UNION SANITARY DISTRICT

BOARD MEETING AGENDA
Monday, November 24, 2014
Regular Meeting - 7:00 P.M.

	1.	Call to Order.
	2.	Pledge of Allegiance.
	3.	Roll Call.
Motion	4.	Approve Minutes of the Meeting of November 10, 2014.
Information	5.	Monthly Operations Report for October 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.	Authorize the General Manager to Execute an Agreement with Nicholas J. Peros, P.E. for the creation of a SCADA Master Plan and SCADA Standards (*to be reviewed by the Budget & Finance Committee).*
Motion	9.	Authorize the General Manager to Execute Change Order No. 57 with D.W. Nicholson Corporation for the Cogeneration Project *(to be reviewed by the Construction Committee).*
Motion	10.	Resolution No. _____, Accepting the Construction of the Sodium Hypochlorite Tank A and B Replacement Project from Anderson Pacific Engineering Construction, Inc. and Authorizing the Attorney for the District to Record a Notice of Completion. *(to be reviewed by the Construction Committee).*

Motion	11.	Resolution No. _____, Accepting the Construction of the Jarvis Avenue Sanitary Sewer Replacement Project from D'Arcy & Harty Construction, Inc. and Authorizing the Attorney for the District to Record a Notice of Completion *(to be reviewed by the Construction Committee).*
Information	12.	Information Items: a. Check Register. b. Report on the EBDA Commission Meeting of November 20, 2014.
Information	13.	Committee Meeting Reports. *(No Board action is taken at Committee meetings):* a. Construction Committee – scheduled for Thursday, 11/20/14 at 8:45 a.m. b. Budget & Finance Committee – scheduled for Thursday, 11/20/14 at 4:30 p.m. c. Legal/Community Affairs Committee – will not meet. d. Personnel 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 next Regular Meeting in the Boardroom on Monday, December 8, 2014 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

UNION SANITARY DISTRICT

BOARD MEETING OF NOVEMBER 24, 2014

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, November 20, 2014 at 8:45 a.m.

9. Authorize the General Manager to Execute Change Order No. 57 with D.W. Nicholson Corporation for the Cogeneration Project.

10. Resolution No. ____, Accepting the Construction of the Sodium Hypochlorite Tank A and B Replacement Project from Anderson Pacific Engineering Construction, Inc. and Authorizing the Attorney for the District to Record a Notice of Completion.

11. Resolution No. ____, Accepting the Construction of the Jarvis Avenue Sanitary Sewer Replacement Project from D'Arcy & Harty Construction, Inc. and Authorizing the Attorney for the District to Record a Notice of Completion.

Budget & Finance Committee, Thursday, November 20, 2014 at 4:30 p.m.

5. Monthly Operations Report for October 2014.

8. Authorize the General Manger to Execute an Agreement with Nicholas J. Peros, P.E. for the creation of a SCADA Master Plan and SCADA Standards.

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 10, 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
Andy Morrison, Collection Services Manager
Dave Livingston, Treatment & Disposal Services Manager
Sami Ghossain, Technical Services Manager
Robert Simonich, Fabrication, Maintenance, and Construction Manager
James Schofield, Collection Services Coach
Rufus Tai, Senior Database Administrator/Developer
Laurie Brenner, Organizational Performance Program Manager
José Rodriguez, Lead Collection Service Worker
Regina McEvoy, Assistant to the GM/Board Secretary

APPROVAL OF THE MINUTES OF OCTOBER 27, 2014.

It was moved by Director Handley, seconded by Director Lathi, to Approve the Minutes of the Board of Director's Meeting held October 27, 2014. Motion carried unanimously.

QUARTERLY BALANCED SCORECARD PERIOD ENDING SEPTEMBER, 2014.

The Budget and Finance Committee reviewed this item.

a. Districtwide Balanced Scorecard Measures - Laurie Brenner, Organizational Performance Program Manager, reported the following: Two injuries were reported during the first quarter of FY 15. The average FTE on Limited Duty was 0.93 for the quarter, exceeding the target of less than 0.5. Limited Duty cost to date is $11,575, which is approximately 50% of the annual target. The Workers Compensation Experience Modifier (X-Mod) is above target at 1.16, as reported at the end of FY 14. The target number of individual competency assessments for the Collections Services team rose from 27 in FY 14 to 52 in

FY 15, of which 8% were completed in Q1. The public relation program met 100% of planned activities and completed 20% of all activities. The Capital Improvement Projects (CIP) team completed 100% of priority milestone projects. The Executive Team increased regional projects with financial benefit from two to three for FY 15. For community outreach, there were 3 plant tours in Q1, and the District continues to support ROP and Solano College.

b. Collection Services (CS) Process Scorecard - Andy Morrison, Collection Services Manager, reported the following: Collection Services ensures wastewater is kept in the gravity system from the point of entry by the customer, until it is received and processed at the transport system and the treatment plant. To achieve the goal of Sanitary Sewer Overflow (SSO) prevention/reduction, there are five processes: System Management; Pipe Assessment; Control Roots; Control Fats, Oils, and Grease (FOG); and Service Requests. CS employees are updated monthly on their performance.

WRITTEN COMMUNICATIONS.

There were no written communications.

ORAL COMMUNICATIONS.

There were no oral communications.

AUTHORIZE THE GENERAL MANAGER TO EXECUTE AN AGREEMENT WITH KRONOS FOR PURCHASE AND IMPLEMENTATION OF A TIME AND ATTENDANCE SYSTEM.

The Budget & Finance Committee reviewed this item. Rufus Tai, Senior Database Administrator/Developer, stated the District's current time and attendance system will be unsupported by Microsoft in the summer of 2015. The FY15 Information Services Renewal and Replacement budget included $200,000 for purchase and implementation of a time and attendance system. A request for proposals (RFP) was sent to seven firms, and three responses were received: Kronos Incorporated; Tyler; and Integrated Time. The proposals were evaluated by the Project Team, and Kronos Incorporated and Integrated Time were invited to interview and demonstrate their systems. Kronos Incorporated was selected based on proposal, price, and experience.

It was moved by Director Lathi, seconded by Director Handley, to Authorize the General Manager to Execute an Agreement with Kronos for Purchase and Implementation of a Time and Attendance System. Motion carried unanimously.

APPROVED A MOTION TO CANCEL THE DECEMBER 22, 2014 BOARD OF DIRECTORS MEETING.

It was moved by Director Kite, seconded by Director Lathi, to Cancel the December 22, 2014 Board of Directors Meeting. Motion carried unanimously.

BOARD MEMBER COMPENSATION FOR 2015.

The Budget & Finance Committee reviewed this item. Paul Eldredge stated the California Health and Safety Code allows for an increase in Board Member compensation of up to 5% per year. Ordinance #44 states Board Member compensation may be increased by the amount of increase of the classified employees' wages for the year, and states the matter would be reviewed by the Board prior to implementation. Board Members have voted not to increase their meeting stipend since 2003. The Budget & Finance Committee recommended Board Member compensation remain at $212.10 per day of service.

It was moved by Director Kite, seconded by Director Toy, not to increase Board Member Compensation for 2015. Motion carried unanimously.

INFORMATION ITEMS:

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

Board Expenditures, 1st Quarter, FY15. The Budget & Finance Committee reviewed this item. The Board had no questions.

COMMITTEE MEETING REPORTS:

The Budget & Finance Committee met.

GENERAL MANAGER'S REPORT:

Paul Eldredge reported the following:

- Alameda County Water District (ACWD) is publishing a book, and requested Union Sanitary District participate as a sponsor. The request is inconsistent with District guidelines, and would require a Board discussion. The request was received close to the deadline for finalizing the book and has since passed.
- Staff recently received a letter from Safety-Kleen and will issue a response this week. The General Manager met with Newark City Manager John Becker to discuss the matter. The City of Newark's experiences with Safety-Kleen are consistent with the District's.
- The District received a public records request from a Ms. Sarah Morgan. Ms. Morgan requested information regarding rate increases presented at the June 23, 2014, Board meeting.
- The Cogeneration project passed its five day test, and additional testing will continue.
- The General Manager will meet with Fremont City Manager Fred Diaz this week.
- The General Manager recently met with Republic Services General Manager Kris Branschweig regarding potential partnership opportunities.
- The Plant will be shut down on Wednesday night for six hours to facilitate the replacement of 20 year old return activity sludge (RAS) seals on the RAS gates.
- The General Manager, and ACWD General Manager Walt Wadlow, will provide a presentation entitled "Water In and Water Out" at the League of Women Voters (LOWV) meeting in Fremont on Monday, November 17, 2014.

OTHER BUSINESS:

Director Kite reported she attended the Treatment Plant Overview Presentation provided by Dave Drake in the Boardroom on October 28, 2014.

ADJOURNMENT:

The meeting adjourned at 7:43 p.m. to the next Regular Meeting in the Boardroom on Monday, November 24, 2014.

SUBMITTED:

_____
REGINA McEVOY
SECRETARY TO THE BOARD

ATTEST:

_____
TOM HANDLEY
SECRETARY

APPROVED:

_____
MANNY FERNANDEZ
PRESIDENT

Adopted this 24th day of November, 2014

DATE: November 17, 2014

MEMO TO: Board of Directors - Union Sanitary District

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

SUBJECT: Agenda Item No. 5 - Meeting of November 24, 2014
Information Item: **Monthly Operations Report for October, 2014**

Background

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

Table of Contents

Recommendation

File Report.

GENERAL MANAGER'S SUMMARY

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

ODOR COMPLAINTS: There were nine odor complaints received in the month of October. Seven from Fremont, two from Newark, and one from Union City. All complaints were investigated, and no odor was found in nine of the complaints. Upon investigation of one complaint in Fremont, a dye test revealed a very small leak from the sewer main into the storm drain. USD crews used three trenchless point repairs in the sewer main to stop the leak and cleaned up the storm drain

SAFETY: We had one minor injury. A knee strain while an employee was walking up stairs at the Newark pump station. No lost time and the employee is back at full duty. We have two employees off work for previous injuries. One had a shoulder injury that required additional care and we are waiting for him to return to work. The other is had a neck injury and is requiring additional care. His return date is unknown. We had a debrief of the incident of unusual wastewater at the Boyce lift station. Breakdowns in communication were identified as some of the largest problems. We have an Industrial Hygienist looking into the exposure to our employees during this incident. We had a near miss while cleaning piping and flooded digester 5. The contractor working on digester 5 had to remove people from the space until the area was cleaned up. We have also installed another AED (automated external defibrillator) in the treatment plant. We now have an AED at the front and back of the plant. This will shorten the response time if it is needed in an emergency.

FABRICATION, MAINTENANCE, AND CONSTRUCTION (FMC): During the month of October FMC continued to support multiple CIP projects, starting with dedicating two mechanics for the commissioning of the new Co Gen engines, and provided support on the Newark Pump Station bypass project, this work required two mechanics to be staffed at the Newark Pump Station around the clock for the lining of the influent line. While all of this was occurring FMC also rebuilt #1 Centrifuge in the dewatering building and retrofitted all of the lighting with LED fixtures in the covered storage area. FMC also began preparing for the repair of the west force main to head works valve seat. Other accomplishments include completion of 84 corrective maintenance work orders throughout the plant and completion of all scheduled preventive maintenance.

FINANCIAL:

- Staff received training on the new sewer service charge rate model.
- The annual State Controller's Report of financial transactions was submitted to the State.
- The District received $648,000 in SRF proceeds for the Thickener Project.

COLLECTION SYSTEM:

- Cleaned 82,891' of sewer mains – target
- Televised 74,346' of sewer mains – slightly ahead of target
- Responded to 44 Service Requests
- Completed 30 sewer main repairs
- Hosted the Vendor Fair for MSA (Maintenance Superintendents Association)

PLANT OPERATIONS:

- The plant effluent remained in compliance with all NPDES permit requirements.
- Staff attended a symposium on nutrients sponsored by BACWA.

- Staff continued to seek for information about the fate of the Ebola virus in wastewater and the proper precautions that District employees need to take.
- Continued work on the Hayward Marsh Alternatives Study with RMC consultants.

PROJECTS: Updates of selected projects:

- Cogeneration Project – Contractor completed the first phase of the operational test of the cogeneration equipment and the digester gas conditioning equipment. After the test is completed and accepted, isolation and abandonment of old gas conditioning systems will begin.
- Thickener Control Building Improvements Project – Installation of underslab conduits for the new Thickener Electrical Building. Concrete slab construction is next.
- Jarvis Avenue SS Replacement – The project is nearly complete. Punchlinst work and closeout are next.
- Upper Hetch Hetchy SS Rehabilitation – Street restoration and site improvements are in progress. The last CIPP lining site (Willow Street in Newark), is planned in November. Project should be complete by the end of December.

STAFFING & PERSONNEL:

Recruitments and Selection

- Troy Gaskins joined the District as a Painter

Other

- The HRA brought several documents for Board signature, all relating to the requirements of the Publicly Available Pay Schedule.
- The CalPERS audit was completed. The auditor will now work on his preliminary findings, which he will present to the District for comment and correction.
- The HRA and General Manager are working on succession planning for HR staff.
- HR participated in the Employee Recognition BBQ.

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

- Toured the Hayward Marsh with the Board in early October.
- The Employee Appreciation BBQ was held October 14, 2014.
- Attended the MSA Vendor Equipment & Trade Show hosted by USD.
- I met with Alex Ameri from the City of Hayward to discuss opportunities for regional projects and continued cooperation between our respective agencies.
- Did a presentation to the Union City Lions Club on an overview of the District.
- Held interviews for the Collection System and Treatment and Disposal workgroup manager positions.
- Attended the State of the State forum in Fremont, hosted by the Chamber of Commerce of Fremont, Newark, and Union City.
- Met with the General Manager from the Contra Costa Water District to discuss matters of mutual interest.
- Met with the General Manager of the Dublin-San Ramon Services District (DSRSD) to discuss industry trends and issues.
- Met with the incoming General Manager of the Alameda County Water District (ACWD) to get to know one another a little better and to continue USD's and ACWD's productive and positive working relationship.

ODOR REPORT
October 2014

During the recording period from October 01, 2014 through October 31, 2014, there were nine odor related service requests received by the District.

City: Fremont

1. Complaint Details:

Date: 10/1/2014 *Time:* 9:15 am
Location: DIEGO DR *Reported By:* Arlene Ohm
Wind (from): N/A *Wind Speed:* N/A mph
Temperature: 70 Degrees F *Weather:* Fair

Response and Follow-up:
Inspected USD main and storm drain inlet due to a complaint from resident about a bad odor. We dye tested sewer main with a TV camera in the storm drain. We found a very small leak from the sewer main into the storm drain. USD crews used three trenchless point repairs in the sewer main to stop the leak and cleaned up the storm drain.

2. Complaint Details:

Date: 10/2/2014 *Time:* 8:25 pm
Location: FREMONT BL *Reported By:* Hilary
Wind (from): West *Wind Speed:* 1 mph
Temperature: 75 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes and storm drain inlets in the area. We found no odors coming from our mains or drain inlets. We did detect a smell coming from a roll away dumpster in front of the property

3. Complaint Details:

Date: 10/8/2014 *Time:* 8:08 pm
Location: GRANVILLE DR *Reported By:* Rob Culbertson
Wind (from): East *Wind Speed:* 9 mph
Temperature: 68 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes and storm drain inlets. We did not detect any odor. We relayed our findings to the complainant and told him to call us back should the odor return.

4. Complaint Details:

Date: 10/8/2014 *Time:* 10:04 pm
Location: PERALTA BL *Reported By:* Lin Hall
Wind (from): N/A *Wind Speed:* 5 mph
Temperature: 64 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes and storm drain inlets. No odor was detected. I checked the grease trap and when I opened it, the complainant said that may be the source of the odor. We let the complainant know that he should inform his management and that I would pass on our findings to our Environmental Compliance Team.

City: Fremont

5. *Complaint Details:*

Date: 10/9/2014 *Time:* 12:05 am
Location: RIDGEWOOD DR *Reported By:* Ashoka Upadhya
Wind (from): N/A *Wind Speed:* 5 mph
Temperature: 64 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes and storm drain inlets. We found no odor from our manholes. We did detect a very strong smell of a dead animal on the complainant's street. We told him he could try talking with the Ardenwood Farm property people because it seemed like the smell of the dead animal may be on their property.

6. Complaint Details:

Date: 10/21/2014 *Time:* 3:40 pm
Location: MONTROSE AV *Reported By:* N/A
Wind (from): N/A *Wind Speed:* 5 mph
Temperature: 73 Degrees F *Weather:* Warm

Response and Follow-up:
Inspected USD manholes and storm drain inlets in the area. We found no odors in the area. We told them to call us back should the odor return.

7. Complaint Details:

Date: 10/31/2014 *Time:* 1:30 pm
Location: BLACOW RD *Reported By:* Sandy Leonardt
Wind (from): North West *Wind Speed:* 9 mph
Temperature: 59 Degrees F *Weather:* Rain & Showers

Response and Follow-up:
Inspected USD manholes and drain inlets in the surrounding area. We used a gas detector to locate any odors and no odors detected. We relayed our findings to Mrs. Leonardt and gave her a USD brochure. We told her to call us back should the odor return and to note the time of day.

City: Newark

8. *Complaint Details:*

Date: 10/6/2014 *Time:* 3:45 pm
Location: LA SALLE AV *Reported By:* Diana Farias
Wind (from): North West *Wind Speed:* 9 mph
Temperature: 89 Degrees F *Weather:* Hot

Response and Follow-up:
Inspected the sewer manholes, storm drain inlets and surrounding areas using our gas detector. We did not find any odors. We gave the complainant a USD brochure and told her to call us back should the odor return.

9. *Complaint Details:*

Date: 10/8/2014 *Time:* 7:15 pm
Location: DAIRY AV *Reported By:* Janette Johnson
Wind (from): North *Wind Speed:* 5 mph
Temperature: 68 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes, storm manholes and drain inlets and found no odors outside of the residence. We did detect a musty mildew odor inside the house. The homeowner did call the Fire Department and they did not find any odors. We told her to air out the house and run water in all sinks and showers. We told her to call us back should the odor return.

City: Union City

10. *Complaint Details:*

Date: 10/4/2014 *Time:* 9:45 pm
Location: COMPTON CT *Reported By:* Chelsea
Wind (from): N/A *Wind Speed:* 5 mph
Temperature: 85 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes and storm drain inlets and found no odors. We gave the complainant a brochure and told them to call us back should the odor return.

Legend

Odor Complaints: October 2014

^ Odor found, USD resolved (1)

! Odor found, not related to USD (3)

No odor found (6)

Odor Complaints: Nov. 2013 to Sep. 2014

^ Odor found, USD resolved (4)

! Odor found, not related to USD (3)

No odor found (8)

Location of Odor Reports
November 2013 to October 2014

0 0.5 1 2 3 4 5 Miles

HOURS WORKED AND LEAVE TIME BY WORK GROUP

June 28, 2014 to October 31, 2014

DIVISION	Reg. Hours	Lt Duty	O/T	Total Leaves*	Sick	STD	WC	Historical FY14 Sick	Historical FY14 STD	Historical FY14 WC
General Manager Staff	1,704		13	536	10			85		
				24%	*0.4%*			*1.7%*		
Business Services	14,279		7	2,122	215			604	14	
				13%	*1.3%*			*1.6%*	*0.5%*	
Technical Services	18,726		56	2,073	362			1,039	238	
				10%	*1.7%*			*3.4%*	*0.8%*	
Collection Services	17,950		2,176	3,730	1,089	109	41	1,791	718	1
				17%	*5.0%*	*0.5%*	*0.2%*	*2.5%*	*0.4%*	*0.2%*
Treatment & Disposal	15,274		389	1,770	65			1,344	408	
				10%	*0.4%*			*2.0%*	*0.3%*	
FMC	13,351		769	2,285	542		170	1,019	74	107
				15%	*3.5%*		*1.1%*	*3.1%*	*0.2%*	*0.1%*
Totals	**81,283**		**3,409**	**12,517**	**2,283**	**109**	**211**	**5,882**	**1,452**	**108**
%	86.7%		3.6%	13.3%	2.4%	0.1%	0.2%	2.4%	0.5%	1.3%

Average Number of Employees

130

Current Number of Vacant Positions (1)

4

Hours Worked Per Week Per Employee (2)

36.12

Projected Average Annual Sick Leave Per Employee (3)

50.63

(1) Current vacancies include: Business Services (0), Collections (1), FMC (0), T&D (1), TS (2)

(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.

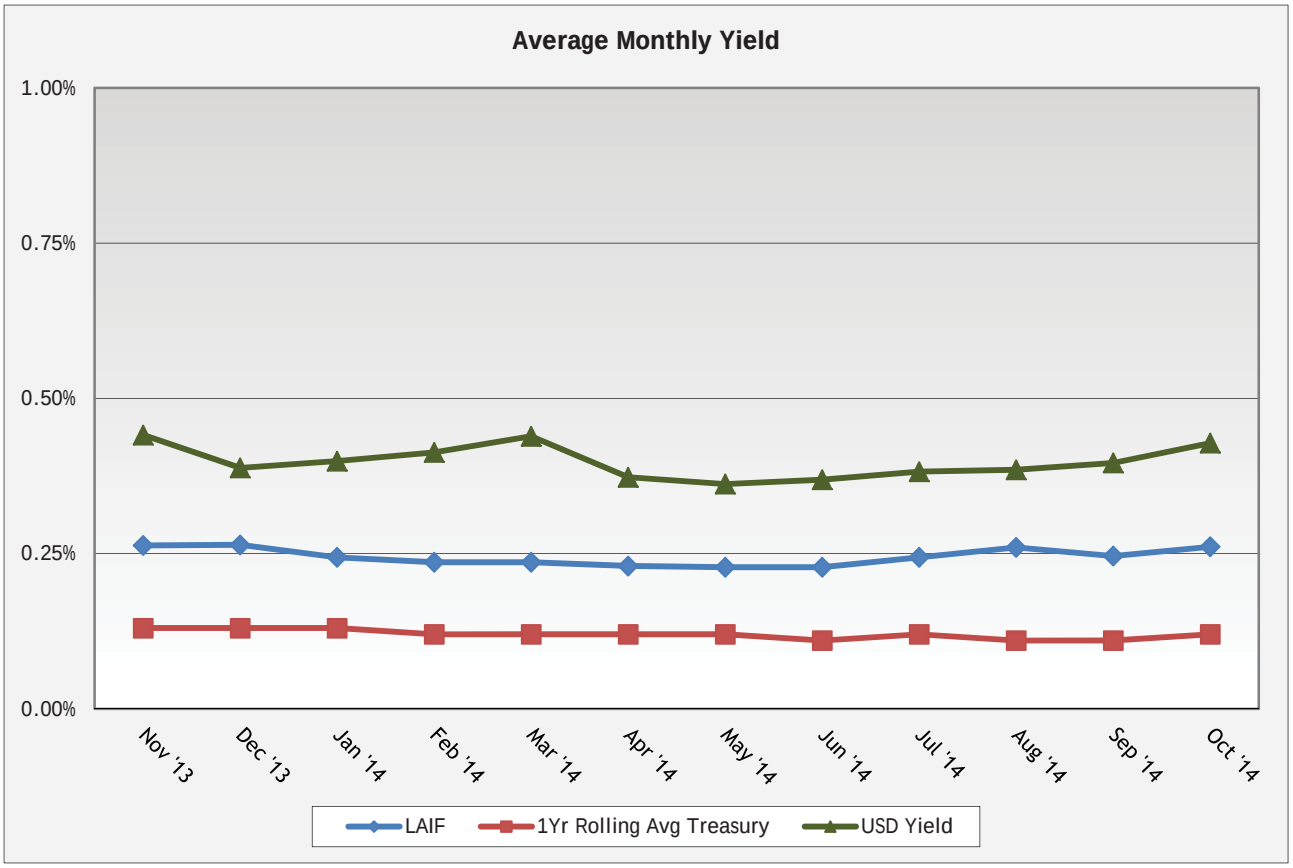
Business Services Group
Activities Report
October 2014

Accomplishments

- IT replaced firewall.
- IT setup Skype for District interviews.
- IT upgraded all client PCs to Internet Explorer 11.
- IT implemented a new version of Plant GIS.
- IT implemented the Eden-to-Hansen interface.
- IT upgraded Hansen to latest build.
- The Organizational Performance Program Manager (OPPM) created and issued "Big Picture" survey to all staff .
- The OPPM participated in Public Utility Performance Round Up Table (benchmarking) group session with other water/wastewater utilities nationwide.
- The OPPM met with EHSPM to review Safety Scorecard and explore streamlining measures
- The OPPM collected all BSC data for Q1 reporting
- The OPPM participated in meeting to plan/frame program for future FMC Internship
- Recruitment for Painter was completed; Troy Gaskins was hired on 10/6/2014.

Performance Measures

AVERAGE MONTHLY YIELD



BUDGET AND FINANCE REPORT

FY 2015 | **Year-to-date as of 10/31/14** | **33% of year elapsed**

Revenues

	Budget	Actual	% of Budget Rec'd	Unaudited Last Year Actuals 6/30/14
Capacity Fees	$2,700,000	$1,922,260	71%	$3,315,007
Sewer Service Charges	47,448,461	683,773	1%	45,139,420
Operating	848,500	226,950	27%	1,072,242
Interest	299,000	108,338	36%	385,844
Misc. (incl. LAVWMA pymnt, solar, Cogen rebates)	1,994,200	199,979	10%	297,776
Subtotal Revenues	$53,290,161	$3,141,300	6%	$50,210,289
SRF Loan Proceeds (Thickener)	3,390,000	647,923	19%	2,424,739
Total Revenues + SRF Proceeds	**$56,680,161**	**$3,789,223**	**7%**	**$52,635,028**

Expenses

	Budget	Actual	% of Budget Used	Last Year Actuals
Capital Improvement Prog.				
Capacity Projects	$3,240,000	$714,458	22%	$5,592,023
Renewal & Repl. Projects	11,632,500	4,051,102	35%	14,195,068
Operating	32,659,214	9,506,462	29%	30,751,966
Special Projects	1,708,478	69,834	4%	775,361
Retiree Medical (Annual Required Contribution)	543,540	135,885	25%	462,852
Vehicle & Equipment	1,057,700	4	0%	784,695
Information Systems	1,216,000	123,635	10%	848,449
Plant & Pump Station R&R	250,000	16,411	7%	197,237
Pretreatment Fund	7,000	19,389	277%	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	1,319,228	42%	4,675,361
Total Expenses	**$55,547,821**	**$15,956,408**	**29%**	**$58,395,038**
Total Revenue & Proceeds less Expenses	***$1,132,340***	***($12,167,185)***		***($5,760,010)***

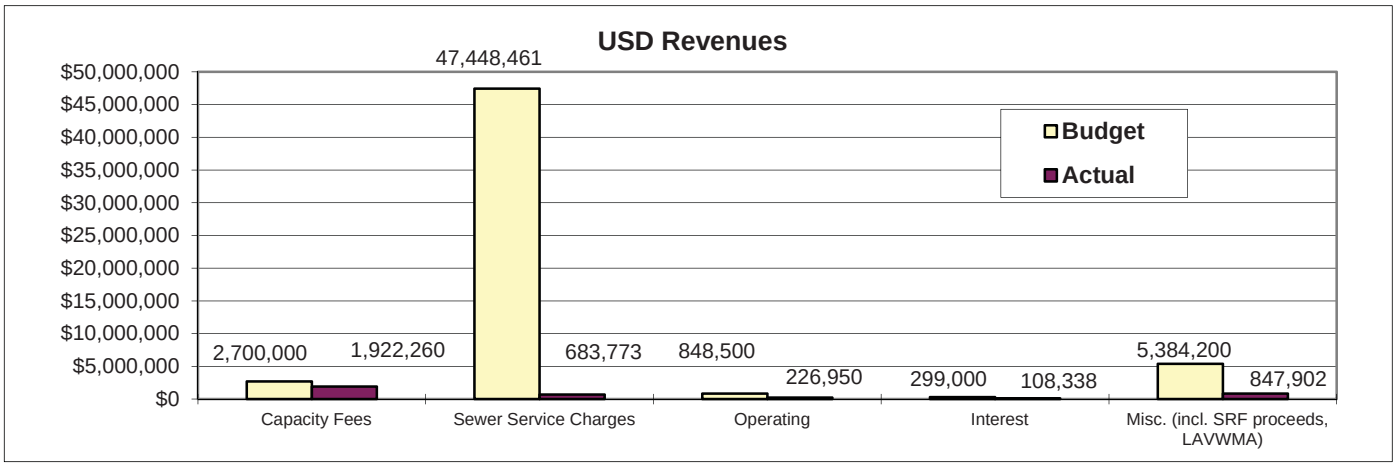
Gross Operating Expenses by Work Group

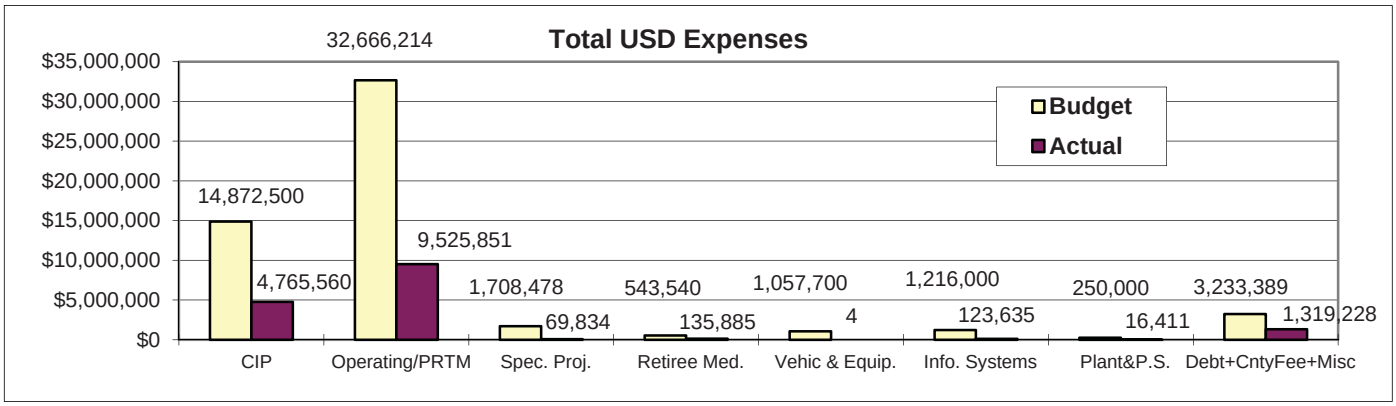
	Budget	Actual	% of Budget Used	Last Year Actuals
Board of Directors	$170,900	$38,925	23%	$166,233
General Manager/Admin.	1,036,505	376,191	36%	1,153,217
Business Services	4,666,100	1,452,163	31%	4,416,832
Collection Services	5,954,753	1,745,500	29%	5,460,336
Technical Services	5,247,562	1,482,205	28%	4,850,139
Treatment & Disposal Services	9,980,700	2,979,131	30%	9,739,655
Fabrication, Maint. & Construction	5,602,694	1,432,347	26%	4,965,555
Total	$32,659,214	$9,506,462	29%	**$30,751,966**

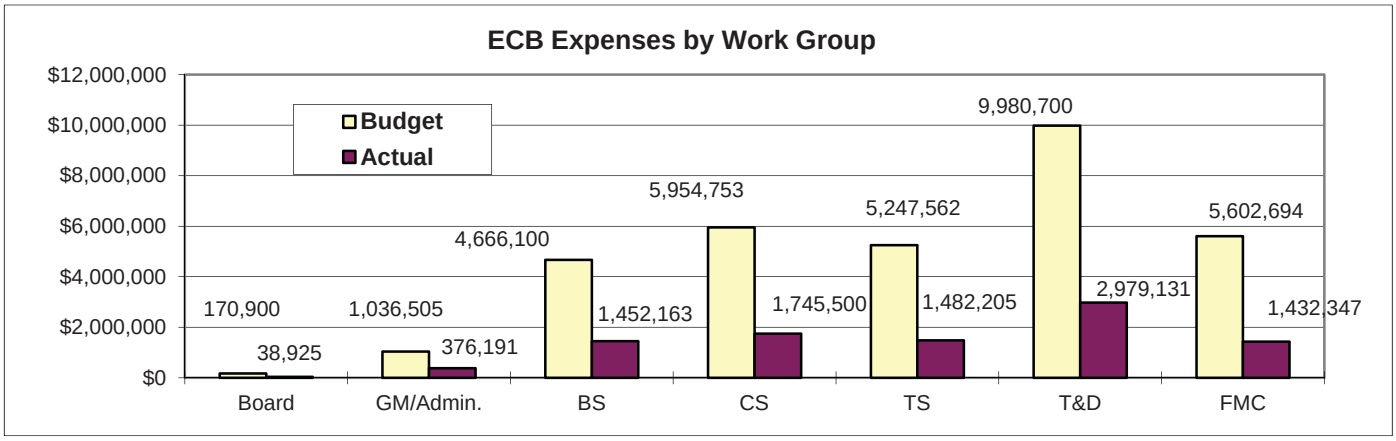
Operating Expenses by Type

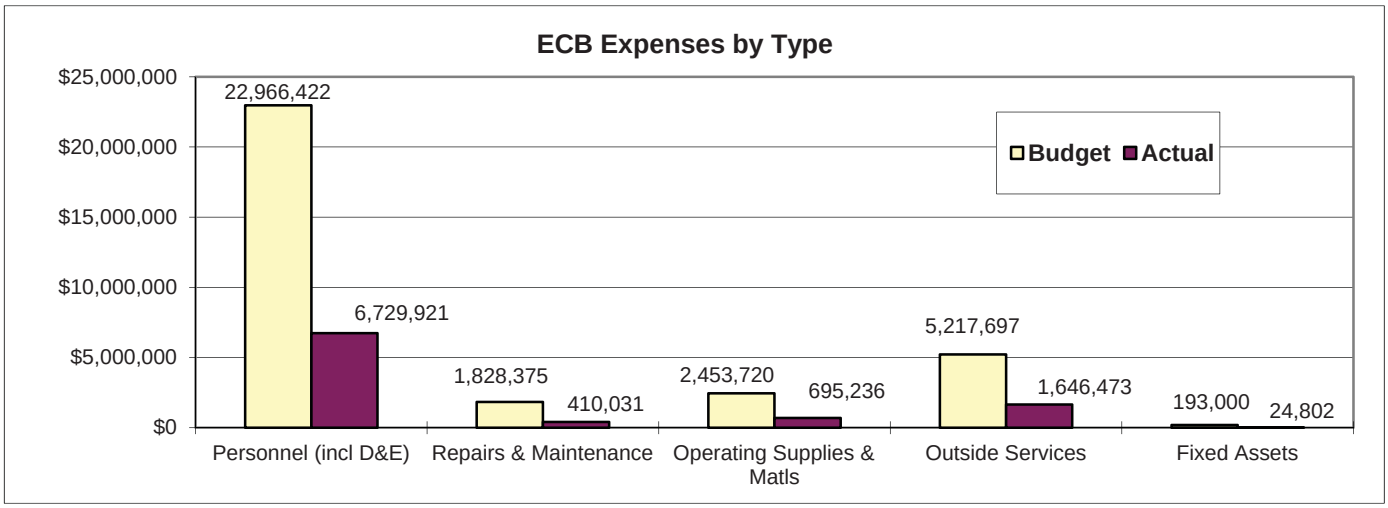
	Budget	Actual	% of Budget Used		Last Year Actuals
Personnel (incl D&E)	$22,966,422	$6,729,921	29%	(35%)*	$21,125,985
Repairs & Maintenance	1,828,375	410,031	22%		1,615,427
Supplies & Matls (chemicals, small tools)	2,453,720	695,236	28%		2,442,617
Outside Services (utilities, biosolids, legal)	5,217,697	1,646,473	32%		5,493,010
Fixed Assets	193,000	24,802	13%		74,927
Total	$32,659,214	$9,506,462	29%		**$30,751,966**

* Personnel Budget Target

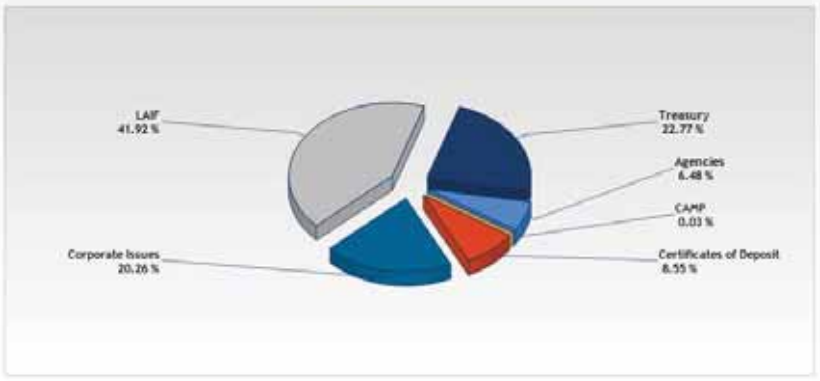

USD Revenues
$50,000,000
$45,000,000
$40,000,000
$35,000,000
$30,000,000
$25,000,000
$20,000,000
$15,000,000
$10,000,000
$5,000,000
$0
Budget
Actual
2,700,000
1,922,260
47,448,461
683,773
848,500
226,950
299,000
108,338
5,384,200
847,902
Capacity Fees
Sewer Service Charges
Operating
Interest
Misc. (incl. SRF proceeds, LAVWMA)


Total USD Expenses
$35,000,000
$30,000,000
$25,000,000
$20,000,000
$15,000,000
$10,000,000
$5,000,000
$0
Budget
Actual
14,872,500
4,765,560
32,666,214
9,525,851
1,708,478
69,834
543,540
135,885
1,057,700
4
1,216,000
123,635
250,000
16,411
3,233,389
1,319,228
CIP
Operating/PRTM
Spec. Proj.
Retiree Med.
Vehic & Equip.
Info. Systems
Plant&P.S.
Debt+CntyFee+Misc

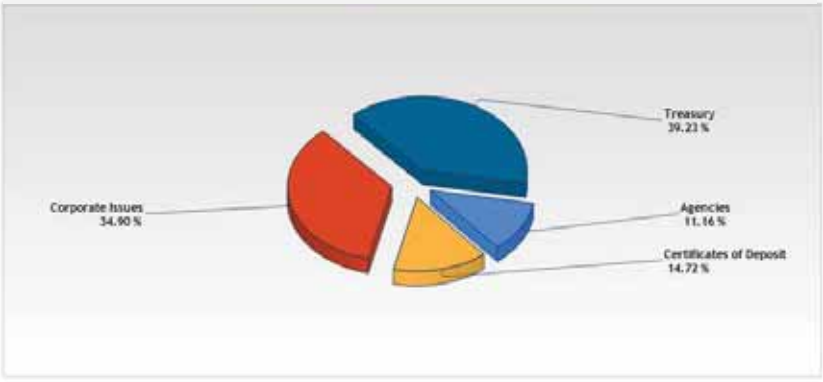

ECB Expenses by Work Group
$12,000,000
$10,000,000
$8,000,000
$6,000,000
$4,000,000
$2,000,000
$0
Budget
Actual
170,900
38,925
1,036,505
376,191
4,666,100
1,452,163
5,954,753
1,745,500
5,247,562
1,482,205
9,980,700
2,979,131
5,602,694
1,432,347
Board
GM/Admin.
BS
CS
TS
T&D
FMC


ECB Expenses by Type
$25,000,000
$20,000,000
$15,000,000
$10,000,000
$5,000,000
$0
Budget
Actual
22,966,422
6,729,921
1,828,375
410,031
2,453,720
695,236
5,217,697
1,646,473
193,000
24,802
Personnel (incl D&E)
Repairs & Maintenance
Operating Supplies & Matls
Outside Services
Fixed Assets

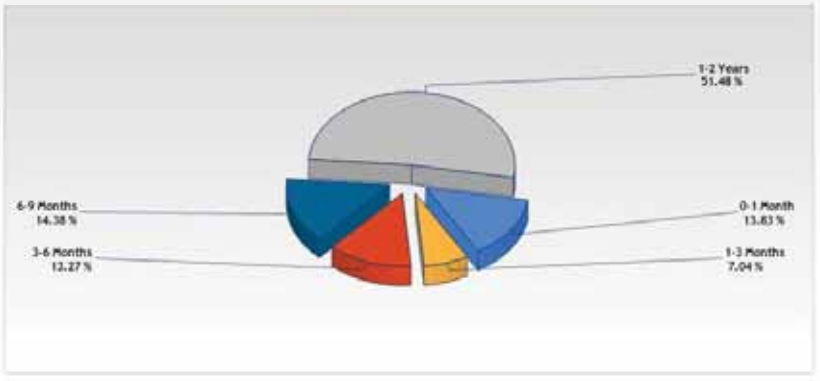
All Portfolio Holdings Distribution by Asset Class



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
0-1 Month	2,480,000.00	0.437	2,480,624.00	15	13.83	2,480,271.88	2,480,010.35	0.04
1-3 Months	1,240,000.00	0.554	1,261,670.00	72	7.04	1,243,405.82	1,242,968.49	0.20
3-6 Months	2,240,000.00	0.889	2,379,630.00	124	13.27	2,269,801.98	2,266,198.89	0.34
6-9 Months	2,545,000.00	0.565	2,579,611.60	245	14.38	2,562,343.45	2,558,596.51	0.67
1-2 Years	9,200,000.00	0.507	9,231,420.00	530	51.48	9,227,536.17	9,216,587.79	1.44
Total / Average	**17,705,000.00**	**0.560**	**17,932,955.60**	**332**	**100**	**17,783,359.30**	**17,764,362.03**	**0.90**

Union Sanitary District
Board Report - Holdings
Report Format: By Transaction
Group By: Asset Class
Portfolio/Report Group: All Portfolios
As of 10/31/2014

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	Moodys-Aaa	12/20/2013	1,000,000.00	1,000,000.00	0.500	998,437.50	0.500	12/20/2014	6/20/2016	3.24
FNMA 0.5 3/30/2016	3135GOVA8	Moodys-Aaa	1/24/2014	1,000,000.00	1,000,750.00	0.500	1,001,820.00	0.465		3/30/2016	3.24
Sub Total / Average				**2,000,000.00**	**2,000,750.00**	**0.500**	**2,000,257.50**	**0.482**			**6.48**
CAMP											
CAMP LGIP	LGIP4000	None	5/31/2011	9,790.56	9,790.56	0.046	9,790.56	0.046	N/A	N/A	0.03
Sub Total / Average				**9,790.56**	**9,790.56**	**0.046**	**9,790.56**	**0.046**			**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	0.78
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	0.78
Bank of Baroda NY US 0.4 1/22/2015	06062AFE4	None	1/22/2014	240,000.00	240,000.00	0.400	240,115.82	0.400		1/22/2015	0.78
BMW Bank North America 0.5 3/14/2016	05568P6V4	None	3/31/2014	240,000.00	239,760.00	0.500	239,823.91	0.552		3/14/2016	0.78
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	0.78
Discover Bank 0.5 6/11/2015	254671D72	None	12/24/2013	240,000.00	239,918.40	0.500	240,277.39	0.523		6/11/2015	0.78
GE Capital Retail Bank 0.95 3/16/2015	36157PAU3	None	1/2/2013	240,000.00	240,000.00	0.950	240,651.98	0.950		3/16/2015	0.78
Goldman Sachs Bank 0.75 11/14/2014	38143AU78	None	11/30/2012	240,000.00	240,000.00	0.750	240,055.94	0.750		11/14/2014	0.78
Great Midwest Bank 0.75 7/27/2016	39083PCK6	None	10/27/2014	240,000.00	240,000.00	0.750	240,446.06	0.750		7/27/2016	0.78
Merrick Bank 0.5 6/30/2015	5912Y5Y9	None	12/30/2013	240,000.00	240,000.00	0.500	240,257.81	0.500		6/30/2015	0.78
Sallie Mae Bank 0.75 11/14/2014	795450QK4	None	11/30/2012	240,000.00	240,000.00	0.750	240,055.94	0.750		11/14/2014	0.78
Sub Total / Average				**2,640,000.00**	**2,639,678.40**	**0.745**	**2,641,684.85**	**0.752**			**8.55**

Description	CUSIP / Ticker	Credit Rating 1	Settlement Date	Face Amount / Shares	Cost Value	Coupon Rate	Market Value	YTM @ Cost	Next Call Date	Maturity Date	% of Portfolio
Corporate Issues											
General Electric Capital Corp 1.625 7/2/2015	36962G5Z3	Moodys-A1	3/31/2014	1,000,000.00	1,014,530.00	1.625	1,008,670.00	0.460		7/2/2015	3.28
General Electric Capital Corp 2.15 1/9/2015	36962G5M2	Moodys-A1	8/16/2013	1,000,000.00	1,021,670.00	2.150	1,003,290.00	0.590		1/9/2015	3.31
General Electric Capital Corp 2.375 6/30/2015	36962G5F7	Moodys-A1	11/30/2012	500,000.00	517,745.00	2.375	506,415.00	0.980		6/30/2015	1.68
General Electric Capital Corp 4.875 3/4/2015	36962GP65	Moodys-A1	9/18/2013	1,000,000.00	1,059,830.00	4.875	1,015,080.00	0.750		3/4/2015	3.43
Internaltional Business Machs 0.45 5/6/2016	459200HL8	Moodys-Aa3	11/26/2013	1,000,000.00	996,840.00	0.450	998,500.00	0.580		5/6/2016	3.23
JP Morgan Chase 4.75 3/1/2015	46625HCE8	Moodys-A3	1/2/2013	1,000,000.00	1,079,800.00	4.750	1,014,070.00	1.012		3/1/2015	3.50
Well Fargo Bank 0.75 7/20/2015	94985H5F7	Moodys-Aa3	3/31/2014	565,000.00	567,418.20	0.750	566,723.25	0.420		7/20/2015	1.84
Sub Total / Average				**6,065,000.00**	**6,257,833.20**	**2.596**	**6,112,748.25**	**0.684**			**20.26**
LAIF											
LAIF LGIP	LGIP1002	None	4/30/2011	12,948,515.35	12,948,515.35	0.246	12,948,515.35	0.246	N/A	N/A	41.92
Sub Total / Average				**12,948,515.35**	**12,948,515.35**	**0.246**	**12,948,515.35**	**0.246**			**41.92**
Treasury											
T-Bond 0.25 5/16/2016	912828VC1	Moodys-Aaa	1/24/2014	1,000,000.00	994,530.00	0.250	998,593.70	0.488		5/16/2016	3.22
T-Note 0.375 11/15/2014	912828RQ5	Moodys-Aaa	5/25/2012	2,000,000.00	2,000,624.00	0.375	2,000,160.00	0.362		11/15/2014	6.48
T-Note 0.375 2/15/2016	912828UM0	Moodys-Aaa	1/24/2014	1,000,000.00	999,530.00	0.375	1,001,875.00	0.398		2/15/2016	3.24
T-Note 0.5 6/15/2016	912828VG2	Moodys-Aaa	3/27/2014	1,000,000.00	999,530.00	0.500	1,002,580.00	0.521		6/15/2016	3.24
T-Note 1.375 11/30/2015	912828PJ3	Moodys-Aaa	12/20/2013	2,000,000.00	2,040,480.00	1.375	2,025,460.00	0.330		11/30/2015	6.61
Sub Total / Average				**7,000,000.00**	**7,034,694.00**	**0.665**	**7,028,668.70**	**0.398**			**22.77**
Total / Average				**30,663,305.91**	**30,891,261.51**	**0.877**	**30,741,665.21**	**0.428**			**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 10/1/2014 To 10/31/2014

Description	CUSIP/Ticker	Face Amount/Shares	Principal	Interest/Dividends	Coupon Rate	YTM @ Cost	Settlement Date	Total
BUY								
Ally Bank 1 10/24/2016	02006LKM4	240,000.00	240,000.00	0.00	1.000	1.000	10/23/2014	240,000.00
American Express Bank 1.1 10/24/2016	02587CBZ2	240,000.00	240,000.00	0.00	1.100	1.100	10/23/2014	240,000.00
Capital One Bank 1 10/24/2016	140420QG8	240,000.00	240,000.00	0.00	1.000	1.000	10/22/2014	240,000.00
Great Midwest Bank 0.75 7/27/2016	39083PCK6	240,000.00	240,000.00	0.00	0.750	0.750	10/27/2014	240,000.00
Sub Total / Average		**960,000.00**	**960,000.00**	**0.00**				**960,000.00**
DEPOSIT								
CAMP LGIP	LGIP4000	0.46	0.46	0.00		0.000	10/31/2014	0.46
LAIF LGIP	LGIP1002	13,053.39	13,053.39	0.00		0.000	10/15/2014	13,053.39
Sub Total / Average		**13,053.85**	**13,053.85**	**0.00**				**13,053.85**
INTEREST								
CAMP LGIP	LGIP4000	0.00	0.00	0.46		0.000	10/31/2014	0.46
GE Capital Bank 0.4 10/17/2014	36163CFX3	0.00	0.00	977.32	0.400	0.000	10/17/2014	977.32
LAIF LGIP	LGIP1002	0.00	0.00	13,053.39		0.000	10/15/2014	13,053.39
Merrick Bank 0.5 6/30/2015	5912Y5Y9	0.00	0.00	98.63	0.500	0.000	10/28/2014	98.63
Sub Total / Average		**0.00**	**0.00**	**14,129.80**				**14,129.80**
MATURED								
GE Capital Bank 0.4 10/17/2014	36163CFX3	245,000.00	245,000.00	0.00	0.400	0.000	10/17/2014	245,000.00
Sub Total / Average		**245,000.00**	**245,000.00**	**0.00**				**245,000.00**
WITHDRAW								
LAIF LGIP	LGIP1002	1,000,000.00	1,000,000.00	0.00		0.000	10/3/2014	1,000,000.00
LAIF LGIP	LGIP1002	300,000.00	300,000.00	0.00		0.000	10/10/2014	300,000.00
LAIF LGIP	LGIP1002	300,000.00	300,000.00	0.00		0.000	10/17/2014	300,000.00
LAIF LGIP	LGIP1002	1,400,000.00	1,400,000.00	0.00		0.000	10/22/2014	1,400,000.00
LAIF LGIP	LGIP1002	600,000.00	600,000.00	0.00		0.000	10/24/2014	600,000.00
LAIF LGIP	LGIP1002	900,000.00	900,000.00	0.00		0.000	10/31/2014	900,000.00
Sub Total / Average		**4,500,000.00**	**4,500,000.00**	**0.00**				**4,500,000.00**

COLLECTION SERVICES
ACTIVITIES REPORT
October 2014

Progress/Accomplishments

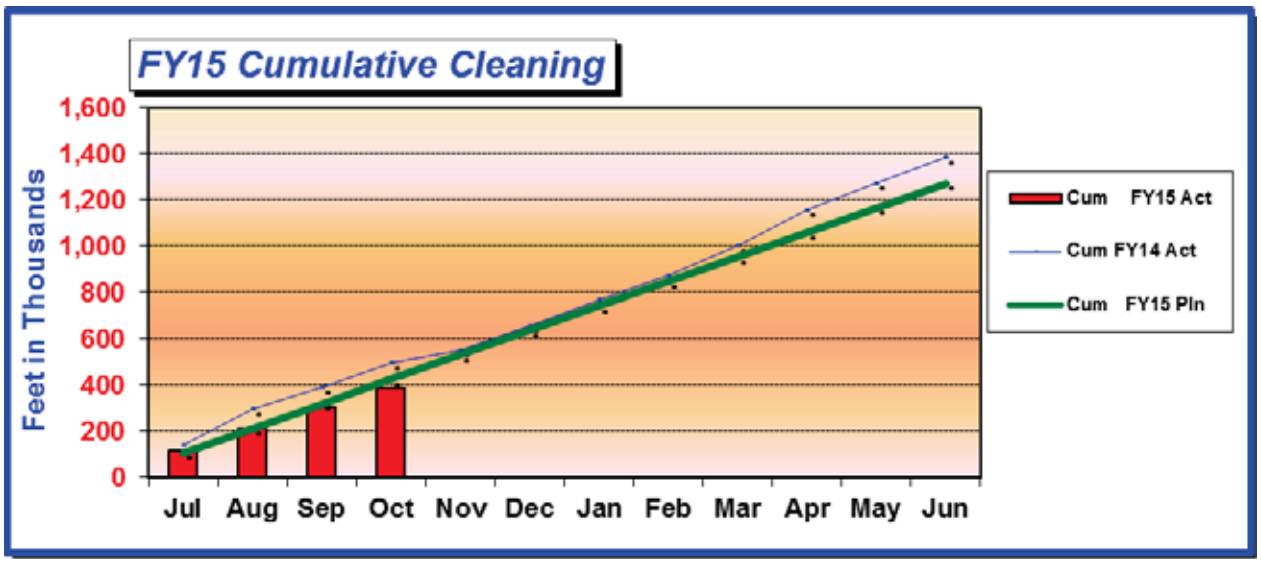
- Completed 82,891 feet of cleaning and 74,346 feet of televising of sewer lines in October
- Responded to 44 service request calls in October
- Completed a total of 30 main repairs in October
- Marked and located all sewer lines (Underground Service Alerts)
- Provided support on the following projects: Lateral Condition Assessment, Upper Hetch Hetcy Trunk Line Lining, Jarvis Ave Sewer Relocation, Newark Backyard Lateral Relocation, Alvarado Site use Study, & Plant Shut Downs
- Hosted a Vendor Fair for MSA
- Participated in and presented at 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
- Participated in recruitment for CSWI and CS Manager

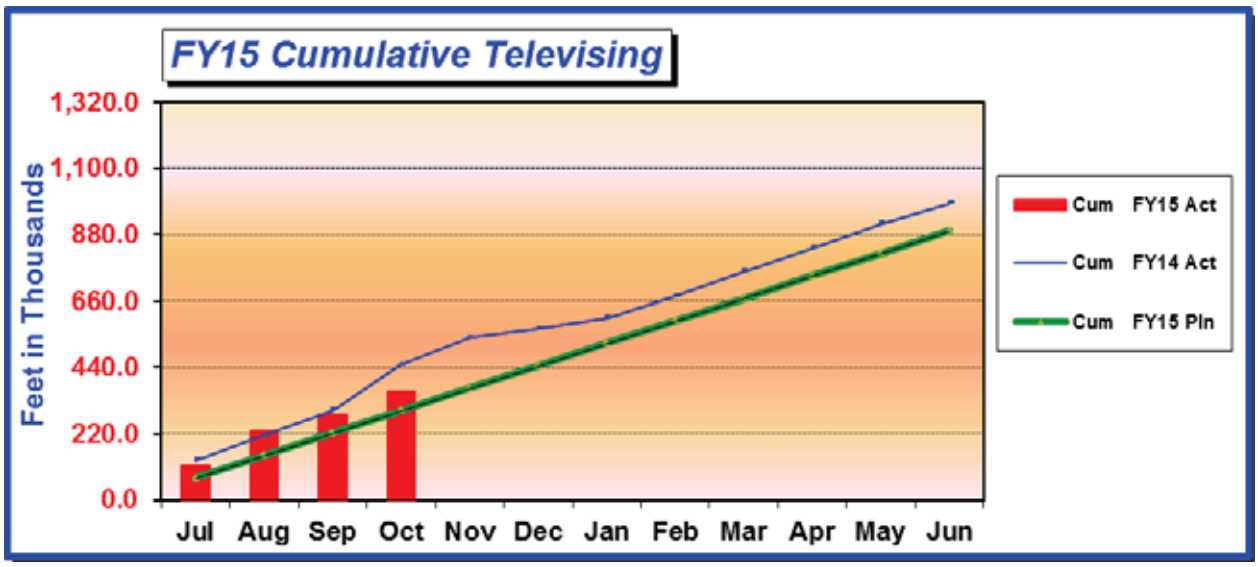
Training for Collections included;
SOP CS529 Sewer Snake (Ridgid K-7500), SOP CS542 Arrow & Sign Boards, Several CS staff attended the CWEA Safety Day in Woodland, Competent Person Traffic Control training, and Safety Star Points shared and discussed topics from Safety meeting.

Future Planning

- Continue effort of to catch up on 72 Month Cleaning and Inspection PMP
- Hire new CSW I employee
- Continue planning for transition for new CS Work Group Manager

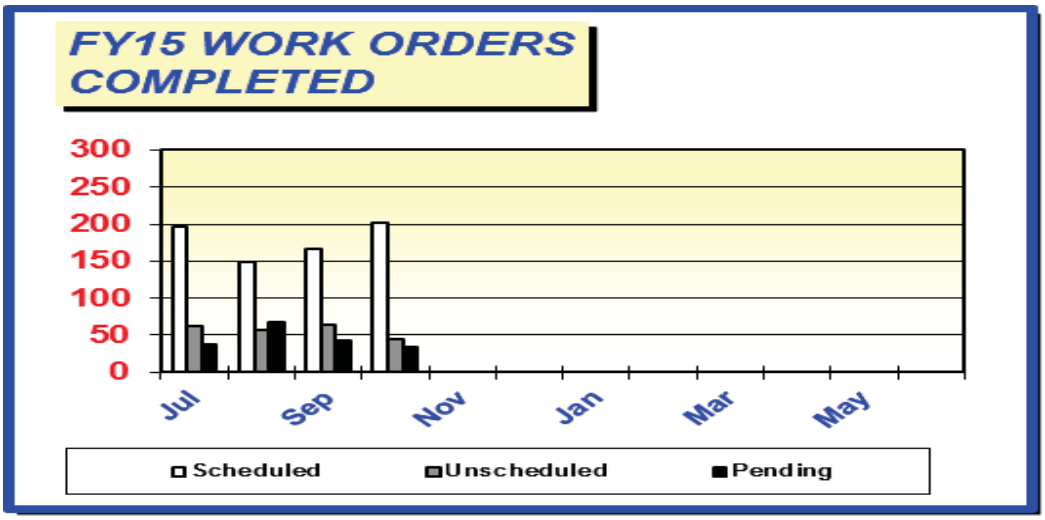
Performance Measures



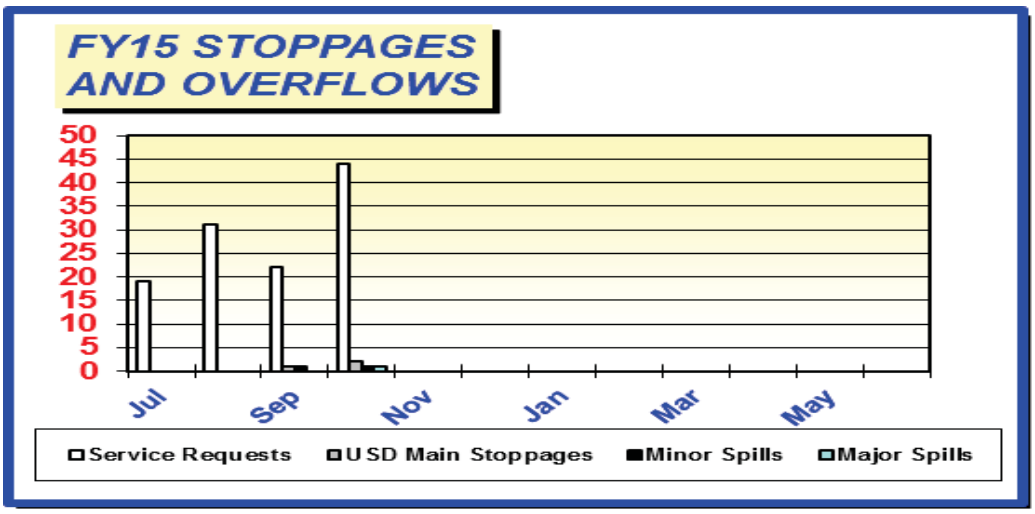


Other Collection Services Status Data:

Support Team Work Order Status:



C/S Maintenance Status:



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

Capital Improvement Program

Boyce Road Lift Station Project – Phase 2 – Contractor installed power and communication cables for the weir gate actuators; completed functional and operational testing for the weir gate actuators and load bank. The programmer completed PLC and SCADA programming for the weir gate actuators. Contractor installed a check valve on the sump pump discharge line in the influent structure.

Cogeneration Project – Contractor completed the first phase of operational test of the cogeneration equipment and the digester gas conditioning equipment. The cogeneration equipment supplier had to make adjustments to address some operational issues. Staff anticipates the last phase of operational test will begin in November.

Jarvis Ave. SS Replacement – The project is nearly complete. Change order work, punchlist work, and closeout are all now in progress. Final paving restoration will be in November.

Primary Digester No. 5 Rehabilitation Project – Contractor completed installation of the temporary containment structure. Sandblast removal on the underside of the side has begun. Sandblast work will be completed in November.

Sodium Hypochlorite Tanks A and B Replacement – Contractor completed final installation of Tank B. Ladder support modifications to Tank A and the Irvington PS Tank were made. Tank B ladder modifications to be performed once the proper supports arrive. Other remaining punch list items include O&M Manual submittal.

Thickener Control Building Improvements Project – Installation of underslab conduits for the new Thickener Electrical Building is currently underway. Concrete slab installation; including subbase, formwork, rebar and concrete placement is scheduled for November.

Upper Hetch Hetchy SS Rehabilitation – Street restoration and site improvements are in progress. The last CIPP lining site (Willow St. in Newark), is planned in November. Project should be complete by the end of December.

Customer Service

Trouble Calls dispatched from the Front Desk during business hours:

Fremont	Newark	Union City	Total
24	5	3	32

Communication & Graphics

- Distributed NACWA Award Press Release to Argus, Tri-City Voice and Patch; added to USD's What's New Page, Facebook and Twitter accounts
- Designed GM's Lions Club presentation and new template; wrote synopsis and forwarded to Lions contact with GM's biographical info; attended presentation with GM

- Updated website: Awards Page, Links Page (garbage company info.)
- Public Website Upgrade project: Held prospective vendor online interviews, reviewed website examples, developed questions for reference checks of 3 finalists; held conference calls with references, reviewed reference input, discussed, scored prospects and selected vendor to begin contract negotiations
- Continued Union City Chamber activities; attended State of the State luncheon as Chamber representative
- Attended Napa Earthquake symposium: City of Napa, Health Dept. and School District Public Info Officers presented their Earthquake response scenarios
- Facilitating USD's involvement with Alameda County Science and Engineering Fair; communicating with lead Agency (DSRSD), committed to creating award certificates after winners are announced, assisting in recruitment of judges

Environmental Compliance

Pollution Prevention Program

# of Dental Inspections	# of School Outreach Events including Sewer Science	# of Plant Tours
6	8	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
FY 15-Q1 City of Fremont Quarterly Billing	October 16, 2014

Pollution and Prevention

Inspections			Illicit Discharge Complaints	Enforcement Actions		
UR	FOG	Total		Type	UR	FOG
88	41	129	0	Verbal Warning	4	7
				Notice of Deficiency	0	0
				Warning Letter	0	4
				Notices of Violation	7	0
				Admin Fine	5	0
				Legal Action	0	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
GW-14-006 Weeks Drilling and Pump Co.	10/29/14

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
None						

(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
2014 Traffic Control Training	10/23/14	Michael, Edda, Doug, Joe, Jason, Alex, Aaron

Engineering/Construction

	Construction Projects	Capital ($1000)	Scheduled Completion	Completed Scope	Completed Time	Comments for October 2014 Activity
1.	Boyce Road LS Phase 2 – Thomas	$330	12/14	70%	61%	Installed power and communication cables, completed PLC and SCADA programming, and completed testing for the weir gate actuators and load bank.
2.	Cogeneration Project – Raymond	$10,566	9/14	95%	100%	Completed first phase of operational testing of the cogen-eration and digester gas conditioning systems. Last phase of operational testing is scheduled in Nov.

	Construction Projects	Capital ($1000)	Scheduled Completion	Completed Scope	Completed Time	Comments for October 2014 Activity
3.	Jarvis Ave. SS Replacement – Chris E.	$1,046	11/14	86%	78%	Change Order, punchlist, and closeout work in progress. Final paving in Nov.
4.	Sodium Hypochlorite Tanks A and B Replacement – Rollie/Derek	$220	10/14	95%	100%	All tank installations are substantially complete. Ladder modifications to comply with OSHA completed for Tank A and Irvington PS FC tank.
5.	Thickener Control Building Improvements Project – Curtis	$9,990	9/16	6%	15%	Construction of new Thickener Electrical Building is currently underway.
6.	Upper Hetch Hetchy SS Rehabilitation – Chris E.	$3,021	12/14	76%	82%	Street restoration and site improvements in progress. Newark (Willow St.) in Nov.
7.	Primary Digester No. 5 Rehabilitation Project - Chris P.	$779	12/14	41%	55%	Completed scaffolding installation and began sandblasting of steel dome.

Design/Study

	Design/Study Projects	Capital ($1000)	Scheduled Completion	Completed Scope	Completed Time	Comments for October 2014 Activity
1.	Irvington Basin Master Plan Update – Capacity Assessment - Rollie	$231	6/15	0%	20%	Continuing data gathering
2.	Local Limits and Wastewater Treatability Study – Michael D.	$107	6/15	98%	100%	RMC generated technical memo on viability of TPH limit
3.	Seismic Study - Raymond	$148	9/14	98%	100%	Evaluating additional fee for more detailed seismic performance analysis of four structures.
4.	Cast Iron Lining Phase VI – Andrew	In-House	11/14	100%	90%	Completing 100% submittal drawings and specs for review
5.	Miscellaneous Spot Repairs Phase VI – Andrew	In-House	3/15	90%	25%	Final Scope complete, 50% drawings are in progress
6.	Alvarado-Niles Road SS Rehabilitation – Chris E.	$248	4/15	30%	29%	50% design submittal due Nov. 21st.

	Design/Study Projects	Capital ($1000)	Scheduled Completion	Completed Scope	Completed Time	Comments for October 2014 Activity
7.	Pine St. Easement Improvements – Chris E.	TBD	TBD	0%	0%	West Yost submitted Agreement & Task Order No.1 (pre-design) for review
8.	Plant Site Use Study – Curtis	$200	6/15	10%	23%	Workshop No. 1 to take place in Nov.
9.	MCC and PLC Replacement Project, Phase 3 – Chris P.	$78	6/15	0%	10%	Beecher Engineering has begun the design of the Project.
10.	Generator Controls Upgrade Project – Chris P.	$72	6/15	0%	0%	Completed negotia-tions of Task Order (approved by GM).
11.	Plant Facilities Improvements Project – Thomas	TBD	TBD	0%	0%	West Yost submitted Agreement & Task Order No.1 (pre-design) for review
12.	Plant Lighting Study – Thomas	TBD	6/15	0%	0%	TRC (Consultant) submitted Agreement & Task Order No.1 for review
13.	Administrative and Field Operations Buildings Leak Investigation – Chris P.	$51	10/14	100%	100%	Received revised final report.
14.	Pump Station Master Plan – Raymond	TBD	TBD	TBD	TBD	Awaiting task order from Carollo.
15.	Newark Backyard SS Relocation – Phase 2 - Rollie	$200	3/15	35%	37%	Individual sewer lateral plans under review; Sewer main design in progress
16.	Aeration Blower Project – Chris P.	TBD	TBD	TBD	TBD	Negotiating Task Order with Carollo. Supplied Quest with data request on Aeration system.

Treatment & Disposal
Activities Report
October 2014

Progress/Accomplishments

- Maintained 100% compliance with NPDES permits.
- Completed 99% preventive maintenance activities for the month of October.
- Reviewed the Hayward Marsh Rehabilitation Project Baseline TM and provided comments.
- Attend the BACWA Nurtient Symposium II.
- Attended the WEF/WERF webinar on wastewater energy solutions.
- Attended the NACWA sustainability webinar.
- Attended the Regional Monitoring Program Annual Meeting.

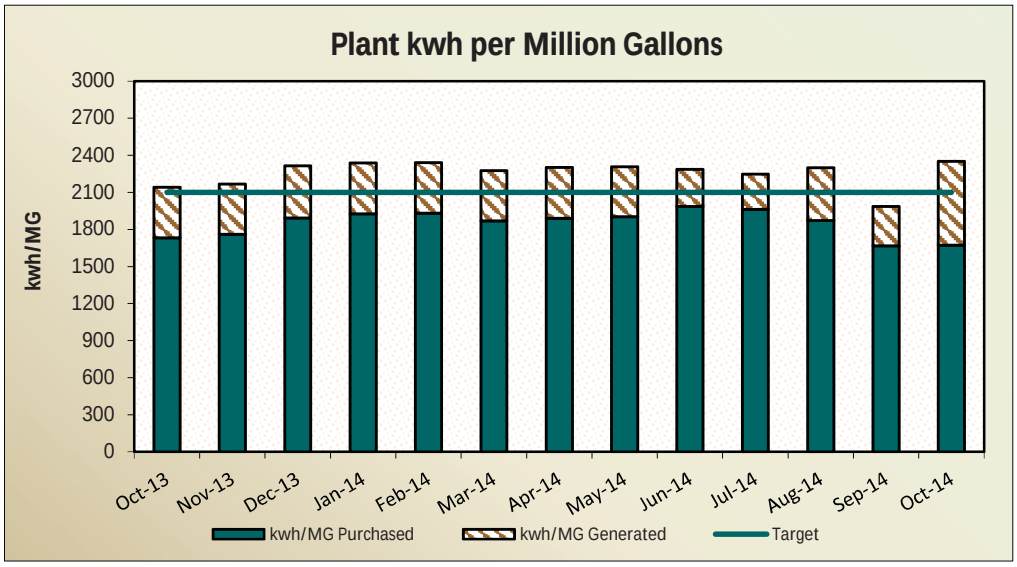
Future Planning

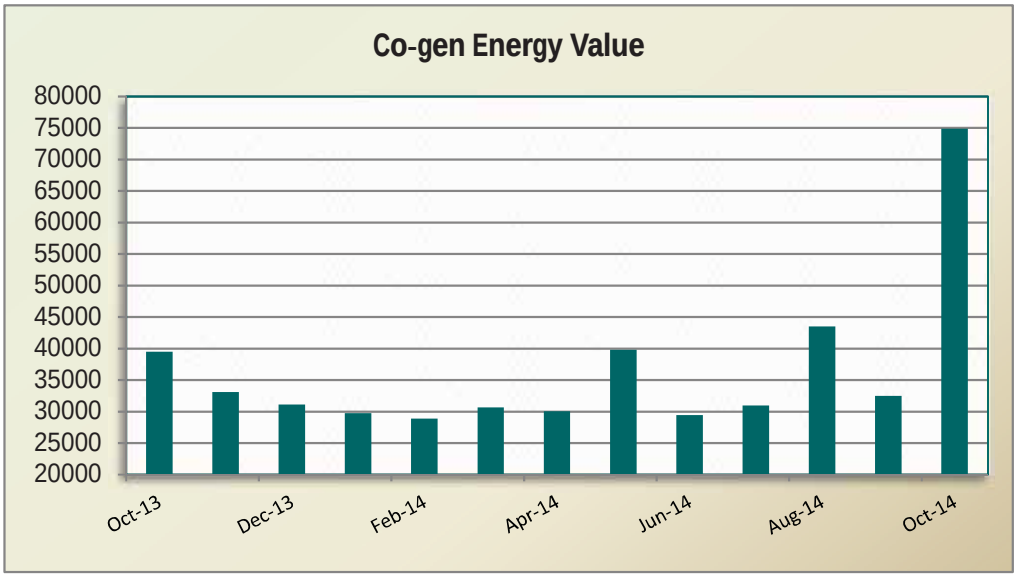
- Provide a tour of the Hayward Marsh to the Regional Water Board Staff.
- Prepare application for the Old Alameda Creek NPDES permit reissuance.
- Finalize the Hayward Marsh Rehabilitation Project Baseline TM.
- Review the Draft Hayward Marsh Rehabilitation Project Options Draft TM.
- Schedule Options Workshop with the Hayward Marsh Rehabilitation Proect
- Prepare for the ELAP recertification of the treatment plant laboratory.

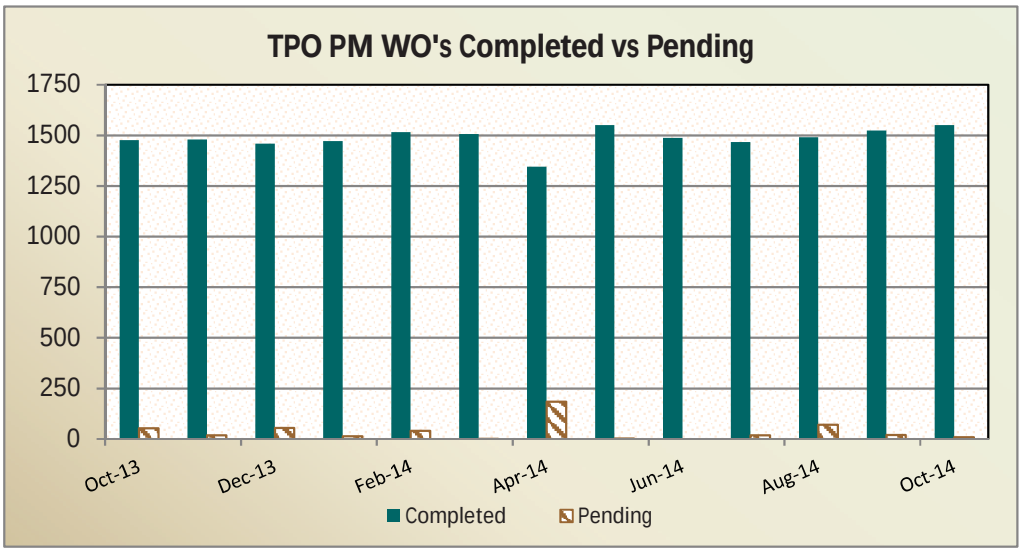
Other

- Cogen system produced 29% of power consumed for the month of October.

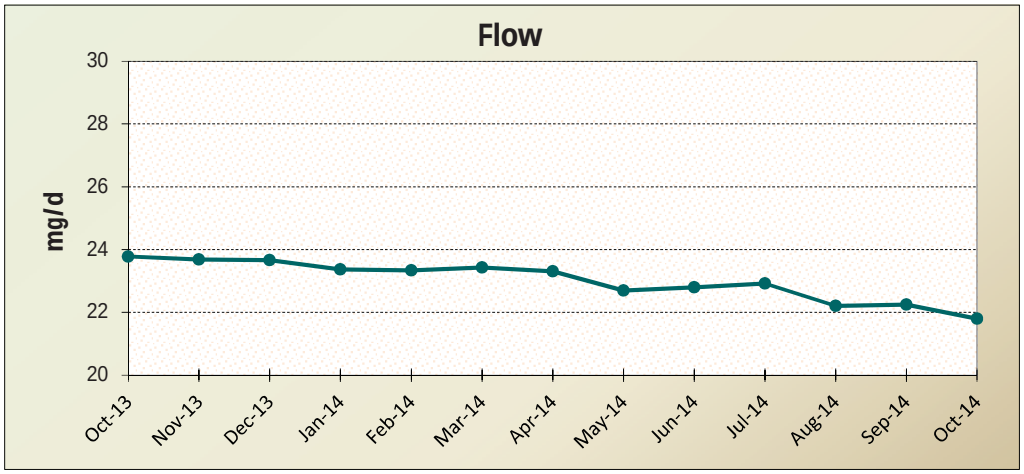
Performance Measurements

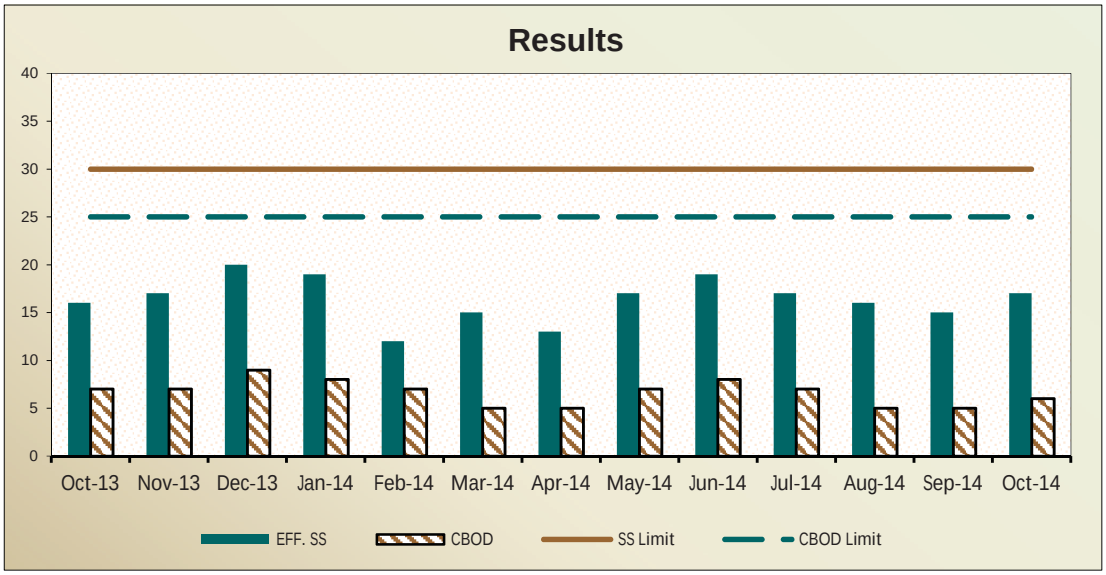






Operational/NPDES Performance





Parameter	Monthly Average	NPDES Permit Limits
SS	17	30 mg/l
BOD	6	25 mg/l
F. Coliform	17 - 56	500, 5-Day Log Mean
	30 - 165	1100, 90th Percentile
Copper	5.1	78 µg/l
Nickel	4.0	79 µg/l
Mercury	0.00249	0.066 µg/l
Cyanide	< 4.0	42 µg/l

FMC
Activities Report
October 2014

Progress/Accomplishments

- Completed 96% preventive maintenance activities for the month of October.
- Completed 84 corrective maintenance work orders for the month of October.
- Retrofitted covered storage lighting to LED fixtures.
- Overhauled #1 centrifuge.
- Assisted with bypass pumping at Newark Pump Station for CIP.

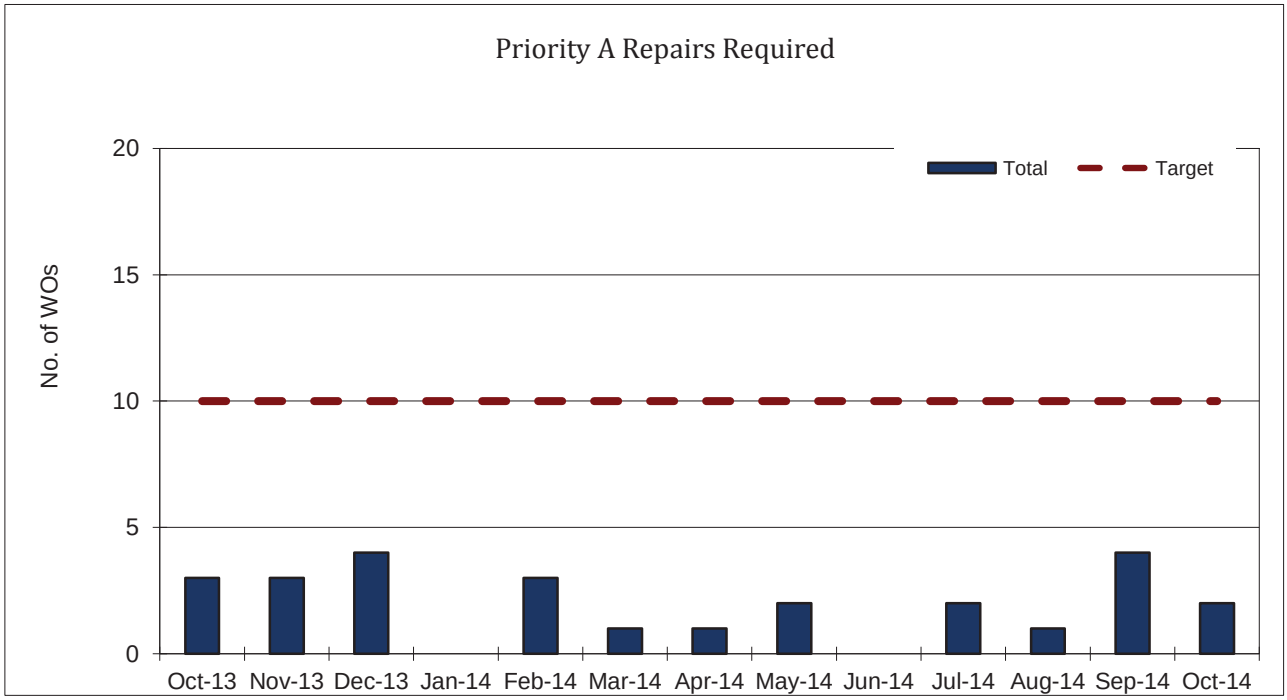
Future Planning

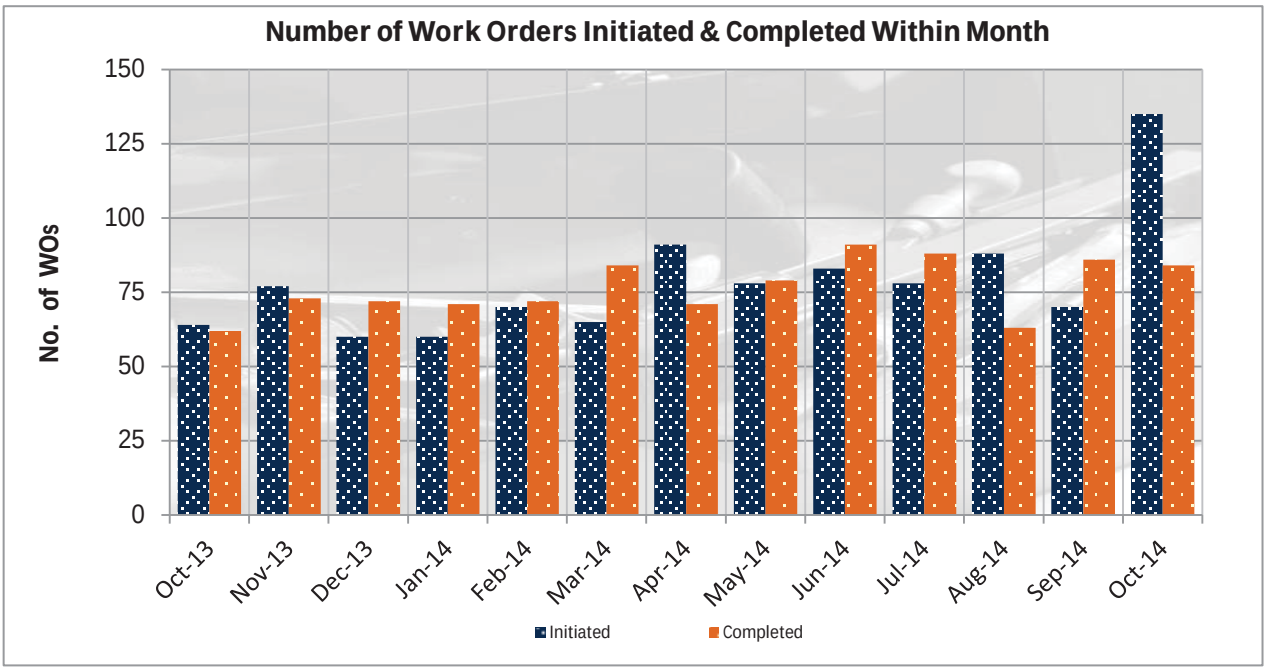
- Inspect west force main to Headworks valve seat.
- Prepare and coat piping and machinery in Pump Room #4 lower gallery.
- Install level detection on new chemical tanks.

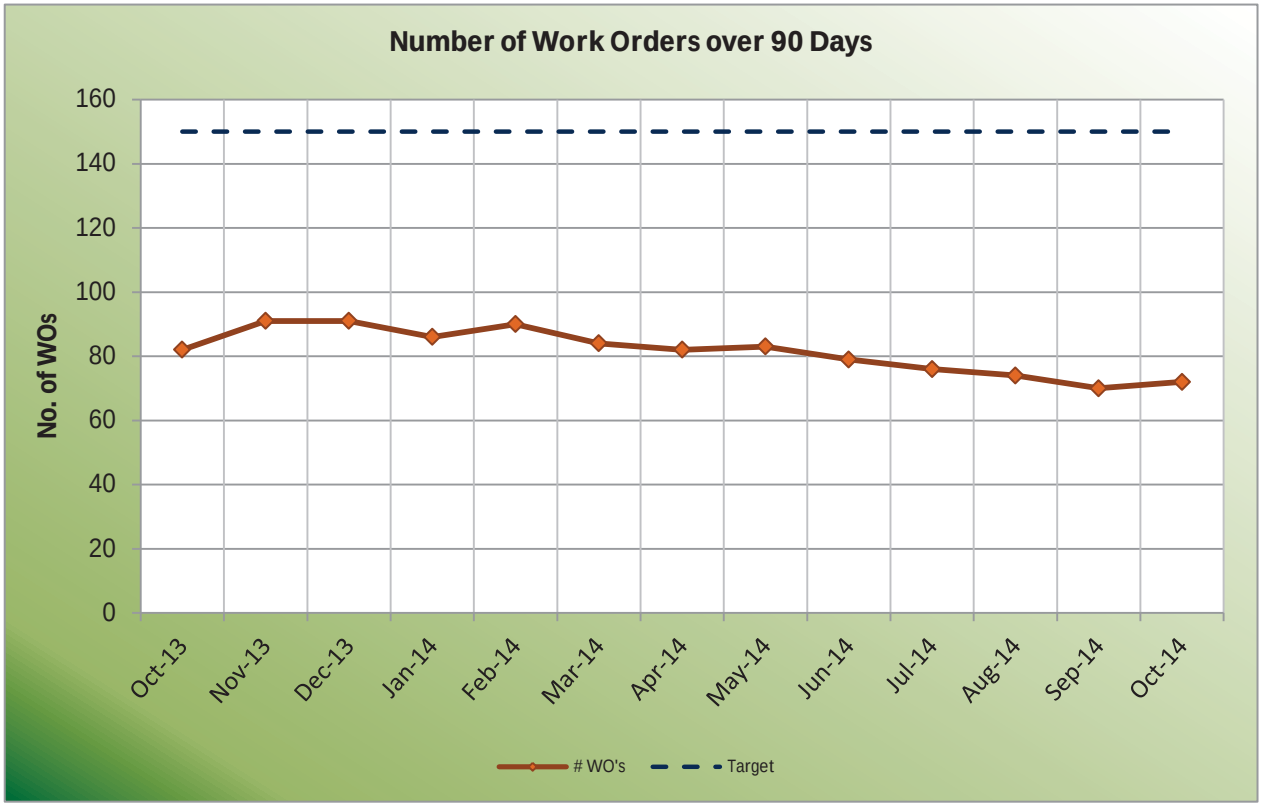
Other

- Co-Gen commissioning.

Performance Measurements




Number of Work Orders Initiated & Completed Within Month
No. of WOs
150
125
100
75
50
25
0
Oct-13
Nov-13
Dec-13
Jan-14
Feb-14
Mar-14
Apr-14
May-14
Jun-14
Jul-14
Aug-14
Sep-14
Oct-14
Initiated
Completed


Number of Work Orders over 90 Days
No. of WOs
160
140
120
100
80
60
40
20
0
Oct-13
Nov-13
Dec-13
Jan-14
Feb-14
Mar-14
Apr-14
May-14
Jun-14
Jul-14
Aug-14
Sep-14
Oct-14
WO's
Target

DATE: November 24, 2014

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Richard A. Cortes, Business Services Manager
Todd W. Jacob, Information Technology Administrator

SUBJECT: Agenda Item No. 8 - Meeting of November 24, 2014
AUTHORIZE THE GENERAL MANAGER TO EXECUTE AN AGREEMENT WITH NICHOLAS J. PEROS, P.E. FOR THE CREATION OF A SCADA MASTER PLAN AND SCADA STANDARDS

Recommendation

Authorize the General Manager to execute an agreement with Nicholas J. Peros, P.E. for the creation of a Supervisory Control and Data Acquisition (SCADA) Master Plan and SCADA Standards for an amount not to exceed $246,764. In addition, approve $10,000 in other project related costs.

Background

The District's SCADA system is a critical system used to monitor and control the wastewater collection and treatment processes. In addition, data collected from the SCADA system is used for trends and compliance reports.

The IT Master Plan completed in FY'12 defined the need to create a SCADA Master Plan and document SCADA Standards. This will be the first SCADA Master Plan and SCADA Standards developed for the District. The results will provide the District a strategic road-map defining SCADA improvement projects over the next five years along with standards that will be used to align future SCADA-related projects. The FY'15 budget includes funds for the creation of a SCADA Master Plan and SCADA Standards.

The SCADA Master Plan involves a needs assessment, the review of our existing SCADA systems and processes, recommendations for improvement, and an implementation plan for proposed projects. The existing SCADA system is scheduled for renewal after this project is finished so we can leverage the information collected during the SCADA Master Plan and SCADA Standards project.

Staff developed an RFP for the consultant services and Purchasing posted it on www.PublicPurchase.com then issued it to six firms on September 22, 2014. Staff received proposals from the following seven firms:

- Nicholas J. Peros, P.E.
- Westin
- ARCSine
- CH2M HILL
- Tetra Tech
- EMA
- JSP Automation

The proposals were evaluated by the following members of the SCADA Master Plan and SCADA Standards Project Team:

- Dave Livingston, Treatment and Disposal Services Manager
- Todd Jacob, Information Technology Administrator
- David Leath, Electrical/Support Team Coach
- Raymond Chau, Capital Improvements Projects Team Coach
- Armando Lopez, Total Productive Operations Coach (Days)
- Trieu Nguyen, Senior Information Technology Analyst

CH2M HILL and Nicholas J. Peros, P.E. were invited to interview and Nicholas J. Peros, P.E. was selected based on their experience and approach to the project. Nicholas J. Peros, P.E. has conducted similar work for Monterey Regional Water Pollution, Stockton East Water District, Calleguas Municipal Water District, and El Dorado Irrigation District.

The attached Agreement, RFP, and Proposal comprises the complete Scope of Work for these phases of the project and some of the major elements of the Scope are summarized here:

SCADA Master Plan and SCADA Standards

- Phase I – Needs Assessment
  - Site Visits
  - Final Report – Chapter 1

- Phase II – Review Existing SCADA System and Processes
    - Workshops
    - Final Report – Chapter 2
- Phase III – Recommendations
    - SCADA Standards
        - PLC Programming
        - SCADA Programming
        - Control Panels
        - Instrumentation
    - Final Report – Chapter 3
- Phase IV – Implementation Plan
    - Project Definitions
    - Final Report – Chapter 4
- Phase V – Report
    - Final Executive Summary and Complete Report

Note that services from Automated Network Controls and Beecher Engineering will be utilized to provide detailed information about our SCADA and electrical environment at an estimated cost of $10,000.

Funds are budgeted as part of the IT budget, within the Information System (IS) renewal and replacement fund. The project is scheduled to be completed by June 2015. At that time, the completed SCADA Master Plan will be presented to the Board for approval.

Staff recommends the Board authorize the General Manager to execute an agreement with Nicholas J. Peros, P.E. for the creation of a SCADA Master Plan and SCADA Standards for an amount not to exceed $246,764. In addition, approve $10,000 in other project related costs.

PRE/RAC/TWJ

Attachments: Agreement, Request for Proposal, Proposal

Union Sanitary District

TERMS AND CONDITIONS FOR SERVICES

THIS AGREEMENT IS MADE AS OF November 24th, 2014, BETWEEN UNION SANITARY DISTRICT (hereinafter referred to as "District"), and Nicholas J. Peros, P.E. (hereinafter referred to as Consultant).

WITNESSETH:

WHEREAS, the District desires to obtain a SCADA Master Plan and SCADA Standards (hereinafter referred to as Project), and has issued a Request for Proposals dated September 22nd, 2014, a copy of which is attached hereto and incorporated herein as Exhibit A, and;

WHEREAS, the Consultant desires to furnish such services and has submitted a written proposal dated October 23rd, 2014, a copy of which is attached hereto and incorporated herein as Exhibit B.

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

Article 1 - Contract Documents: The Contract documents consist of the Agreement between the District and the Contractor, these Terms and Conditions for Services, Technical Specifications, plans, and any supplemental terms and conditions (hereinafter together referred to as the "Contract"). The Contract represents the entire, integrated agreement between the parties hereto and supersedes any prior negotiations or representations either written or oral. The Agreement shall be signed by the District and Contractor. Execution of the Agreement by the Contractor is a representation that the Contractor has reviewed and understood the Contract, visited the site, familiarized itself with the site conditions for the work to be performed and has agreed to be bound by all the terms and conditions of the Contract. The intent of the Contract is to include everything necessary for the proper execution and completion of the Contract.

Article 2 - Changes: The District may make changes in the work by additions, deletions, or revision. The District shall notify the Contractor before such changes by written notice. If such changes affect the cost of or the time required for performance of this Contract, an equitable adjustment in the price or time or both shall be made. No change by Contractor shall be allowed without prior written approval of District. Any claim of Contractor for an adjustment under this Article must be made in writing within thirty (30) days from the date of receipt by Contractor of notification of such change unless District waives this condition in writing. Nothing in this Article shall excuse the Contractor from proceeding with performance of the Contract as changed.

Article 3 - Payment: Payments will be made upon submission of itemized invoices at the prices stipulated herein for goods and after delivery and acceptance or after services are rendered and accepted, less deductions, if any, as herein provided. Payment for partial deliveries may be made whenever amounts due so warrant or when requested by the Seller and approved by Buyer.

Payment due dates will be computed from the date of receipt of goods or services, or the date of receipt of a correct invoice (whichever is later) to date Buyer's check is issued. Payment of invoice shall not constitute acceptance of the goods and shall be subject to appropriate adjustment for failure of Seller to meet the requirements of this order. Buyer may set off any amount owed by Seller to Buyer against any amount owed by Buyer to Seller under this order.

Article 4 - Taxes: Contractor shall pay all contributions, taxes and premiums payable under federal, state and local laws measured upon the payroll of employees engaged in the performance of work under this Contract, and all applicable sales, use, excise, transportation, privilege, occupational and other taxes applicable to materials and supplies furnished or work performed hereunder and shall save District harmless from liability for any such contributions, premiums and taxes.

Article 5 - Inspection: Contractor shall provide the District with the necessary facilities to conduct a safe and convenient inspection and/or testing of the work throughout its execution. The District shall have the power to reject any material and/or work that is not in conformity with the Contract. All rejected material and/or work shall be removed and promptly replaced by the Contractor all to the satisfaction of the District and at no expense to the District.

Article 6 - Termination:

a. District may, by written notice stating the effective date, terminate this Contract for convenience at any time. District shall pay Contractor as full compensation for performance until such termination the unit or pro rata Contract price for the performed and accepted portion of the Contract.

b. The District may, by written notice, terminate this Contract if the Contractor commits a breach of the Contract and fails or refuses to cure such breach within ten (10) working days after receipt of a written notice to cure. The Contractor shall be liable for all costs incurred by the District in completing the Contract in excess of the Contract price, less the amount previously paid to Contractor as of the date of termination.

c. If, after notice of termination for default, District determines that the Contractor was not in default or that the failure to perform this Contract was due to causes beyond the control and without the fault or negligence of Contractor (including, but not restricted to, acts of God or of the public enemy, acts of District, acts of government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, and delays of a subcontractor or supplier or their respective sub subcontractors and/or suppliers due to such causes and without the fault or negligence of the subcontractor or supplier or their respective sub subcontractors and/or suppliers), termination shall be deemed for the convenience of District, unless District shall determine that the services covered by this contract were obtainable by Contractor from other sources in sufficient time to meet the required performance schedule.

d. If the District determines that Contractor has been delayed in the work due to causes beyond its control and without the fault or negligence of Contractor or its subcontractors

and suppliers, District may extend the time for completion of the work under this Contract, when promptly applied for in writing by Contractor. Any extension granted shall be effective only if given in writing. If such delay is due to failure of District, not caused or contributed to by Contractor, to perform services or deliver property in accordance with the terms of the Contract, Contractor in event of delay or failure of District to perform shall, however, be limited to any money actually and necessarily expended in the work during the period of delay, solely by reason of the delay. No allowance will be made for anticipated profits.

e. The rights and remedies of District provided in the Article shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

Article 7 - Character of Services: Contractor, as an independent Contractor, shall furnish all equipment, personnel and materials necessary to complete the Contract in the time prescribed expeditiously and efficiently during as many hours per shift per week and at such locations as the District may so require and designate.

Article 8 - Patent Rights, Copyrights, Trade Names and Royalties: Contractor shall defend, indemnify and hold harmless the District against all losses, damages, liabilities, costs, and expenses including attorneys' fees arising from any infringement of any patent right, copyrights, and/or trade name. Contractor shall pay all applicable royalties and license fees and other charges for the use of any patent right, copyright, or trade name in completing this Contract.

Article 9 - Warranty: Contractor warrants to the District that all materials and equipment provided under this Contract will be new and of the highest quality and all work performed will be of the highest quality, free from defect and in strict conformance with this Contract. If, within one (1) year after acceptance by the District, or within such longer period prescribed by law or elsewhere in this Contract any portion of the work is found defective or not in strict conformance with the Contract, the Contractor shall promptly make all the necessary corrections at no cost to the District. This warranty obligation shall survive the termination of this Contract.

Article 10 - Assignment and Subcontracting: This Contract may not be assigned or subcontracted by Contractor without prior written approval of District. In case such consent is given, it shall not relieve Contractor from any of the obligations of this Contract and any transferee or subcontractor shall be considered the agent of Contractor and, as between the parties hereto, Contractor shall be and remain liable as if no such transfer or subcontracting had been made.

Article 11 - Indemnity: The Contractor has the entire responsibility for any and all death of or injury to the Contractor's or its subcontractor's employees as well as the public, for all loss or damage arising from any obstructions or difficulties, either natural or artificial, which may be encountered in the work under this Contract, for damage to property resulting from the performance of work under this contract, for damage from any action of the elements prior to final acceptance of the work under this Contract, for damage from any act or omission not authorized by the Contract on the part of the Contractor, its subcontractors, suppliers or agents. Contractor expressly agrees to indemnify, defend and hold harmless the District, its Directors, officers, employees, and consultants free and harmless from and against any and all loss, liability,

expense, claims, costs, suits, damages, judgments, including attorneys' fees, arising out of Contractor's operations or performance of work under this Contract including but not limited to the above-mentioned responsibilities. These obligations shall survive notwithstanding the Contractor's completion of the work, expiration or termination of the contract.

Article 12 - Permits, Licenses and Laws: Contractor shall procure, pay for and comply with all permits and licenses necessary for the completion of the Contract. Contractor shall abide by all applicable laws, regulations and ordinances of the United States, California and its political subdivisions in which the work under this Contract is performed. Contractor shall be liable for all damages and shall indemnify and save District harmless from and against all damages and liability that may arise out of the failure of Contractor to secure, pay for and comply with any such licenses or permits or to comply fully with any and all applicable laws, regulations and/or ordinances.

Article 13 - Cooperation: Contractor and its subcontractors, if any, shall cooperate with the District and other vendors and contractors on the premises and shall so carry on their work that other cooperating vendors and contractors shall not be hindered, delayed or interfered within the progress of their work, and so that all of such work shall be finished and complete job of its kind.

Article 14 - Waiver of Default: Any failure of District at any time, or from time to time, to enforce or require the strict keeping and performance by Contractor of any of the terms or conditions of this Contract shall not constitute a waiver by District of a breach of any such terms or conditions in any way, or the right of District at any time to avail itself of such remedies as it may have for any such breach or breaches of such terms and conditions.

Article 15 - District Furnished Property: Contractor assumes complete liability for any District property furnished to Contractor in connection with this Contract. Contractor by accepting such District furnished property acknowledges that the property is appropriate for the use for which it is intended, free from defect and new. Contractor agrees to return the District furnished property less reasonable wear and tear or pay the District the full value of such District furnished property that is destroyed, damaged, kept, lost or not accounted for. Title to District furnished property shall remain at all times with the District unless otherwise provided in writing.

Article 16 -Reserved

Article 17 - Insurance Requirements for Contractors

Contractor shall provide and maintain at all times during the performance of the Agreement

the following insurances:

A. Minimum Scope of Insurance:

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence Form CG 00 01).

2 Insurance Service Office Form Number CA 00 01 covering Automobile Liability, Code 1 (any auto).

3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

B. Workers' Compensation Insurance: as required by the State of California.

C. Employer's Liability Insurance $1,000,000 per accident for bodily injury or disease.

D. General Liability Insurance (Including operations, products and completed operations, as applicable). Said insurance shall provide a minimum of $1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

E. Automobile Liability Insurance: 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 per accident for bodily injury and property damage.

F. Deductibles: Any deductibles or self-insured retentions must be declared to and approved by the District. At the option of the District, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects to the District, its officers, officials, employees and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the District guaranteeing payment of losses and related investigations, claim administration and defense expenses.

G. Other Insurance Provisions

1. The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

   a. The Union Sanitary District, its officers, officials, employees and volunteers are to be covered as insureds with respect to liability arising out of automobiles owned, leased hired or borrowed by on or behalf of the Contractor; and with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. General Liability coverage shall be provided in the form of an Additional Insured endorsement (CG 20 10 11 85 or equivalent) to the Contractor's insurance policy, or as a separate owner's policy.

   b. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects to the District, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the District, its officers,

officials, employees and volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

c. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) day's prior written notice has been provided to the District.

H. Acceptability of Insurers: Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the District. Exception may be made for the State Compensation Insurance Fund when not specifically rated.

I. Verification of Coverage: Contractor shall furnish the District with original certificates **and amendatory endorsements** to the overlaying policies, effecting coverage required by this clause. The endorsements should on forms provided by the District or on other than the District's forms provided those endorsements conform the District's requirements. All certificates and endorsements are to be received and approved by the District before work commences. However, failure to do so shall not operate as a waiver of these insurance requirements. The District reserves the right to require complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications at any time.

J. Waiver of Subrogation: Contractor hereby agrees to waive subrogation which any insurer of Contractor may acquire from vendor by virtue of the payment of any loss. Contractor 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 entity for all work performed by the Contractor, its employees, agents and subcontractors.

Article 18 - Work Hours: Except as may otherwise be specified, all work shall be performed during regular work hours as follows: Monday through Friday from 8:00 a.m. to 5:00 p.m., except holidays.

Article 19 – Liability: The Contractor shall bear full and exclusive responsibility for any release of hazardous or non-hazardous substances, transportation or disposal of hazardous substances during the course of performance under this Purchase Document. The Contractor shall be solely responsible for all claims and expenses associated with the transport or disposal of hazardous substances or with the removal or remediation of any release, including without limitation, payment of any fines or penalties levied against the District by any governmental authority as a result of such release. The Contractor will hold harmless, indemnify, protect and defend the District, all officers and employees thereof, from any claims, suits or actions arising from any disposal or release. The Contractor shall immediately notify the District of any accidental incident related to the handling, transportation or disposal of hazardous or non-hazardous substances. The District reserves the right to gain access to and inspect Contractor vehicles and/or facilities that handle, transport, or depose of hazardous or non-hazardous substances.

In addition, the Contractor shall bear full and exclusive responsibility for any release of hazardous or non-hazardous substances, transportation or disposal of hazardous substances during the

course of performance under this Purchase Document. The Contractor shall be solely responsible for all claims and expenses associated with the transport or disposal of hazardous substances or with the removal or remediation of any release, including without limitation, payment of any fines or penalties levied against the District by any governmental authority as a result of such release. The Contractor will hold harmless, indemnify, protect and defend the District, all officers and employees thereof, from any claims, suits or actions arising from any disposal or release. The Contractor shall immediately notify the District of any accidental incident related to the handling, transportation or disposal of hazardous or non-hazardous substances. The District reserves the right to gain access to and inspect Contractor vehicles and/or facilities that handle, transport, or depose of hazardous or non-hazardous substances.

Article 20 – Commencement and Progress of the Work to Completion: The Contractor, after receiving notice that the Contract has been executed on behalf of the District, shall coordinate commencement of the work with the District representative specified in the Purchase Order. The Contractor shall diligently prosecute all awarded portions of the Contract to Completion in accordance with the Schedule provided by the District representative.

Article 21 – Reserved

.Article 22 – Liquidated Damages: Time is of the essence in this contract. Pursuant to Government Code Section 53069.83, the Contractor shall pay to the District the sum of $ **None**, per day, for each and every calendar day that the Contractor fails to deliver the products, equipment and/or services within the prescribed schedule as specified in the specifications, subject only to extensions granted thereto in writing by the District.

The Contractor shall pay such liquidated damages as provided. The District may deduct, at its option, the amount of liquidated damages from any money due or to become due to the Contractor under this contract as more particularly described in Article 9 herein.

The Contractor will be granted an extension of time and will not be assessed with liquidated damages for any delay beyond the time period specified in the specifications for delays caused by acts of God or the public enemy, fire, floods, epidemics, quarantine, restrictions, strikes, labor disputes, shortage of materials and freight embargos, or other causes deemed by the District to be beyond the reasonable control of the Contractor, provided the Contractor notifies, in writing, the party indicated in Article 30 herein of the cause of the delays within 15 calendar days from the beginning of any such delay. The District shall ascertain the nature of the delay and determine whether an extension of time is warranted, which determination shall be final and conclusive. The Contractor has the burden of proof that the delay was beyond its control.

Article 23 – Coordination of Contract Documents: Any conflict, error or discrepancy in the Contract shall be resolved by the following order of precedence: (1) Purchase Order, (2) Terms and Conditions for Services (3) Contractor Proposal/Quotation (4) Drawings and/or Exhibits.

Article 24 - Claims or Disputes

The Contractor shall be solely responsible for providing timely written notice to the District of any claims for consideration in accordance with the provisions of this contract. It is the District's intent

to investigate and attempt to resolve any Contractor claims before the Contractor has performed any disputed work. Therefore, the Contractor's failure to provide timely notice shall constitute a waiver of the Contractor's claim for additional compensation and/or time.

The Contractor shall not be entitled to consideration for any cause, including any act, or failure to act, by the District, or failure or refusal to issue a modification, or the happening of any event, thing, or occurrence, unless it has given the District due written notice of a potential claim. The potential claim shall set forth the reasons for which the Contractor believes credit may be due, the nature of the costs involved, and the amount of the potential claim.

If based on an act or failure to act by the District, such notice shall be given to the District prior to the time that the Contractor has started performance of the work giving rise to the potential claim for consideration. In all other cases, notice shall be given within ten days after the happening of the event or occurrence giving rise to the potential claim.

If there is a dispute over any claim, the Contractor shall continue to work during the dispute resolution process in a diligent and timely manner as directed by the District, and shall be governed by all applicable provisions of the contract. The Contractor shall maintain cost records of all work which is the basis of any dispute.

If an agreement can be reached which resolves the Contractor's claim, the parties will execute a contract modification to document the resolution of the claim. If the parties cannot reach an agreement with respect to the Contractor claim, they may chose a dispute resolution process or terminate the contract.

Article 25 - Attorneys' Fees

If any legal proceeding should be instituted by either of the parties to enforce the terms of this contract or to determine the rights of the parties under this contract, the prevailing party in said proceeding shall recover, in addition to all court costs, reasonable attorney fees.

Article 26 – Governing Law: The Agreement shall be governed and construed in accordance with the laws of the State of California.

Article 27 - Nepotism Prohibited: By furnishing the goods and/or providing the services covered under the Purchase Document or contract, Contractor certifies that no employee of the Seller is a spouse, parent, person who stood *in loco parentis*, grandparent, child, grandchild, brother, sister, aunt, niece, nephew, cousin, domestic partner or person living in the same household (whether through marriage, domestic partnership, or as a couple living together), including step-, half-, and "in-law" to any member of the District's Board of Directors, General Manager, Work Group Manager, Business Services Coach, or the Purchasing Agent or his/her designee. If such a relationship exists, the Contractor shall advise the District of same before any goods are shipped or any services are provided. The District will advise the Contractor when to ship the goods or provide the services, however the District reserves the right, at its sole discretion, to deem the Purchase Document or contract void and unenforceable if such a relationship exists.

Article 28 - Service of Notice: All notices required in this Agreement shall be sent by certified mail, return receipt requested, and if sent to:

Purchasing Agent
Union Sanitary District
5072 Benson Rd.
Union City, CA 94587

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

UNION SANITARY DISTRICT

By: _____

Title: _____

Date: _____

NICHOLAS J. PEROS, P.E.

By: Nicholas J. Peros

Title: Owner

Date: 11/13/14

Request for Proposals

Supervisory Control and Data Acquisition (SCADA) Master Plan and SCADA Standards

#S-15-S-202

Issue Date: September 22, 2014
Proposals Due Date: October 23, 2014 by 4:00 p.m.
Union Sanitary District
5072 Benson Road
Union City, CA 94587

Roslyn Fuller, Purchasing Agent
5072 Benson Road
Union City, CA 94587
Phone: 510-477-7526
Fax: 510-477-7509
E-Mail: Roslyn_fuller@unionsanitary.com

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ATTACHMENTS

I. DEFINITIONS

1. **Proposer**-The firm submitting a proposal in response to this Request for Proposals

2. **USD, District** – The Union Sanitary District, Union City, California

3. **RFP** – This Request of Proposals solicitation

4. **Vendor, Contractor, Supplier** – Successful Proposer or proposer awarded the contract or purchase order for the work.

5. **SCADA** – Supervisory Control and Data Acquisition

6. **ODMS** - Operations Data Management System

7. **CMMS** – Computerized Maintenance Management System

8. **PLC** – Programmable Logic Controller

9. **HMI** – Human Machine Interface

10. CIP – Capital Improvements Projects

II. INSTRUCTIONS TO PROPOSERS

1. FIRM PROPOSAL. Proposers' prices shall remain firm for a period of ninety- (90) days from the Date Due, unless otherwise specified in the Request for Proposal (RFP).

2. FORMS. Proposals must be submitted on preprinted Proposal forms supplied by the Purchasing Office.

3. INFORMED PROPOSERS. Before submitting Proposals, Proposers must fully inform themselves of the conditions, requirements and specifications of the work or materials to be furnished. Failure to do so will be at Proposers' own risk and they cannot secure relief on the plea of error.

4. INK OR TYPEWRITTEN. All information, prices, notations, signatures, and corrections must be in ink or typewritten. Mistakes may be crossed out and corrections typed or printed adjacent to the mistake and initialed in ink by the person signing the proposal.

5. PAYMENT TERMS. Discounts for payments made twenty- (20) days or more from receipt of invoice will not be considered in award of Proposal. Payment discounts must be clearly shown on the proposal form.

6. PRICES. Prices shall be stated in units and Proposals made separately on each item. Where there is a conflict between unit prices and extended prices, unit prices will govern. Where there is a conflict between words and figures, words will govern.

7. QUESTIONS. Questions about the RFP general provisions or technical provisions should be made in writing and directed to Roslyn Fuller, Purchasing Agent, at www.publicpurchase.com.

8. RESULTS. No public opening of Proposals submitted will be conducted.

9. RULES FOR SUBMITTING PROPOSALS.

   a. **Date Due.** Proposals must arrive at the Union Sanitary District by the due date, time and at the location indicated on the cover of this RFP.

   b. **Responsibility.** Proposers are solely responsible for ensuring their Proposal is received by the District in accordance with the solicitation requirements, before the date and time specified in the RFP, and at the place specified. The District shall not be responsible for any delays in mail or by common carriers or by transmission errors or delays or mistaken delivery. Delivery of proposal shall be made at the office specified in the RFP. Deliveries made before the Date Due and time but to the wrong District office will be considered non-responsive unless re-delivery is made to the office specified before the Date Due and time specified in the RFP.

   c. **Late Proposals.** The Proposal shall be due on the date and time indicated in Section III, Proposed Timeline below. Proposals received after the date and/or time stated will be considered late and may not be considered for award.

   d. **Extension of Date and Time.** The District reserves the right to extend the Date Due and/or time when it is in the best interest of the District.

   e. **Facsimile Transmissions.** Proposals may **not** be submitted by facsimile.

   f. **Forms.** To be considered for award, each RFP shall be made on forms furnished by the District.

   g. **Signature.** To be considered for award, each RFP shall be signed by a representative of the Proposer who is authorized to bind the firm to the proposal.

   h. **Sealed.** Proposals must be submitted in a sealed envelope, and delivered to Union Sanitary District, 5072 Benson Road, Union City, CA 94587.

III. RFP Proposed Time Schedule

The RFP process will proceed according to the following tentative schedule:

September 22, 2014	RFP Released
October 9, 2014	Pre-proposal meeting from 9-11 A.M.
October 13, 2014	Submittal questions due by 5:00 P.M.
October 16, 2014	Addendum Issued
October 23, 2014	**Proposal Submittal Deadline 4:00 P.M.**
October 24-30, 2014	Evaluation Process
November 11, 2014	Consultant Interviews/Clarification
November 12, 2014	Contract Negotiations
November 24, 2014	Contract Award

Tentative Project Schedule	
April 30, 2015	Drafts of final reports and recommendations
June 30, 2015	Final reports due

IV. NOTICE TO PROPOSERS

Notice is hereby given that Union Sanitary District, 5072 Benson Road, Union City, California, County of Alameda, State of California, will receive at the office of the Purchasing Agent, sealed proposals for:

SCADA Master Plan and SCADA Standards

Requests for clarifications and questions may be submitted at any time up to, but no later than close of business, as described in Section III Proposal Timeline. Questions shall be sent to: Roslyn Fuller, Purchasing Agent, at www.publicpurchase.com or via e-mail at Roslyn_fuller@unionsanitary.ca.gov (underscore line between first and last name).

The Project Manager on this Project will be: **Todd Jacob, Information Technology Administrator**.

All proposed pricing shall include all related permits and taxes, if applicable. Offers shall be submitted on the form contained in the RFP solicitation, copies of which can be obtained from www.publicpurchase.com **Each proposal shall be filed no later than 4:00 p.m., on Wednesday, October 22, 2014.**

All mailed Proposals shall be marked on the outside of the sealed envelope as follows:

Name & Address of Proposer **SCADA Master Plan and SCADA Standards** Indicate **RFP S-14-S-192** and Proposal Due Date & Time	To: Roslyn Fuller, Purchasing Agent Union Sanitary District 5072 Benson Road Union City, CA 94587

The District reserves the right to reject any or all Proposals or to waive any informalities or minor irregularities in any proposal, or to cancel this Request for Proposals at any time.

No Proposer may withdraw their proposal after the close of the proposal submission date.

This is a Request for Proposals solicitation. Proposals will not be publically opened on the indicated due date and time but will be reviewed, evaluated and scored by the District in accordance with the evaluation criteria and timeline delineated in this solicitation.

Background

Union Sanitary District (the "District") operates pursuant to Division 6 of the Health and Safety Code of the State of California (Sanitary District Act of 1923, as amended). The District, which was established in 1918 and subsequently reorganized in 1923, is empowered to own and operate wastewater facilities, and the Board of Directors may prescribe, revise and collect fees or charges for services and facilities of the District in connection with its wastewater system.
The District is governed by a five-member Board of Directors elected by wards for four-year overlapping terms. The election is at-large and non-partisan. The Board appoints the General Manager to manage and oversee the day-to-day operations.

Introduction

The SCADA Master Plan and SCADA Standards project came out of the IT Master Plan completed in 2012. There has not been a SCADA Master Plan developed for the District to date, this project will create the first SCADA Master Plan and SCADA Standards documents. The objective of the SCADA Master Plan is to provide a roadmap for our SCADA system evolution over the next 5-7 years achieved through strategic projects sequenced to realize our planned vision and goals. The objective of the SCADA Standards project is to develop a comprehensive set of standards in a way that guides the uniform design, implementation, and management of the District's SCADA system; to optimize its operational value; to enhance its maintainability, and to lower its delivery cost and risk. As a guide for the expected level of effort for these two projects, more emphasis should be placed on the SCADA Master Plan than the SCADA Standards.

The budget for this project is $250,000.

There has been an ongoing need to define standards for the District's SCADA system with an overall plan that will move us forward for several years now. CIP has already developed some standards for PLC programming that are used for project bids but there is more work that needs to be done.

The SCADA servers and workstations hardware are up for renewal over the next 12 months. The information developed by this project will directly feed into how the SCADA servers and workstations hardware and software are implemented. In addition, we have upgraded our CMMS system and added Mtelligence software that can be leveraged to perform predictive analysis going forward if sensors and their data are available.

The Plant operates a SCADA system that monitors and controls Plant processes. The software is GE Proficy iFix version 5.0, Proficy Historian 4.5, and Proficy Portal 3.5. This software is an HMI attached to PLC's located in the plant and 8 remote sites gathering process data and archiving historical data.

The lab uses a customized Microsoft Access database to store the majority of their data. An ODMS project is under way as an alternative system to track lab and SCADA data.

V. GENERAL SCOPE OF PROJECT

The anticipated Scope of Services will include but is not limited to the following:

1. Needs Assessment

   Meet with the SCADA Steering Committee, Management, major users, Electricians, and IT staff to gather information about District SCADA system operations and future goals. Receive input on how the District SCADA system needs to support these goals.

   a. Schedule individual and group meetings to receive input
   b. Summarize results and identify gaps

2. Review Existing SCADA System and Processes

   SCADA Master Plan

   a. Technology and governance
   b. SCADA Service Level Agreement
   c. SCADA Standard Operating Procedures
   d. SCADA Job Competency Requirements and Answers
   e. Operations and Maintenance metrics
   f. SCADA alarm notification system and process
   g. SCADA reporting including data from the SCADA system and lab data results entry
   h. Operator manual data entry, storage, and reporting
   i. Lab data entry, storage, and reporting
   j. SCADA to CMMS interface for generating work orders based on runtime data
   k. Mtelligence software for generating predictive alerts based on sensor data
   l. SCADA system replacement practices
   m. Remote access solution
   n. Network design including the primary and backup

architecture, subnets, and routing
o. Disaster recovery plan and procedures
p. Use of Consultants

SCADA Standards

a. Documented and de facto standards
b. PLC Programming Standards RS Logix 5000
c. PLC Panel Layout/Hardware Requirements
d. System Integration Guidelines
e. Control philosophy
f. SCADA Network diagram
g. Recent SCADA-related CIP project scope
h. 300+ SCADA screens – review for conformance to standards defined

At completion of this task, meet with management to present findings and preliminary recommendations.

3. Recommendations

Using the information gathered in section V.1. and V.2. as well as the consultant's expertise, develop draft recommendations explaining how the District SCADA system can meet the needs of the District. Include recommendations based on industry best practices. All experimental practices, processes, and technology are out of scope and should not be included as a recommendation. Recommendations shall cover the following areas:

SCADA Master Plan

a. Vision, goals, and objectives for the District's SCADA system
b. Training, practices, and procedures to maintain and enhance the SCADA system
c. Technology, practices, and procedures to secure and maintain security for the SCADA system
d. Technology and practices used to manage and retain knowledge assets
    i. Documentation
    ii. Historical data
    iii. Staff institutional experience
e. Using the SCADA system to optimize operations and maximize our value through improved monitoring and

access to decision making information.

i. Reduce energy and chemical consumption
ii. Reduce Sanitary Sewer Overflow events
iii. Do more with the same levels of operational and support staff

f. Operations and Maintenance metrics including charts, trends, and alerts
g. A consolidated view of all data to effectively manage and optimize operations and maintenance
h. SCADA integration with other business systems
    i. Review current integration between SCADA and CMMS
    ii. Identify new integration needs from staff
    iii. Identify benefits that can be realized by integrating with other business systems based on industry best practices
    iv. Document the results in the SCADA master plan
i. Automated operator collection solutions for entering manually collected data from the field
j. Process measurement and instrumentation management
    i. Additional sensors on all key assets to support predictive analysis to avoid costly failures (leveraging Mtelligence software solution)
    ii. Additional instrumentation for regulatory compliance and optimization initiatives
    iii. Smart instruments that improve maintenance and calibration
    iv. Instrumentation accuracy
    v. Instrument redundancy in critical process areas
    vi. Lifecycle management including replacement of instruments
k. The use of virtualization for SCADA servers and workstations including the recommended configuration for maximum redundancy and uptime
l. Asset management practices for the SCADA system including how often to replace hardware for the SCADA servers, workstations, PLCs, HMIs, and network switches. Include these hardware replacements as projects.
m. Software upgrade philosophy for maintaining SCADA server software, PLC software, and HMI software.
n. Remote access solution
o. Network design improvements for redundancy, reliability,

manageability, and security

p. Future SCADA trends and technologies
q. Disaster recovery plan and procedures
r. Use of Consultants
s. Appropriate SCADA support staffing levels and skill development areas

SCADA Standards

a. Document control philosophy standards for the control system, control modes, and architecture
b. Document software development methodology that defines each phase of the SCADA software development process including:
    i. Phase sequencing and dependencies
    ii. Phase deliverables
    iii. Testing requirements
    iv. Standard documentation and test forms
c. Develop Process Control Narrative requirements that defines standards for what to include in a SCADA-related project.
d. Document programming standards for the HMI, PLCs, and Historian.
e. Document SCADA Design Standards including:
    i. Naming conventions
    ii. Alarm configuration
    iii. Screen development (colors, animation, navigation, graphics, and architecture)
    iv. Chart development
    v. Guidelines for the application of the standards
    vi. Specification outlines and format
    vii. Template drawings (P&ID, Loop Termination Drawings, control panel layout, instrument installation details for pressure, flow and level).
f. Document standards for SCADA Network Design, Alarm Management, Data Management, and Reporting.
g. Document SCADA Design Methodology that defines each phase of the design process from Preliminary Design through the Bid Phase including:
    i. Number of design phases
    ii. Constraints
    iii. Dependencies
    iv. Phase deliverables

v. Design reviews

h. SCADA screens redesign for standardization, correction, and improvement. Include this as a project.

i. Facilitate a workshop to validate the SCADA Standards developed and documented against a small SCADA related project.

Present cost/benefit justification and work with management to identify any funding constraints and incorporate into final recommendations. Present draft recommendations to the District SCADA Steering Committee and Executive Team. Present final recommendations at District and Board meetings.

4. Implementation Plan

Using the final recommendations collected in Section V.3. Propose projects to implement these recommendations. Develop a detailed time-phased implementation plan for each of these projects. The plan shall include timing and resources needed to implement each proposed project.

5. Reports

Compile the work elements from V.1. through V.4. above into two written reports that will document the process and findings. The reports shall be structured such that they can be updated periodically. Submit draft reports and incorporate District comments to publish final “SCADA Master Plan” and “SCADA Standards” reports.

VI. Submittal of Proposal Format and Content

1. Describe your approach and methodology to the Scope of Work (SOW) above.

A. Describe your methodology and approach to this project.
The proposal should set forth a work plan, including an explanation of the methodology to be followed, to perform the services required in this request for proposal.

Proposers will be required to provide the following information on their approach:

i. Proposed sequencing of the engagement

ii. Level of staff and number of hours to be assigned to each proposed

segment of the engagement

B. Describe your Firm's qualifications and experience
The proposer should state the size of the firm, the size of the firm's SCADA master planning staff, the location of the office from which the work on this engagement is to be performed. Describe the experience of the firm with sewer sector-related projects over the past five years.

C. Proposed project team
All responses must include resumes of each individual who will be providing Specialized Consulting Services under this proposal, as well as written descriptions of the individuals' experience including the SCADA Master Plan and SCADA Standards development experience. Indicate how the quality of staff over the term of the agreement will be assured. The Detailed Proposal should demonstrate the qualifications of the particular staff to be assigned to this engagement. All Respondents must identify the Project Manager who will have primary responsibility for contact and communications, and the person who is authorized to negotiate and contractually-bind your organization.
Provide a schedule of hourly rates to be charged by personnel identified as the proposed project team and rate categories for additional personnel that may work on specific assignments.
The District reserves the right to investigate and review the background of any or all personnel assigned to work under the Agreement including any work orders thereto, and, based on such investigations, to reject the use of any persons within the District's discretion.
Any changes to personnel require formal written approval by the District and the District reserves the right to terminate the Agreement if changes are not approved.

D. Describe how you will track and manage the contract hours and costs.

E. Describe how as Consultant you would work with District staff and facilitate meetings.

F. Provide a schedule for this project including payment milestones, the team members, and total hours.

G. Include sample formats for SCADA Master Plans and SCADA Standards.

H. References
All responses must include references from at least five (5) clients of the firm,

and preferably clients who have utilized the firm on matters related to the Specialized Consulting Services set forth in this RFP. The references must include the primary contact person, address, phone number, description of the services provided, date, and total hours. If individuals identified as participants in a contract entered into under this RFP previously participated in any of the projects performed for other clients on the foregoing list, please identify the projects in which the individual participated.

I. Options

Provide any other information the Proposer believes is applicable to the evaluation of the proposal. You may use this section to address those aspects of your services that distinguish your firm from other firms.

J. Billing Rates and Structure

The District anticipates establishing a not to exceed agreement with the selected firm. Proposers are required to complete the **Cost Proposal, Attachment D** based on time and materials not to exceed costs. **Cost proposal will be sealed in a separate envelope and clearly mark as COST PROPOSAL. One should be marked "ORIGINAL" and "COPY".** For travel costs, please refer to the **District's Travel Policy, Attachment E.** Any travel expenses are to be included as separate line items in your proposal and will adhere to the District's Travel Policy.

VII. INSTRUCTIONS TO PROPOSERS

1. Firms interested in submitting Proposals for {name project} shall submit in writing one (1) original 8 x 11 unbound Proposal marked "ORIGINAL", one electronic version in PDF Format, on a CD or "thumb-drive" and six (6) 8 x 11 bound copies, (no three ring binders) marked "COPY", on or before the Submittal Deadline for Proposals, responses must be delivered to:

RFP #S-15-S-202
SCADA Master Plan and SCADA Standards
Union Sanitary District
5072 Benson Road
Union City, CA 94587

2. Any and all data, materials and documentation submitted to Union Sanitary District (District) in response to this RFP shall become the District's property and shall be subject to public disclosure under the California Public Records Act.

3. Submitted Responses must be valid in all respects for a minimum period of sixty (60) days after the deadline for submission.

4. The proposal shall be made using the proposal cost forms provided herein. Blank spaces on the form shall be properly filled, and no additions shall be made to the items mentioned therein, unless requested.

For the purposes of this solicitation, the words Contractor, Supplier, and Seller shall hold the same meaning as the firm or company awarded a contract under this solicitation and a District Purchase Order is issued for the service described herein.

The full name, business address, and business telephone number of the individual, partnership, joint venture, or corporation submitting the proposal shall be typewritten or legibly printed on the proposal form. The proposer shall sign the proposal with his usual signature.

The proposer shall state for each item on the proposal form, in clearly legible figures, the unit price and item total or lump sum, as the case may be, for which he proposes to perform the work and/or furnish the material or equipment required by these specifications. Alteration of a price by erasure or interlineations must be initialed by the proposer.

A partner shall sign for a partnership and the names and addresses of all partners shall be given.

An officer shall sign for a corporation, the corporate name shall be attested by the corporate seal, and the names and titles of all officers of the corporation shall be given. A signature other than a corporate officer's will be accepted if an authenticated power of attorney is attached.

The District may award a contract resulting from this solicitation to the proposer whose proposal will be most advantageous to the District, based on the evaluating criteria, as specified in **Section IX,** Proposal Criteria and Evaluation of this solicitation, and price.

5. **The District reserves the right to:**
   1. Reject any or all proposals if such action is in the best interest of the District.
   2. Accept a proposal other than the lowest proposal.
   3. Waive informalities or minor irregularities in proposals received.
   4. Award a contract on the basis of initial proposal received, without further discussions, negotiations or request for best-and-final offers, with any proposal. Therefore, each initial proposal shall contain the proposer's best terms and cost from a technical and responsiveness standpoint.

6. Proposers shall acknowledge receipt of any addendum to this solicitation by identifying the addendum number and date on the form(s) for submitting a proposal. Failure to acknowledge receipt of an addendum may result in rejection of proposal as non-responsive and thus rejection from further consideration.

7. Proposers must complete all forms requiring specific information. Incomplete forms may deem the proposal non-responsive and thus rejection from further consideration.

VIII. PROPOSER'S CHECKLIST

Listed below is a checklist provided for your use prior to sealing your proposal. Your close attention to the following items will assure that your proposal may not be rejected because of non-responsiveness due to incompleteness, errors or omission.

1) Proposal
   a. Date
   b. Business Profile and Firm Name entered exactly as it appears on your corporate seal and invoice and address.

c. Methodology and approach
d. List of project team members and resumes
e. List References
f. Sign your proposal, failure to comply may be cause for rejection of the proposal.
g. Statement of Experience

2) **Budget/Cost Proposal (in a separate sealed envelope. One should be marked "ORIGINAL" and "COPY"**

3) **Offer's References**
Fill in sufficient detail to establish your ability to carry out the Scope of Work and as evidence of responsiveness to the RFP requirements. Also refer to Section IX, Proposal Criteria and Evaluation.

4) **Addenda**
Acknowledged all addenda, if any on the Proposal Form in Section XIII, Offer and Signature.

IX. PROPOSAL CRITERIA AND EVALUATION

Proposals will be evaluated to conformance to the general criteria listed below by an evaluation committee comprised of District employees having familiarity and expertise in evaluating the work to be done.

Evaluation criteria and assigned point values to be used to evaluate proposals received are listed below:

i. Proposer's References and Statement of Experience:
This includes a description of experience in carrying out projects of this type, demonstrated by specific examples from the past (5) years and evaluation of proposer's project team experience, record of performance, demonstrated capacity, facilities and organizational structure to perform the type of services sought in this RFP. Evaluation of this criterion will also include reference checking.

Maximum Points = 60 points

ii. Proposer's Responsiveness to the RFP Methodology and approach: This includes the proposer's completeness, clarity, detail and methodology to the District's scope of work, Demonstrated knowledge of the work to be completed, as well as the inclusion and completeness of requested forms (e.g. resumes of project team, furnished Proposal Form [properly signed and executed], complete point-of-contact information for references provided, submission of the Non-Collusion Affidavit, etc.).

Maximum Points = 40 points

Total Possible Points = 100

iii. **Cost Proposal:** The cost to the District will be considered in the evaluation after the evaluations of the above factors. The degree of the importance of cost will increase with the degree of equality of the proposals in relation to the other factors on which selection is to be based. **Your cost proposal must be in a separate sealed envelope, clearly mark "Cost Proposal" One should be marked "ORIGINAL" and "COPY".**

X. GENERAL TERMS AND CONDITIONS

The successful Proposer is expected to enter into an agreement with the District. The District's standard Professional Services Agreement Terms and Conditions are included in this RFP. Please provide any proposed changes in that form agreement along with your proposal.

Article 1 - Contract Documents: The Contract documents consist of the Agreement between the District and the Contractor, these Terms and Conditions for Services, Technical Specifications, plans, and any supplemental terms and conditions (hereinafter together referred to as the "Contract"). The Contract represents the entire, integrated agreement between the parties hereto and supersedes any prior negotiations or representations either written or oral. The Agreement shall be signed by the District and Contractor. Execution of the Agreement by the Contractor is a representation that the Contractor has reviewed and understood the Contract, visited the site, familiarized itself with the site conditions for the work to be performed and has agreed to be bound by all the terms and conditions of the Contract. The intent of the Contract is to include everything necessary for the proper execution and completion of the Contract.

Article 2 - Changes: The District may make changes in the work by additions, deletions, or revision. The District shall notify the Contractor before such changes by written notice. If such changes affect the cost of or the time required for performance of this Contract, an equitable adjustment in the price or time or both shall be made. No change by Contractor shall be allowed without prior written approval of District. Any claim of Contractor for an adjustment under this Article must be made in writing within thirty (30) days from the date of receipt by Contractor of notification of such change unless District waives this condition in writing. Nothing in this Article shall excuse the Contractor from proceeding with performance of the Contract as changed.

Article 3 - Payment: Payments will be made upon submission of itemized invoices at the prices stipulated herein for goods and after delivery and acceptance or after services are rendered and accepted, less deductions, if any, as herein provided. Payment for partial deliveries may be made whenever amounts due so warrant or when requested by the Seller and approved by Buyer. Payment due dates will be computed from the date of receipt of goods or services, or the date of receipt of a correct invoice (whichever is later) to date Buyer's check is issued. Payment of invoice shall not constitute acceptance of the goods and shall be subject to appropriate adjustment for failure of Seller to meet the requirements of this order. Buyer may set off any amount owed by Seller to Buyer against any amount owed by Buyer to Seller under this order.

Article 4 - Taxes: Contractor shall pay all contributions, taxes and premiums payable under federal, state and local laws measured upon the payroll of employees engaged in the performance of work under this Contract, and all applicable sales, use, excise, transportation, privilege, occupational and other taxes applicable to materials and supplies furnished or work performed hereunder and shall save District harmless from liability for any such contributions, premiums and taxes.

Article 5 - Inspection: Contractor shall provide the District with the necessary facilities to conduct a safe and convenient inspection and/or testing of the work throughout its execution. The District shall have the power to reject any material and/or work that is not in conformity with

the Contract. All rejected material and/or work shall be removed and promptly replaced by the Contractor all to the satisfaction of the District and at no expense to the District.

Article 6 - Termination:

a. District may, by written notice stating the effective date, terminate this Contract for convenience at any time. District shall pay Contractor as full compensation for performance until such termination the unit or pro rata Contract price for the performed and accepted portion of the Contract.

b. The District may, by written notice, terminate this Contract if the Contractor commits a breach of the Contract and fails or refuses to cure such breach within ten (10) working days after receipt of a written notice to cure. The Contractor shall be liable for all costs incurred by the District in completing the Contract in excess of the Contract price, less the amount previously paid to Contractor as of the date of termination.

c. If, after notice of termination for default, District determines that the Contractor was not in default or that the failure to perform this Contract was due to causes beyond the control and without the fault or negligence of Contractor (including, but not restricted to, acts of God or of the public enemy, acts of District, acts of government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, and delays of a subcontractor or supplier or their respective sub subcontractors and/or suppliers due to such causes and without the fault or negligence of the subcontractor or supplier or their respective sub subcontractors and/or suppliers), termination shall be deemed for the convenience of District, unless District shall determine that the services covered by this contract were obtainable by Contractor from other sources in sufficient time to meet the required performance schedule.

d. If the District determines that Contractor has been delayed in the work due to causes beyond its control and without the fault or negligence of Contractor or its subcontractors and suppliers, District may extend the time for completion of the work under this Contract, when promptly applied for in writing by Contractor. Any extension granted shall be effective only if given in writing. If such delay is due to failure of District, not caused or contributed to by Contractor, to perform services or deliver property in accordance with the terms of the Contract, Contractor in event of delay or failure of District to perform shall, however, be limited to any money actually and necessarily expended in the work during the period of delay, solely by reason of the delay. No allowance will be made for anticipated profits.

e. The rights and remedies of District provided in the Article shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

Article 7 - Character of Services: Contractor, as an independent Contractor, shall furnish all equipment, personnel and materials necessary to complete the Contract in the time prescribed expeditiously and efficiently during as many hours per shift per week and at such locations as the District may so require and designate.

Article 8 - Patent Rights, Copyrights, Trade Names and Royalties: Contractor shall defend, indemnify and hold harmless the District against all losses, damages, liabilities, costs, and expenses including attorneys' fees arising from any infringement of any patent right, copyrights, and/or trade name. Contractor shall pay all applicable royalties and license fees and other charges for the use of any patent right, copyright, or trade name in completing this Contract.

Article 9 - Warranty: Contractor warrants to the District that all materials and equipment provided under this Contract will be new and of the highest quality and all work performed will be of the highest quality, free from defect and in strict conformance with this Contract. If, within one (1) year after acceptance by the District, or within such longer period prescribed by law or elsewhere in this Contract any portion of the work is found defective or not in strict conformance with the Contract, the Contractor shall promptly make all the necessary corrections at no cost to the District. This warranty obligation shall survive the termination of this Contract.

Article 10 - Assignment and Subcontracting: This Contract may not be assigned or subcontracted by Contractor without prior written approval of District. In case such consent is given, it shall not relieve Contractor from any of the obligations of this Contract and any transferee or subcontractor shall be considered the agent of Contractor and, as between the parties hereto, Contractor shall be and remain liable as if no such transfer or subcontracting had been made.

Article 11 - Indemnity: The Contractor has the entire responsibility for any and all death of or injury to the Contractor's or its subcontractor's employees as well as the public, for all loss or damage arising from any obstructions or difficulties, either natural or artificial, which may be encountered in the work under this Contract, for damage to property resulting from the performance of work under this contract, for damage from any action of the elements prior to final acceptance of the work under this Contract, for damage from any act or omission not authorized by the Contract on the part of the Contractor, its subcontractors, suppliers or agents. Contractor expressly agrees to indemnify, defend and hold harmless the District, its Directors, officers, employees, and consultants free and harmless from and against any and all loss, liability, expense, claims, costs, suits, damages, judgments, including attorneys' fees, arising out of Contractor's operations or performance of work under this Contract including but not limited to the above-mentioned responsibilities. These obligations shall survive notwithstanding the Contractor’s completion of the work, expiration or termination of the contract.

Article 12 - Permits, Licenses and Laws: Contractor shall procure, pay for and comply with all permits and licenses necessary for the completion of the Contract. Contractor shall abide by all applicable laws, regulations and ordinances of the United States, California and its political subdivisions in which the work under this Contract is performed. Contractor shall be liable for all damages and shall indemnify and save District harmless from and against all damages and liability that may arise out of the failure of Contractor to secure, pay for and comply with any such licenses or permits or to comply fully with any and all applicable laws, regulations and/or ordinances.

Article 13 - Cooperation: Contractor and its subcontractors, if any, shall cooperate with the District and other vendors and contractors on the premises and shall so carry on their work that other cooperating vendors and contractors shall not be hindered, delayed or interfered within

the progress of their work, and so that all of such work shall be finished and complete job of its kind.

Article 14 - Waiver of Default: Any failure of District at any time, or from time to time, to enforce or require the strict keeping and performance by Contractor of any of the terms or conditions of this Contract shall not constitute a waiver by District of a breach of any such terms or conditions in any way, or the right of District at any time to avail itself of such remedies as it may have for any such breach or breaches of such terms and conditions.

Article 15 - District Furnished Property: Contractor assumes complete liability for any District property furnished to Contractor in connection with this Contract. Contractor by accepting such District furnished property acknowledges that the property is appropriate for the use for which it is intended, free from defect and new. Contractor agrees to return the District furnished property less reasonable wear and tear or pay the District the full value of such District furnished property that is destroyed, damaged, kept, lost or not accounted for. Title to District furnished property shall remain at all times with the District unless otherwise provided in writing.

Article 16 -Reserved

Article 17 - Insurance Requirements for Contractors

Contractor shall provide and maintain at all times during the performance of the Agreement

the following insurances:

A. Minimum Scope of Insurance:

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence Form CG 00 01).

2 Insurance Service Office Form Number CA 00 01 covering Automobile Liability, Code 1 (any auto).

3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

B. Workers' Compensation Insurance: as required by the State of California.

C. Employer's Liability Insurance $1,000,000 per accident for bodily injury or disease.

D. General Liability Insurance (Including operations, products and completed operations, as applicable). Said insurance shall provide a minimum of $1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

E. Automobile Liability Insurance: 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 per accident for bodily injury and property damage.

F. Deductibles: Any deductibles or self-insured retentions must be declared to and approved by the District. At the option of the District, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects to the District, its officers, officials, employees and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the District guaranteeing payment of losses and related investigations, claim administration and defense expenses.

G. Other Insurance Provisions

1. The general liability and automobile liability policies are to contain, or be endorsed to

contain, the following provisions:

a. The Union Sanitary District, its officers, officials, employees and volunteers are to be covered as insureds with respect to liability arising out of automobiles owned, leased hired or borrowed by on or behalf of the Contractor; and with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. General Liability coverage shall be provided in the form of an Additional Insured endorsement (CG 20 10 11 85 or equivalent) to the Contractor's insurance policy, or as a separate owner's policy.

b. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects to the District, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the District, its officers, officials, employees and volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

c. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) day's prior written notice has been provided to the District.

H. Acceptability of Insurers: Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the District. Exception may be made for the State Compensation Insurance Fund when not specifically rated.

I. Verification of Coverage: Contractor shall furnish the District with original certificates **and amendatory endorsements** to the overlaying policies, effecting coverage required by this clause. The endorsements should on forms provided by the District or on other than the District's forms provided those endorsements conform the District's requirements. All certificates and endorsements are to be received and approved by the District before work commences. However, failure to do so shall not operate as a waiver of these insurance requirements. The District reserves the right to require complete, certified copies of all

required insurance policies, including endorsements effecting the coverage required by these specifications at any time.

J. Waiver of Subrogation: Contractor hereby agrees to waive subrogation which any insurer of Contractor may acquire from vendor by virtue of the payment of any loss. Contractor 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 entity for all work performed by the Contractor, its employees, agents and subcontractors.

Article 18 - Work Hours: Except as may otherwise be specified, all work shall be performed during regular work hours as follows: Monday through Friday from 8:00 a.m. to 5:00 p.m., except holidays.

Article 19 – Liability: The Contractor shall bear full and exclusive responsibility for any release of hazardous or non-hazardous substances, transportation or disposal of hazardous substances during the course of performance under this Purchase Document. The Contractor shall be solely responsible for all claims and expenses associated with the transport or disposal of hazardous substances or with the removal or remediation of any release, including without limitation, payment of any fines or penalties levied against the District by any governmental authority as a result of such release. The Contractor will hold harmless, indemnify, protect and defend the District, all officers and employees thereof, from any claims, suits or actions arising from any disposal or release. The Contractor shall immediately notify the District of any accidental incident related to the handling, transportation or disposal of hazardous or non-hazardous substances. The District reserves the right to gain access to and inspect Contractor vehicles and/or facilities that handle, transport, or depose of hazardous or non-hazardous substances.

In addition, the Contractor shall bear full and exclusive responsibility for any release of hazardous or non-hazardous substances, transportation or disposal of hazardous substances during the course of performance under this Purchase Document. The Contractor shall be solely responsible for all claims and expenses associated with the transport or disposal of hazardous substances or with the removal or remediation of any release, including without limitation, payment of any fines or penalties levied against the District by any governmental authority as a result of such release. The Contractor will hold harmless, indemnify, protect and defend the District, all officers and employees thereof, from any claims, suits or actions arising from any disposal or release. The Contractor shall immediately notify the District of any accidental incident related to the handling, transportation or disposal of hazardous or non-hazardous substances. The District reserves the right to gain access to and inspect Contractor vehicles and/or facilities that handle, transport, or depose of hazardous or non-hazardous substances.

Article 20 – Commencement and Progress of the Work to Completion: The Contractor, after receiving notice that the Contract has been executed on behalf of the District, shall coordinate commencement of the work with the District representative specified in the Purchase Order. The Contractor shall diligently prosecute all awarded portions of the Contract to Completion in accordance with the Schedule provided by the District representative.

Article 21 – Reserved

.**Article 22 – Liquidated Damages:** Time is of the essence in this contract. Pursuant to Government Code Section 53069.83, the Contractor shall pay to the District the sum of $ **None**, per day, for each and every calendar day that the Contractor fails to deliver the products, equipment and/or services within the prescribed schedule as specified in the specifications, subject only to extensions granted thereto in writing by the District.

The Contractor shall pay such liquidated damages as provided. The District may deduct, at its option, the amount of liquidated damages from any money due or to become due to the Contractor under this contract as more particularly described in Article 9 herein.

The Contractor will be granted an extension of time and will not be assessed with liquidated damages for any delay beyond the time period specified in the specifications for delays caused by acts of God or the public enemy, fire, floods, epidemics, quarantine, restrictions, strikes, labor disputes, shortage of materials and freight embargos, or other causes deemed by the District to be beyond the reasonable control of the Contractor, provided the Contractor notifies, in writing, the party indicated in Article 30 herein of the cause of the delays within 15 calendar days from the beginning of any such delay. The District shall ascertain the nature of the delay and determine whether an extension of time is warranted, which determination shall be final and conclusive. The Contractor has the burden of proof that the delay was beyond its control.

Article 23 – Coordination of Contract Documents: Any conflict, error or discrepancy in the Contract shall be resolved by the following order of precedence: (1) Purchase Order, (2) Terms and Conditions for Services (3) Contractor Proposal/Quotation (4) Drawings and/or Exhibits.

Article 24 - Claims or Disputes

The Contractor shall be solely responsible for providing timely written notice to the District of any claims for consideration in accordance with the provisions of this contract. It is the District's intent to investigate and attempt to resolve any Contractor claims before the Contractor has performed any disputed work. Therefore, the Contractor's failure to provide timely notice shall constitute a waiver of the Contractor's claim for additional compensation and/or time.

The Contractor shall not be entitled to consideration for any cause, including any act, or failure to act, by the District, or failure or refusal to issue a modification, or the happening of any event, thing, or occurrence, unless it has given the District due written notice of a potential claim. The potential claim shall set forth the reasons for which the Contractor believes credit may be due, the nature of the costs involved, and the amount of the potential claim.

If based on an act or failure to act by the District, such notice shall be given to the District prior to the time that the Contractor has started performance of the work giving rise to the potential claim for consideration. In all other cases, notice shall be given within ten days after the happening of the event or occurrence giving rise to the potential claim.

If there is a dispute over any claim, the Contractor shall continue to work during the dispute resolution process in a diligent and timely manner as directed by the District, and shall be governed by all applicable provisions of the contract. The Contractor shall maintain cost records of all work which is the basis of any dispute.

If an agreement can be reached which resolves the Contractor's claim, the parties will execute a contract modification to document the resolution of the claim. If the parties cannot reach an agreement with respect to the Contractor claim, they may chose a dispute resolution process or terminate the contract.

Article 25 - Attorneys' Fees

If any legal proceeding should be instituted by either of the parties to enforce the terms of this contract or to determine the rights of the parties under this contract, the prevailing party in said proceeding shall recover, in addition to all court costs, reasonable attorney fees.

Article 26 – Governing Law: The Agreement shall be governed and construed in accordance with the laws of the State of California.

Article 27 - Nepotism Prohibited: By furnishing the goods and/or providing the services covered under the Purchase Document or contract, Contractor certifies that no employee of the Seller is a spouse, parent, person who stood *in loco parentis*, grandparent, child, grandchild, brother, sister, aunt, niece, nephew, cousin, domestic partner or person living in the same household (whether through marriage, domestic partnership, or as a couple living together), including step-, half-, and "in-law" to any member of the District's Board of Directors, General Manager, Work Group Manager, Business Services Coach, or the Purchasing Agent or his/her designee. If such a relationship exists, the Contractor shall advise the District of same before any goods are shipped or any services are provided. The District will advise the Contractor when to ship the goods or provide the services, however the District reserves the right, at its sole discretion, to deem the Purchase Document or contract void and unenforceable if such a relationship exists.

Article 28 - Service of Notice: All notices required in this Agreement shall be sent by certified mail, return receipt requested, and if sent to:

Purchasing Agent
Union Sanitary District
5072 Benson Rd.
Union City, CA 94587

XI. <u>COST PROPOSAL FORM</u>

A. Proposer is required to complete **Attachment D, Budget and Cost Proposal. Your cost proposal <u>must</u> be in a separate sealed envelope, clearly mark "Cost Proposal". One should be marked "ORIGINAL" and "COPY"**

XII. <u>OFFER AND SIGNATURE</u>

ACCEPTANCE: In compliance with the Request for Proposals, the proposer agrees, if this proposal is accepted within 60 calendar days from the date specified in the Request for Proposals for receipt of proposal, or other agreed upon timeframe, to furnish and execute any or all items upon which prices are offered at the price set opposite each item, within the time specified in this Request for Proposals solicitation.

Item(s):

a. **SCADA Master Plan and SCADA Standards** as delineated herein.

ADDENDA:
Proposer, if an Addendum is posted on www.publicpurchase.com Please acknowledge receipt by stating the addendum number and date below

Addendum #_____ Date _____ Addendum #____ Date _____
Addendum #_____ Date _____ Addendum #____ Date _____

Signature of Proposer's official authorized to bind the firm to its proposal:

_____

Printed Name:_____

Title:_____

Firm Name:_____

Address:_____

Telephone Number: _____ Fax Number:_____

Date: _____

Type of business organization:_____
(Corporation, partnership, sole-proprietorship, LLC, LLP, etc.)

License No._____
Corporate Seal

ATTACHMENTS

1. **ATTACHMENT A** Organizational Chart
2. **ATTACHMENT B** Non-Collusion Affidavit
3. **ATTACHMENT C** Network Diagram
4. **ATTACHMENT D** Budget/Cost Proposal
5. **ATTACHMENT E** Travel Policy

ATTACHMENT B

NON-COLLUSION AFFIDAVIT

(Note: to be submitted with Proposer's proposal)

I, _____, am the

(Print Name)

_____of _____,

(Position/Title) (Name of Company)

the party making the foregoing bid (the "Bidder") that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid; and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the Bidder has not in any manner directly or indirectly, sought by Agreement, communication, or conference with anyone to fix the bid price of the Bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the Bid contract; that all statements contained in the bid are true; and, further, that the Bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct:

Print or Type Name: _____

Authorized Signature: _____

Company Name: _____

Date: _____

Union Sanitary District

Proposal for Professional Engineering Services

For

#S-15-5-202 SCADA Master Plan and SCADA Standards

October 23, 2014

Nicholas J. Peros, P.E.
1105 Cabrillo Avenue
Burlingame, CA 94010
Telephone: 415.350.7814
Fax: 650.347.6910
Email: nickperospe@gmail.com

Union Sanitary District

Proposal for Professional Engineering Services

For

#S-15-5-202 SCADA Master Plan and SCADA Standards

October 23, 2014

Nicholas J. Peros, P.E.

Table of Contents

October 23, 2014

Roslyn Fuller, Purchasing Agent
Union Sanitary District
5072 Benson Road
Union City, CA 94587

Subject: Request for Proposals (RFP)
Supervisory Control and Data Acquisition (SCADA) Master Plan and SCADA Standards
#S-15-S-202

These are exciting times to embark on an SCADA Master Plan and SCADA Standards project. Adoption of enterprise-class IT techniques – such as server virtualization and system access using mobile apps – are becoming mainstream for SCADA, redefining what is considered standard.

While Union Sanitary District (USD) already uses quite advanced systems, there is always room to assess present status, identify gaps, prioritize solutions, and chart a course for improvements over the 5 to 7-year planning horizon for this project.

Rather than drawing team members from just one firm, we've selected the best qualified individuals we know of for this project. Many of us have worked together on other similar projects, some as far back as 1982.

The specific benefits our team brings to USD are:

Fresh look: None of our team's members were involved with the USD's 2012 Information Technology Master Plan. Technology has changed a lot in the last 2 years and impartial consideration of these advances, GAP analysis, and plan coordination with organizational goals provides tangible benefits to the District.

Experience: our team has been hand-picked from among the best senior staff we know, regardless of firm. USD will be collaborating with specialists who have first-hand knowledge of relevant SCADA technologies and industry best practices. Team members and their roles are:

Nicholas Peros, Project Manager. Nick is licensed professional engineer both in control systems and electrical engineering. He has an excellent on-time within-budget track record for SCADA, master planning, and technology related projects. He also received the ACEC award for Engineering Excellence for the Pima County Arizona Wastewater Collections SCADA project. Nick brings this exemplary management performance coupled with his enthusiasm for the technology to provide the strong leadership necessary to deliver a successful project.

Paul Giorsetto (TJCAA), QA/QC. Paul is also licensed in control system and electrical engineering and has worked with Nick since 1982 in the wastewater and water industry. Paul's decades-long experience in this industry gives him the depth and sharp eyes to lead QA/AC for this project.

Michael Erwin (TJCAA), Specialist for standards. Although Mike is presently working on projects involving planning and programming iFix and ControlLogix systems similar to USD's, he is a former systems integrator and understands what makes standards practical, implementable, constructable, and enduring.

Richard Pressler (AllConnected), Specialist for Networks, Security, and Virtualization. Richard has planned and implemented the IT infrastructures for robust, large, virtual eCommerce sites, which must run 24x7. USD can draw on Richard's technical expertise, analytical abilities, and experience in planning the SCADA infrastructure which also must run 24x7.

Paul Rahilly (Mtell), Specialist for Mtelligence. Paul led the project to install Mtelligence at USD and will hit the ground running to apply lessons learned and assess new opportunities to improve the technology return on investment for USD.

Ron Moeller (Kennedy/Jenks Consultants), Specialist for Process Optimization and Regulator Reporting. Ron brings the perspective of a licensed wastewater treatment operator in 3 states who works as a consultant to his peers and who understands how processes operate. He has specialized expertise in IT systems used to manage and retain knowledge assets. Ron's ability to change hats and spot gaps in operations and instrumentation enhances the team's real world perspective.

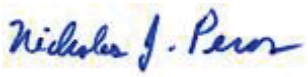
Steve Pallad (Independent Consultant), Specialist for SCADA Integration. Steve is a systems architect and database analyst with specialized experience planning and integrating SCADA systems with other applications. He provides the technical glue between this project, ODMS, and other solutions in USD's Integrated Solutions Architecture.

Responsiveness: Most of our team's members are located in the San Francisco Bay area, so we can be at your offices on short notice when needed, with minimum travel time and cost. We also leverage technology using platforms such as screen sharing sessions with clients, cloud-based file sharing, and SMS. We can literally always be reached and have continuous access to critical project information. Finally, the skills of team members overlap just enough to allow us to adjust assignments as needed to keep the project on schedule

We look forward to the prospect of providing our impartial, experienced, and energetically responsive team work with you to help master plan and build a new generation of SCADA capabilities for USD.

If you have any questions, please do not hesitate to call.

Very Truly Yours,



Nicholas J. Peros, P.E.
NickPerosPE@gmail.com
415.350.7814 m/SMS

Offer and Signature

ACCEPTANCE: In compliance with the Request for Proposals, the proposer agrees, if this proposal is accepted within 60 calendar days from the date specified in the Request for Proposals for receipt of proposal, or other agreed upon timeframe, to furnish and execute any or all items upon which prices are offered at the price set opposite each item, within the time specified in this Request for Proposals solicitation.

Item(s):

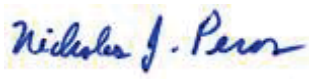
a. **SCADA Master Plan and SCADA Standards** as delineated herein.

ADDENDA:
Proposer, if an Addendum is posted on www.publicpurchase.com Please acknowledge receipt by stating the addendum number and date below

Addendum #__1__ Date 16 Oct 2014 Addendum #____ Date _____

Addendum #_____ Date _____ Addendum #____ Date _____

Signature of Proposer's official authorized to bind the firm to its proposal:



Printed Name: Nicholas J. Peros, P.E.

Title: Owner

Firm Name: Nicholas J. Peros, P.E.

Address: 1105 Cabrillo Avenue, Burlingame, CA 94010

Telephone Number: (415) 350-7814 Fax Number: None

Date: 10/23/14

Type of business organization: Sole Proprietorship
(Corporation, partnership, sole-proprietorship, LLC, LLP, etc.)

License No. Burlingame 19953

Corporate Seal: Not Applicable

A. Methodology and Approach

A. METHODOLOGY AND APPROACH

Methodology and Project Understanding

This project is an outgrowth of Union Sanitary District's (USD's) 2012 IT Master Plan. The scope includes both a supervisory control and data acquisition (SCADA) Master Plan and the development of SCADA Standards.

The present SCADA deployment at USD is quite robust with dual redundant SCADA servers running iFix 5, automatic fail-over, and 23 view nodes. Disaster recovery provisions at USD add redundancy for all essential systems including the Historian and Active Directory Controller. About 80% of the servers at USD are virtualized but the SCADA servers presently are not. SCADA computers are at end of life and need replacement. Security updates from Microsoft for the Windows XP workstations ended April 8, 2014 and the End of Life for Windows Server 2003 – used by the SCADA servers – is July 14, 2015.

Microsoft's Visual Source Safe is utilized to version updates and provide roll-back, if needed. All development work, except for emergencies, is done on-site for security. Security policies and systems presently prevent operators and coaches from accessing the SCADA system remotely but operations are staffed 24x7. There is a growing trend, however for vendors such as cogeneration, PG&E, etc. to request LAN access; this trend may need to be addressed through secure access portals.

Mtelligence (now Mtell Advanced) was implemented as a software connector for equipment runtimes between USD's SCADA Historian and the Hansen computerized maintenance management system (CMMS.) A prototype deployment of Mtell's "predictive analytics" was also implemented for the centrifuges. The planning of cost-effective refinement and expansion of these capabilities will probably affect recommendations for additional instrumentation for equipment and processes.

A cost-effective and common sense approach to standards is being sought. Rather than create new ones from scratch, USD wishes to refine working copies of documents presently in use (PLC hardware, PLC programming) and fill in the gaps (tags, HMI style guide, HMI templates, instrumentation, etc.).

With only 1 software integrator presently authorized, USD lacks the "deep support" it needs for critical SCADA systems. Updated and more complete standards are a bridge to broadening available support options.

Cost effectiveness will guide both the Master Plan and Standards portions of this project. USD seeks to leverage technology and previous standardization efforts to optimize processes, minimize costs, and implement industry best practices.

Approach

Methodology and Approach to the Project

Running both the SCADA Master Plan and the SCADA standards portions of this project concurrently could lead to resource bottlenecks for USD's managers, coaches, and staff. This situation applies not only to the early reconnaissance tasks but also on receipt of the deliverables.

Also, while the SCADA Master Plan requires all 5 of the tasks in the Scope of Work, the SCADA Standards themselves could be substantially complete in just the first 3: Needs Assessment, Review, and Recommendations. Issues of implementation could be addressed as part of the SCADA Master Plan.

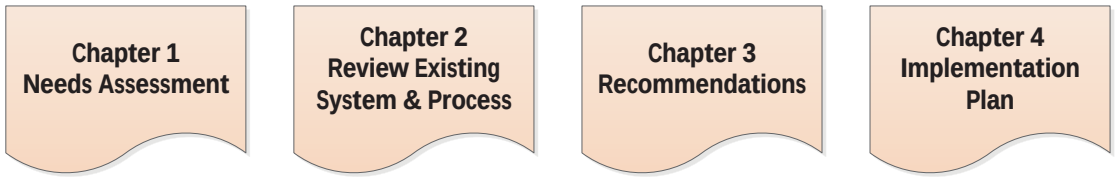
For these reasons, our approach to this project is to treat the SCADA Master Plan and the SCADA Standards portions as two different projects, with different resources assigned to lead each and with slightly different, though related, timelines.

As we found in the Stockton East and Monterey Regional master plan projects, not all project resources need to be on-site for all workshops and meetings. For short presentations or workshop sessions for a few of the presenters, video conferences or screen-sharing sessions are quite effective if they are adequately prepared. The reductions labor and travel cost are significant. We plan to use this approach for 1 session on knowledge management and 1 session on Mtelligence, eliminating the need for those outside the Bay Area to travel.

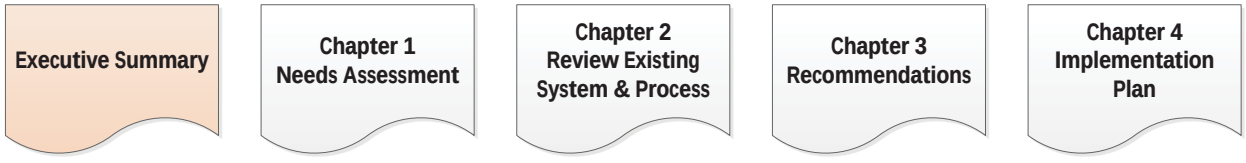
Nicholas Peros and Paul Girosetto will be sharing quality review responsibility. All deliverables will be reviewed by 1 or more team members who is not the author before submittal to USD - commonly referred to as "two sets of eyes".

SCADA Mater Plan Overview

Regarding the SCADA Master Plan, we propose to develop the report in chapters as each task is completed. The authoring and review of each chapter would be done sequentially, in bite-sized pieces. Updates would be done immediately on receipt of review comments for each chapter. The first four chapters would look like



The final step to complete the report would be to add the executive summary, perhaps 10-12 new pages of summary including graphics suitable for Board reviews:



SCADA Master Plan Scope

The following is an outline of proposed scope for the SCADA Master Plan. It identifies proposed draft and final deliverables, the subjects of each of the workshops, and the approximate sequence of the work. The companion outline for the SCADA Standards is in the next section of this proposal.

1. **Task 1 - Needs Assessment**
    a. Document Request, Set up cloud sharing & post
    b. Meeting Prep
    c. Meeting (Assume 4 hours)
    d. Draft Report Ch. 1: Summary
    e. USD Review
    f. Final Report Ch. 1

2. **Task 2 - Review Existing SCADA System and Processes**
    a. SCADA Master Plan
        i. Workshop Prep
        ii. Workshops, Day 1:
            1. Kickoff
            2. Technology & Governance, Service Level Agreement
            3. SOPs & Job Competency
            4. O&M metrics, Alarms
            5. Plant Site Walk
            6. Visit Selected Pump Stations
        iii. Workshops, Day 2:
            1. Summary of Day 1 (Including prep)
            2. SCADA Reporting & Lab
            3. Operator Data Entry
            4. Technology Demo: Manage & Retain Knowledge Assets
            5. SCADA to CMMS, Mtell Advantage
            6. SCADA Replacement Practices; Use of Consultants
            7. Remote Access, Network Design & Disaster Recovery
            8. Preceding line includes SCADA Network from the Standards Scope
        iv. Day 2 Summary
    b. SCADA Standards
        i. Workshop Prep
        ii. Workshop Day 3:
            1. Documented/De facto standards
            2. PLC Programming Standards
            3. Panel Layout
            4. Integration
            5. Control Philosophy
            6. Recent CIP
            7. Day 3 Summary
        iii. Workshop Day 4:
            1. SCADA Screens (300+)
            2. Day 4 Summary (teleconference or videoconference)

c. Draft Report, Ch. 2
d. USD Review
e. Final Report, Ch. 2

3. Task 3 - Recommendations

a. Develop SCADA Master Plan Recommendations
    i. Visions, Goals for SCADA System
    ii. Training, Practices & Procedures: Enhance SCADA System
    iii. Technology, practices, & procedures: Security
    iv. Manage & retain knowledge assets
    v. Use SCADA to optimize operations
    vi. O&M metrics including. charts, trends, alarms
    vii. Consolidated View of data to manage & optimize O&M
    viii. SCADA Integration with other business systems
    ix. Automated operator collection solutions
    x. Instrumentation
    xi. Virtualization
    xii. Asset Management practice for SCADA & network hardware
    xiii. Software upgrade philosophy
    xiv. Remote Access Solution
    xv. Network design improvements-reliability, redundancy
    xvi. Future SCADA trends
    xvii. Disaster Recovery plans & procedures
    xviii. Use of Consultants
    xix. SCADA support levels, skill development
b. Draft Report Ch. 3
c. Review by USD
d. Final Report Ch. 3

4. Task 4 - Implementation Plan

a. Develop Implementation Plan Project Sheets
b. Develop 5-year sequence & cash flow
c. Draft Report Ch. 4
d. USD Review
e. Final Report Ch. 4

5. Task 5 - Report

a. Ch. 5: Consolidate docs. Prepare exec summary
b. USD Review
c. Final Report Ch. 5
d. Final Deliverable in format and quantities required.

6. Task 6 - Project Management

a. Project Memo; Setup Progress Tracking procedures
b. Internal Kickoff Teleconference
c. Track Progress, Manage Resources, Invoicing
d. Biweekly Coordination Call (6 months)

SCADA Standards

This work falls into the following technical areas:

1. PLC Programming
2. SCADA Programming
3. Control Panels
4. Instrumentation
5. Networking
6. SCADA Design Methodology

Our focus will be on capturing existing USD standards rather than starting with a new piece of paper.

We understand that, except for USD staff, Automated Network Controls (ANC) is the only resource presently permitted to do PLC and SCADA programming; so, we assume that ANC staff will be available during the SCADA standards workshops and throughout the SCADA standards tasks as needed to answer questions.

Staff working on these efforts are all located in the Bay Area; so reconnaissance and review meetings can be scheduled cost-effectively to work around the availability of USD staff. We propose to do these standards in a sequential fashion but are flexible as to the order of each. Tags, however, are a common link for the first two areas (PLC and SCADA programming); so, some of the work should overlap.

The following is an outline of how we propose to develop the standards:

1. **PLC Programming**
    a. Review Existing USD PLC Programming Standards
    b. Review Current USD PLC Programs
        i. Current WWTP Programs
        ii. Current Lift Station and Remote Site Programs
    c. Development Of USD PLC Programming Standards
        i. PLC Tags and Aliases
        ii. PLC Variables and Data Organization
        iii. Define Program Structure
        iv. PLC To PLC Communications
        v. PLC To SCADA Communications
        vi. USD User Defined Data Types
        vii. USD Add On Instructions
        viii. Standard Program Structure, Task Definition, and Scheduling
    d. Facilitate PLC Programming Standards Workshops
    e. Update USD PLC Programming Standards

2. **SCADA Programming**
    a. Review Existing USD SCADA Programming Standards
    b. Review Existing SCADA System
    c. Develop USD SCADA Programming Standards
        i. Database Development and Tagging
        ii. Navigation and Display Layout Standards
        iii. Color Usage and Standardization Of Font Sizes and Colors
        iv. Standard VB Scripts and Usage
        v. Standard Symbols, Dynamos, and Pop-Up Displays

vi. Alarm Handling
vii. Reporting (coordinated with ODMS contractor)

d. Facilitate SCADA Standards Workshops
e. Update USD SCADA Programming Standards

3. Control Panels

a. Review Existing Control Panel Designs
b. Develop Control Panel Design Standards
   i. Enclosures and Environmental Control
   ii. Wiring Standards
   iii. Component Technical Requirements
c. Facilitate Control Panel Design Workshops
d. Develop Control Panel Specification Section

4. Instrumentation

a. Review Existing Instrumentation
b. Develop Technical Instrumentation Standards
   i. Analyzers
   ii. Flow Instruments
   iii. Pressure Instruments
   iv. Level Instruments
   v. Temperature Instruments
c. Facilitate Design Workshops
d. Develop Instrumentation Specification

See Optional Services for Networking Standards and SCADA Design Methodology.

B. Firm's Qualification and Experience

B. FRIM'S QUALIFICATION AND EXPERINCE

Profile of Proposing Firm

Nicholas J. Peros, P.E. is a sole proprietorship specializing in electrical engineering and control systems work. Mr. Peros has over 40 years of experience in all phases of electrical engineering and control systems primarily in water and wastewater public sector applications. His experience is broad-based from medium voltage switchgear to control system programming. Prior to April 2013, Mr. Peros worked for Kennedy/Jenks Consultants in San Francisco for 34 years, first as Chief Electrical Engineer and since 2001 as Vice President and Client Manager. Furthermore, Mr. Peros' sewer sector experience over the past 5 years include the SCADA and IT Master Plan for Monterey Regional Water Pollution Control Agency (December 2013 to present), the City of Sunnyvale Digester Rehabilitation Design (2012- 2013), and the San Bruno SCADA System Design for Wastewater Collections (construction completed 2009)

As a sole proprietorship, Mr. Peros has no direct employees. Contact information is:

Nicholas J. Peros, P.E.
1105 Cabrillo Avenue
Burlingame, CA 94010
415.350.7814 cellular/SMS
NickPerosPE@gmail.com

Mr. Peros' role for USD on this project is the same as in the IT/SCADA Master Plan completed last December for Stockton East Water District (SEWD): primary point of contact for City management, managing the team of consultants, leading and facilitating technical sessions and workshops, authoring those elements of the Master Plan within his areas of competence, providing overall project guidance, and performing final quality review of all deliverables to ensure the needs and expectations of the City are met.

Qualifications of the Firm & Previous Experience

Our team has participated in and lead SCADA master planning efforts since the mid-90. Our design experience of SCADA systems extends all the way back to the 70's. This extensive experience provides the City with a team that brings innovation, cost effectiveness, and reliability tempered by real world practicality. These features have been the hallmark of all our projects. Some of the SCADA planning project highlights for Mr. Peros include:

- **Stockton East Water District IT/SCADA Master Plan, 2013** (project manager/project engineer): comprehensive IT/SCADA master plan covering desktops, servers, networking, water supply and treatment SCADA, telephony, scanned document management, financial systems, CMMS, GIS, and security.
- **Calleguas Municipal Water District, Turnout Automation Project, 2006-present** (project manager): SCADA planning, prototype concept testing, SCADA planning, design, and construction for a system with 91 remote sites. Project is the first known use of drop-out-free secure cellular-communications technology in the US. Led the development of custom applications accessing the SCADA database, producing wholesaler customer invoices, and displaying real time and historical data for customers via a secure website.
- **Pima County Sanitary Sewer Conveyance SCADA, 2001-2004** (project manager): planning, design, and construction of county-wide SCADA system with the first known deployment in the

wastewater industry of object oriented SCADA software now known as Wonderware System Platform.

- **Nevada Irrigation District SCADA and IT Master Plan, late 90's** (project manager): plan included networking, SCADA, desktop systems, engineering, GIS, and financial systems. Provided additional services to design an all-new LAN infrastructure and to assist in documenting requirements, selecting software, and replacing NID's customer service and financial software systems.
- **Channel Street Pump Station**, City and County of San Francisco, mid-70's (designer): First known use of dual-redundant PLC technology in the wastewater business. Hardware-based fail-over technologies did not exist at that time; so, software systems were developed and deployed

Subconsultants

Many of the subcontractors proposed herein are the same as were used for the SEWD Master Plan. The major exception is TJCAA. Mr. Peros has had a continuous professional relationship, however, with Paul Giorsetto, one of the Principals of TJCAA dating back to 1982. Because significant portions of the project are proposed to be done by TJCAA, a profile of that firm follows.

TJC and Associates, Inc.

TJCAA is a small business corporation providing engineering services to local Bay Area clients, as well as to clients throughout the United States. Established by Terence Cavanagh, S.E. and Gianna Zappettini as a structural engineering firm in 1998, TJCAA expanded in 2006 with the addition of Paul Giorsetto to offer multi-discipline design solutions in Structural Engineering, Electrical Engineering, and Instrumentation and Controls.

TJCAA's head designers, Terry Cavanagh and Paul Giorsetto, each provide over 30 years of experience, in delivering creative solutions for special districts, municipalities, and commercial/industrial clients. The TJCAA team provides focused expertise in design of structural, instrumentation, controls, communications, and electrical infrastructure for water and wastewater treatment plants, pump stations, and support facilities.

Paul Giorsetto, P.E., Principal, is registered in both Control Systems and Electrical Engineering and brings a wealth of experience in these design disciplines, as well as in project management, from his previous position as the regional engineering services manager and discipline leader for an international environmental engineering design firm.

TJCAA offers a responsive, flexible, multi-disciplinary design team with a proven record of excellence and of meeting our clients' needs. TJCAA operates from fully equipped and staffed design offices with the technological infrastructure necessary to perform seamlessly within a design team or as specialists providing specific expertise. Our staff can provide services either on site or as part of a distributed design group. We have consistently demonstrated our ability to develop solutions and approaches that match the needs, style, and requirements of our clients.

AllConnected

AllConnected specializes in complete management and service of local and wide-area networking solutions, with a specific focus on business continuity.

allconnected
Since 1998

Our CTO, Richard Pressler, focuses AllConnected's client services on delivering managed network services, as well as managed on-premise and hosted private cloud solutions within our privately owned data center and replication partners. The company's mission is to maximize availability and secure access to the applications and data critical to keeping their client's businesses moving forward.

In 2006, AllConnected jointly partnered with another VentureTech partner to create a business continuity service, designed to eliminate tapes and guarantee data and application recovery for small business. This service was launched as XiloCore in early 2007 exclusively to partners focused on delivering business continuity as a service. Between AllConnected and XiloCore, nearly 1 Petabyte of data is protected and/or managed.

AllConnected currently maintains partnerships with Cisco, VMware, HP, Citrix, Dell, Microsoft, and other key technology leaders in the data center and infrastructure market, holding over 30 certifications among our team. For more information about AllConnected and such partnerships, see our October 2013 video with Cisco at http://youtu.be/gzT7wz9SzvM.

Mtell

Mtell

Mtell, formerly Mtelligence, is a privately held company with headquarters in San Diego, California. Mtell is challenging old ideas with new thinking around "production-centered" maintenance; a methodology that improves safety, removes risk, reduces failures, and improves plant throughput. Mtell software products include Mtell Basic and Mtell Advanced.

Kennedy/Jenks Consultants, Inc.

Kennedy/Jenks provides engineering and environmental services solutions to local and federal government agencies, and to industry and business. Our values at Kennedy/Jenks are centered on people clients, staff, business partners, and communities.

Kennedy/Jenks Consultants
Engineers & Scientists

Kennedy/Jenks is distinguished through:

- **Relationships -** by having the ability and the capacity to develop collaborative, long-term relationships with clients and fully understand their challenges and satisfy their needs.
- **Expertise –** by applying innovative ideas and broad, practical experience to create effective client solutions.
- **Promises** – by making and keeping promises to clients to help build a future that improves people's lives.

Dedication to these ideals results in exceptional teamwork, quality, and innovation, even in challenging economic times.

One of the advantages of the Kennedy/Jenks' team is the wide-ranging expertise in numerous software packages. The firm's broad knowledge of the latest technologies, coupled with unbiased approach provides the best solutions for clients. Kennedy/Jenks' team's software experience is more extensive than space allows, but includes the following software and tool such as GE Proficy SCADA Software, INVENSYS System Platform SCADA Software, ALLEN-BRADLEY Factory Talk SCADA Software, WIN911 Audio Dial Alarming Software, wide range of Industry Standard Dialout Modems, and Network Security Appliances and Ghosting Devices.

Kennedy/Jenks currently has 26 offices throughout the United States, and focuses on providing water, wastewater, and recycled water planning, treatment, conveyance and construction support to municipalities and private clients.

C. Proposed Project Team

C. PROPOSED PROJECT TEAM

While our team includes people from a variety of firms, key team members have worked together on many projects for years on projects similar to the District's SCADA Mater Plan. Their technical knowledge and proven collaborative spirit will help guide the District's decision-making and usher in a new era of even more capable, reliable, and flexible SCADA solutions.

Project Team

Nicholas J. Peros, P.E. – Project Manager

Nick Peros has more than 40 years of experience in control system and electrical engineering. Nick has extensive experience in SCADA master plans and implementation projects and managed control system and electrical engineering projects at Kennedy/Jenks Consultants from 1978 to 2013. These projects include complex water and wastewater SCADA systems for treatment plants, pump stations, and associated specialized control and electrical systems. He has performed and supervised studies including SCADA software evaluation, radio propagation, telemetry feasibility, SCADA functional needs assessment, energy conservation, and water system energy management. He is also experienced with the instrumentation, control, and SCADA systems often required to monitor and run large process facilities.

Project Team – Sub Consultants

TJC and Associates, Inc.

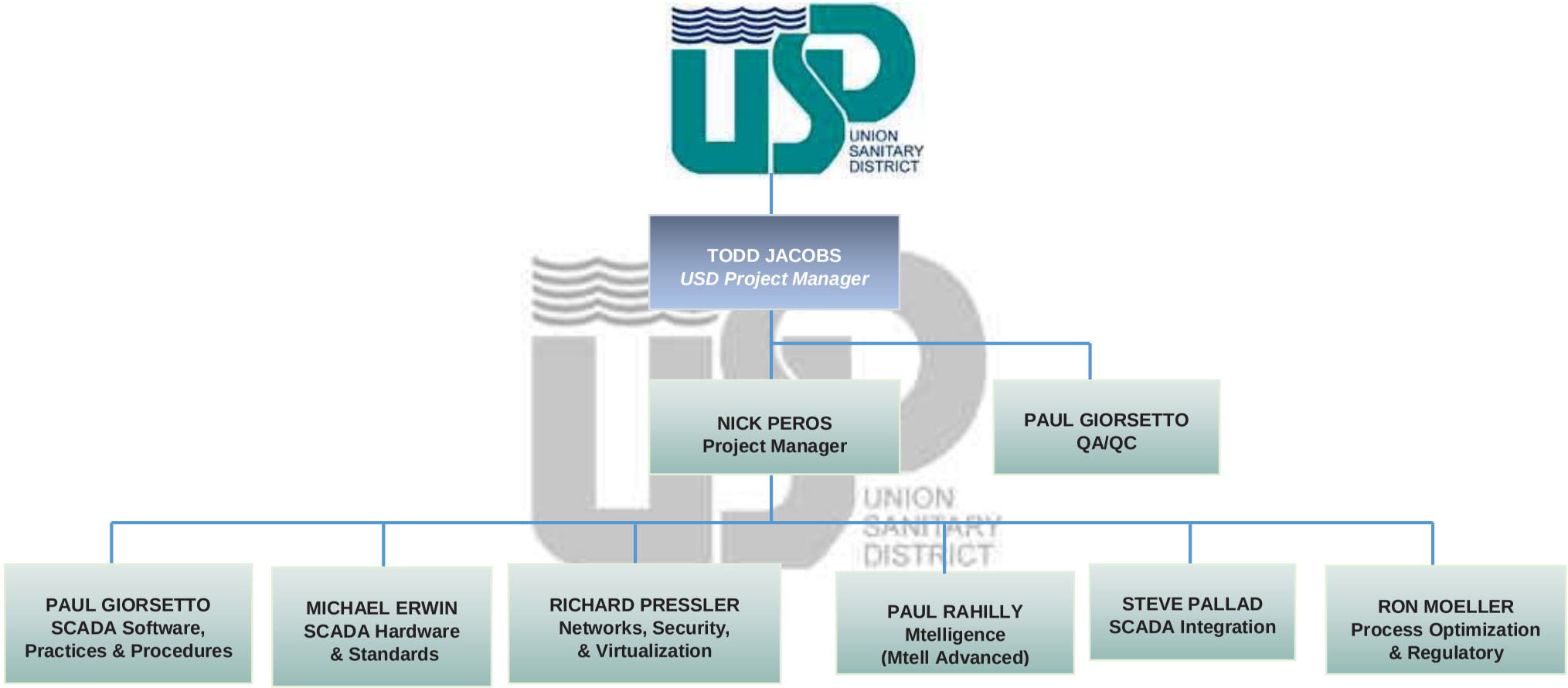
Paul J. Giorsetto, P.E. – QA/QC

Mr. Giorsetto has over 30 years of design experience in the areas of control systems, telemetry, and industrial electrical applications. He has demonstrated his ability to manage multi-discipline projects and resource pools comprising over 50 engineers and designers. For the last 20 years, he has been responsible for multi-discipline groups of on a variety of projects, maintaining project schedules, tracking earned value to budgets, and overseeing the quality of the design work products. His technical capabilities and experience include electrical system instrumentation; and in-plant and remote telemetry SCADA systems. He has served as project manager on electrical and control system design and design/build projects with construction values over $5 million.

Michael J. Erwin, P.E. – SCADA Hardware & Standards

Mr. Erwin has been building valuable experience since 1986 in the design, implementation, and management of electrical power, control, automation, and instrumentation systems. He performs control system and electrical design engineering for water and wastewater treatment, collection, and distribution systems, focusing on instrumentation and control system design and control system programming. Mr. Erwin has hands-on familiarity with a variety of PLC and SCADA platforms including ControlLogix and iFix. He gained his extensive experience not only as a consultant, but also as chief engineer and project manager for a systems integrator. With this background, he provides a viewpoint that emphasizes constructability and systems featuring maximum operator usability and efficiency.

PROPOSED TEAM ORGANIZATION CHART



Independent Consultant

Steve Pallad –SCADA Integration

Mr. Pallad is a senior consultant providing both software and business analysis services. His software service skills include planning, design, development and implementation of mapping, workflow tuning and information integrations. He has implemented applications development and CRM solutions for business and finance purposes. His software skills include database analysis and development, optimization, querying and reporting for both desktop and web users. He also has experience with enterprise applications including PeopleSoft, Microsoft Dynamics NAV and Salesforce CRM.

AllConnected

Richard Pressler – Networks, Security and Virtualization

Mr. Pressler is CTO for AllConnected heading up their datacenter practice which has hosted some of the largest eBusiness websites in the country. Richard's specialized knowledge of networking, virtualization, servers, and high reliability systems gives him unique insight into strengths and weaknesses of existing systems and the ability to master plan significant improvements. He develops solutions that include disaster recovery and which provide value, efficiency, and quick recoverability. Richard Pressler also coordinates with technical leads at customer sites to ensure a successful deployment of solutions.

Kennedy/Jenks Consultants

Ronald L. Moeller – Process Optimization and Regulatory Reporting

Mr. Moeller has 29 years of experience in the wastewater/water industry. He is currently certified as a Group IV wastewater treatment plant operator in the state of Washington and holds a Grade II certificate in California, and a Grade III in Oregon for Wastewater Treatment. Before joining Kennedy/Jenks, Ron was the Wastewater Treatment Lead Operator for the City of Chehalis, WA. Ron served on the Water Environment Federation's (WEF) House of Delegates, and on WEF's 2006-09 Board of Trustees. He has served on the Pacific Northwest Clean Water Association's (PNCWA) Board of Directors as a WEF Director.

Mtell

Paul Rahilly – Mtelligence (Mtell Advanced)

Paul Rahilly is CEO of Mtell was the project manager for the Mtelligence implementation at USD. Mr. Rahilly has over 20 years' experience in industrial maintenance engineering, (mechanical, electrical, and plumbing) MEP construction project management, automation systems integration, and industrial process optimization. As an industrial maintenance engineer Paul learned the craft at Guinness Maltings. Later, Paul led and managed green-field commercial and industrial construction projects. Paul coordinated all project management tasks for mechanical and electrical systems installations. Those experiences underscored intense challenges bringing O&M (operations and maintenance) mindsets together to improve capability of process equipment. Consequently, in 1997 Paul founded Interactive Facilities Corporation (IFC), a service provider implementing integrated enterprise asset management (EAM) systems, control and automation systems, industrial process optimization, mobile worker projects, and management information systems; along with institutionalized work processes. The company managed multi-million dollar projects for. In 2006 Paul re-launched IFC as Mtelligence (now Mtell) to deliver product software to transform old maintenance practices and drive superior asset performance. Paul has a Bachelor in Engineering from University College Dublin, Ireland.

RECENT JOBS/TEAM COLLABORATION					
	Nicholas Peros	Paul Giorsetto	Richard Pressler	Steve Pallad	Ron Moeller
Monterey Regional Water Pollution Control Agency SCADA/IT Master Plan (2013-14)	■		■	■	■
Stockton East Water District SCADA/IT Master Plan (2013)	■		■	■	
Sunnyvale Digester Rehabilitation Project (2012-13)	■	■			

Nicholas J. Peros, P.E.

Project Manager

Education
JD, Degree, Lincoln University, 1979
MS, Electrical Engineering, University of California, Berkeley, 1972
BS, Electrical Engineering, University of California, Berkeley, 1968

Registrations
Professional Electrical Engineer, California
Professional Control Engineer, California

Memberships/Affiliations
Institute of Electrical and Electronic Engineers
Eta Kappa Nu
Tau Beta Pi

Professional Summary
Mr. Peros has over 40 years' experience in electrical engineering, control system engineering, software development for SCADA, and information management systems.

Project Experience
Monterey Regional Water Pollution Control Agency, SCADA/IT Master Plan. *Assistant Manager* SCADA, IT, CMMS, data integration, and financial systems needs assessment and master planning. The project involved establishing a vision of where these systems need to be and developing a 5-year roadmap to get there.

Stockton East Water District, SCADA/IT Master Plan. *Project Manager* SCADA, IT, and financial systems needs assessment and master planning. The project involved establishing a vision of where these systems need to be and developing a 5-year roadmap to get there.

SCADA System Master Plan, Placer County, Water Agency, Auburn, CA *Project Manager* Comprehensive Master Plan for modernizing, computerizing, and integrating operations for a major water agency. Systems included engineering, business center, power, raw water, and treated water. The plan provides for automating and monitoring over 200 raw water canal sites, providing computer controls for eight water treatment plants, monitoring and controlling all facilities from any facility or from an operator's home, accessing real-time information on the power system, and providing Internet services.

Computer System Assessment and Master Plan, Nevada Irrigation District, Grass Valley, CA *Assistant Manager* Comprehensive assessment of all facets of computerization for the district. The project included power and water system supervisory control and data acquisition (SCADA), desktop applications, engineering, CAD, surveying, database, business systems, and GIS. Recommendations included detailed specifications for the district's LANs and WAN, replacement of financial and business systems, specifications for desktop and server systems, and system architecture for a web-based enterprise information portal including board records and engineering documents. Follow-on implementation assistance included replacing the district's customer service and financial systems.

El Dorado Irrigation District, SCADA Needs Assessment. *Project Manager* for assessment of the existing SCADA systems for EID which include 5 water treatment plants, 5 wastewater treatment plants, 1 hydroelectric facility, a water distribution system, and a wastewater collection system. Systems include Wonderware Industrial Applications Server, blade servers, storage area networks (SAN), and enterprise WAN.

El Dorado Irrigation District, As Needed SCADA Services. *Project Manager* for 5 Task orders over the last 3 years overseeing a team of Wonderware specialists working as extensions of EID's staff. Activities included specialized Wonderware programming for Camp 5, assistance with implementing an enterprise-wide 2-tier historian, and – on short notice over a weekend – helping with a system-wide software upgrade that had unforeseen consequences.

Calleguas Municipal Water District Turnout Automation, Thousand Oaks CA. Project Manager for software integration of a cellular telephone based SCADA for 95 turnouts to monitor and control wholesale water flows. Project involved design of a networking center and use of blade computers, storage area network, tapeless backup system, server virtualization, HMI using terminal services, and Wonderware System Platform. Project also included developing a secure website with real time data for wholesale customer use and an all-new .NET invoicing system which automatically retrieves billing data from SCADA and produces wholesale customer invoices.

Pima County, AZ Wastewater Conveyance SCADA System. *Project Manager* ACEC Grand Award winning SCADA project, valued at nearly $3M. The SCADA system monitors and controls over 40 wastewater pumping and related facilities. The project featured standards development and pioneering work in applying object-oriented SCADA technology to minimize costs for future expansion projects, creative solutions for minimizing the impacts of radio antennas in residential areas, and extraordinary on-time within budget performance which exceeded County expectations.

Castaic Lake Water Agency Rio Vista Water Treatment Plant Upgrades, Santa Clarita, CA. Assistant Project Manager for replacement of existing SCADA systems for two water plants with Wonderware System Platform based solutions.

City of Sunnyvale, CA Rehabilitation of Digesters 1 and 2. *Quality Control Reviewer* of the electrical and control systems designs for the rehabilitation of two digesters and the addition of FOG/food waste handling. Improvements included upgrades to the 5 kV and 480 volt distribution systems, PLC based controls, LED area lighting, and fiber optic communications.

Mint Farm Treatment Plant, Longview, WA *Technical Assistance* in obtaining FCC microwave communications license for water distribution and wastewater collections SCADA.

San Francisco Public Utilities Commission, CA *Project Engineer* For both the Oceanside and Southeast Wastewater Treatment Plant, provided assistance with deployment of the Wonderware Historian including investigating hardware, software, and network issues, and importing SCADA data from the legacy distributed control system into Wonderware.

CMWD-Turnout Automation Project, Calleguas Municipal Water District, Thousand Oaks, CA *Project Manager* Project Manager and SCADA technical lead for a $14M program to upgrade and automate 91 wholesale customer turnouts. Project included developing a highly reliable, lossless, and secure cellular communications system to bring near real time field information to a central database for SCADA operations and simultaneous on-line access by wholesale customers. Project involved preliminary design, design, and software integration services. Project included design of a networking center utilizing blade servers, storage area network, tapeless backup, and server virtualization. Project included developing a secure website with real time data for wholesale customer use. Project also included developing software for a .NET based invoicing system which automatically retrieves billing data from SCADA and produces wholesale customer invoices.

Lake Bard Water Filtration Plant Video Surveillance and Security System, Calleguas Municipal Water District, Thousand Oaks, CA *Project Manager* Managed design and implementation of a video security system for the Water District which serves over 600,000 users and covers an area of 350 square miles. The District needed video surveillance to protect its watershed and major facilities. Kennedy/Jenks developed the security systems plan which included monitoring and viewing capabilities at 10 different locations.

Kennedy/Jenks design utilizes edge video analytics hardware which can identify unknown objects as human with a very low probability of error, minimizing false alarms at the operations center which is staffed 24x7. The system includes high definition and standard definition visible light cameras; thermal cameras which can identify intruders in total darkness or fog; virtualized digital video recording and management; door contact interface integrated with a plant programmable logic controller (PLC); and wireless microwave video communications spanning a range of miles.

Presentations

Peros, N. “SCADA Systems in the Virtual Environment.” *American Water Works Association*. Millbrae, CA. November 2011.

Peros, N. “Bringing a Wholesaler’s Meter Stations into the 21st Century Using PLCs, PCs, and Cellular Modems.” *American Water Works Association*. Sacramento, CA. October 2010.

Peros, N. “Planning and Implementing Advanced County-Wide SCADA.” *California Water Environment Association*. Sacramento, CA. May 2006.

Peros, N. “Electrical and Control System Fundamentals.” *California Water Environment Association*. Redding, CA. September 2005.

Peros, N. “Electrical Power and SCADA Systems for Public Works Professionals.” *American Public Works Association*. Camarillo, CA. November 2004.

Peros, N. “Infrastructure Information Portals: the Next Browser Accessible Frontier.” *Nevada Geographic Information Society*. Reno, NV. March 2001

Peros, N. “Port of Seattle Automated Facilities Project (AFUS).” *National Airports Peer Group*. Tucson, AZ. February 2000.

Peros, N. “Ventura SCADA System Upgrade.” *Channel Counties Water Utilities Association*. Ventura, CA. January 2000.

Peros, N. "SCADA Computer Applications in Wastewater Control Plants." *Northern San Joaquin CPWCA*. March 1991.

Peros, N. "SCADA System Operator Interfaces." *Joint Instrumentation Conference* August 1990.

Peros, N. "Legal Considerations in Preparing and Enforcing Specifications." *Institute of Electrical and Electronic Engineers Industry Applications Society*. 1988.

Education
MBA, University of CA, Berkeley, 1988
MS, Electrical Engineering and Computer Science; University of CA, Berkeley; 1980
BS, Electrical Engineering and Computer Science; University of CA, Berkeley; 1978

Professional Registrations
Electrical: CA, WA, NV, HI, WY, CO, OR, AZ, ID, AK
PE:UT, NM, WI, OH
Control Systems: CA
LEED Accredited Professional

Professional Memberships
Institute of Electrical and Electronics Engineers
Instrumentation, Systems, and Automation Society

Paul Giorsetto, P.E., LEED AP, BD+C
QA/QC

Experience

Paul Giorsetto has more than 25 years of design experience in the areas of electrical power distribution, electrical industrial applications, control systems, and instrumentation. His specific experience includes electrical system modeling and planning; medium and low-voltage electrical distribution designs of water, wastewater and industrial waste treatment facilities; plant instrumentation; and SCADA systems for in-plant and telemetry-based systems. He also has significant experience in construction services, as a resident engineer and inspector, and during facility startup.

Mr. Giorsetto has been the electrical and/or discipline lead on numerous large water and wastewater design projects, and has been a project manager on stand-alone control system and electrical design projects having construction costs in excess of $3 million. He has acted as project manager on several standalone electrical and instrumentation and controls (I&C) design-build projects.

Mr. Giorsetto's recent experience includes serving as the Electrical design task leader for the City of Santa Cruz's Graham Hill WTP Electrical Improvement Project; Electrical and I&C task leader for the Cogeneration System Improvements project for Dublin San Ramon Services District; and Lead Instrumentation Engineer for the Pacheco Pump Station ASD Replacement Project for the Santa Clara Valley Water District. His responsibilities include electrical design for medium and low voltage power distribution systems.

- ***Control System Master Plans.*** Directed the development of control system and SCADA master plans for Orange County Water District, the City of San Mateo, and The City of San Diego Miramar Water Treatment Plant. These control system master plans reviewed data requirements for operations, engineering, and maintenance staff, and covered control system technology, methods for providing data, and implementation feasibility.

- ***Cogeneration Electrical Improvements and Service Relocation Project; Dublin San Ramon Services District, Pleasanton CA; Project Engineer and TJCAA Project Manager.*** Performed preliminary and final design services for improvements to and expansion of the WWTP electrical distribution and cogeneration facility. This project includes relocation of the WWTP existing 21 kV PG&E service, replacing existing cogeneration control/switchgear, and adding a third cogeneration unit resulting in a total internal generation capacity in excess of 2 MW. Work includes coordinating necessary facility improvements for power export capability to PG&E, new PG&E primary service, new networked engine-generator controls, and upgrades to several 480 V and 21 kV switchgear. TJCAA is assisting the District with engineering services during construction, with Project completion scheduled to occur in 2012.

- ***Arc Flash Implementation; Central Contra Costa Sanitation District, Martinez, CA; Project Manager.*** Prepared an arc flash implementation strategy for the District that included reviews of previous arc flash and electrical improvement studies, field verification of hazard mitigation techniques, development of standard criteria for arc flash hazard identification and field labelling, and preparation of a standardized facility graphic for communication of arc flash conditions to District electricians.
- ***SCADA System Intertie Study; City of Upland, CA; Project Manager/Project Engineer.*** Prepared feasibility planning study for integrating the City's water system monitoring SCADA system with the neighboring San Antonio Water Company's SCADA system. The two systems, while separate from an organizational perspective, each have certain assets that span between the two groups, including groundwater wells, reservoirs, well head chlorination facilities, and water treatment plants. The study developed an integration method that was coordinated with the two SCADA systems to allow necessary exchange of data while addressing staffing, maintenance, security, and implementation methods and cost.
- ***SCADA System Improvements; Marina Coast Water District, Marina CA; Project Manager.*** Developed SCADA system rehabilitation, implementation, and standardization strategies. The existing system suffered from a variety of chronic radio system failures, poor remote site component performance, absence of standardization strategies, and lack of hardware or software documentation procedures. This effort included development of standardized RTU bid specifications for new construction, associated submittal requirements, radio path analysis for converting from 900 MHz unlicensed to 450 MHz licensed radios, control strategy and programming standards, and "quickfix" design for addressing system failure symptoms prior to development of a systemwide Master Plan.
- ***Photovoltaic Service Coordination; Solarpack Development, Lafayette, CA.*** Assisted with the preparation of technical documents and applications for utility interconnection applications for large scale photovoltaic power plants in California. Prepared documentation for applications going to both PG&E and SCE for photovoltaic power plants with up to 20 MW of installed capacity.
- ***Monterey Regional Desalination Facility Predesign, Marina, CA; TJCAA Project Manager and I&C Task Leader.*** Performed preliminary design tasks associated with the 10 mgd regional desalination facility serving communities in and around the central and southern area of Monterey Bay. Tasks included development of facility P&IDs, control system architecture, interagency SCADA integration, coordination of utility and third party power supplies, medium voltage electrical distribution, and development of I&C and electrical design/build procurement documentation.
- ***SCADA Telemetry Upgrade Project; Contra Costa Water District, Concord, CA Project Manager.*** Prepared comprehensive predesign analyses and report for development of alternatives for remote site radio and PLC equipment, new multiple address system radios, new point-to-point and high bandwidth backbone communication links, and secure MPLS strategy as a standby strategy for routing telemetry SCADA data to District servers. This project also included development of RFQ and RFP documents for execution of a design/build procurement strategy by the District for both the telemetry equipment and new server equipment being installed at the Randall-Bold WTP.

- ***Diemer WTP, Electrical System Reliability Analysis (Electrical Master Plan); Yorba Linda, CA.*** Performed reliability analysis of the existing 40 year old electrical

system at the Diemer WTP in Yorba Linda. Project included field investigations, review of existing documentation, and application of client's reliability criteria as it related to the electrical distribution system. Developed final report with recommendations for system improvements and for integrating the work with ongoing District planning and design projects.

- ***Pacheco Pumping Plant ASD Replacement Project; Santa Clara Valley Water District, Santa Clara, CA; Lead Instrumentation Engineer, Project QA/QC, and TJCAA Project Manager***. Project included replacement of 12 existing 2000 hp, 5 kV, wound rotor motor speed control with new PWM Adjustable Speed Drives. Work includes analysis of drive technologies, review of prequalification and procurement delivery methods, control system interfaces to large drives, and modifications to the existing controls to support interim operation of parallel control systems for the multi-year construction cycle. All work requires the pump station to remain in service throughout the construction period to deliver water to Santa Clara's treatment facilities. TJCAA is assisting the District with engineering services during construction, with Project completion scheduled to occur in 2012.
- ***Basin Improvements Project; Inland Empire Utilities Agency, Chino Hills CA; Project I&C Engineer.*** Design of improvements for several groundwater replenishment basins and water supply turnouts. Project included definition of project requirements and final design. Developed scheme for expansion to the existing radio based telemetry system, solar powered remote facilities, and subnetworking local radio communications. Water supply turnouts are from the Metropolitan Water District's (MWD's) existing pipeline system for replenishment basin water supply from the MWD system and conform to MWD technical requirements and standards.
- ***Pressure Zones 2 and 3 Pump Station Improvements; Dublin San Ramon Services District, Pleasanton, CA; Project Engineer and TJCAA Project Manager.*** Project Lead electrical and I&C engineer for preliminary design, final design, and construction services for electrical and mechanical renovations at four drinking water pump stations. Work included field inspections, conceptual approaches, use of reduced voltage starters for hydraulic surge control, replacement of all electrical equipment, and interfacing to the District's radio based SCADA system. Project also resulted in relocating several PG&E service points at each pump station and developing bid documents to incorporate a sole sourced District programmer for performing SCADA system upgrades.
- ***Beltz Water Treatment Plant Predesign; City of Santa Cruz Water Department, Santa Cruz, CA; Project Instrumentation, Controls, and Electrical Engineer.*** Prepared a preliminary design review and analysis of the existing Beltz acclivity to review feasibility of the existing plant electrical and I&C infrastructure to support proposed process improvements. Developed approaches for normal power requirements, standby power, and control system integration in a final comprehensive technical memorandum.
- ***River Road Wet Weather Treatment Facility; City of Salem, Oregon; Electrical and I&C Task Leader***. Performed electrical design tasks for a new medium voltage service, new facility design, pump station, and integration of owner furnished, high rate clarification and ultra-violet disinfection equipment into the construction bid documents. The design used smart P&IDs and 3-dimensional design tools.
- ***Skinner WTP; Metropolitan Water District, Riverside CA; Electrical and I&C Task Leader.*** Designed renovation of existing medium voltage distribution, including a new 33 kV SCE service, new 4.16 kV main switchgear, addition of a 1.75 MW standby generator, and campus style unit substations as part of the $180 million

plant upgrade. The design incorporated strict criteria for power supply switchover to the new SCE service and system controls for the standby generator addition with multiple main-tie-main circuit breakers. The project also included fiber optic network, electrical power modeling, and electrical distribution and lighting design. I&C design included development of P&IDs for the facility including MWD-furnished ozone system equipment, 144-inch raw water metering, control narrative development, integration into the existing MWD control system, development of software interface protocols, and detailed I&C design for the plant improvements.

- ***Groundwater Replenishment System; Orange County Water District, Fountain Valley, CA; Electrical and I&C Task Leader.*** Designed electrical and I&C components. I&C design elements included application of P&IDs; design of bus based I&C system utilizing Foundation Fieldbus and DeviceNet; and a distributed control system preselection effort resulting in selection of an Emerson DeltaV process control system platform. Electrical aspects of the project included integrating the bus based control system, new 66kV substation, 12 kV in-plant distribution, and large scale application of variable frequency drives, with over 30 units ranging in size from 500 to 2,500 hp utilizing active front end technologies.
- ***Bollman 5kV System Upgrade Project; Contra Costa Water District, Concord, CA; Project Manager.*** Design of an upgrade to the 5kV distribution system and large motor (up to 1500 hp) starters and controls. The design for the $3 million construction project was delivered on time and under budget.
- ***Electrical Rehabilitation Project; National Park Service, Yosemite National Park, Yosemite, CA; Lead Electrical/Project Engineer.*** Designed a rehabilitation of the electrical distribution system for Yosemite National Park. This project required that all concepts and designs be performed within the strict environmental and aesthetic criteria of the National Park Service, and involved designing an electrical substation constructed in a structure listed on the National Register of Historic Buildings.
- ***WWTP Electrical System Design; Salalah, Oman; Lead Electrical Design Engineer.*** Designed WWTP electrical systems. The design, which featured adaptation of United States design techniques to British Standards and Codes, also included extensive medium voltage distribution (11,000 volts) and motor utilization voltage (3,300 volts), low voltage distribution at 415 volts, motor control, and standby generator and distribution system applied to a campus style plant configuration.

Publications and Presentations

“Electrical Fundamentals for Water Distribution and Treatment Facilities”, presented at Contra Costa Water District, June 23, 2011.

“Wireless Applications in the Water and Wastewater Industries”, presented at the American Water Works Association, Fall 2007 Conference,

“SCADA and Asset Management”, presented at the California Water and Environment Association, SCADA and Communications Systems Technology Seminar, April 3, 2003.

“SCADA Systems: The Physical Layer”, presented at the Santa Ana River Basins Section of the California Water Environment Association, SCADA and Data Management Seminar, March 13, 2002.

"Instrumentation and SCADA Systems, an Overview", presented at the North Carolina AWWA/WEA Seminar on Instrumentation for Water and Wastewater Systems, July 12, 2000.

Education

BS, Electrical Engineering; San Diego State University; 1986

Professional Registration

Electrical: CA

Professional Memberships

Instrumentation, Systems, and Automation Society

American Water Works Association

Michael J. Erwin, P.E.
Associate

Experience

Michael Erwin, who heads up TJCAA's Control Systems Programming group, has been building valuable experience since 1986 in the design, implementation, and management of electrical power, control, automation, and instrumentation systems. He performs electrical design engineering for water and wastewater treatment, collection, and distribution systems, and industrial facilities, focusing on instrumentation and control system design and programming. His specific experience includes development of power calculations, protective device coordination, equipment specification, instrument selection, and control panel fabrication design; design of SCADA systems for in-plant and telemetry-based systems; and PLC programming.

Mr. Erwin has hands-on familiarity with a wide variety of PLC and SCADA hardware and software platforms. He gained his extensive experience not only as a consultant, but also as chief engineer and project manager for a Northern California systems integrator. With this understanding of the water/wastewater, control system, and construction industries, he provides a viewpoint that emphasizes constructability and an emphasis on systems that feature maximum operator usability and efficiency. His experience includes the following:

- ***Montclair Lift Station; Inland Empire Utilities Agency, Chino Hills, CA; Lead I&C and Electrical Engineer.*** Replacement of the electrical system, including distribution equipment, VFDs, and PLC control panel, with a new system using redundant ControlLogix PLCs. The project required a phased installation sequence to maintain continuous operation during construction.
- ***Wastewater Treatment Plant; City of Malibu, Malibu CA. I&C and Electrical Discipline Lead.*** Lead I&C and electrical engineer for new greenfield WWTP and collection system pump stations for City of Malibu. Project includes new SCE service, secondary selective 480V distribution for reliability, standby generation, and local motor controls. I&C design incorporates distributed controls based on PLCs and integration of control platforms provided by process package suppliers.
- ***Control System Integrator; Contra Costa Water District, Concord, CA; Project Manager.*** Performing field system integration of control system modifications as part of a several construction projects for Contra Costa Water District. Work includes review of third party designs for control system requirements, field control panel verification, development of supporting control panel modifications, and execution of field modifications. Work includes significant effort to coordinate control improvements between District, design consultants, construction contractor, and District programmer.

- ***Well No. 2 PLC Programming Upgrade Services; Bella Vista Water District, Redding CA; Project Manager.*** Project includes design for an update of the well site PLC program to meet the District's programming standards and organization; the addition of residual chlorine monitoring; and improvements in the automated backwash sequence.
- ***Lincoln Pump Station; City of Stockton, CA; Project Manager.*** Project included design of a new pump station with three lift pumps, VFDs, PLC controls, and integration into the City of Stockton's existing telemetry/SCADA system.
- ***San Miguel Pump Station; Contra Costa Water District, Concord, CA; Project Manager.*** Replacement of the electrical distribution system and controls, including an outdoor switchboard with automatic transfer switch, soft starters for six booster pumps, new instrumentation, and a PLC control panel.
- ***Water Distribution System SCADA Upgrade; San Juan Water District, Granite Bay, CA; Project Engineer.*** Hardware and software upgrades from an existing proprietary control system to a new Allen-Bradley PLC and Wonderware-based SCADA system. Eight major PLC panels were replaced at the water treatment plant using AB CompactLogix PLCs on a fiber optic Ethernet network. A combination of 900 MHz and 2,400 MHz spread spectrum Ethernet radio networks were used for control and monitoring of 6 pump stations, 3 tank sites, and 17 flow metering sites. An Intouch SCADA application was deployed on redundant virtual servers and redundant historian servers with thin-clients distributed throughout the treatment plant and the major pump stations. Execution of this project had to be performed with minimal plant shutdowns, and installation had to be performed using existing field wiring—the design included provisions for complete panel replacement and termination in less than 24 hours.
- ***Wastewater Treatment Plant Expansion with New Control System; City of Delano, CA; Project Manager/Lead Programmer.*** Control system design, PLC program development, and SCADA programming for the expansion. The project included selection and integration of new instrumentation throughout the facility, seven new PLC control panels with Rockwell Automation ControlLogix controllers, a managed fiber optic Ethernet network, and a Wonderware Archestra SCADA system with an Intouch HMI, SCADAlarm alarm dialer package, and reporting software.
- ***Water Treatment Plant Expansion; Bella Vista Water District, Redding, CA; Project Manager/Lead Programmer.*** Upgrades to the raw water pump station, water treatment plant, and 10 remote pump stations and well sites. Worked directly with the District to design and implement new control strategies and update the process to meet all California drinking water standards. Upgrades included new PLC programs for the raw water, filter plant, and telemetry GE Fanuc 90-30 PLC systems and a new Intellution iFix SCADA system with redundant SCADA servers and two remote View nodes.
- ***Water Distribution SCADA System; City of Benicia, CA; Project Manager.*** Design of PLC control panels with Modicon Momentum PLCs, and a spread spectrum radio network for monitoring the City's reservoirs and pump stations from the water treatment plant. The distribution system was integrated into the water treatment plant's iFix SCADA system.

Publications and Presentations

"Diplomacy – Dealing with Customers, Owners, Engineers, and Vendors," presented quarterly at MCC Control Systems, 2004–2010.

"The Specifics – Reading, Understanding, and Implementing Specifications," presented quarterly at MCC Control Systems, 2004–2010.

"PLC 101 – Introductory Course on PLC Programming," presented at multiple client sites 2001–2004.

"Getting the Most from Your SCADA System," presented at California Water Environment Association Spring Conference 1998, Redding, California.

"Case Study from an Integrator's Perspective," American Water Works Association presentation at the Alameda County Water District Treatment Plant No. 2, 1994.

RICHARD PRESSLER

Networks, Security and Virtualization

Richard Pressler is a Senior Datacenter Architect in AllConnected's datacenter practice. Richard works with our clients and our sales team to identify unique business and technical requirements and then architects/develops solutions that provide value, efficiency, and quick recoverability. Richard Pressler also coordinates the project teams at AllConnected and works with technical leads at our clients to ensure a successful deployment and transition of the recommended solutions to the client and/or managed services.

Richard also takes the lead in managing the team that supports the private cloud infrastructure in AllConnected's datacenters.

SKILLS & EXPERIENCE

Education

- VMware VCP4
- Cisco CCSP/CCDA/CCNA
- Citrix DCND
- Compellent certified installer

Work Experience

- 15+ years of consulting experience with VMware, Cisco, and/or EMC VNX storage and Dell Compellent Storage
- Customer interface experience in a corporate environment, including direct interaction with executive, senior level management and line-level management members.
- Works in both a field service role as an architect and/or senior engineer.
- Expertise with VDI / Citrix
- Project management and resource tracking skills
- Infrastructure design for SCADA and other PLC systems at environments including Stockton East WD and Calleguas MWD.

Technical Skills

Datacenter technology skillsets include:

- Strong Enterprise Storage, Backup, and Archive architectural experience
- EMC Hardware experience on VNX line
- VMware vSphere, vCenter, Hypervisor and VDI experience
- Cisco UCS B Series experience
- Cisco Nexus, MDS and/or equivalent Fiber Channel Switching experience
- Storage optimization and tiering
- Fabric interconnect and multi-protocol design and deployment skills
- Root cause analysis and troubleshooting skills
- Operational lifecycle (patching, firmware, monitoring, management, automation)
- Computer server architecture
- Storage replication strategies
- Disaster recovery and business continuity planning

Select Project experience

Calleguas Municipal Water District:

Acted as lead virtualization architect and designer for a new virtualized infrastructure that supports all active directory and scada functions along with related services for the district. Also provided architectural and review services for the physical design of the datacenter.

Moorpark Unified School District:

Acted as lead enterprise architect for the network and virtualization design. Achieved the goal of a fully redundant secondary datacenter based on virtualization technology and san to san replication. Oversaw the installation of a system that was virtualized as the compute and storage layer to accomplish the district goals.

Ventura County office of Education:

Acted as enterprise architect and consultant to migrate from a legacy storage and server infrastructure into a newly implemented virtual storage and compute datacenter environment, increased capacity to each virtual server to meet the organization's needs. At the airport datacenter, oversaw the successful implementation of a converged solution that consolidated networking and fiber channel connectivity into DCB using Cisco UCS Architecture.

Stockton East Water District:

Acted in a design and virtualization architectural role together with Kennedy Jenks in order to assess the current district posture as it related to readiness for changes to the scada infrastructure and a long term lifecycle plan that would allow for the introduction of new technologies in a planned procurement cycle, including a review of services that could be outsourced to cloud providers.

Paul Rahilly
Mtelligence (Mtell Advanced)

Profile
Paul has over 22 years of experience spanning industrial maintenance engineering, MEP (Mechanical Electrical and Plumbing) construction project management, automation systems integration and industrial optimization.
Early in his career Paul work in the trenches with a Guinness malting plant as an industrial maintenance engineer experiencing firsthand the pain of operations and maintenance working together to ensure continued capability to deliver on process equipment. Paul has also worked extensively on large green field commercial and industrial construction projects – coordinating the various mechanical and electrical systems installations. Any company will tell you, their two most crucial aspects of success, lie in their deliverables and their bottom line, Mtelligence holds the key to unlock the old antiquated maintenance philosophies known as calendar base maintenance, to one of self monitoring, self diagnostic maintenance systems. This is rapidly becoming leading edge future trend of modern manufacturing. This trend setting software assures reliability, accuracy and guarantee's a revolutionary new approach to the core aspects of manufacturing operations and maintenance.

Skill Summary

Software
Mtelligence "Reliability Intelligence Suite", Microsoft .net, SQL Server 2000-2008, Oracle databases, Business Intelligence, SCADA/DCS Systems, Enterprise Asset Management / Computerized Maintenance Management Systems, Mobile Operator Inspections

Management Consulting
.NET Enterprise Architectural Design, Predictive Analytics, Data Mining, Business Intelligence, Competitive Analysis, Technical Evangelism

Operating Systems
Windows XP/NT/2000/2003, Windows 7, Windows Server 2003-2008

Relevant Experience

CEO Mtelligence (*1997 – Present*)

In 1997 Paul founded "Interactive Facilities Corporation (IFC)" to address the knowledge management needs of O&M personnel. This endeavor rapidly evolved to encompass EAM/CMMS implementation, automation systems integration, industrial optimization and various advanced management information systems. IFC was re-launched as "Mtelligence" in 2006 as a software company focused on enterprise software that assures asset reliability and guarantee's a revolutionary new approach to the core aspects of manufacturing operations and maintenance excellence. As the CEO of Mtelligence, Paul's responsibilities include the day-to-day executive functioning of Mtelligence.

Project Manager, Mtelligence Implementation, Union Sanitary District 2012

Guided USD's first phase of Mtelligence deployment which brought runtime data from the SCADA Historian into the Hansen CMMS and which piloted predictive analysis for the centrifuges.

MEP Project Manager, Lehrer McGovern Bovis, Venetian Resort Hotel (*1997 -1998*)

Selected as the MEP (Mechanical, Electrical and Plumbing) project manager for what was, the world's largest construction project at the time, the Venetian Hotel, valued at $2 Billion. – A 7 million square foot, 6,000 Suite Hotel, Casino, Retail and Convention Complex. Developed & expedited "MEP" (Mechanical, Electrical and Plumbing) services design program, with respect to coordination of MEP installations; managed, scheduled & monitored all activities relating to MEP services installations

MEP Project Manager, **John Sisk & Son Ltd** (***1995-1997***)

Worked on 3 large “green field” site construction projects: - (i) QuarryVale Shopping Centre - (1 Million square foot), (ii) Westpoint Club and (iii) Blanchardstown Town Centre - (1.2 Million square foot) - Developed & expedited “MEP services design program” (w.r.t builders work, coordination and working drawings plus equipment details for approval); Managed, scheduled & monitored all activities relating to MEP services installations

Industrial Maintenance Engineer, Midland Malting, Ltd (*1992-1995*)
Responsible for ten barley assembly branches and active in the development of Midland Malting centralized malting facility. Extensive process automation program implemented using Allen Bradley PLC’s and “Control View” technology - catered for the unmanned night operation of Midland Malting. Involved in planning and management of the installation of a 10.1 MW combined heat & power plant at midland malting. Carried out technical survey work to develop a computerized maintenance management system for the ten branches and Midland Malting - {“PEMAC” software used}.

Project Engineer, Trienco Corporation (*1989-1992*)
Hunter College Renovation - surveyed hunter college proposed renovation work for impact on existing mechanical / electrical services. Produced design drawings for the removal of asbestos in renovation areas. Managed and scheduled a crew of 30 men working 24-7.
The Tudor Hotel Renovation - worked as a member of general contractor’s construction management team. Liaised with MEP contractors to co-ordinate and schedule the work of 150 men on-site.
Assisted in the preparation of co-ordination drawings for the installation of HVAC, plumbing, electrical and fire protection.

Education

University College Dublin, Ireland

Bachelor of Mechanical Engineering, 1985 – 1989

Steve Pallad
SCADA Integration

Professional Summary

Steve Pallad is a senior consultant providing both software and business analysis services. His software service skills include design, development and implementation of solutions for web and desktop applications. His business analysis services include process mapping, workflow tuning and information integration. He has implemented applications development and CRM solutions for business and finance purposes. His software skills include database analysis and development, optimization, querying and reporting for both desktop and web users. He also has experience with enterprise applications including PeopleSoft, Microsoft Dynamics NAV and Salesforce CRM.

Relevant Project Experience

SCADA and IT Master Plan, Monterey Regional Water Pollution Control Agency, Monterey, CA - *Business and Database Systems Consultant* – Developed IT and SCADA Master Plan. Through discussions with the client, reviewed their various SCADA and business systems to document existing processes and strategize how to improve productivity and increase information integration between various work groups and systems. Produced a set of project plans to implement to achieve their goals for improved information sharing and automation.

5-Year Master Plan, Stockton East Water District, Stockton, CA - *Business and Database Systems Consultant* – Reviewed and advised on the development of the Master Plan. Discussions with staff included their accounting system, business workflows and reporting needs. Reviewed database system processes and extent of data stored within the database system, as well as external data stored in spreadsheets. Advised and documented plans for managing the data for the Master Plan.

Information Systems Management, Solar Trust of America, Oakland, CA – *Senior IT Manager* – Managed the company's software systems. Lead implementer of Microsoft Dynamics NAV (ERP business and finance) which was used for GL/AP/AR processes. Conducted meetings with business management and department heads to define the requirements and provide guidance for the installation. The system was successfully installed, under budget and on time. The installation included converting and loading historic financial data from QuickBooks into MS SQL Server. Financial reports for business and department managers were developed as required. In order to resolve information sharing and to improve collaboration between departments, SharePoint sites were created. Staff was trained to manage and maintain their data.

Groundwater Data Management, CE2 Corporation, Hunters Point, CA - *Senior IT Manager* – Created and managed the data collection, analysis and reporting systems of groundwater sampling teams. The teams used tablet computers in the field to record their well inspection data and groundwater sampling parameters. The applications provided forms for data entry into MS Access files. A reporting application produced Chain of Custody forms which reported well locations and analytes to be sampled for each well. These forms, along with the water samples, were sent to the labs for analysis. The field data was subsequently loaded in a SQL Server database for monthly reports. Results from the labs came in text files that were converted for the database. A web-based application was created to show groundwater sample results on Microsoft Bing maps. The client could view maps that showed well locations and color-coded analyte values for all wells over the course of the program (five years). Reports were provided for quarterly samples information submitted to the US Navy.

The applications also managed the sampling list of over 100 wells in the area. Each well had a variety of analytes to be sampled over a variety of sampling frequencies. The sampling team could run reports to get lists of wells to be sampled for each session, and determine what type of groundwater analysis was required.

Pipeline Inspection and Flushing Application, San Francisco Public Utilities Commission, San Francisco, CA - *Database Systems Consultant* – Created an application used by SFPUC staff manage the progress of flushing the pipelines in different areas throughout the city. The application maintained pipeline information used by staff to help schedule which areas were to be flushed. A form was utilized to track pipeline conditions and progress. The application replaced a paper-based process, which was difficult to maintain and had many redundant and incorrect details. By integrating the previous procedures with an Access database and forms, the redundancy as errors were removed and the management of the process was greatly improved.

Asset Management, San Francisco Public Utilities Commission, San Francisco, CA - *Database Systems Consultant* – Worked with SFPUC staff to help manage groundwater assets. A key objective was to review data from spreadsheets and text documents and compare it with information stored in the Maximo asset management system. A gap analysis report was created to list assets that were missing from the Maximo system.

Project Management Websites, Various Clients, San Francisco, CA - *Database Systems and Application Programming Consultant* – Created a series of internet applications used by many clients to help manage the schedules, communications and documents of client projects. The secured applications used back-end database and file servers to store client data, documents, photos and videos created during the project. Staff was able to retrieve meeting notices, agenda and documentation from the site and post their comments for others to review. On-site construction photos and videos were loaded into the site to provide immediate access and attention to details for office management. Managers could retrieve minutes and discussions from past meetings along with pertinent documents.

Facility Management Websites, Various Clients, San Francisco, CA - *Database Systems and Application Programming Consultant* – Created applications used by many clients to help manage their facilities. The application utilized both CAD drawings and site plans with facility buildings map overviews. By clicking a building in the map, a user could retrieve lists of equipment that were maintained in the building. Information such as maintenance records and schedules could be retrieved. Additionally, any piece of equipment could be selected to reveal its operation procedures and operation manuals which were stored as PDF files. The linking of the equipment to the facility overview maps greatly simplified and improved the access of facility documentation for the maintenance staff.

Ronald L. Moeller

Process Optimization and Regulatory Reporting

Certifications

Group IV wastewater treatment plant operator in the state of Washington (highest level); Grade II in CA; Grade III in OR

Numerous workshops, short courses, specialty conferences, etc.

Professional Summary

Ron Moeller has 29 years of experience in the wastewater/water industry. He is currently certified as a Group IV wastewater treatment plant operator in the state of Washington and holds a Grade II certificate in California, and a Grade III in Oregon for Wastewater Treatment. Before joining Kennedy/Jenks, Ron was the Wastewater Treatment Lead Operator for the City of Chehalis, WA. Ron served on the Water Environment Federation's (WEF) House of Delegates, and on WEF's 2006-09 Board of Trustees. He has served on the Pacific Northwest Clean Water Association's (PNCWA) Board of Directors as a WEF Director.

Relevant Project Experience

City of Santa Barbara, Santa Barbara, California *Project Manager* Developing an electronic O&M manual and SOPs for the El Estero Wastewater Treatment Plant. Work includes conversion of an existing paper manual into an electronic format, updates on existing and planned process changes, creation of critical SOPs and enhancement of existing SOPs, installation on client servers, and training.

Woodburn Water Department, Woodburn, OR *Project Manager* Provided guidance in selecting software for the City's new Computerized Maintenance Management System. Developed software assessment criteria, which included an evaluation of the Department's maintenance management needs and an evaluation of existing software systems. This integrated approach resulted in the selection of software that was the "best fit" for the Department. Oversaw the populating of the software with equipment data, and provided implementation and training support.

City of Greeley's Water Pollution Control Facility, Greeley, CO *Project Manager* Performed a process energy audit to explore energy reduction through process improvements, with the result being a reduction in overall operation and maintenance costs, capacity gains, and improved plant performance. The audit identified process changes that could reduce electrical consumption by 38%, resulting in savings of $175,000 annually.

City of Tacoma's Central and North End Wastewater Treatment Plants, Tacoma, WA *Project Manager* Performed process energy audits at both treatment plants to explore energy reduction through process improvements, with the result being a reduction in overall operation and maintenance costs, capacity gains, and improved plant performance. The audit identified process changes that could reduce electrical consumption by 14%, resulting in savings of $139,000 annually. Other non-energy related recommendations identified savings of $106,000 annually.

City of Camas, Camas, Washington *Project Manager* Conducting an Operations Review to capture institutional knowledge, support efficient and effective operation by plant staff, help address permit compliance challenges, and identify future activities to support long-term plant operation at the Camas Wastewater Treatment Plant.

Municipal Wastewater / Water Treatment Plant Project Experience

Eastern Municipal Water District, Perris, California *Water Filtration Audit Lead, Field Team* Conducted a Process Audit at the Perris Water Filter Plant. The process audit involved the review and evaluation of the District's processes and procedures at the WFP to identify changes that would lower costs and save energy.

Camarillo Sanitary District, Camarillo, California *Process Energy Audit Task Leader* Conducted process energy audit that involved the review and evaluation of the District's processes and procedures at the Camarillo WRP to identify specific operational adjustments, modifications and improvements that would lower costs and save energy. The process audit consisted of both an off-site review of data and an on-site evaluation and workshop with plant staff. The audit did not include the collection system. Preliminary findings of the audit could result in savings $131,000 annually.

San Mateo Wastewater Department, San Mateo, California *Operations Technical Lead, Field Team* Provided technical guidance and served on the field team to evaluate and assess the condition of equipment at the Wastewater Treatment Plant. This data was used to establish a Preventative Maintenance (PM) program using the City's Computerized Maintenance Management System. Helped develop the methodology used to assess equipment condition and priority ranking for maintenance. Interviewed staff to capture institutional knowledge not reflected in plant maintenance records.

Western Municipal Water District's Wastewater Treatment Plant, Corona, California *Operations Specialist* Conducted stress testing to field-verify the treatment capacities of various treatment processes. Unit processes included secondary clarification, tertiary filtration, and UV disinfection.

Arlington Wastewater Treatment Plant, Arlington, Washington *Operations Specialist* Provided performance optimization evaluation of existing solids handling facilities, which were greatly overloaded. Evaluated equipment, process, and operational parameters to determine if control strategies could be modified or incorporated to reduce sludge production and provide short-term relief.

O&M Manual Development

Performed technical writing and/or QC in the development of O&M Manuals/Operations Guides for the following clients:

- Burbank, California WWTP Electronic Operations Manual
- Fillmore, California Water Recycling Plant Electronic Operations Manual
- Port of Seattle, Washington Electronic Operations Manual
- Portland, Oregon Groundwater Pump Station O&M Manual
- McCloud, California Intake Springs Water System and Tank Improvements O&M Manual
- Port Hueneme, California Stormwater Pump Station Operation Guide
- San Juan Water District, Granite Bay, California Water Treatment Plant Operations Guide
- Arlington, Washington WWTP Electronic Operations Manual
- Medford, Oregon WWTP Electronic O&M Manual

D. Management - Tracking Hours and Costs

D. MANAGEMENT – TRACKING HOURS AND COSTS

Project hours and costs will be tracked biweekly, comparing planned versus expended effort and estimating hours to complete present tasks. No out of scope work will be started without prior written authorization by USD.

E. Consultants' Coordination with District Staff

E. CONSULTANTS' COORDINATION WITH DISTICT STAFF

Strategies and Work Plans with District's Staff Members

Communications is a key to project success whether in person, email, teleconferences, video conferences, or using other on-line tools.

The proximity of our offices in Burlingame, California and the location of most our team in the Bay Area makes it easy for ad hoc meetings as needed.

We've found that regular teleconferences, initially scheduled biweekly, are an excellent way to keep everyone informed and for review of action items. Screen-sharing of documents is likely to be a frequent asset to teleconference effectiveness. We also propose to keep document libraries on-line, to the extent permissible under USD security policy.

Meeting preparation is crucial to effectiveness. We plan to communicate the agenda before meetings/teleconferences and minutes afterwards, typically on the same day.

F. Project Schedule and Total Hours

F. PROJECT SCHEDULE AND TOTAL HOURS

The schedule below complies with the deadlines in the RFP but assumes a 1-week turnaround on deliverables by USD. We plan to support USD staff during the review periods to try to meet this goal. Note, however, that subsequent tasks do not depend in the schedule on completion of the USD's review on time, providing USD some flexibility in the review of deliverables.

Note that the planned separation of the SCADA Master Plan and SCADA Standards portions of this project actually occurs starting in Task 3. The subsequent Master Plan Tasks – 4 and 5 – do not depend on the Standards but both end in June 2015 as required by the RFP.

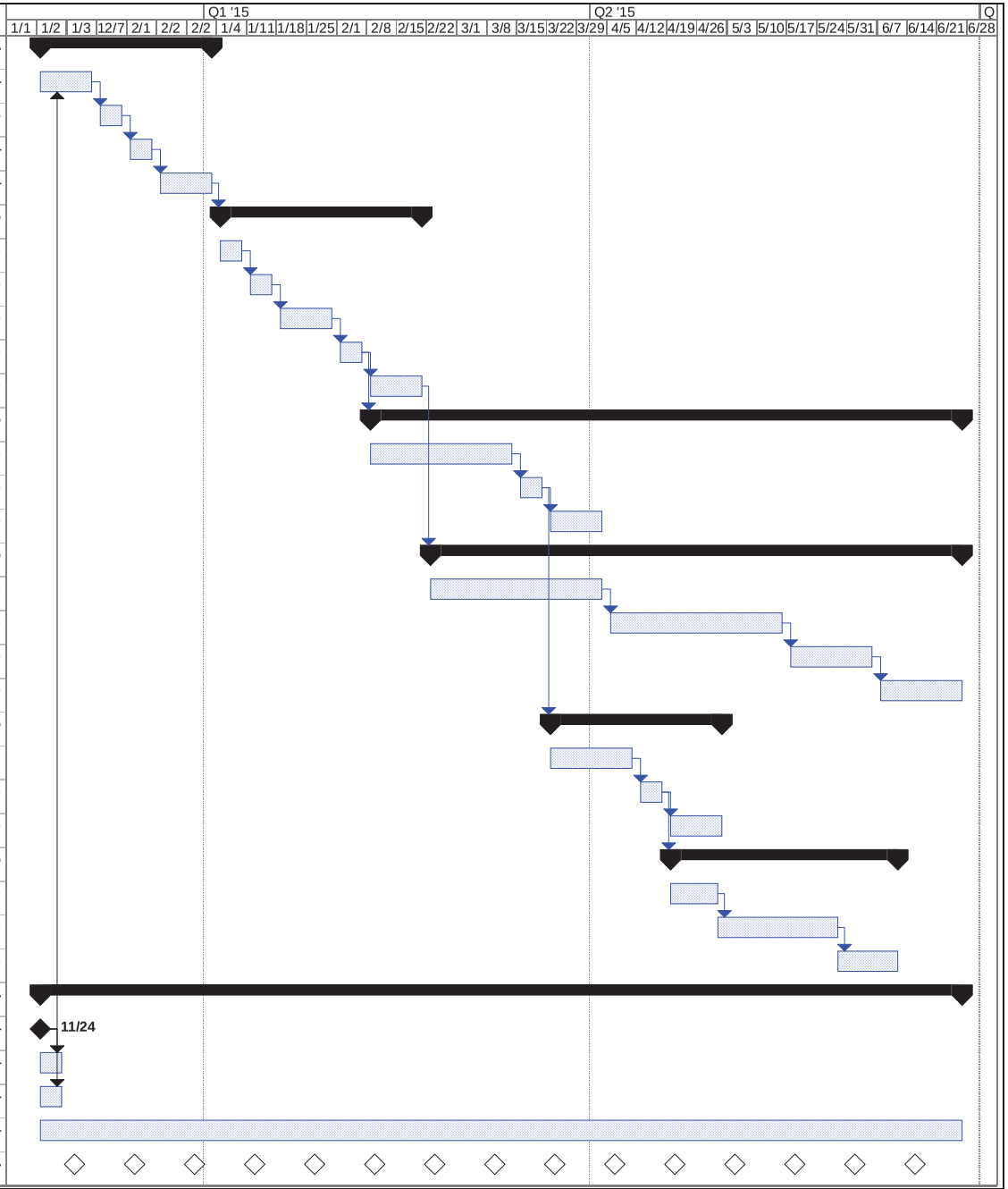
Note also, however, that this quick a turn-around was actually achieved during the Stockton East SCADA/IT Master Plan last year. This result was made possible – in part – because the report (master plan) was delivered and reviewed in Chapters, as is proposed here, as each phase of work was completed rather than all at the end.

Excluding optional services, the estimated levels of effort for each team member are as follows:

TEAM MEMBER	HOURS
Nicholas Peros	350
Paul Giorsetto	230
Michael Erwin	330
Richard Pressler	70
Paul Rahilly	40
Steve Pallad	40
Ron Moeller	50
Administrative Staff	60
TOTAL	**1170**

Given that number of deliverables in this short project are nearly 20, USD may wish to consider the alternative of monthly progress payments based on actual effort expended rather than milestone-based payments based on deliverables or some other measure.

WBS	Task Name	Duration	Start
1	**Needs Assessment**	**30 days**	**11/24/14**
1.1	Meeting Including Scheduling & Prep	2 wks	11/24/14
1.2	Draft Report Ch. 1	1 wk	12/8/14
1.3	USD Review	1 wk	12/15/14
1.4	Final Report Ch. 1	2 wks	12/22/14
2	**Review Existing SCADA System and Processes**	**35 days**	**1/5/15**
2.1	Workshop Prep	1 wk	1/5/15
2.2	Workshops	1 wk	1/12/15
2.3	Draft Report Ch. 2	2 wks	1/19/15
2.4	USD Review	1 wk	2/2/15
2.5	Final Report Ch. 2	2 wks	2/9/15
3	**Recommendations**	**100 days**	**2/9/15**
3.1	Draft Report Ch. 3	5 wks	2/9/15
3.2	USD Review	1 wk	3/16/15
3.3	Final Report Ch. 3	2 wks	3/23/15
3.4	**SCADA Standards**	**90 days**	**2/23/15**
3.4.1	PLC Programming	6 wks	2/23/15
3.4.2	SCADA Programming	6 wks	4/6/15
3.4.3	Control Panels	3 wks	5/18/15
3.4.4	Instrumentation	3 wks	6/8/15
4	**Implementation Plan**	**30 days**	**3/23/15**
4.1	Draft Report Ch. 4	3 wks	3/23/15
4.2	USD Review	1 wk	4/13/15
4.3	Final Report Ch. 4	2 wks	4/20/15
5	**Report**	**39 days**	**4/20/15**
5.1	Draft Executive Summary	9 days	4/20/15
5.2	USD Review	4 wks	5/1/15
5.3	Final Executive Summary & Complete Report	2 wks	5/29/15
6	**Project Management**	**155 days**	**11/24/14**
6.1	Contract Award	0 days	11/24/14
6.2	Project Procedures Manual	1 wk	11/24/14
6.3	Subcontracts	1 wk	11/24/14
6.4	Project Management, Reviews, Billing	155 days	11/24/14
6.5	**Biweekly Teleconferences**	**140 days**	**12/2/14**



Project: USD SCADA Master Plan & SCADA Standards
Nicholas J. Peros, P.E.
Date: 10/22/14

Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline

G. Sample Formats for SCADA Master Plans and SCADA Standards

G. SAMPLE FORMATS FOR SCADA MASTER PLANS AND SCADA

SCADA Master Plan – Stockton East Water District

The plan is a confidential document. We have permission, however, to present the table of contents:

Table of Contents

Table of Contents (cont'd)

Table of Contents (cont'd)

List of Tables

List of Figures

SCADA STANDARDS

Within the public sector, SCADA standards can take a variety of forms depending on the type of organization, risk aversion, level of staffing, and project bidding strategies of a particular Owner. For example, if there are limited resources, open source bidding requirements, and a desire to avoid potential blurring of integrator responsibility, a performance based level of standardization may be appropriate. In contrast, if internal staffing or close professional relationship with a third party integrator is in place, a high degree of self-performance is possible and highly detailed standards should be developed. Clearly, there are also numerous gradations of these two extremes as well.

The specific content, level of detail, and format of the standards will be customized to meet USD requirements as established during the early workshops. However, regardless of the details SCADA standards will include the following major topic areas

Equipment Control and Control Hierarchy

Control hierarchy describes how control is executed and is standardized to assure consistent operational schemes throughout the facility. Generally, for safety purposes, the control element closest to the equipment takes precedence over more remote control elements. For example, a local emergency stop switch at the motor will override a remote CALL to run from SCADA; a local OFF switch will override a remote CALL from SCADA, etc. Critical safety interlocks (low level cutoff, high discharge pressure, etc.) may be hardwired directly into the motor control circuit using fail safe logic depending on the preferences of operational and maintenance staff. These local critical interlocks may also require a local manual reset for safety reasons.

Standard Control Loop Descriptions

The purpose of control description standards is to define and document a standard control strategy in text format. The intent is to document control schemes in a manner that simplifies confirmation of the approach by operational staff and act as a translation for communicating these control requirements to the programmer. Having a standard control scheme also simplifies designs going forward and provides some assurances that all sites with similar features will be consistent and integrate properly into system wide controls. If desired, control descriptions can be developed using standard programming block modules combined to achieve the ultimate process control requirements as described later in this section.

Each loop description section should address the following subheadings.

General - Describe how the physical process works and what its primary operational goals are.

Control - Indicate point of control (e.g., Local, MCC, and Local SCADA) and control modes (e.g. Manual and Automatic). Address issue of power failure state and manual/automatic restart.

Alarms and Monitoring - Indicate the logic to generate any alarms or safety interlocks required by the process or process equipment.

Field Instrumentation

Instrumentation standards are provided to for requirements to measure and monitor the process. This standard may also be used to establish fieldbus network standards if intelligent field instrumentation of control valves in use.

Control Panel Construction

Control panel construction is often included in standards development to ensure a common level of quality with field control panels. Using existing Codes (e.g., National Electrical Code) and fabrication standards (UL 508) as the basis, control panel requirement may expand these basic needs to reflect particular features experienced by District staff. For example, the marine environment in and around the USD facilities combined with the wastewater treatment process results in a highly corrosive and aggressive environment. As a result, control panel construction standards can take steps to minimize or counteract the effects of the environment to decrease maintenance tasks and improve system reliability. Other special features could include internal wire tagging criteria, panel equipment conventions, or environmental standards.

Control Programming

The purpose of the programming standards section is to establish general programming requirements for the District's PLC, RTU, and Local Operator Panels (LOP). The intent is for these general guidelines to be used by the District's system integrator to develop standard programming procedures and program modules. These standards would then be used as the basis for programming at all remote sites to establish common configurations at remote sites.

Common programming building blocks could be developed as a programming library for use by the District programmers (in-house or third party) to implement future projects. Programming modules would be developed for the general case so that all module features may not be used when applied at a particular site.

HMI Configuration

Similar to the control programming standards, HMI configuration standards establish general requirements associated with the Human Machine Interfaces or operator terminals used for viewing the process. HMI work is often termed the "look and feel" of the system and standards assist operators in making informed and timely decisions during system upsets. Hardware standards would be developed in coordination with District IT standards.

Standard for HMI configuration include:

- Screen formatting: Define standards for the screen layouts for general system information, alarm log, process display, and navigation
- Color and font
- Graphics and animation
- Use and appearance of pop-up displays.
- Screen naming conventions and nesting hierarchy
- Presentation of change of state
- HMI scripting

Historian Standards

Historian standardization defines what data is stored for long term retrieval and the intervals of storage. Generally two types of data sets are stored: that data used as part of control and process monitoring (real-time data); and data used for asset management, preventive/predictive maintenance, diagnostic or forensic tasks (on-demand data).

Network Interfacing/Data Exchange

Recent SCADA trends highlight pushing device intelligent to the process floor level. That is, smart sensors, valve networks, and fieldbus technologies are rapidly gaining acceptance. Preparation of standards for fieldbus interfacing to the SCADA system, defining use of fieldbus or hardwire for control, self or externally powered, wired or wireless, and methods for field network bandwidth management would be addressed in this discussion.

Standard Submittal Requirements

The purpose of the submittal requirements standard is to define and document a standard level of documentation required for control system suppliers when developing shop drawings and submittals for SCADA system projects. Depending on the preferences of the District, two contractual entities may be defined: the Process Control System Supplier (PCSS) and the System Integrator Programmer (SIP). The responsibilities of the two entities may also be combined under a single overall integrator, programming performed in-house by the District, or other options depending on organizational preferences.

PCSS Responsibilities:

1. Provide all materials, equipment, labor and services required to achieve a fully integrated and installed system that is operational in local manual mode.
2. Provide field instrumentation and process control system devices for proper operation including field instrumentation, RTU panels, panel components, and interfaces to other, intelligent equipment access via system data links.
3. Provide all communication equipment and establish and verify remote communication channels required for the proper operation of the new facility.
4. Provide installation services for the PCSS provided equipment including installation, setup, calibration, factory testing, field acceptance testing, operational testing, and performance testing.
5. Provide training on PCSS equipment provided under the Contract.
6. Provide O&M documentation on PCSS equipment provided under the Contract.
7. Provide coordination support for the SIP.

SIP responsibilities:

1. Provide all materials, equipment, labor and services required to achieve a fully integrated and installed system that is operational in automatic and remote manual mode.
2. Provide all RTU programming, Local Operator Panel (LOP) and Human Machine Interface (HMI) configuration including development of control programs, database configuration, graphic screens, trending screens, etc.
3. Make necessary modifications to the existing central station HMI and all other HMI, RTU, and LOP programming. Provide suitable configuration software for the LOPs as specified in the Contract Documents.

4. Provide factory and field testing of developed software and verify process control programs developed for the facility. Install programs and perform field acceptance testing, operational testing, and performance testing of the completed system.
5. Provide training on developed programs.
6. Develop standard programming approaches and modules for implementing system side standards for software development.
7. Provide documentation for process control programs developed under the Contract.
8. Provide coordination support for the PCSS.

Testing, Startup, and Commissioning

Standards for testing, startup, and commissioning assist the District in more reliable operating systems, act to establish acceptable warranty conditions, and provide baselines comparisons for subsequent predictive/preventive maintenance tasks. Included in this discussion are standard testing procedures (e.g., factory testing, operational readiness testing, functional acceptance testing, etc.), testing protocols (simulation of failures, calibration checks, control loop verification, etc.) standard testing forms, and method for defining acceptable test results.

H. References

NICHOLAS PEROS' PROJECT MANAGEMENT PERFORMANCE AND REFERENCES					
Contact Name, Position, and E-mail	**Address**	**Phone Number**	**Service Provided**	**Date**	**Total Hours (approx.)**
Chris Foley Control Systems Specialist chris@mrwpca.com	Monterey Regional Water Pollution Control Agency 5 Harris Court, Bldg. D Monterey, CA 93940	831.809.6245	SCADA Master Plan	Nov 2013 - Present	1,200
Michael Johnson Assistant General Manager mjohnson@sewd.net	Stockton East Water District PO Box 5157 Stockton CA, 95215	209.444.3150	SCADA/IT Master Plan	June – December 2013	490
Kristine McCaffrey Manager of Engineering KMcCaffrey@Calleguas.com	Calleguas Municipal Water District 2100 Olsen Rd. Thousand Oaks, CA 91360	805.579.7173	2011-2013	2006 - Present	10,000+
Dana Strahan Operations Manager, Water Systems dstrahan@eid.org	El Dorado Irrigation District 2890 Mosquito Road Placerville CA 95667	530.642.4060	Project Management and consultations for miscellaneous SCADA upgrades including the installation of multi-tier databases for lossless replication from a total of 9 plants to a central database covering the following systems: water, wastewater, hydroelectric power, water distribution, wastewater collection.	2011 - 2012	570
Jeff Whitman Chief Plant Operator jeff.whitman@earthlink.net	**Since April 2013:** City of Durango Utilities Department 949 E. 2nd Ave Durango, CO 81303	970.375.4896	ACEC Grand Prize winning project for Engineering Excellence, Pima Co. AZ: Preliminary Design, Bid Documents, Construction Service for radio-based wastewater collection system SCADA for 40 sites		3,000

REFERENCES FOR TJC AND ASSOCIATES, INC.

TJC ANDASSOCIATES PROJECT MANAGEMENT PERFORMANCE AND REFERENCES					
Contact Name, Position, and E-mail	**Address**	**Phone Number**	**Service Provided**	**Duration Budget/Schedule Performance**	**Total Hours (approx.)**
Jacob Lesov Project Manager jlesov@ccwater.com	Contra Costa Water District 1331 Concord Avenue Concord, CA 94520	925-688-8396	SCADA Telemetry Improvement Project. Prepared comprehensive predesign analyses and report for development of upgrade scheme for the District's SCADA and telemetry system with the objective of improving overall system reliability. Project included development of alternatives for remote site radio and PLC equipment, new multiple address system (MAS) radios, new point-to-point and high bandwidth backbone communication links. Project also included assessment of central station SCADA facilities standby power reliability and capacity. Alternatives were analyzed and recommendations made to upgrade PLCs to Ethernet processors, incorporate GE/MDS SD9 Ethernet radios, establish MAS repeater based topology install dual radios for improved reliability, and implement secure MPLS strategy as a standby strategy for routing telemetry SCADA data to District servers.	12 Months On Time: Met Client Schedule	$800,000

Sean Knight Assistant Engineer sknight@mcwd.org	Sunnyslope County Water District (Mr. Knight Formerly with Marina Coast Water District) 3570 Airline Highway Hollister, CA 95023	831-883-5930	Performed SCADA design services for the District including review of existing system deficiencies; development of new RTU and radio standard hardware specifications for new construction; development of standard programming, submittal, and well control descriptions; and bid documents for an interim "quickfix" solution to chronic failures within their existing radio system. Effort included integration of licensed (450MHZ) and unlicensed (900 MHZ) radios, serial and Ethernet radio migrations, interface between new (Rockwell Automation Micrologix) and existing (Industrial Control Links) RTU platforms, and preparation of final bid documents. The approach also included development of store and forward interim RTU interfaces at four repeater/hub sites that incorporated an upward migration path for future system improvements that encompassed peer-to-peer communications, DNP3/Ethernet options, and licensed radios communicating to SCADA Central featuring a Wonderware Intouch HMI.	24 Months On Time: Met Client Schedule	$250,000
Tom Zaharris Treatment Plant Superintendent tzaharris@bvwd.org	Bella Vista Water District 11368 Stillwater Way Redding, CA 96003	530- 224-6501	As the District's system integrator, TJCAA maintains and updates the PLC programs and SCADA system for the District's water treatment and distribution system. The system includes the main raw water pumping station, two well pump stations, a 16-filter water treatment facility, and twelve remote distribution sites. Since 1995, Mike Erwin has exclusively programmed the SCADA system and PLCs for all of the facilities on the District's SCADA network. Projects have included two plant expansions, multiple new pump stations, upgrades to existing facilities while in operation, and improvements to the District's communications systems.	19 Years Ongoing since 2005 As needed projects: met Client's schedule on time and on budget throughout the relationship	Varied depending on assignment

I. Options

I. OPTIONS

The following are additions to the Methodology and Approach for this project:

Option 1: Networking standards development

Networking standards development would include discussions on wired and wireless systems, the Cisco networking equipment now in place, and security. We would also review alternatives to mitigate risks imposed by potential off-site users such as 2-factor authentication, workstation virtualization, and the like. See paragraph "I" for proposed out-of-scope networking services: Network Peer Review.

Option 2: Network Peer Review

Though not required by the Scope of Work, it's often of great value and we offer the option to peer review the existing network - wired and wireless - as part of the Master Plan process. This step often reveals latent security issues and administrative lapses. Investigations include electronic probing of all subnets, review of network equipment models and firmware, review of router configuration, assessment of vulnerabilities at the boundaries, and review of Active Directory Group Policies. The review would also include USD's virtualization implementation to look for departures from best practices.

This work would be led by Richard Pressler of AllConnected.

We've found that a review of this type informs both SCADA master plans and standards.

Option 3: Standards for SCADA Design Methodology

Our approach to the standards for SCADA Design Methodology will focus on working with USD from two perspectives: the process for creation of bid documents and the process for software design and implementation. The former will need tools to facilitate compliance with the standards describe above such as drawings, software templates, and specification sections to include in bid documents. The latter will focus on the process for designing, building, testing, commissioning, and documenting PLC, SCADA, and custom software.

Option 4: HMI Vendor Demonstrations

USD has a tremendous investment in iFix applications software and there is little incentive to change. It may be informative, however, to bring in a couple of vendors of competing products to get contrasting views of the capabilities of contemporary HMI implementations. We propose to bring in two vendors, schedule presentations in the morning and afternoon of the same day, and conclude the day with a discussion session to assess impact, if any, on the SCADA Master Plan and SCADA Standards.

Option 5: Develop up to date Plant-wide (or District-wide) P&IDs in AutoCAD format

We understand that USD has no complete and up-to-date set of P&IDs for the plant. With correct HMI, Equipment, and other tags, these drawings could assist with the needed addition of tags to the iFix screens and facilitate coordination of USD's planned Integrated Solution Architecture. Tasks to develop the P&IDs are:

1. Field investigations
2. Research existing documentation
3. Draft set of P&IDs
4. Research existing asset tagging conventions to determine the extent they can be utilized. Coordinate possible requirements with CMMS, Accounting, ODMS, etc.

5. Coordinate with the tagging standard described as part of the proposed scope of work
6. Workshop to review draft documents
7. Final set of P&IDs

Option 6: Additional Presentations

It is not at all uncommon for consultants to make master plan presentations to the Board or other groups and would enjoy the opportunities to do so. It's hard to ascertain at this time, however, the needed level of effort for a firm proposal. Perhaps an allowance can be set aside using part of the unspent budget as shown in sealed Attachment D.

Appendices

Attachment B:
Non-Collusion Affidavit

Attachment B:

Non-Collusion Affidavit

ATTACHMENT B

NON-COLLUSION AFFIDAVIT

(Note: to be submitted with Proposer's proposal)

I, Nicholas J. Peros, am the

(Print Name)

Owner of Nicholas J. Peros P.E.

(Position/Title) (Name of Company)

the party making the foregoing bid (the "Bidder") that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid; and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the Bidder has not in any manner directly or indirectly, sought by Agreement, communication, or conference with anyone to fix the bid price of the Bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the Bid contract; that all statements contained in the bid are true; and, further, that the Bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct:

Print or Type Name: Nicholas J. Peros

Authorized Signature: Nicholas J. Peros

Company Name: Nicholas J. Peros P.E.

Date: 10/19/14

J. BILLING RATE AND STRUCTURE

Cost Proposal

We understand that the tasks relating to SCADA Standards involve capturing existing standards rather than starting with a new piece of paper and developing all-new standards. The extent to which work is already done and there is consensus, the amount of work needed is reduced. To the extent it's not done or there is no consensus, more work is needed. These facts are unknown at this time.

One approach to solve this dilemma is by an allowance i.e. to tailor the work to a specific budget and this we propose to do. The allowance we propose is 400 hours for the standards and will work with USD during negotiations to tailor the scope to match this budget.

Cost Proposal Attachment D is detailed, highlighted, and attached on the next page.

BUDGET/ COST PROPOSAL

Milestone	Hours	Rate	Total Cost	Notes
SCADA Master Plan				
Task 1 - Needs Assessment	53	$ 205.94	$ 10,915.00	Blended rate used
Task 2 - Review Existing SCADA System & Processes	84	$ 210.98	$ 17,722.00	Blended rate used
Task 3 - Recommendations	358	$ 214.15	$ 76,664.00	Blended rate used
Task 4 - Implementation Plan	92	$ 196.57	$ 18,084.00	Blended rate used
Task 5 - Report	38	$ 191.26	$ 7,268.00	Blended rate used
Task 6 - Project Management	148	$ 202.08	$ 29,908.00	Blended rate used
Sub Total			$ 160,561.00	
SCADA Standards				
Task 1 - Needs Assessment	0	$ -	$ -	Blended rate used
Task 2 - Review Existing SCADA System & Processes	100	$ 211.00	$ 21,100.00	Blended rate used
Task 3 - Recommendations	300	$ 211.00	$ 63,300.00	Blended rate used
Task 4 - Implementation Plan	0	$ -	$ -	Blended rate used
Task 5 - Report	0	$ -	$ -	Blended rate used
Task 6 - Project Management	0	$ -	$ -	Blended rate used
Sub Total			$ 84,400.00	
Expenses				
Airfare			$ -	
Lodging			$ -	
Ground Transportation			$373	
Meals			$ -	
Supplies			$ -	
Other (Specify)			$ 1,300.00	Reproduction & Web collaboration expenses
Sub Total			$ 1,803.00	
Other				
Other (Specify			$ -	
Sub Total			$ -	
Total Proposed Project Cost			**$ 246,764.00**	

Note: The proposed cost must be NTE (Not to Exceed) dollar amount for this project with payments based on completion and acceptance of each milestone.

Nicholas J. Peros, P.E.

Schedule of Hourly Rates and Costs – 2015

Nicholas J. Peros, P.E.

Labor

Nicholas J. Peros	$205.00/hour

Subcontractors with markup:

Richard Pressler (AllConnected)	$270.00/hour
Ron Moeller (Kennedy/Jenks Consultants)	$210.00/hour
Steve Pallad (Independent Consultant)	$170.00/hour
Paul Giorsetto (TJCAA)	$230.00/hour
Mike Erwin (TJCAA)	$220.00/hour
Paul Rahilly (Mtell)	$226.00/hour

Reimbursable Expenses

Auto Mileage: Standard set by IRS
Outside Services: Cost + 10%
Materials and Other Expenses: Cost + 10%

Notes
1. All hourly rates and costs are subject to change without notice.
2. Schedule shall be subject to adjustments annually to reflect current staff

DATE: November 17, 2014

MEMO TO: Board of Directors - Union Sanitary District

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

SUBJECT: Agenda Item No. 9 – Meeting of November 24, 2014
Authorizing the General Manager to Approve Contract Change Order No. 57 with D. W. Nicholson Corporation for the Cogeneration Project

Recommendation

Staff recommends the Board authorize the General Manager to approve Contract Change Order (CCO) No. 57 in the credit amount of $186,791 with D. W. Nicholson Corporation (DWN) for the Cogeneration Project (Project).

Background

The Board awarded the construction contract for the Project to DWN in the amount of $10,566,358 on March 11, 2013. The Project will consist of the construction of two new 850-kilowatt engine generators housed within a new metal building, a new digester gas conditioning system, and modifications to the existing electrical, digester gas piping, and hot water systems.

The engine generators will utilize digester gas produced at the primary and secondary digesters to generate electrical power that will be used within the wastewater treatment plant. Additionally, the engine generators will produce waste heat that will be captured and used to heat the primary sludge within the primary digesters.

Staff issued the Notice to Proceed to DWN on April 5, 2013. The Project's construction period was 525 calendar days with an original completion date of September 11, 2014. However, due to construction and equipment startup delays, staff anticipates the completion of the Project by February 2015.

The Project was designed by Carollo Engineers and construction management is being provided by The Covello Group.

Proposed Contract Change Order No. 57

Staff submitted an application to the Self-Generation Incentive Program (SGIP), which provides financial incentives for the installation of new, qualifying self-generation equipment installed to meet all or a portion of the electric energy needs of a facility. Pacific Gas and Electric (PG&E), who administrates the program, approved the District's application. Staff anticipates an SGIP grant of approximately $3.5 million that will be paid out over the first five years of operation. The final grant amount will be dependent on how much energy the cogeneration system will generate and how much of that energy was produced by the engines using digester gas as the primary fuel.

One of the requirements of the SGIP is that all of the major components of the cogeneration system carry a minimum ten-year warranty. The warranty would cover the full cost of repair or replacement of defective components or systems, including coverage for labor costs to remove and reinstall defective components or systems. The SGIP requires system owners to fulfill the warranty requirements by acquiring standard and extended warranties from the equipment manufacturers or suppliers.

The SGIP's warranty requirements applied to the engine generators and digester gas conditioning system (DGCS), which are the major components in this Project. During design, USD requested PG&E to allow us to self-perform the warranty/maintenance on the engine generators. Since the maintenance staff has experience working on existing engine generators, staff made the decision to have USD maintenance staff make repairs on the engine generators after the standard two-year warranty expires. The District received PG&E's approval to "self-perform" the warranty of the engine generators. At the time, staff did not pursue the self-perform the warranty of the DGCS. The Project's final bid documents included a two-year warranty requirement for the engine generators and a ten-year warranty for the DGCS equipment.

The bid documents also included a requirement for the contractor to acquire a maintenance bond for the DGCS equipment. The maintenance bond will cover the first five years of the warranty period and will ensure that the bond surety will be financially responsible should major problems occur with the equipment and the contractor defaults on his warranty responsibilities. With the warranty removed, there will be no need for the maintenance bond. The bond is not a requirement of the SGIP.

During the construction phase, staff discovered that the cost of the ten-year warranty for the DGCS equipment was significant. The equipment consists of two blowers, two chillers, a motorized valve actuator, a control panel, and media tanks. Since the equipment isn't too difficult to maintain, staff decided to pursue deleting this warranty requirement.

In October 2014, the District received PG&E's approval to "self-perform" the warranty of the DGCS equipment.

The breakdown of CCO No. 57 is as follows:

Item	Cost
Delete DGCS Ten-Year Warranty	($177,000)
Delete Maintenance Bond	($9,791)
Total	**($186,791)**

Staff recommends the Board authorize the General Manager to approve Contract Change Order No. 57 in the credit amount of $186,791 with D. W. Nicholson Corporation for the Cogeneration Project.

Change Order Summary

The table below highlights the executed contract change orders, including CCO No. 57, valued above $25,000 for the Project.

CCO No.	Description	Amount
9	Foundation Re-design for Metal Building System	$35,827
10	12kV Switchgear Modifications	$175,919
11	Digester Gas Back Pressure Control Valve	$25,335
27	High Temperature Jacket Water Decoupling Exchanger	$98,500
28	Oxidation Catalyst Installation	$249,367
32	Engine Generator Exhaust Stack Support Structure	$39,517
51	Modifications to Thickener Control Building Interim Piping	$65,717
57	DGCS Warranty Modifications	($186,791)
	Remainder of Other CCOs	$306,059
	Total	**$809,450**

The total change order amount of $809,450 is 7.7% of the construction contract amount.

PRE/SEG/RC;ks

Attachment: CCO No. 57

CONTRACT CHANGE ORDER No. 057

Union Sanitary District
Cogeneration Project
Project No. 800-359

ITEM: **Digester Gas Conditioning System (DGCS) Warranty Modifications**

Contractor is hereby directed to make the herein described changes from the plans and specifications or do the following work not included in the plans and specifications of this contract. All new work herein described shall be done in accordance with the applicable provisions of the plans and specifications, except as specifically modified by this Contract Change Order.

DESCRIPTION OF CHANGE:

Delete both the DGCS 10-year warranty and maintenance bond as required by Specification Section 11501-1.09.B and provide a standard 1-year warranty per Specification Section 00700.

REFERENCES: Request for Quotation (RFQ) No. 42
Potential Change Order (PCO) No. 67

COST OF CHANGE: **($186,791.00) Deduct**

CONTRACT TIME ADJUSTMENT: none

We, the undersigned Contractor, have given careful consideration to all aspects of the change proposed and hereby agree. This Contract Change Order constitutes full and complete compensation for all labor, equipment, materials, overhead, profit, any and all indirect costs and time adjustment, including any delay and rescheduling, required to perform the above described change and will accept this Contract Change Order as full and final payment.

This document supplements the Contract Documents and all provisions of the Contract Documents will apply thereto. It is understood that the Contract Change Order shall be effective when fully executed by the District.

ACCEPTED:
D.W. Nicholson Corporation
Project Manager:

By: _____
Phillip Grove

Date: _____

RECOMMENDED FOR ACCEPTANCE:
The COVELLO GROUP, Inc.
Construction Manager:

By: _____
Mike Redig, P.E.

Date: _____

AUTHORIZED STAFF APPROVAL:

The Contractor shall not commence with the above-described work of this change order prior to the approval by the District's Authorized Staff.

Union Sanitary District
District's Authorized Staff:

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

Date :_____

DATE: November 17, 2014

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
Rollie Arbolante, Customer Service Coach
Thomas Lam, Associate Engineer

SUBJECT: Agenda Item No. 10 - Meeting of November 24, 2014
Resolution No. _____, Accepting the Construction of the Sodium Hypochlorite Tank A and B Replacement Project from Anderson Pacific Engineering Construction, Inc. and Authorizing the Attorney for the District to Record a Notice of Completion

Recommendation

Staff recommends the Board accept the construction of the Sodium Hypochlorite Tank A and B Replacement Project (Project) from Anderson Pacific Engineering Construction, Inc. by resolution, and authorize the Attorney for the District to record a Notice of Completion at the Alameda County Recorder's Office.

Background

On March 24, 2014, the Board awarded the Project's construction contract to Anderson Pacific Engineering Construction, Inc. in the amount of $220,100. The purpose of the Project was to replace two sodium hypochlorite tanks at the Alvarado Wastewater Treatment Plant and the ferrous chloride tank at the Irvington Pump Station.

The sodium hypochlorite stored in Tanks A and B is used in the disinfection process at the Plant. The secondary effluent is disinfected using sodium hypochlorite from these tanks in the Chlorine Contact Chamber prior to being discharged into the EBDA force main.

At the end of September 2013, plant staff discovered a pinhole leak on Tank A above the outlet nozzle of the polyethylene tank. A temporary patch was placed over the leak and the tank was placed back into operation. Since Tanks A and B were both installed in 2000 and are at the end of their useful life, staff anticipated that Tank B could fail similarly and decided to include it in the project.

At the Irvington Pump Station, ferrous chloride is injected into the District's force mains to reduce hydrogen sulfide concentrations during transport of the wastewater to the Plant. The ferrous chloride tank is also made of polyethylene and was installed in 1998. Similarly, the ferrous chloride tank has reached the end of its useful life and was included in the project.

The Project scope included the following tasks:

- Removing the two existing 7,700-gallon sodium hypochlorite tanks located at the Maintenance Shop in the Plant and replacing them with two new 8,100-gallon fiberglass reinforced plastic (FRP) tanks.
- Removing the existing 12,000-gallon ferrous chloride tank located at the Irvington Pump Station and replacing it with a new 12,000-gallon FRP tank.

Carollo Engineers completed the design of the Project in February 2014.

Construction Contract

Staff issued the Notice to Proceed to Anderson Pacific Engineering Construction, Inc. on April 22, 2014 with a scheduled completion date of August 5, 2014. Anderson Pacific Engineering Construction, Inc. substantially completed all contract work on October 10, 2014. The delay in substantial completion is attributed to the contractor's efforts to obtain approval for an alternate method of manufacturing the FRP tanks that resulted in multiple submittal reviews. Carollo rejected the contractor's request due to the lower expected life of the alternate tanks. The tank submittal review process delayed the delivery and installation of the replacement tanks which led to the delay in completing the Project. Staff provided construction management services for the project.

Change Orders

After removal of the existing Tanks A and B, the contractor discovered existing coatings on the concrete tank pads. Staff directed the contractor to remove the coatings in order for the contractor to proceed with preparing the pads for the replacement tanks. Additionally, after removal of the ferrous chloride tank, the contractor discovered the existing concrete tank pad was not level. Staff directed the contractor to apply a

cementitious material to level the pad prior to setting the replacement tank. Staff also directed the contractor to make modifications to the discharge piping and to add tank level indicators on all three tanks.

In exchange for this extra work, the District negotiated with the contractor under Contract Change Order No.1 to perform the extra work at no cost to the District in exchange for extending the substantial completion date from August 5, 2014 to October 10, 2014.

The contractor has completed most of the punch list items and the District has assumed beneficial use of the Project.

Staff recommends the Board accept the Sodium Hypochlorite Tank A and B Replacement Project from Anderson Pacific Engineering Construction, Inc. and authorize the Attorney for the District to record a Notice of Completion at the Alameda County Recorder's Office.

PRE/SEG/RC/RA/TL;ks

Attachments: Resolution
Notice of Completion
Figure 1 – Alvarado WWTP Site Plan
Figure 2 – Irvington Pump Station Site Plan
Construction Photos

RESOLUTION NO. ____

**ACCEPTING CONSTRUCTION OF
THE SODIUM HYPOCHLORITE TANK A AND B REPLACEMENT
PROJECT
FROM ANDERSON PACIFIC ENGINEERING CONSTRUCTION, INC.
LOCATED IN FREMONT AND UNION CITY, CALIFORNIA**

RESOLVED: That the Board of Directors of the UNION SANITARY DISTRICT hereby accepts the Sodium Hypochlorite Tank A and B Replacement Project from Anderson Pacific Engineering Construction, Inc., effective November 24, 2014; 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 November 24, 2014:

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 March 26, 2014, by said District and **ANDERSON PACIFIC ENGINEERING CONSTRUCTION, INC**., Contractor for the Project, "**SODIUM HYPOCHLORITE TANK A AND B REPLACEMENT PROJECT**," was substantially completed on October 10, 2014 and accepted by said District on November 24, 2014.

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 Union Sanitary District's Wastewater Treatment Plant, located at 5072 Benson Road, Union City, CA 94587; and Irvington Pump Station, located at 46525 Fremont Boulevard, Fremont, CA 94539, 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

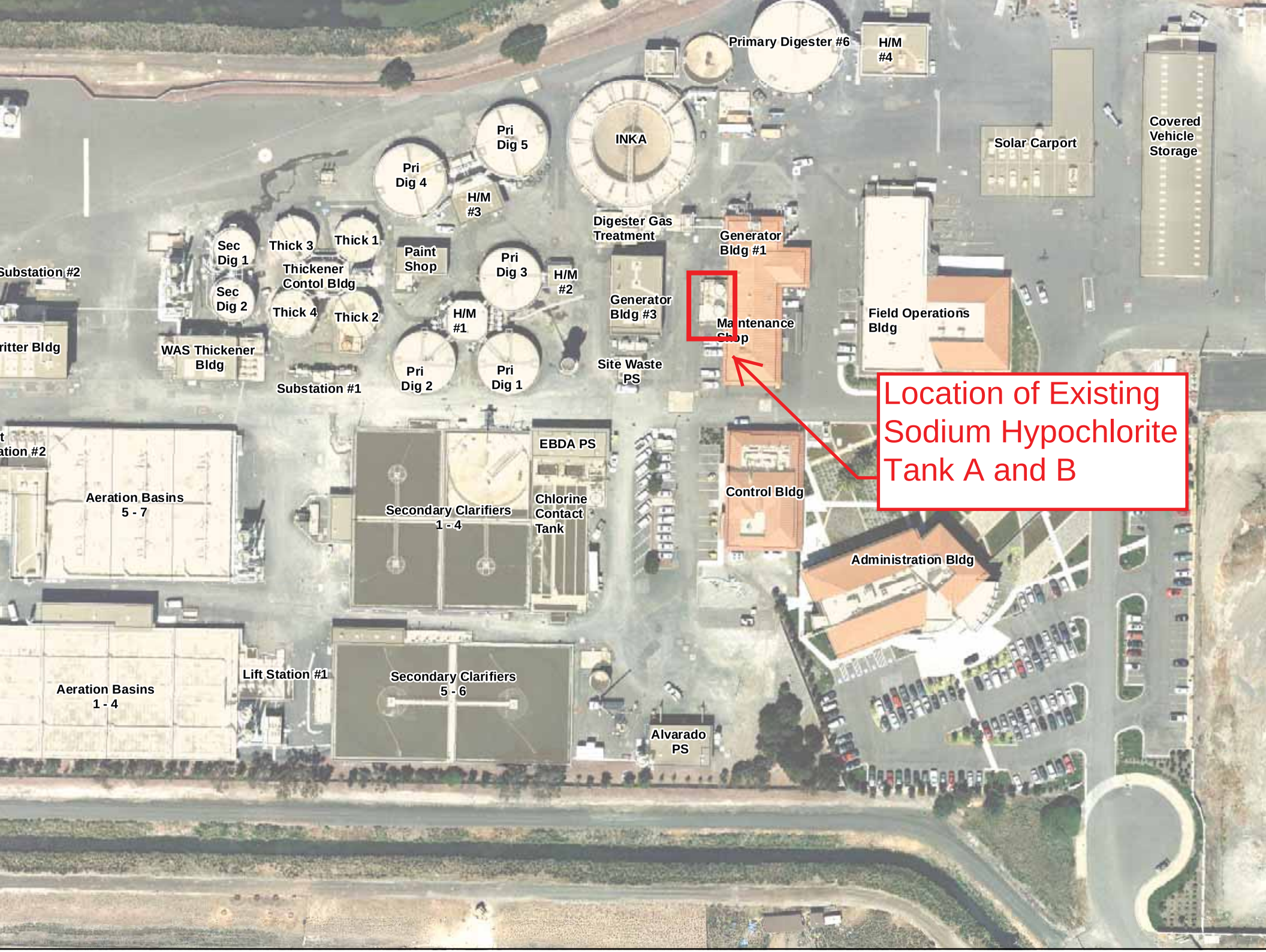

Primary Digester #6
H/M #4
Covered Vehicle Storage
Solar Carport
INKA
Pri Dig 5
Pri Dig 4
H/M #3
Digester Gas Treatment
Generator Bldg #1
Sec Dig 1
Thick 3
Thick 1
Paint Shop
Pri Dig 3
H/M #2
Substation #2
Thickener Contol Bldg
Sec Dig 2
Thick 4
Thick 2
H/M #1
Generator Bldg #3
Maintenance Shop
Field Operations Bldg
WAS Thickener Bldg
Substation #1
Pri Dig 2
Pri Dig 1
Site Waste PS
Location of Existing Sodium Hypochlorite Tank A and B
EBDA PS
Aeration Basins 5 - 7
Secondary Clarifiers 1 - 4
Chlorine Contact Tank
Control Bldg
Administration Bldg
Aeration Basins 1 - 4
Lift Station #1
Secondary Clarifiers 5 - 6
Alvarado PS

Figure 2. Irvington Pump Station Site Plan

Sodium Hypochlorite Tanks A and B at Alvarado Wastewater Treatment Plant

Ferrous Chloride Tank at Irvington Pump Station

DATE: November 17, 2014

MEMO TO: Board of Directors - Union Sanitary District

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

SUBJECT: Agenda Item No. 11 - Meeting of November 24, 2014
Resolution No. _____, Accepting the Construction of the Jarvis Avenue Sanitary Sewer Replacement Project from D'Arcy & Harty Construction, Inc. and Authorizing the Attorney for the District to Record a Notice of Completion

Recommendation

Staff recommends the Board accept the construction of the Jarvis Avenue Sanitary Sewer Replacement Project from D'Arcy & Harty Construction, Inc. by resolution, and authorize the Attorney for the District to file a "Notice of Completion" with the Alameda County Recorder's Office.

Background

On June 23, 2014, the Board awarded a construction contract to D'Arcy & Harty Construction, Inc. for the construction of the Jarvis Avenue Sanitary Sewer Replacement Project in the amount of $1,034,736.80. The project's purpose was to replace 2,456 feet of existing 10-inch diameter gravity sewer which runs along Jarvis Avenue from Lake Boulevard to Newark Boulevard in Newark. The sewer was in poor structural condition with extensive defects that required immediate attention. Please see the location map provided in Exhibit A. The project scope of work also included abandonment of 836 feet of existing 10-inch sanitary sewer, removal or abandonment of 4 existing manholes, construction of 7 new manholes, extension of existing sewer laterals to new sewer mains and installation of cleanouts, sewage flow control, and traffic control. The project was designed by West Yost & Associates.

Construction Contract

Staff issued the Notice to Proceed to D'Arcy & Harty Construction, Inc. on July 31, 2014. The 120-day project was scheduled to be completed on November 27, 2014, and D'Arcy & Harty Construction, Inc. substantially completed the project on November 7, 2014. Harris & Associates provided construction management services for the project.

Change Orders

The project includes four (4) change orders at a total cost of $10,897, which is approximately 1.1% of the original contract amount. All negotiations have been finalized and the change orders are being executed. A description of the significant change orders follows.

Change Order No. 1

Contract Change Order No. 1 is in the amount of $4,699.43, and is for making repairs to an unmarked Caltrans lighting conduit and electrical cable that the contractor encountered and damaged during pipeline excavation activities.

Change Order No. 2

Contract Change Order No. 2 is in the amount of $7,250, and is for replacing the front yard lawns at 5323, 5335, 5347, and 5359 Jarvis Ave. The project requires the Contractor to replace only the portions of the lawn removed in order to construct the laterals and the lawn areas damaged due to the construction work. However, this would have left the front yard lawns in an inconsistent condition, and staff decided to order the replacement of the entire lawn areas in front of the four homes to address the homeowners' concerns.

Change Order No. 3

Contract Change Order No. 3 is in the amount of $3,650, and is for realigning the newly constructed lateral at 5311 Jarvis Ave. such that it would not cross through the corner of the property at 5323 Jarvis Ave.

Change Order No. 4

Contract Change Order No. 4 is in the credit amount of ($4,800) and is for balancing the final pay item quantities. The difference between the estimated quantity and the final quantity (either increased or decreased) is multiplied by the unit price to determine the total change in cost. This amount is primarily

attributed to not needing to exercise the full quantity of bid items associated with pavement, irrigation system replacement, and trench over-excavation.

A summary of the change orders is shown in Table 1:

Table 1
Change Order Summary

No.	Description	Amount
1	Caltrans Lighting Conduit	$4,797.00
2	Lawn Restoration At 4 Properties	$7,250.00
3	5311 Jarvis Ave. Lateral Relocation	$3,650.00
4	Balancing Change Order	($4,800.00)
Change Order Total (Approx. 1.1% of Contract Amount)		**$10,897.00**

Punchlist work is nearly completed and the District has assumed beneficial use of the Project.

Staff recommends the Board accept the construction of the Jarvis Avenue Sanitary Sewer Replacement Project from D'Arcy & Harty Construction, Inc. by resolution, and authorize the Attorney for the District to file a "Notice of Completion" with the Alameda County Recorder's Office.

PRE/SEG/RC/CE;ks

Attachments: Resolution
Notice of Completion
Exhibit A – Location Map

RESOLUTION NO. ____

ACCEPTING CONSTRUCTION OF
JARVIS AVENUE SANITARY SEWER REPLACEMENT PROJECT
FROM D'ARCY & HARTY CONSTRUCTION, INC.
LOCATED IN NEWARK, CALIFORNIA

RESOLVED: That the Board of Directors of the UNION SANITARY DISTRICT hereby accepts the Jarvis Avenue Sanitary Sewer Replacement Project from D'Arcy & Harty Construction, Inc., effective November 24, 2014, 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 November 24, 2014:

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 the **UNION SANITARY DISTRICT**, Alameda County, California, that the work hereinafter described, the contract for the construction of which was entered into on June 25, 2014, by said District and **D'ARCY & HARTY CONSTRUCTION, INC.**, 1300 Carroll Ave., San Francisco, CA 94124, Contractor for the Project, "**JARVIS AVENUE SANITARY SEWER REPLACEMENT PROJECT**," was substantially completed on November 7, 2014, and accepted by said District on November 24, 2014.

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

The estate or interest of the owner is: BENEFICIARY OF RECORDED PUBLIC UTILITY EASEMENTS.

The description of the site where said work was performed and completed is along Jarvis Avenue in the City of Newark, 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


N
NOT TO SCALE
PROJECT LIMITS
Lake Blvd
Buckingham Ct
Chapman Dr
Donegal Ct
Cardiff St
Portsmouth Ave
Abington Dr
Abington Ct
Blackburn Dr
Jarvis Ave
Newark Blvd
Orchard Supply Hardware
Newark Vacuum & Sewing
Enopi
IHOP
U.S. Bank
Starbucks
Justiniano Fatima DDS
CVS Pharmacy
Starbucks Cafe
Burger King
Umi Sushi Boat
John F. Kennedy Elementary School
Ashbourne Ct
Reymouth D
Mumbai
84
WEST YOST ASSOCIATES
EXHIBIT A
JARVIS AVENUE SEWER PROJECT
LOCATION MAP

UNION SANITARY DISTRICT
CHECK REGISTER
11/01/2014-11/14/2014

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
155799	11/6/2014	20140924.1	SWRCB - STATE WATER RESOURCES	SRF LOAN #C065053110 - WILLOW/CENTRAL	$108,384.73	$248,018.43
	11/6/2014	20140924.2		SRF LOAN #C065045110 - LOWER HETCH	$139,633.70	
155828	11/13/2014	2910	EAST BAY DISCHARGERS AUTHORITY	O&M ASSESSMENT, OCT-DEC 2014	$209,704.85	$209,704.85
155841	11/13/2014	19006	MCGUIRE & HESTER	WARM SPRINGS BLVD REPAIRS	$130,174.00	$130,174.00
155745	11/6/2014	800424.3	ANDERSON PACIFIC ENG CONST INC	PLANT FACILITIES IMPRVMT - HYPO TANK A&B PROJECT	$72,561.24	$72,561.24
155751	11/6/2014	11225915	BROWN & CALDWELL CONSULTANTS	UPPER HETCH HECTCHY SS REHABILITATION PROJECT	$55,967.08	$55,967.08
155861	11/13/2014	30102905	SYNAGRO WEST LLC	SEPTEMBER 2014 BIOSOLIDS DISPOSAL	$53,894.65	$53,894.65
155792	11/6/2014	18585	RMC WATER AND ENVIRONMENT	HAYWARD MARSH REHABILITATION OPTIONS	$5,957.58	$51,482.60
	11/6/2014	18691		HAYWARD MARSH REHABILITATION OPTIONS	$16,853.55	
	11/6/2014	18699		ALVARADO TREATMENT PLANT SITE USE STUDY	$17,340.56	
	11/6/2014	18753		IRVINGTON BASIN SEWER MASTER PLAN UPDATE	$10,203.41	
	11/6/2014	18754		IRVINGTON BASIN SEWER MASTER PLAN UPDATE	$1,127.50	
155769	11/6/2014	26332	HARRIS & ASSOCIATES	MISC. SS SPOT REPAIRS PHASE V	$26,740.00	$45,965.00
	11/6/2014	26333		TEMPORARY CONST INSPECT SRVCS - BECKWITH, BOB, 9/14	$19,225.00	
155752	11/6/2014	137787	CAROLLO ENGINEERS	THICKENER CONROL BUILDING IMPROVEMENTS PHASE II	$45,115.37	$45,115.37
155850	11/13/2014	920068	POLYDYNE INC	34,440 LBS CLARIFLOC C-6267	$37,711.80	$37,711.80
155761	11/6/2014	108911841001	GEXPRO	ANNUAL SOFTWARE SUPPORT	$33,684.64	$33,684.64

UNION SANITARY DISTRICT
CHECK REGISTER
11/01/2014-11/14/2014

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
155867	11/13/2014	533620141022	US BANK CORP PAYMENT SYSTEM	MONTHLY CAL CARD STMT - OCT 2014	$30,943.51	$30,943.51
155765	11/6/2014	800394.2	GSE CONSTRUCTION CO INC	THICKENER CONTROL BLDG IMPROV PHASE II	$29,925.00	$29,925.00
155788	11/6/2014	5974	PULTE HOME CORPORATION	REFUND # 17578	$17,500.00	$20,000.00
	11/6/2014	7127		REFUND # 17576	$2,500.00	
155785	11/6/2014	761520141027	PACIFIC GAS AND ELECTRIC	SERV TO 10/27/14 NEWARK PS	$19,043.40	$19,067.05
	11/6/2014	224720141023		SERV TO 10/22/14 CS TRAINING TRAILER	$23.65	
155856	11/13/2014	7547652585	ROYAL WHOLESALE ELECTRIC	2 ALLEN BRADLEY VFD CABLES	$62.36	$17,436.73
	11/13/2014	7547654578		1 ETHERNET BRIDGE MODULE	$2,465.39	
	11/13/2014	7547654644		1 4MB CONTROLLER	$8,550.86	
	11/13/2014	7547654558		1 OPINTRFC TERM	$6,358.12	
155838	11/13/2014	14000669	KRUGER INC	ANOXKALDNES MBBR ANNITA MOX PILOT STUDY	$15,000.00	$15,000.00
155759	11/6/2014	973501C	DELTA DENTAL SERVICE	OCTOBER 2014 DENTAL	$13,161.10	$14,845.72
	11/6/2014	973501A		OCTOBER 2014 DENTAL	$1,684.62	
155774	11/6/2014	9017415541	KEMIRA WATER SOLUTIONS, INC.	7.71 DRY TONS FERROUS CHLORIDE	$5,042.34	$10,117.38
	11/6/2014	9017415837		7.76 DRY TONS FERROUS CHLORIDE	$5,075.04	
155803	11/6/2014	648077	UNIVAR USA INC	5,015 GALS SODIUM HYPOCHLORITE	$2,317.93	$9,249.99
	11/6/2014	649096		5,020 GALS SODIUM HYPOCHLORITE	$2,320.24	
	11/6/2014	648466		5,019 GALS SODIUM HYPOCHLORITE	$2,319.78	
	11/6/2014	649101		4,959 GALS SODIUM HYPOCHLORITE	$2,292.04	

UNION SANITARY DISTRICT
CHECK REGISTER
11/01/2014-11/14/2014

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
155865	11/13/2014	650409	UNIVAR USA INC	4,965 GALS SODIUM HYPOCHLORITE	$2,294.82	$9,228.28
	11/13/2014	650258		5,010 GALS SODIUM HYPOCHLORITE	$2,315.62	
	11/13/2014	649405		4,963 GALS SODIUM HYPOCHLORITE	$2,293.90	
	11/13/2014	649385		5,028 GALS SODIUM HYPOCHLORITE	$2,323.94	
155800	11/6/2014	20055261	TELEDYNE INSTRUMENTS INC	1 TUBING VINYL 1/4 X 500 FT	$272.60	$8,175.35
	11/6/2014	20055587		ASTD PARTS & MATERIALS	$7,902.75	

UNION SANITARY DISTRICT
CHECK REGISTER
11/01/2014-11/14/2014

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
155817	11/13/2014	5573718	AT&T	SERV: 06/13/14 - 07/12/14	$94.29	$7,609.54
	11/13/2014	5771884		SERV: 08/20/14 - 09/19/14	$16.67	
	11/13/2014	5682788		SERV: 07/20/14 - 08/19/14	$17.04	
	11/13/2014	5847819		SERV: 09/13/14 - 10/12/14	$748.47	
	11/13/2014	5858603		SERV: 09/20/14 - 10/19/14	$2,617.78	
	11/13/2014	5564465		SERV: 06/13/14 - 07/12/14	$706.72	
	11/13/2014	5834662		SERV: 09/13/14 - 10/12/14	$753.91	
	11/13/2014	5751620		SERV: 08/13/14 - 09/12/14	$94.29	
	11/13/2014	5653346		SERV: 07/13/14 - 08/12/14	$712.71	
	11/13/2014	5662599		SERV: 07/13/14 - 08/12/14	$94.29	
	11/13/2014	5864322		SERV: 09/20/14 - 10/19/14	$16.73	
	11/13/2014	5742435		SERV: 08/13/14 - 09/12/14	$712.71	
	11/13/2014	5843845		SERV: 09/13/14 - 10/12/14	$94.59	
	11/13/2014	5797207		SERV: 09/01/14 - 09/30/14	$-566.31	
	11/13/2014	3338577		SERV: 04/01/12 - 04/30/12	$929.34	
	11/13/2014	5707988		SERV: 08/01/14 - 08/31/14	$566.31	
155775	11/6/2014	37432220141101	LINCOLN NATIONAL LIFE INS COMP	LIFE & DISABILITY INSURANCE - NOV 2014	$7,442.36	$7,442.36
155820	11/13/2014	1410149485	AVEPOINT PUBLIC SECTOR INC	SHAREPOINT TOOL FOR ADMINISTRATION AND BACKUP RECOVERY	$6,809.00	$6,809.00
155760	11/6/2014	3821	DW NICHOLSON CORP	LIFT STATION #1 IMPROVEMENTS	$6,077.01	$6,077.01

UNION SANITARY DISTRICT
CHECK REGISTER
11/01/2014-11/14/2014

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
155786	11/6/2014	918790	POLYDYNE INC	41,700 LBS CLARIFLOC WE-539	$5,479.38	$5,479.38
155836	11/13/2014	9017416960	KEMIRA WATER SOLUTIONS, INC.	7.82 DRY TONS FERROUS CHLORIDE	$5,114.28	$5,114.28
155849	11/13/2014	29587897	PAN PACIFIC SUPPLY COMPANY	ASTD PARTS & MATERIALS	$4,633.85	$4,633.85
155815	11/13/2014	8480049968	ANDRITZ SEPARATION INC	CENTRIFUGE 1 GEARBOX SPACER	$732.28	$4,438.42
	11/13/2014	8480049799		1 CENTRIFUGE 1 GEARBOX AND GEARBOX REPAIR KIT	$3,706.14	
155776	11/6/2014	10595	LOOKINGPOINT INC	ADD HOURS TO LOOKINGPOINT SUPPORT AGREEMENT	$4,000.00	$4,000.00
155855	11/13/2014	814144	ROYAL TRUCK BODY	INSTALL BACK-UP CAMERA T1327	$1,310.18	$3,930.54
	11/13/2014	814315		INSTALL BACK-UP CAMERA T1328	$1,310.18	
	11/13/2014	814143		INSTALL BACK-UP CAMERA T1326	$1,310.18	
155753	11/6/2014	66196	CDW GOVERNMENT LLC	SCADA SERVER ROOM UPS ANNUAL SUPPORT	$3,520.00	$3,520.00
155781	11/6/2014	24833009	MOTION INDUSTRIES INC	1 EA SHEAVE	$2,389.11	$3,508.67
	11/6/2014	24832188		8 EA V BELTS	$100.81	
	11/6/2014	24832314		2 CARTONS LUBRICANT	$367.78	
	11/6/2014	24833081		ASTD PARTS & MATERIALS	$446.80	
	11/6/2014	24833150		ASTD PARTS & MATERIALS	$204.17	
155764	11/6/2014	10321181	GROENIGER AND COMPANY	ASTD PARTS & MATERIALS	$678.77	$3,505.37
	11/6/2014	1034753		ASTD WYE'S & TEE'S	$1,071.71	
	11/6/2014	1032118		ASTD PARTS & MATERIALS	$1,754.89	

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155777	11/6/2014	16264959	MCMASTER SUPPLY INC	4 EA ALUMINUM PLANK GRATING	$327.75	$3,431.48
	11/6/2014	15811708		ASTD PARTS & MATERIALS	$40.75	
	11/6/2014	15934675		1 EA CART	$186.75	
	11/6/2014	15811709		4 EA RECHARGEABLE SEALED LEAD-ACID BATTERIES	$105.52	
	11/6/2014	16350668		ASTD PARTS & MATERIALS	$1,463.38	
	11/6/2014	15919352		1 EA HEAVY DUTY SHELF CABINET	$1,069.81	
	11/6/2014	15873534		5 EA DRILL BITS	$142.30	
	11/6/2014	15811710		1 EA RECHARGEABLE NICAD BATTERY PACK	$24.83	
	11/6/2014	15948398		ASTD PARTS & MATERIALS	$70.39	
155806	11/6/2014	20141101	VISION SERVICE PLAN - CA	NOVEMBER 2014 VISION STMT	$3,273.12	$3,273.12
155832	11/13/2014	9556932771	GRAINGER INC	1 EA HALOGEN REFLECTOR LAMP	$26.90	$2,968.53
	11/13/2014	9557225993		ASTD DYE TRACER TABLETS	$186.19	
	11/13/2014	9556932763		1 EA ROLLING CABINET	$1,248.30	
	11/13/2014	9561457863		6 EA MINIATURE LAMPS	$12.35	
	11/13/2014	9558925807		1 EA WORKBENCH	$1,494.79	
155807	11/6/2014	29780	VOX NETWORK SOLUTIONS INC	PHONE SYS MAINT NOV 14 - JAN 15	$2,873.40	$2,873.40
155853	11/13/2014	916002233380	REPUBLIC SERVICES #916	RECYCLE & ROLL OFF - OCTOBER 2014	$1,977.27	$2,750.17
	11/13/2014	916002244436		ROLL OFF ON CALL - OCTOBER 2014	$772.90	
155773	11/6/2014	984648	JET-CARE INTERNATIONAL INC	50 EA COGEN OIL ANALYSIS KITS	$2,730.30	$2,730.30

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155830	11/13/2014	7589	FERMA CORPORATION	REFUND # 17591	$2,500.00	$2,500.00
155812	11/13/2014	62624	3T EQUIPMENT COMPANY INC	2 PIPEPATCH KIT - WINTER	$2,342.22	$2,342.22
155825	11/13/2014	10431190	BLAISDELL'S	BREAKROOM SUPPLIES, PAPER	$1,287.29	$2,266.88
	11/13/2014	10447280		ASTD OFFICE SUPPLIES	$434.68	
	11/13/2014	10451040		1 EXEC PLANNER	$26.81	
	11/13/2014	10447210		ASTD OFFICE SUPPLIES	$36.10	
	11/13/2014	10447180		ASTD OFFICE SUPPLIES	$62.81	
	11/13/2014	10447200		ASTD OFFICE SUPPLIES	$69.49	
	11/13/2014	10447340		ASTD OFFICE SUPPLIES	$42.05	
	11/13/2014	10444270		2 BLK TONER	$262.78	
	11/13/2014	10446520		2 LBL TAPE	$44.87	
155750	11/6/2014	463877	BRENNTAG PACIFIC, INC.	3846 LBS SODIUM HYDROXIDE	$2,125.41	$2,125.41
155782	11/6/2014	102976	MUNIQUIP, LLC	1 EA TRANSDUCER	$929.39	$1,952.67
	11/6/2014	102972		1 EA TRANSDUCER	$1,023.28	
155757	11/6/2014	32822	D & L SUPPLY	10 MANHOLE FRAME W/COVER NO BOLTS 24-IN PN	$1,949.10	$1,949.10
155780	11/6/2014	538871	MISSION CLAY PRODUCTS LLC	ASTD CLAY FITTINGS	$1,734.54	$1,734.54
155766	11/6/2014	800394.2E	GSE CONSTRUCTION CO INC	THICKENER CONTROL BLDG IMPROV PHASE II - ESCROW PYMT	$1,575.00	$1,575.00

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155813	11/13/2014	9032591522	AIRGAS NCN	1 WLDG HLMT AD VIKING	$175.20	$1,524.76
	11/13/2014	9032591523		20 LB ELECT STCK E6010	$90.99	
	11/13/2014	9032685741		3 CYL ARGON	$1,129.22	
	11/13/2014	9032685742		ASTD PARTS & MATERIALS	$129.35	
155864	11/13/2014	123475357001	UNITED RENTALS NORTHWEST INC	FORKLIFT VARIABLE REACH 6000# 1 WEEK &	$1,514.81	$1,514.81
155809	11/6/2014	4026	WATER WORKS ENGINEERS LLC	PRIMARY DIGESTER #5 REHABILITATION	$1,439.65	$1,439.65
155749	11/6/2014	10432850	BLAISDELL'S	STAND UP WORKSTATION - J. ROJO	$609.51	$1,392.80
	11/6/2014	10439810		STANDING WORK STATION - A. VILLANUEVA	$609.51	
	11/6/2014	10435020		ASTD OFFICE SUPPLIES	$20.56	
	11/6/2014	10438360		2 PERM MARKER	$8.96	
	11/6/2014	10438010		7 DAILY DIARY	$132.99	
	11/6/2014	10436340		1 LETTER CLIPBOARD	$11.27	
155805	11/6/2014	28144	VALLEY OIL COMPANY	2 DRS XLD 15/40 OIL	$1,322.54	$1,322.54
155863	11/13/2014	20141110	KIM TRUONG	TUITION REIMB - FALL QTR 2014	$1,211.00	$1,211.00
155818	11/13/2014	3455326203	AT&T	SERV: 10/10/14 - 11/09/14	$1,178.56	$1,178.56
155778	11/6/2014	36298	METROMOBILE COMMUNICATIONS INC	2 EA MOTOROLA WIRELESS HEADSETS	$1,007.40	$1,146.51
	11/6/2014	140901		CREDIT FOR 13 RECYCLED RADIOS	$-1,300.00	
	11/6/2014	36214		1 EA MOTOROLA MOBILE RADIO	$856.36	
	11/6/2014	141050		RADIO SERVICE AGREEMENT - OCT 2014	$582.75	

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155795	11/6/2014	1617678005	SAN LEANDRO ELECTRIC SUPPLY	3 CONDUIT PVC COATED 3/4 LL28-G	$147.25	$1,124.91
	11/6/2014	1610688006		50 PHOENIX E/UK1 1201413 CONTACTORS BLOCK END CLAMPS	$68.36	
	11/6/2014	1617678003		ASTD PARTS & MATERIALS	$669.98	
	11/6/2014	1610688005		25 SPRING NUT 3/8 INCH SS	$180.38	
	11/6/2014	1617678006		2 PUSHBUTTON STATIONS (ELECTRICAL) FLUSH R	$58.94	
155821	11/13/2014	2521784573	BANK OF NEW YORK	MARCH 2014 SERVICE FEE	$556.76	$1,057.04
	11/13/2014	2521812778		MAY 2014 SERVICE FEE	$500.28	
155816	11/13/2014	489499	A-PRO PEST CONTROL INC	OCT PEST CONTROL	$1,005.00	$1,005.00
155839	11/13/2014	10600	LOOKINGPOINT INC	FIREWALL MIGRATION	$1,000.00	$1,000.00
155794	11/6/2014	2489068004	S & S SUPPLIES & SOLUTIONS	ASTD SAFETY SUPPLIES	$920.85	$991.67
	11/6/2014	2489068003		12 PRS GLOVES DRIVER GRAIN SPLIT	$70.82	
155798	11/6/2014	20141104.1	SWRCB - CERTIFICATIONS	GRADE III CERT RENEW - CHRISTOPHER	$300.00	$980.00
	11/6/2014	20141104.2		GRADE V CERT RENEW-PIPKIN	$340.00	
	11/6/2014	20141104.3		GRADE V OP CERT - COGGINS	$340.00	
155837	11/13/2014	1213	KEN GRADY CO INC	2 EA O2 SENSORS FOR HEADWORK	$927.66	$927.66
155835	11/13/2014	997720141028	HOME DEPOT CREDIT SERVICES	MONTHLY HARDWARE STMT - OCT 2014	$923.27	$923.27
155810	11/6/2014	32585	WECO INDUSTRIES LLC	12 WHEELS, RUBBER, 6" PIPE, WTRIII	$841.83	$841.83

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155801	11/6/2014	5512	TURNER RISK CONSULTING INC	CONFINED SPACE TRAINING - GASKINS	$250.00	$825.00
	11/6/2014	5513		FALL PROTECTION TRAINING - GASKINS	$300.00	
	11/6/2014	5516		TRENCHING EXCAVATION SHORING TRAINING - CHIU	$275.00	
155826	11/13/2014	250889	CURTIS & TOMPKINS LTD	3 LAB SAMPLE ANALYSIS	$120.00	$820.00
	11/13/2014	250935		11 LAB SAMPLE ANALYSIS	$700.00	
155784	11/6/2014	8464259	OVIVO USA LLC	CLARIFIER PARTS	$741.86	$741.86
155860	11/13/2014	3246995592	STAPLES CONTRACT & COMMERCIAL	ASTD JANITORIAL SUPPLIES - INVENTORY	$723.77	$723.77
155793	11/6/2014	7543241100	RS HUGHES CO INC	ASTD SAFETY SUPPLIES	$715.78	$715.78
155834	11/13/2014	800160627	HILLYARD/SAN FRANCISCO	CREDIT FOR JANITORIAL SUPPLIES INV 601286226	$-190.79	$694.00
	11/13/2014	601352249		ASTD JANITORIAL SUPPLIES	$884.79	
155789	11/6/2014	45041586	RAIN FOR RENT	28 DAYS TANK POLY 2450 RENTAL	$688.80	$688.80
155746	11/6/2014	87896581210252014	AT&T	SERV: 09/18/14 - 10/17/14	$678.84	$678.84
155829	11/13/2014	215385	ENVIRONMENTAL PRODUCTS & ACCES	ASTD VACTOR TRUCK REPAIR PARTS	$673.00	$673.00
155779	11/6/2014	2221	M-I-C INC	8 EA GASKETS FOR FLAME ARRESTOR	$629.33	$629.33
155847	11/13/2014	41509590	OFFICE TEAM	TEMP LABOR-BLANCHETTE, V., WKEND 10/17/14	$609.60	$609.60
155768	11/6/2014	1506727	HANSON AGGREGATES INC	8.09 TONS 1/2 MED TYPE A	$607.81	$607.81
155833	11/13/2014	17136	HAYWARD PIPE AND SUPPLY	ASTD PARTS & MATERIALS	$598.76	$598.76
155845	11/13/2014	20141031	NAPA AUTO PARTS	MONTHLY AUTO PARTS STMT - OCT 2014	$585.45	$585.45

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155756	11/6/2014	250820	CURTIS & TOMPKINS LTD	13 LAB SAMPLE ANALYSIS	$415.00	$535.00
	11/6/2014	250732		3 LAB SAMPLE ANALYSIS	$120.00	
155763	11/6/2014	9553229049	GRAINGER INC	2 EA FUSES	$67.85	$520.28
	11/6/2014	9556369198		1 EA DYE TRACER TABLET	$82.47	
	11/6/2014	9551471809		1 EA DOOR SWITCH	$40.03	
	11/6/2014	9554890104		2 EA INCANDESCENT LIGHT BULBS	$5.76	
	11/6/2014	9553229031		1 EA EXIT SIGN W/EMERGENCY LIGHTS	$109.61	
	11/6/2014	9555087049		1 EA EXIT SIGN W/EMERGENCY LIGHTS	$214.56	
155819	11/13/2014	674	AUTOMATED NETWORK CONTROLS	SCADA / PLC PROGRAMMING SERVICES	$515.86	$515.86
155758	11/6/2014	20141025.10	DALE HARDWARE INC	10/14 - ASTD PARTS & MATERIALS	$503.60	$503.60
155796	11/6/2014	7579	SANACT INC DBA ROTO-ROOTER	REFUND # 17577	$500.00	$500.00
155827	11/13/2014	7593	E Z PLUMBING	REFUND # 17592	$500.00	$500.00
155862	11/13/2014	920576	TRANSCAT INC	FLUKE CALIBRATION	$482.12	$482.12
155843	11/13/2014	598776	MOBILE MODULAR MANAGEMENT CORF	FMC TRAILER RENTAL - NOV 2014	$467.57	$467.57
155747	11/6/2014	225935	AUTO BODY TOOLMART	ASTD PARTS & MATERIALS	$443.69	$443.69
155767	11/6/2014	20141103	NA HAWAII O KALEPONI/ HALAU HULA 'C	DEPOSIT FOR FOOD FOR ANDY MORRISON'S RETIREMENT PARTY	$435.00	$435.00
155848	11/13/2014	096020141031	PACIFIC GAS AND ELECTRIC	SERV TO 10/30/14 CATHODIC PROJECT	$63.16	$398.24
	11/13/2014	892820141031		SERV TO 10/30/14 HAYWARD MARSH	$58.87	
	11/13/2014	898220141031		SERV TO 10/30/14 FREMONT PS	$276.21	

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155791	11/6/2014	251490	RKI INSTRUMENTS INC	EAGLE CALIBRATION SERVICE LEVEL 1	$383.67	$383.67
155868	11/13/2014	9734100296	VERIZON WIRELESS	WIRELESS SERV 09/21/14-10/20/14	$376.86	$376.86
155814	11/13/2014	3626	ALLIED PACKING AND SUPPLY CO	65 FLANGE GASKETS	$352.22	$352.22
155762	11/6/2014	75921	GORILLA METALS	ASTD METAL, STEEL, STAINLESS, AND ALUMINUM	$346.62	$346.62
155802	11/6/2014	20140722	UNION PACIFIC RAILROAD CO	SEWER SERVICE CHARGE REFUND	$337.76	$337.76
155866	11/13/2014	24041025	UPS - UNITED PARCEL SERVICE	FREIGHT FOR WATER CHAMP	$333.48	$333.48
155811	11/6/2014	10759	WESTERN MACHINE & FAB INC	MACHINE FOR NPT FITTINGS	$330.00	$330.00
155822	11/13/2014	56932	BARNETT MEDICAL SERVICES LLC	80 LBS PHARMACEUTICAL WASTE REMOVAL	$85.00	$328.00
	11/13/2014	57531		150 LBS PHARMACEUTICAL WASTE REMOVAL	$243.00	
155783	11/6/2014	41450556	OFFICE TEAM	TEMP LABOR-BLANCHETTE, V., WKEND 10/10/14	$304.80	$304.80
155842	11/13/2014	16547856	MCMASTER SUPPLY INC	ASTD PARTS & MATERIALS	$108.19	$257.66
	11/13/2014	16173071		1 EA WORM-DRIVE HOSE & TUBE	$111.31	
	11/13/2014	16388745		ASTD SANDING BELTS	$38.16	
155846	11/13/2014	20141113	SHAWN NESGIS	EXP REIMB: 25TH ANNIVERSARY GIFT - J. ROLETTO	$254.94	$254.94
155824	11/13/2014	20141106	JUDI BERZON	EXP REIMB: LODGING FOR ORAL BOARD MEMBER	$245.26	$245.26
155755	11/6/2014	20141103	RAYMOND CHAU	EXP RIEMB: CIP TEAM QTLY SAFETY STRATEGY RECOGNITION	$240.00	$240.00
155744	11/6/2014	20141031	AMERICAN PAYROLL ASSOCIATION	MEMBER DUES-J ROJO	$219.00	$219.00
155854	11/13/2014	20141112	JAMIE ROJO	EXP REIMB: CALPERS EDUCATIONAL FORUM	$201.85	$216.64
	11/13/2014	20141103		EXP REIMB: CALPERS EDUCATIONAL FORUM	$14.79	

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155859	11/13/2014	20141101	SPOK INC	NOVEMBER 2014 PAGER SERVICE	$208.17	$208.17
155790	11/6/2014	8200000007823	RED WING SHOE STORE	SAFETY SHOES - GASKINS	$208.00	$208.00
155748	11/6/2014	17289300	BECK'S SHOES	SAFETY SHOES - J. ARROYO	$197.32	$197.32
155771	11/6/2014	601344890	HILLYARD/SAN FRANCISCO	ASTD JANITORIAL SUPPLIES	$194.87	$194.87
155869	11/13/2014	20141112	JANINNE WARD	EXP REIMB: MANAGEMENT MEETING LUNCH	$181.48	$181.48
155857	11/13/2014	7543241102	RS HUGHES CO INC	3 PRS KNEE BOOTS RUBBER WITH SAFETY TOES	$163.36	$163.36
155851	11/13/2014	1690000009029	RED WING SHOE STORE	SAFETY SHOES - BASTIAN	$155.65	$155.65
155787	11/6/2014	20141105	MICHELLE POWELL	EXP REIMB: CURRIE'S RETIREMENT PARTY	$140.00	$140.00
155742	11/6/2014	1285	ALAMEDA COUNTY TREASURER	45 ASSESSOR'S MAPS	$135.00	$135.00
155823	11/13/2014	2830	BAY POWER LLC	2 FILTERS	$126.03	$126.03
155870	11/13/2014	20141104	WILEY PRICE & RADULOVICH LLP	BREAKFAST BRIEFING - MORRISON, GHOSSAIN	$125.00	$125.00
155858	11/13/2014	841713541	SHARP BUSINESS SYSTEMS	MTHLY MAINTENANCE BASED ON USE	$115.71	$115.71
155741	11/6/2014	9032500245	AIRGAS NCN	ASTD PARTS & MATERIALS	$102.14	$102.14
155797	11/6/2014	20141030	JENNIFER SIO-KWOK	EXP REIMB: LUNCHES CSW I QAI PANEL	$98.90	$98.90
155852	11/13/2014	68654	REMOTE SATELLITE SYSTEMS INT'L	IRIDIUM SVC FEE NOVEMBER 2014	$97.90	$97.90
155840	11/13/2014	20141111	REGINA MCEVOY	EXP REIMB: BOARD WORKSHOP DINNER	$77.73	$77.73
155808	11/6/2014	20141103	JANINNE WARD	EXP REIMB: TREATMENT PLANT OVERVIEW BROWN BAG	$75.65	$75.65
155844	11/13/2014	20141107	BRODERICK MOY	EXP REIMB: LAB RECOGNITION LUNCH-WATER QUALITY PERF TESTING	$75.06	$75.06
155772	11/6/2014	5493267	HOSE & FITTINGS ETC	10 EA UNIONS	$51.88	$51.88

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155743	11/6/2014	4088644120141024	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 10/24/14 - BOYCE ROAD	$43.45	$43.45
155831	11/13/2014	76001	GORILLA METALS	ASTD METAL, STEEL, STAINLESS, AND ALUMINUM	$26.80	$26.80
155770	11/6/2014	143017	HAYWARD WATER SYSTEM	WATER SERV 07/16/14 - 09/17/14	$24.70	$24.70
155804	11/6/2014	9853414	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 10/11/14	$12.75	$12.75
155754	11/6/2014	273313	CENTERVILLE LOCKSMITH	ASTD KEYS & SUPPLIES	$12.70	$12.70

Invoices:

Credit Memos :	**3**	**-2,057.10**
$0 - $1,000 :	**149**	**45,588.04**
$1,000 - $10,000 :	**58**	**164,163.91**
$10,000 - $100,000 :	**17**	**514,870.31**
Over $100,000 :	**4**	**587,897.28**
Total:	**231**	**1,310,462.44**

Checks:

$0 - $1,000 :	**70**	**27,734.95**
$1,000 - $10,000 :	**41**	**141,112.44**
$10,000 - $100,000 :	**16**	**553,717.77**
Over $100,000 :	**3**	**587,897.28**
Total:	**130**	**1,310,462.44**

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A report summarizing the EBDA Meeting of November 20, 2014, will be provided at the Board Meeting.

11/5/2014

CALIFORNIA DROUGHT

Coastal residents using far less water

Bay Area region has decreased usage by 15%

By Fenit Nirappil
Associated Press

SACRAMENTO — Residents in coastal communities use far less water than their inland counterparts, but still find ways to conserve even more, residential per-capita water use figures released for the first time Tuesday show.

The State Water Resources Control Board is collecting per-capita data to better target conservation efforts as farms go fallow and reservoirs dry up. Gov. Jerry Brown called on Californians to reduce water use by 20 percent when he declared a drought emergency in January.

Californians are being asked to let their lawns go brown and take shorter showers as the likelihood of drought conditions worsening rises. The data released Tuesday shows big disparities in water habits.

Regional water use differences range from 84 gallons per-person, per-day in the Bay Area to 252 in the Colorado River basin, which includes San Bernardino and Riverside. The figures exclude industrial, agricultural and business water users.

Median per-capita water use is 131, according to estimates from 351 suppliers serving roughly 33 million Californians. Residents in the largest cities, Los Angeles, San Diego and San Jose, are using 79 to 92 gallons a day.

In densely-packed San Francisco where lawns are rare, residents use 46 gallons a day. In the wealthy 5,000-person community of Cowan Heights in Orange County, water use is more than 569 gallons a day

"If you have a place with a really high per capita (water use) and use is flat, it raises the question of what's going on and is there more that's being done there," said Max Gomberg, senior environmental scientist with the water board.

Cowan Heights, for example, reported just a 2 percent drop in monthly water use in September compared to the year before.

Regions with the lowest per-capita water use, however, are reporting some of the biggest drops in monthly water use. The San Francisco Bay Area region decreased water use by 15 percent despite already having the lowest per-capita consumption in the state.

Cities and local water agencies are required to report the figures under emergency regulations approved by the water board in July. Those regulations also included mandatory outdoor water restrictions backed up with the threat of up to $500 fines for violations.

Statewide monthly water use in September fell 10 percent compared to the same month in 2013, according to self-reporting by nearly 400 water agencies. But that's down from an 11.5 percent decline reported for August.

Water projects can go forward

Prop. 1 passage provides state with $7 billion

By Lisa M. Krieger
lkrieger@bayareanewsgroup.com

For decades, Californians have complained that lack of money stymied improvements in the state's leaking, inefficient and century-old water system.

But with voter approval Tuesday of a $7.5 billion financing scheme, the state suddenly has the money for an array of water projects.

A day after passage of bond measure Proposition 1, water experts said it was too soon to say exactly how the gusher of tax dollars will be spent — but they envisioned new pipelines in Bay Area neighborhoods, groundwater cleanup in the San Fernando Valley, clean tap water in East Porterville, creek protections in the Sierra and a new dam on the San Joaquin River.

"Now that California voters have passed Proposition 1, the hard work begins," said Lester Snow at a Proposition 1 news conference by the California Water Foundation, a nonpartisan group that supports innovative water policy.

Its passage won't ease the effects of the state's severe drought — only more precipitation and greater conservation can do that. And it doesn't earmark funds for specific projects.

Now comes the more sobering challenge: delivering on the ambitious expectations to improve the long-term reliability of water supplies promised by Gov. Jerry Brown and the Proposition 1 campaign.

Water utilities like East Bay Municipal Water District say they'll apply for grants to fund infrastructure improvements.

"East Bay MUD hopes to seek state funding to support our long-term water supply future with greater storage, recycling and conservation," said Andy Katz, president of EBMUD's board of directors. "We have 4,200 miles of pipe built to last 100 years. And we're just under 100 years old."

The Santa Clara Valley Water District is looking to expand its recycled water and to "get us through ... droughts and support the Silicon Valley economy," said Tony Estremera, chairman of the district's board of directors.

The agricultural community welcomed the victory.

"Water storage projects will help California withstand future droughts and reduce the threat of flooding in wet years," said Farm Bureau Federation President Paul Wenger.

Farmers are seeking one dam on Temperance Flat on the upper San Joaquin River and another to store Sacramento River water.

Peter Drekmeier of the Tuolumne River Trust said he supported spending on watershed restoration and water quality improvements but wanted money for water storage to be used for groundwater recharge, not dam construction.

The decision about where to put new reservoirs and underground storage will be left to the California Water Commission.

"The obligation is on the Water Commission to make sure we make the most effective investment to increase storage in the state," said Snow.

OAKLAND'S LAKE MERRITT

11-7-14 Argw

Clearing out the creatures

Dive team drops into channel to remove the marine wildlife clogging 40-year-old pump station

ANDA CHU/STAFF PHOTOS

On Thursday, diver Chris DeLauter, with Coastal Diving, helps clear the marine growth that has clogged the trash racks and bubbler tubes of Lake Merritt's 40-year-old pump station. Coastal Diving has been hired for the 17-day, $67,000 scrubbing job.

Lake Merritt, whose water quality has markedly improved, is home to mussels, barnacles, oysters and other marine life.

By Matt O'Brien
mattobrien@bayareanewsgroup.com

OAKLAND — Sea squirts, bat rays, mollusks and monstrous-looking sea spiders are having a feast in the depths of Lake Merritt.

The teeming aquatic wildlife signals the improving health of Oakland's urban jewel, but some of the creatures are also clogging a 40-year-old pump station that protects downtown and lakeside neighborhoods from flooding.

An emergency dive team on Wednesday and Thursday dropped into the channel that connects Lake Merritt to the Oakland Inner Harbor and San Francisco Bay, scraping off hordes of bay mussels, barnacles and even some oysters that have latched

See **LAKE**, *Page 4*

Lake

Continued from Page 1

on to the pump station's trash racks.

"The good news about oysters is it's a sign the quality of water has vastly improved," said dive team leader Dave Buller. "The bad news is they're extremely difficult to remove."

On Wednesday, as the city's new Mayor-elect Libby Schaaf was celebrating her electoral victory at the Lake Merritt Amphitheater by riding a fire-breathing art car shaped like a snail, diver Chris DeLauter was swimming downstream and finding real mollusks and other marine life as bizarre-looking as Schaaf's metal chariot.

Coots, cormorants and grebes sailed on the surface of the tidal channel that courses through the Laney College campus as DeLauter bubbled underneath, chattering through a radio system to Buller and their tender, Tony Rayford.

A county dive inspector probed the channel late last month and declared an emergency. The Alameda County Public Works Agency responded this week by hiring the commercial divers from Coastal Diving for a 17-day, $67,000 job to clean the pump station's underwater trash racks and bubbler tubes.

Buller, the team leader, said he has been diving into the channel to do similar work since the 1980s.

"I remember the first time I dropped down in the water, there was only one species of marine life: tube worms," he said.

Among his other finds in the channel deep over the years: Century-old beer bottle caps from the city's brewery heyday. Handguns, ammunition and a forest of sawed-off parking meters raided of their coins. Candles and other objects from unauthorized floating funeral ceremonies. And dead freshwater turtles abandoned by pet owners who might not have realized they would quickly die in the brackish waters.

The county typically cleans the pump racks each fall ahead of the rainy season but now is contemplating twice-a-year cleanups because of the increasing marine growth, said Gene Mazza, the pump station supervisor.

"It is a lot more than we've gotten in the past. It tells us that the water quality is vibrant," Mazza said.

The likely reason for that vibrancy is a project completed last year reverting Lake Merritt to some of its natural splendor as a thriving estuary.

The voter-approved beautification project removed box culverts under 12th Street and allowed water to flow more freely through the channel.

Lake Merritt was a saltwater tidal lagoon before city leaders dammed it up and called it a lake in the late 19th century, eliminating marshes and mud flats, depleting oxygen, killing off fish and other wildlife, and leading to mounting flood dangers by blocking the natural flushing of water out to the bay.

The worst flood came in October 1962, when heavy rains and high tide combined to unleash waters into neighborhoods encircling the lake. Photographs inside the pump station show the busy intersection of Lakeshore Avenue and East 18th Street nearly 7 feet underwater.

Flood control officials responded by building a pump station, which is reached by an elevator from the Seventh Street Bridge.

The station still serves a critical purpose in flood prevention, said pump engineer Tom Tidwell on a tour beneath the bridge Wednesday, but the blooming wildlife has become harder to clear from the machinery.

"You increase the tidal current, you increase the food supply," Buller said.

Gondolas, canoes and crew boats already ply Lake Merritt. Buller said civic leaders should soon consider another kind of vessel.

"In a few years there may be a glass-bottom boat," he said. "The different degrees of color in the sponges are spectacular. They range from bright red to orange, orange-red, browns and tans, and off-white. Few residents know what kind of diversity of life they have down there."

11/13/14 Argus

NEWARK

Waste fees likely to increase

Officials say residents may have to pay more due to operating costs

By Chris De Benedetti
cdebenedetti@bayareanewsgroup.com

NEWARK — Residents and businesses soon might have to toss in more money to throw out their trash.

The City Council on Thursday will consider a 4.3 percent rate increase for garbage and recycling services in Newark, effective Jan. 1.

About 75 percent of Newark households use a 32-gallon cart for garbage and those customers would pay $28.91 per month, a city report states. That would be an additional $1.19 a month, increasing those households' bill by about $14 per year.

Newark businesses with weekly pickup of a three-yard bin would pay $12.78 more a month — an increase of about $153 per year, according to city staffers.

City leaders said the hike stems from increases in Consumer Price Index figures — which usually rise each year — and from higher disposal

See **FEES**, *Page 4*

Fees

Continued from Page 1

costs at the Fremont transfer station where Newark sends its trash. The transfer station also will charge a service fee, further boosting Newark customers' bills.

"The simple answer is that costs go up and these modest increases are part of that," Mayor Alan Nagy said.

The rate increase would come 18 months after Newark leaders struck a 10-year deal for sanitation pickup with Republic Services, a subsidiary of Allied Waste.

"The whole rate structure is part of the multiyear agreement with the company," Nagy said.

Newark also would spend $142,000 over the next two years to ease the blow to customers' wallets, City Manager John Becker said.

"Solid waste disposal is becoming more expensive," Becker said. "But it's one of those services that you have to have."

City leaders last year selected Republic Services for trash and recycling services. Becker said the city chose the company because it "provided the highest level of services at the most cost-efficient point."

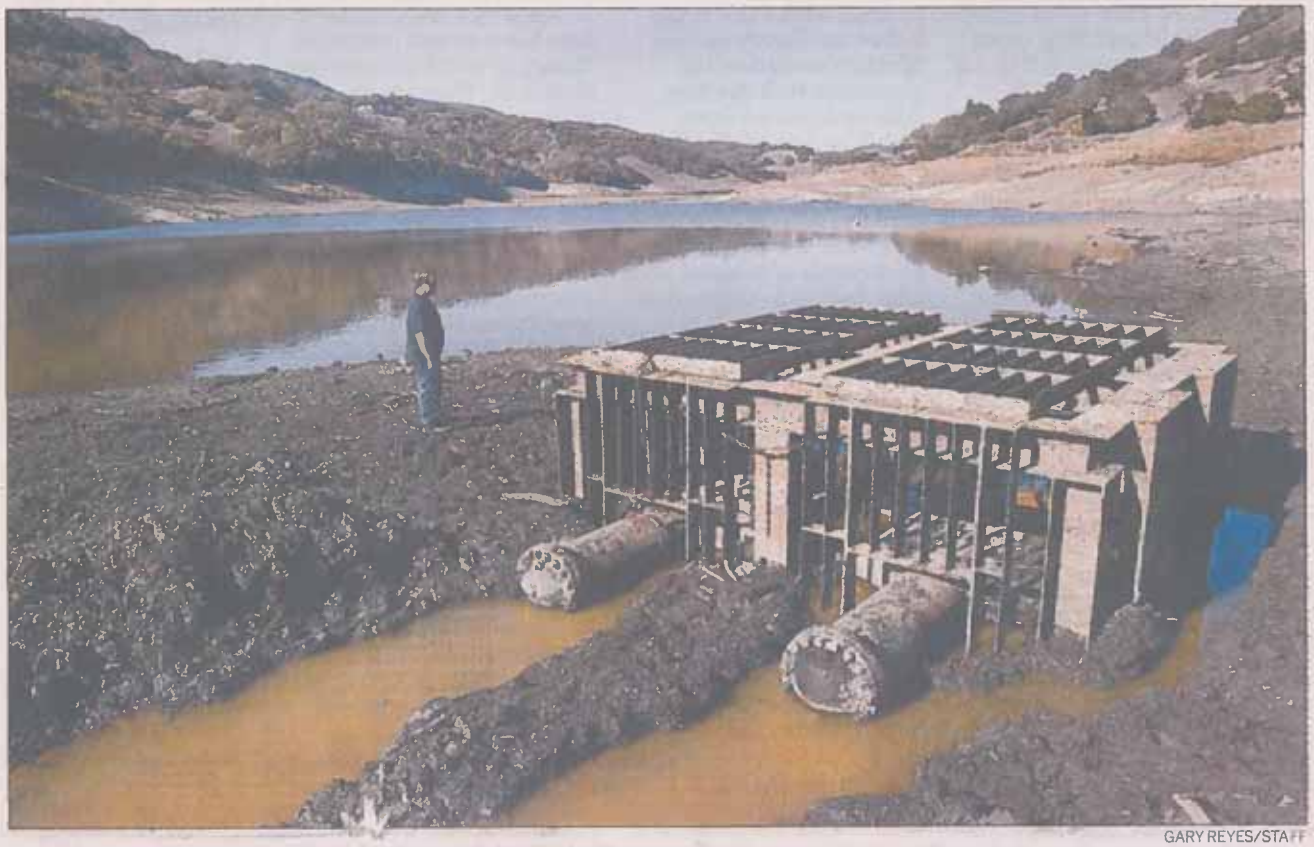
Nobody likes higher costs, but Newark's contract with Republic Services helps keeps bills at a reasonable level and prevents the company from making giant increases each year, Becker said.

Contact Chris De Benedetti at 510-293-2480. Follow him at Twitter.com/cdebenedetti.

11/13

RUNNING DRY

Water deficit: Even wettest winter on record, an unlikely event, may not bring state out of historic drought, weather analysts say



GARY REYES/STAFF

Jerry Sparkman of the Santa Clara Water District stands near the intake structure at Chesbro Reservoir in Morgan Hill. The structure is normally underwater, but not after three years of severe drought.

By Paul Rogers
progers@mercurynews.com

As California heads into its annual rainy season, water managers, farmers and millions of residents with parched yards are hoping huge storms will finally break the state's historic three-year drought.

Don't count on it.

It may be raining this week, but unless near-record rain falls between now and next spring, it's likely the drought will continue through 2015, experts say. That's because California has so much catching up to do — from near-empty reservoirs to depleted wells to parched rivers.

ONLINE EXTRA
For more on the drought in California, go to www.cadrought.com.

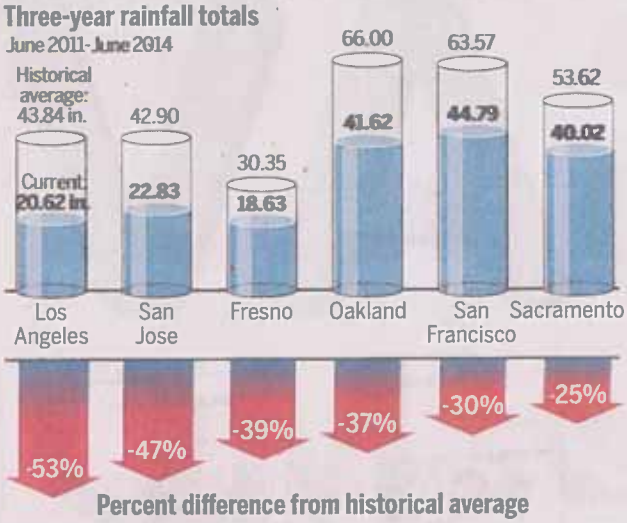
An analysis of National Weather Service records shows that many of the state's major cities have received so little rain in the past three years that their "rainfall deficit" heading into this winter is actually larger than the rainfall total they receive in an average — or even record — winter. And in some cases the past three years have been the driest three-year period in recorded history.

"The bottom line is that it is going to take a pretty

See **DROUGHT**, *Page 8*

A long way to go

Despite recent rains, California is so far behind after three record dry years that it's highly unlikely the drought will end this winter.



Source: Golden Gate Weather Services

BAY AREA NEWS GROUP

Drought

Continued from Page 1

exceptional rainfall year to get us back out of the hole in one year," said meteorologist Jan Null, owner of Golden Gate Weather Services in Saratoga.

Null, who worked at the National Weather Service for a quarter century and who analyzed the data with this newspaper, compares the state's plight to a family's severe financial troubles, which usually take years to resolve.

"It's like having a lot of credit card debt," he said. "We have a big deficit."

San Jose, for example, received 22.83 inches of rain from July 1, 2011 to June 30, 2014. That's the driest three-year period in 125 years. In an average three-year period, the city receives 42.9 inches — a shortfall of 20.07 inches.

The city would not only have to make up that amount just to get back to even, it would also need another normal year's total of about 14 inches this winter to have an average 2014-15.

That's roughly 34 inches. But even during the wettest winter in San Jose history, 1889-90, it rained less than 30.3 inches. Similarly, San Francisco begins the winter 18 inches short of its average three-year total. Oakland is 24 inches behind. Los Angeles is 23 inches behind. And Fresno is nearly 12 inches behind.

Conserving

Managers across the state are worried that after the first storms arrive, many Californians will assume the drought is over and stop conserving.

"It is a real concern," said John Coleman, a board member with the East Bay Municipal Utility District, which supplies water to 1.3 million people in Alameda and Contra Costa counties. "You should not revert back to what your usage was because of a few storms. We don't know how the rest of the year is going to play out."

Even with modest recent storms, Bay Area rainfall totals are already below average levels for this rainy season. Worse, the National Oceanic and Atmospheric Administration announced last week that the chances of El Niño conditions this winter — which can increase the chance of rain — are now only 58 percent, down from 82 percent in June.

GARY REYES/STAFF

Jerry Sparkman of the Santa Clara Water District stands above the empty spillway at Chesbro Reservoir in Morgan Hill on Monday.

To be sure, water experts note that every single "lost inch" of rain since 2011 doesn't have to be made up for the drought to be over.

"The way you know you are out of a drought is because the reservoirs are all spilling," said Jay Lund, a UC Davis professor of civil and environmental engineering.

They are far from that point.

Reservoirs

Shasta Lake, the largest reservoir in California, is 24 percent full. Similarly, Lake Oroville in Butte County, the second-largest reservoir in the state, is 26 percent of capacity. San Luis Reservoir, along Highway 152 in Merced County, is just 20 percent full.

All 10 reservoirs in Santa Clara County are only 30 percent full combined. And several, like Chesbro, Uvas and Guadalupe, are below 5 percent — essentially empty.

The streams and rivers that fill those and thousands of other lakes are near historic low flows.

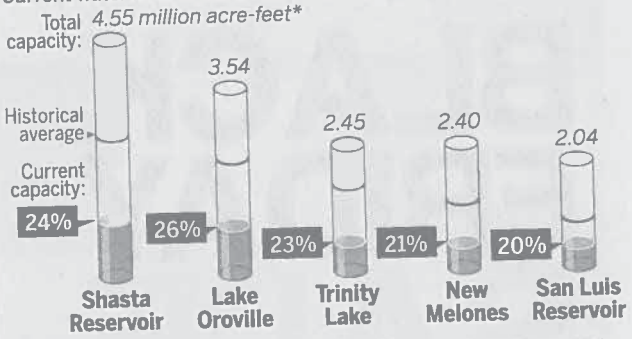
"With a moderately good rain year, the streams will start flowing," Lund said. "It will take more than an average year to fill up the reservoirs. And it will take a really, really wet year to fill up the aquifers."

With little rainfall, a small Sierra snowpack and low flows in rivers since 2011, many cities and farm areas have been relentlessly pumping groundwater to make up the difference.

In Santa Clara County, the groundwater is now at the lowest level in 25 years,

Low reservoirs

Current water level of the state's five largest reservoirs:



*One acre-foot is approximately 325,851 gallons, or about the amount of water a family of five uses in one year. Figures as of Nov. 12.
Source: California Department of Water Resources BAY AREA NEWS GROUP

said Marty Grimes, spokesman for the Santa Clara Valley Water District, adding that the water table under San Jose has fallen 65 feet since 2011.

"We fully expect our call for conservation continuing well into 2015," he said.

All year, the district has asked the public to cut water use by 20 percent. In September, Santa Clara County cut water use by 14 percent compared with the previous September. Similarly, EBMUD customers cut use by 13 percent, while San Francisco cut 9 percent, Contra Costa County cut 21 percent, Los Angeles cut 8 percent and San Diego cut 3 percent.

Fearful of lost water sales and political backlash, few California cities have decided to issue fines for overuse of water or set water budgets for homeowners this year. But there's little doubt that strict rationing — coupled with big fines — works. Santa Cruz, which enacted those measures last spring, cut water use 30 percent in September compared to September 2013.

Leniency could be a thing of the past, however, if California has another dry winter.

"We'll be looking at everything," said Coleman of EBMUD. "It's a whole new game."

That could include fines for overuse, a ban on all outdoor watering and other tough measures, he said.

Groundwater depletion is an even bigger problem in the Central Valley. There, in each of the last three years, farmers have pumped out about 6 million acre feet of water from the ground — triple the amount of a normal year, said Jay Famiglietti, a senior water scientist with NASA's Jet Propulsion Laboratory in Pasadena.

It will take decades, if ever, to get it back, he said.

"The hole that nature has dug and we have made deeper because of our groundwater use is so big, even one big winter is not going to do it," he said. "The reservoirs are way too low, and the groundwater is way too low. It will have to rain and rain and rain."

Delta tunnels' cost will hit home

3 million water users in Bay Area would see bills rise, report finds

By Peter Fimrite

California's plan to build tunnels and siphon huge amounts of water from the delta will jack up costs for water users, including 3 million Bay Area residents, but farmers will be hit the hardest, according to a financial analysis released Friday.

The report, by state Treasurer Bill Lockyer, says costs could double for some water customers if the Bay Delta Conservation Plan goes through, but it concludes that the overall $25 billion price tag is "within the range of urban and agricultural users' capacity to pay."

The huge project to move water south, which would also put $7.8 billion toward restoration of marsh habitat in the Sacramento-San Joaquin River Delta, would be paid with bonds sold by water districts relying on that water — districts that would increase water rates to pay off the debt, regardless of how much water the consumer is using.

The Santa Clara Valley Water District, one of the largest metropolitan water agencies in Northern California — serving San Jose, Palo Alto and 14 other cities — plans to raise property taxes for its 1.8 million customers in Silicon Valley from about $36 to $60 a year over the next decade to help pay the $228 million it expects to incur for the delta tunnels between now and 2024.

In the East Bay, the Zone 7 Water Agency, serving Pleasanton, Dublin and Livermore, gets about 80 percent of its water from the delta. The district, on its

Delta continues on A8

Delta tunnels' cost assessed in report

Delta from page A1

website, has informed its customers of the possible future costs without providing specifics. The Alameda County Water District, serving Fremont, Newark and Union City, also gets its water from the delta and would presumably also raise rates.

The tunnel plan is supported by Gov. Jerry Brown but has been attacked by environmentalists, some delta farmers and fishing groups who insist that, among other things, cost overruns would saddle water districts with more debt than they can afford.

But the treasurer's report was encouraging, said Terry Erlewine, general manager for the State Water Contractors, an association of 27 public agencies in Northern, Central and Southern California. He said it shows that this "critical investment" in a new water supply system is possible.

"The Bay Delta Conservation Plan offers an opportunity to protect our state's primary water supply from the constant threat of earthquakes, levee failures and flooding," Erlewine said. "It's a significant investment, but the risk of doing nothing is costly and bleak."

As the California drought worsens, agricultural interests and conservationists agree that something must be done to quench California's ever-increasing thirst. The question is whether the state should spend billions of dollars capturing the water and distributing it through new pipelines or spend a little less money by maximizing usage through conservation.

An intriguing option

A laundry list of proposals, including water recycling, groundwater storage and even cloud seeding, are in a working draft of the California Water Plan, a comprehensive blueprint for future management of the resource. But those solutions aren't expected to resolve the problem, leaving the twin-tunnel proposal as an intriguing option.

The problem, according to

Tom Stokely, water policy analyst for the California Water Impact Network, is that costs for geotechnical engineering and construction complications are likely to go up. Conservation groups have recently calculated that cost overruns are likely to leave California with a $67 billion bill when all is said and done.

Stokely and others point to the Central Valley Project, first authorized in 1935, as an example of how debt service can go beyond a district's ability to pay. The federal government recently proposed forgiving as much as $300 million in debt and giving the Westlands Water District a permanent water contract, which could ultimately mean less water for other contractors.

Another flaw, Stokely said, is that the treasurer's analysis doesn't adequately account for the fact that when prices go up, water usage, and therefore revenue, goes down.

"This particular project would clearly increase the fixed costs of water districts that are already struggling," he said. "The local agencies could end up raising prices so high that there would be so much water conservation that their revenues would be reduced and they wouldn't be able to pay their bills."

Stokely said that has already happened to the Montecito Water District, in Santa Barbara County, where water use was cut 40 percent this year, leaving the district short.

The treasurer's report, commissioned by the California Debt and Investment Advisory Commission, examines a range of cost scenarios. It estimates that the state's water customers would have to make billions of dollars in fixed payments each year, even during dry periods.

'A lot of variables'

Tim Gage, a partner with Blue Sky Consulting Group, which prepared the report, said municipal water districts that have large customer bases will likely have an easier time than smaller agricultural districts paying off the debt from tunnel construction.

"The reason it might be challenging is because in many cases these are smaller agricultural water contractors that don't have as many resources to pay debt service," said Gage, former director of the state Department of Finance. "On average, depending on crop mix, it looks like their payment capacity is adequate, but there are a lot of variables."

Gage said some of the smaller districts might decide to switch from low-value crops like alfalfa to higher-value crops like almonds and pistachios to meet costs.

The California Legislative Analyst's Office recently said urban water districts can raise property taxes without first getting voter approval to pay for the twin tunnels. As many as 27 public agencies in the state, serving more than 26 million residents and 750,000 acres of agricultural lands, are expected to do so. Local districts, including the San Francisco Public Utilities Commission, Contra Costa Water District and the East Bay Municipal Utility District, would not be affected.

Lockyer acknowledged that it won't be easy to overcome the engineering, political and environmental-protection hurdles.

"Our report makes public for the first time clear financial assumptions and sober analysis using a range of scenarios to help inform the public and policymakers," Lockyer said in a statement. "The report is the result of two years of hard work and careful analysis, and it should contribute greatly to a rational public discussion about the project."

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

ODOR REPORT
October 2014

During the recording period from October 01, 2014 through October 31, 2014, there were ten odor related service requests received by the District.

City: Fremont

1. ***Complaint Details:***

Date: 10/1/2014 *Time:* 9:15 am
Location: DIEGO DR *Reported By:* Arlene Ohm
Wind (from): N/A *Wind Speed:* N/A mph
Temperature: 70 Degrees F *Weather:* Fair

Response and Follow-up:
Inspected USD main and storm drain inlet due to a complaint from resident about a bad odor. We dye tested sewer main with a TV camera in the storm drain. We found a very small leak from the sewer main into the storm drain. USD crews used three trenchless point repairs in the sewer main to stop the leak and cleaned up the storm drain.

2. ***Complaint Details:***

Date: 10/2/2014 *Time:* 8:25 pm
Location: FREMONT BL *Reported By:* Hilary
Wind (from): West *Wind Speed:* 1 mph
Temperature: 75 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes and storm drain inlets in the area. We found no odors coming from our mains or drain inlets. We did detect a smell coming from a roll away dumpster in front of the property

3. ***Complaint Details:***

Date: 10/8/2014 *Time:* 8:08 pm
Location: GRANVILLE DR *Reported By:* Rob Culbertson
Wind (from): East *Wind Speed:* 9 mph
Temperature: 68 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes and storm drain inlets. We did not detect any odor. We relayed our findings to the complainant and told him to call us back should the odor return.

4. ***Complaint Details:***

Date: 10/8/2014 *Time:* 10:04 pm
Location: PERALTA BL *Reported By:* Lin Hall
Wind (from): N/A *Wind Speed:* 5 mph
Temperature: 64 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes and storm drain inlets. No odor was detected. I checked the grease trap and when I opened it, the complainant said that may be the source of the odor. We let the complainant know that he should inform his management and that I would pass on our findings to our Environmental Compliance Team.

City: Fremont

5. *Complaint Details:*

Date: 10/9/2014 *Time:* 12:05 am
Location: RIDGEWOOD DR *Reported By:* Ashoka Upadhya
Wind (from): N/A *Wind Speed:* 5 mph
Temperature: 64 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes and storm drain inlets. We found no odor from our manholes. We did detect a very strong smell of a dead animal on the complainant's street. We told him he could try talking with the Ardenwood Farm property people because it seemed like the smell of the dead animal may be on their property.

6. Complaint Details:

Date: 10/21/2014 *Time:* 3:40 pm
Location: MONTROSE AV *Reported By:* N/A
Wind (from): N/A *Wind Speed:* 5 mph
Temperature: 73 Degrees F *Weather:* Warm

Response and Follow-up:
Inspected USD manholes and storm drain inlets in the area. We found no odors in the area. We told them to call us back should the odor return.

7. Complaint Details:

Date: 10/31/2014 *Time:* 1:30 pm
Location: BLACOW RD *Reported By:* Sandy Leonardt
Wind (from): North West *Wind Speed:* 9 mph
Temperature: 59 Degrees F *Weather:* Rain & Showers

Response and Follow-up:
Inspected USD manholes and drain inlets in the surrounding area. We used a gas detector to locate any odors and no odors detected. We relayed our findings to Mrs. Leonardt and gave her a USD brochure. We told her to call us back should the odor return and to note the time of day.

City: Newark

8. ***Complaint Details:***

Date: 10/6/2014 *Time:* 3:45 pm
Location: LA SALLE AV *Reported By:* Diana Farias
Wind (from): North West *Wind Speed:* 9 mph
Temperature: 89 Degrees F *Weather:* Hot

Response and Follow-up:
Inspected the sewer manholes, storm drain inlets and surrounding areas using our gas detector. We did not find any odors. We gave the complainant a USD brochure and told her to call us back should the odor return.

9. ***Complaint Details:***

Date: 10/8/2014 *Time:* 7:15 pm
Location: DAIRY AV *Reported By:* Janette Johnson
Wind (from): North *Wind Speed:* 5 mph
Temperature: 68 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes, storm manholes and drain inlets and found no odors outside of the residence. We did detect a musty mildew odor inside the house. The homeowner did call the Fire Department and they did not find any odors. We told her to air out the house and run water in all sinks and showers. We told her to call us back should the odor return.

City: Union City

10. ***Complaint Details:***

Date: 10/4/2014 *Time:* 9:45 pm
Location: COMPTON CT *Reported By:* Chelsea
Wind (from): N/A *Wind Speed:* 5 mph
Temperature: 85 Degrees F *Weather:* Clear

Response and Follow-up:
Inspected USD manholes and storm drain inlets and found no odors. We gave the complainant a brochure and told them to call us back should the odor return.

Summary of the EBDA Commission Meeting
Thursday, November 20, 2014 at 9:30 a.m.
Prepared by: P. Eldredge

- Commissioners Handley, Dias, Johnson, Peixoto and Prola were all present.

- 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 June, July, August, and September 2014.

- The Commission unanimously approved the reports from the Regulatory Affairs, Operation & Maintenance, Financial Management, Personnel, and Management Advisory Committees. The following items were discussed:

    - **Managers Advisory Committee** had a brief discussion on the Ebola virus and potential impacts on wastewater industry personnel. Currently, most of the information available is conflicting and the CDC has yet to issue any findings or guidelines. Some agencies are reaching out to hospitals directly to discuss solid waste and fluid handling protocols. In addition, the MAC discussed proposed language changes to the JPA pursuant to a letter received from Castro Valley Sanitary District's attorney regarding the voting authority of EBDA (unanimous vote vs. affirmative vote of all 5 members).

    - **Financial Management Committee** had the auditor present the Financial Audit for the Fiscal Year ending June 30, 2014. The auditor's report indicated there were no findings for said FY, and all controls and required systems were in place and operating as expected. It was mentioned that the professional services budget was over by about $33k due to accelerated work on the outfall pipe study and spending on the State Coastal Conservancy grant which is expected to be reimbursed next month. The Commission discussed whether or not it still made sense for EBDA to remain a member of CASA. This issue was forwarded to the next committee meeting for further discussion. It was briefly mentioned that the Special Districts Financial Transactions and Compensation Report was completed and submitted to the State.

    - **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 October of 2014. EBDA has not had any permit violations since April of 2006. There was a brief discussion on the Water Board nitrogen discussions taking place regarding the watershed permit coming due in four years and possible nutrients limits. It is anticipated the watershed will have some limit on nutrients included in the next permit renewal. There was a brief discussion regarding the positive attention reclaimed water seems to be getting in the State right now and public perception seems to be changing toward the use of this resource. Residential water usage by person per day comparison charts for the State of California and the Bay Area were included in the agenda. In general, Northern California is using less water per person than Southern California.

- **O&M Committee** reviewed several videos of the manhole rehabilitation work that was done in the last few months, and also showed a video of the pump being replaced at the Hayward pump station. There was a discussion regarding minor chlorine spiking at the marina decholr facility and the need for some analysis to identify and correct the issue. There was no concern that chlorinated wastewater was being discharged as a mass balance was conducted to ensure that enough sodium bisulfite was being injected to remove the chlorine. The starter for the San Leandro emergency generator failed and was replaced. There was a brief discussion regarding the amount of inflow and infiltration EBMUD and a few other agencies are experiencing and how well the collection system of the member agencies is performing.

- **Personnel Committee** reviewed the employment contract for the General Manager. The current GM indicated he may only be able to commit through June or July of 2015 due to uncertainty regarding future commitments which will not be resolved until January of 2015. The MAC will be meeting in the next few weeks to discuss possible options and succession planning.

- **Joint Powers Agreement Ad Hoc Committee** reviewed the final edits to the JPA as well as a few clean-up items that were identified at the meeting. It was agreed the term of the agreement (expiring on January 1, 2020) will not be amended at this point and will be addressed with the next amendment since this clean-up is to remove information no longer relevant and start with a clean copy for the more formal update (financial issues). A draft cover letter was passed out (attached) to accompany the final draft of the agreement to each agency for their final review and hopefully adoption by each agency by January of 2015.

The Commission unanimously passed the following resolutions:

- Resolution approving FY 2014/15 Budget Modification No. 1 to create new account codes for the Transport System Inspection, Hayward Pump and Ponds, SCC Wetlands Grant and the EPA Sidestream Grant.
- Resolution approving amendments to the General Mangers Employment Agreement December 1, 2014 to July 1, 2015.

Dear Chair/Mayor

Since 1974, your city/agency has been a member of the Joint Powers Authority, East Bay Dischargers Authority (EBDA), which transports treated wastewater from your citizens into the deep waters of San Francisco Bay where it gets sufficient dilution to meet water quality standards. EBDA's Joint Exercise of Powers Agreement is due to expire December 31, 2019. In preparation, the Commission decided to amend the agreement for the fourth time in a way that updates all the language to be consistent with current practices and eliminates historical information that is no longer relevant. These changes do not modify the existing budgetary procedure nor the power of your agency's authority.

The Commission requests that your agency approve the attached amended agreement so that we can use the up-to-date agreement as the basis for negotiating the future of the Joint Powers Authority. We intend to begin reviewing potential substantive changes immediately after your approval of these non-controversial changes. Working with a simplified, updated agreement will make that process much more efficient.

Thank you for your attention to this matter. If you have any questions, please contact EBDA's General Manager, Mike Connor, at 510-278-5910.

Sincerely,

Thomas Handley, Commission Chair

East Bay Dischargers Authority