead for voluntary conservation. The city's only large reservoir, Loch Lomond, near Ben Lomond, has risen 6 feet — from 58 percent full to 67 percent full — in the past three weeks, as the watershed around it has received 24 inches of rain so far, compared with 2 inches this time last year.

The recent rains, combined with Thursday's federal reports, offered Californians hope for more soaking storms. Water experts remembered 2012, however, when a wet November and December gave way to a bone-dry spring, and 2013 became the driest year in state history back to 1850.

Baxter, of NOAA's Climate Prediction Center, in College Park, Maryland, said that chances of a similarly dry recurrence are not high. But because of the state's huge rainfall deficits, he added, California will need every inch of rain it can get in the coming months.

"The rains that have occurred over the last month are good," he said, "but they are not enough."

Paul Rogers covers resources and environmental issues. Contact him at 408-920-5045. Follow him at Twitter.com/PaulRogersSJMN.

"Of course the recent storms are helping, but after two very dry years, nearly half of our reservoir space is empty. We'd love it if Mother Nature would keep pouring it on."

*— Abby Figueroa,
EBMUD spokeswoman*

largest, Shasta Lake near Redding, has risen by 35 feet since Thanksgiving, adding 448,000 acre feet of water — enough to supply every home and business in the city of Los Angeles for 10 months.

But in a clear illustration of how far California has to go to end the drought, all of that water only increased Shasta Lake from being 23 percent full three weeks ago to 33 percent full now.

"There have been some healthy rises, but it still has a long, long way to go to recover back to levels that we saw three years ago," said Kevin Werner, NOAA's western regional climate services director in Seattle.

Similarly, in the Bay Area, the 10 reservoirs operated by the Santa Clara Valley Water District, which serves 1.8 million people in and around San Jose, were 28 percent full weeks ago. After the storms, they are at 38 percent.

And the East Bay Municipal Utility District, which provides water to 1.4 million people in Alameda and Contra Costa coun-

Runoff mounts: As water soaks ground, reservoirs begin slow recovery

By Paul Rogers

progers@mercurynews.com

After three years of relentlessly bad news about California's historic drought, the drenching storm that barreled in Thursday from Hawaii finally delivered the state some desperately needed good news.

One storm does not end a drought as severe as this one, meteorologists and water managers emphasized again Thursday. But this storm and last week's milder one have done something very important: They have saturated the parched ground across Northern California so much that rainfall is finally starting to fill up the state's dangerously low reservoirs as it runs down streams, rivers and hillsides.

Runoff

Continued from Page 1

And just like last week, the wet weather Thursday is expected to be followed by a couple of dry weekend days, reducing the risk of major flooding. The next system isn't expected to arrive until Monday.

For California water scientists, that's the "perfect storm" — just enough to deliver billions of gallons of runoff to bank in reservoirs, but not enough rain to trigger life-threatening mudslides and floods.

Now, with a near-perfect start to the 2014-15 rainy season, the state needs to repeat the pattern over and over again until March or April, scientists said Thursday.

To be sure, forecasts beyond 10 days are not accurate. So no one knows how the winter will play out.

"It's the middle of December, and we've had two good storm systems," said Jay Lund, director of the UC Davis Center for Watershed Sciences. "This could be the end of the drought; we won't know until late March. But it is certainly an easing of the drought."

The rainfall captured from this storm is impressive.

The state's two largest reservoirs, Shasta Lake near Redding, and Lake Oroville in Butte County, are projected to take in 510,000 acre-feet of water in storm runoff by Tuesday, with 370,000 going to Shasta and 140,000 flow-



GARY REYES/STAFF

A worker prepares to remove an oak tree that fell on top of an SUV at a home in the 2300 block of Boxwood Drive in San Jose on Thursday. No one was injured.

ing into Oroville, according to the state Department of Water Resources.

That's a staggering amount of water — 166 billion gallons from a single storm, enough water for 2.5 million Californians for a year. It would fill half a million football fields one-foot deep — all captured by the reservoirs that form the linchpin of the federal and state water systems that serve millions of California residents from San Jose to San Diego and irrigate vast expanses of Central Valley farmland.

But will it fill them up?

Not even close.

After three years of drought, Shasta Lake on Wednesday night was just 26 percent full. Oroville was only 29 percent full. With

the water from this storm, Shasta will be 34 percent full, Oroville 33 percent full. And that's still below the historic average of where they normally are in mid-December.

By one Department of Water Resources estimate, California will need eight major storm systems this winter like last week's and this week's to fill the reservoirs and end the drought. With two down, six more are needed by April.

"We're off to a great start. But we have a long way to go," said Sudhakar Talanki, the department's hydrology branch chief.

Not only are reservoirs low, but there are huge "rainfall deficits" built up from the past three years.

San Jose normally re-

ceives 42.9 inches of rain in an average three-year period, for example. Between June 2011 and June 2014, it received just 22.8 inches, leaving the city 20 inches short. Similarly, San Francisco is 19 inches behind Oakland 24 inches.

Even though each city is well ahead of the historic average for mid-December this winter will need to be well above an average year to make up for the three dry years, experts say.

In Silicon Valley, the storm is expected to boost the storage levels in the 10 reservoirs operated by the Santa Clara Valley Water District by up to 40 percent, adding up to 25,000 acre-feet. But they will still be only about half of capacity.



KARL MONDON/STAFF

Jessica Avila, left, and Socorro Vasquez walk through the flooded Le Mar Trailer Park in Redwood City to visit friends. Another storm is set to hit Monday.

Similar amounts of runoff are projected for the East Bay Municipal Utility District, where, because of more storage, the extra water will increase the total stored by 5 percent to more than half of capacity.

"The storms so far have been very good," said Garth Hall, deputy operating officer for water supply for the Santa Clara Valley Water District. "There has been some localized damage. They are a little intense. But having the quantity of rain from a water-supply point of view is very helpful."

Hall noted, however, that cities across Santa Clara County have heavily pumped groundwater in recent years to make up for the lack of rainfall and water from the Sacramento-San Joaquin River Delta. That has caused the water table to drop 65 feet under San Jose, to the point where much more pumping could cause sub-

sidence, where the ground sinks in some areas, as happened decades ago. It will take a full year or more for the water taken out, 100,000 acre-feet, to recharge naturally and through the district's percolation ponds, he said.

In the East Bay, EBMUD still plans to purchase up to 16,000 acre-feet of water from the federal government to buttress supplies in January and February — and the 14 percent rate hike to pay for it — said district spokeswoman Abby Figueroa. But more soaking storms in the next few weeks might change those plans, she said.

"With these storms, we're off with a bang," she said. "We want it to keep up."

Paul Rogers covers resources and environmental issues. Contact him at 408-920-5045. Follow him at Twitter.com/PaulRogersSJM.