



**BOARD MEETING AGENDA**  
**Monday, January 9, 2017**  
**Regular Meeting - 7:00 P.M.**

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

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

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

Karen W. Murphy  
*Attorney*

1. Call to Order.

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2. Pledge of Allegiance.

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3. Roll Call.

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- Motion 4. Approve Minutes of the Meeting of December 12, 2016.

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- Motion 5. Approve Minutes of the Special Meeting of December 19, 2016.

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6. Written Communications.

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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.*

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- Motion 8. Consider a Resolution to Terminate Maintenance Agreement for Paseo Padre Sanitary Sewer Lift Station *(to be reviewed by the Legal/Community Affairs Committee)*.

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- Motion 9. Consider a Resolution to Accept a Sanitary Sewer Easement for Tract 8158 – Darrow Farm, Located Near Mission Boulevard, West of Interstate 680, in the City of Fremont *(to be reviewed by the Legal/Community Affairs Committee)*.

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- Motion 10. Consider a Resolution to Accept a Sanitary Sewer Easement for Tract 8207 – Palmdale Estates Phase 1A, Located Near Mission Boulevard, West of Saint Joseph Terrace in the City of Fremont *(to be reviewed by the Legal/Community Affairs Committee)*.

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- Motion 11. Authorize the General Manager to Execute Task Order No. 2 with Carollo Engineers for the Plant Solids System/Capacity Assessment *(to be reviewed by the Engineering and Information Technology Committee)*.

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- Motion 12. Authorize the General Manager to Execute an Agreement and Task Order No. 1 with CH2M HILL Engineers, Inc. for the Odor Control Alternatives Study *(to be reviewed by the Engineering and Information Technology Committee)*.

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- Motion 13. Consider a Resolution to Accept the Construction of the Alvarado-Niles Road Sanitary Sewer Rehabilitation Project from SAK Construction and Authorize Recordation of a Notice of Completion *(to be reviewed by the Engineering and Information Technology Committee)*.
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- Motion 14. Review and Consider Approval of the Principal and Financial Analyst Job Series *(to be reviewed by the Personnel Committee)*.
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- Motion 15. Review and Consider Approval of Revised Class Description and Salary for the Position of Assistant to the General Manager/Board Secretary *(to be reviewed by the Personnel Committee)*.
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- Motion 16. Review and Consider Approval of Revised and Current Publicly Available Pay Schedules *(to be reviewed by the Personnel Committee)*.
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- Information 17. Check Register.
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- Information 18. Report on the East Bay Dischargers Authority (EBDA) Meeting of December 15, 2016.
- 
- Information 19. Committee Meeting Reports. *(No Board action is taken at Committee meetings):*
- a. Legal/Community Affairs Committee – Wednesday, January 4, 2017, at 1:00 p.m.
    - Director Handley and Director Lathi
  - b. Engineering and Information Technology Committee – Friday, January 6, 2017, at 9:15 a.m.
    - Director Kite and Director Toy
  - c. Personnel Committee – Friday, January 6, 2017, at 10:00 a.m.
    - Director Fernandez and Director Toy
  - d. Budget & Finance Committee – will not meet.
  - e. Legislative Committee – will not meet.
  - f. Audit Committee – will not meet.
  - g. Ad Hoc Subcommittee for Communications Strategy.
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- Information 20. General Manager's Report. *(Information on recent issues of interest to the Board)*.
- 
21. 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.
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22. Adjournment – The Board will adjourn to the next Regular Meeting in the Boardroom on Monday, January 23, 2017, 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



**REVISED**

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

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

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

**AGENDA**  
**Wednesday, January 4, 2017**  
**~~10:30 A.M.~~ 1:00 P.M.**

Karen W. Murphy  
*Attorney*

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

1. Call to Order

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2. Roll Call

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3. Public Comment

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4. Items to be reviewed for the Board meeting of January 9, 2017:
  - Consider a Resolution to Terminate Maintenance Agreement for Paseo Padre Sanitary Sewer Lift Station.
  - Consider a Resolution to Accept a Sanitary Sewer Easement for Tract 8158 – Darrow Farm, Located Near Mission Boulevard, West of Interstate 680, in the City of Fremont.
  - Consider a Resolution to Accept a Sanitary Sewer Easement for Tract 8207 – Palmdale Estates Phase 1A, Located Near Mission Boulevard, West of Saint Joseph Terrace in the City of Fremont.

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5. Adjournment

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

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

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**THE PUBLIC IS INVITED TO ATTEND**



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

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

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

**AGENDA**  
**Friday, January 6, 2017**  
**9:15 A.M.**

Karen W. Murphy  
*Attorney*

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

1. Call to Order

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2. Roll Call

---

3. Public Comment

---

4. Items to be reviewed for the Board meeting of January 9, 2017:
  - Authorize the General Manager to Execute Task Order No. 2 with Carollo Engineers for the Plant Solids System/Capacity Assessment.
  - Authorize the General Manager to Execute an Agreement and Task Order No. 1 with CH2M HILL Engineers, Inc. for the Odor Control Alternatives Study.
  - Consider a Resolution to Accept the Construction of the Alvarado-Niles Road Sanitary Sewer Rehabilitation Project from SAK Construction and Authorize Recordation of a Notice of Completion.

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5. Adjournment

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THE PUBLIC IS INVITED TO ATTEND



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

**PERSONNEL COMMITTEE MEETING**

Committee Members: Director Fernandez and Director Toy

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

**AGENDA**

**Friday, January 6, 2017**

**10:00 A.M.**

Karen W. Murphy  
*Attorney*

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

1. Call to Order

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2. Roll Call

---

3. Public Comment

---

4. Items to be reviewed for the Board meeting of January 9, 2017:
  - Review and Consider Approval of the Principle and Financial Analyst Job Series.
  - Review and Consider Approval of Revised Class Description and Salary for the Position of Assistant to the General Manager/Board Secretary.
  - Review and Consider Approval of Revised and Current Publicly Available Pay Schedules.

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5. Adjournment

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

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THE PUBLIC IS INVITED TO ATTEND

**MINUTES OF THE MEETING OF THE  
BOARD OF DIRECTORS OF  
UNION SANITARY DISTRICT  
December 12, 2016**

**CALL TO ORDER**

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

**PLEDGE OF ALLEGIANCE**

**ROLL CALL**

PRESENT: Tom Handley, President  
Pat Kite, Vice President  
Anjali Lathi, Secretary  
Manny Fernandez, Director  
Jennifer Toy, Director (arrived at 7:11 p.m.)

STAFF: Paul Eldredge, General Manager  
Karen Murphy, District Counsel  
Sami Ghossain, Technical Services Manager  
James Schofield, Collection Services Manager  
Armando Lopez, Treatment and Disposal Services Manager  
Pamela Arends-King, Business Services Manager/CFO  
Robert Simonich, Fabrication, Maintenance, and Construction Manager  
Laurie Brenner, Business Services Coach  
Raymond Chau, Capital Improvement Programs Coach  
Michelle Powell, Communications and Intergovernmental Relations Coordinator  
Regina McEvoy, Assistant to the General Manager/Board Secretary

**APPROVAL OF THE MINUTES OF THE MEETING OF NOVEMBER 14, 2016**

Secretary Lathi noted she was present at the beginning of the November 14, 2016 Board meeting, which began at 7:04 p.m. The Board agreed by consensus to amend the meeting minutes accordingly.

It was moved by Vice President Kite, seconded by Director Fernandez, to approve the Minutes of the Meeting of November 14, 2016 as amended. Motion carried with the following vote:

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

## **APPROVAL OF THE MINUTES OF THE SPECIAL MEETING OF NOVEMBER 28, 2016**

It was moved by Director Fernandez, seconded by Secretary Lathi, to approve the Minutes of the Meeting of November 28, 2016. Motion carried with the following vote:

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

## **MONTHLY OPERATIONS REPORT**

This item was reviewed by the Budget & Finance and Legal/Community Affairs Committees.

- a. October 2016 Monthly Odor Report & Financial Reports – General Manager Eldredge presented the following:
  - Odor Complaints: There was one odor complaint received during the month of October 2016 from a Newark resident. District staff responded to the complaint and found no sewer related odor. Staff noted it was trash day, and there was a dumpster within 70 feet of the residence. The homeowner was provided an explanation of the findings along with District Odor and Lateral informational brochures.

Business Services Manager/CFO Arends-King reported the following:

- Revenues:
    - The District anticipates it will soon receive the first Sewer Service Charge payment of the year.
    - Capacity fees for the month of October were approximately \$893,000:
      - \$412,000 was received from East Bay Regional Park District
      - \$241,000 was received from KB Homes
- b. First Quarter FY 17 District-wide Balanced Scorecard Measures – Business Services Coach/Acting Operational Performance Program Manager Brenner reported the following for the period July 1 through September 30, 2016:
    - There was a safety incident which resulted in lost time for one employee. This incident will count against the Balanced Scorecard Measure for “Total accidents with lost days” and made the annual goal of zero impossible to achieve for the year.
    - Two measures missed published targets for Operational Excellence in the first quarter of FY 17. The measure for “# of emergency preparedness events” will be addressed during the second quarter. Staff anticipate the Collection Services measure for “# of competency assessments” will be corrected as the year progresses.
  - c. Balanced Scorecard for the Collection Services Workgroup – Collection Services Manager Schofield reported the following:
    - There were no spills in the first quarter of FY 17.

- There were no asset failures in the first quarter of FY 17.
- It was noted that root control activities have been greatly increased over the past six years due to drought conditions.

### **WRITTEN COMMUNICATIONS**

There were no written communications.

### **ORAL COMMUNICATIONS**

There were no oral communications.

### **LEGISLATIVE UPDATE ON REGIONAL, STATE, AND NATIONAL ISSUES OF INTEREST TO THE BOARD**

This item was reviewed by the Legislative Committee. General Manager Eldredge stated this would be the final update for the past legislative session, and noted the report for this item included the November 8, 2016 election results.

The swearing in for reelected and newly elected Alameda County Water District (ACWD) Board members was held the first week of December. After publication of the Board meeting packet, ACWD held a financial workshop where they considered a payment assistance program, late fees for water bills, and potential meter and usage rate increases for the next two years. The ACWD Board decided to consider a payment assistance program to be funded by new late fees. Staff responded to Board questions. District Counsel Murphy stated more information will be compiled and shared with the Board following publication of the upcoming ACWD Board meeting packet.

General Manager Eldredge provided an overview of the legislative update report included in the Board meeting packet.

Vice President Kite commended Communications and Intergovernmental Relations Coordinator Powell on the formatting of the report and attachments.

General Manager Eldredge stated the next legislative update would likely be presented to the Board in March 2017.

### **CONSIDER A RESOLUTION CONFIRMING THE 2016 CONFLICT OF INTEREST CODE**

This item was reviewed by the Personnel Committee. District Counsel Murphy stated the Political Reform Act requires the District review its Conflict of Interest Code every two years. The code was last reviewed in 2014, and the proposed update did not include any substantive changes. If adopted, staff will submit to the County for review and approval.

It was moved by Director Fernandez, seconded by Vice President Kite, to Adopt Resolution 2792, Approving a Revised Conflict of Interest Code. Motion carried unanimously.

**CONSIDER PROPOSED CHANGES TO POLICY NO. 3070, BOARD MEMBER OFFICERS AND COMMITTEE MEMBERSHIP, TO MODIFY THE TITLES OF BOARD OFFICERS FROM PRESIDENT AND VICE-PRESIDENT TO CHAIR AND VICE-CHAIR**

District Counsel Murphy stated Vice President Kite requested the Board consider changing Board officer titles from President and Vice President to Chair and Vice Chair. At the Board meeting held October 24, 2016, the Board voted to amend the titles as requested. The purpose of this item was for the Board to consider amendments to Policy 3070, Officers and Committee Membership, to allow for modification of Board officer titles.

Secretary Lathi suggested the edits to Policy 3070 be simplified to state at the beginning of the policy that the terms Chair/President and Vice Chair/Vice President would be used interchangeably throughout, and the Board agreed by consensus.

The Board directed staff to present the item at a July meeting to formally change Board officer titles for the following fiscal year.

It was moved by Vice President Kite, seconded by Director Fernandez, to Approve Changes, as amended, to Policy No. 3070, Board Member Officers and Committee Membership, Modifying the Titles of Board Officers from President and Vice-President to Chair and Vice-Chair. Motion carried unanimously.

**CONSIDER OPTIONS FOR REVIEW OF GENERAL MANAGER EXPENSE REPORTS**

This item was reviewed by the Budget & Finance Committee. District Counsel Murphy stated a question had been raised regarding the process for review and approval of General Manager expense reports. While staff were unable to locate a policy which addressed the issue, it was discovered that such reports have been reviewed by the Budget & Finance Committee in the past. Most recently, expense reports have been reviewed and approved by the Business Services Manager/CFO with an informational report to the entire Board. District Counsel Murphy outlined the options provided in the Board meeting packet. The Budget & Finance Committee recommended the Board proceed with the option which would require General Manager expense reports be reviewed and approved by the Budget & Finance Committee, with an informational report to the entire Board to be presented in conjunction with the monthly operations report. If the Board were to proceed with said option, amendments would need to be made to the committee job descriptions accordingly.

It was moved by Secretary Lathi, seconded by Vice President Kite, to direct staff to prepare the necessary edits to the Budget & Finance Committee description to state that the Budget & Finance Committee will review and approve General Manager Expense

Reports and said reports are to be presented to the entire Board as an informational report in conjunction with the monthly operations report. Motion carried unanimously.

**AUTHORIZE THE GENERAL MANAGER TO EXECUTE AN AGREEMENT AND TASK ORDER NO. 1 WITH RMC WATER AND ENVIRONMENT FOR THE PLANT MASTER PLAN**

This item was reviewed by the Engineering and Information Technology Committee. Technical Services Manager Ghossain stated the District has completed several studies and predesigns identifying the need to construct, replace, and rehabilitate multiple facilities within the Alvarado Wastewater Treatment Plant (WWTP) site. The Plant Master Plan will include review and assessment of District projects, and summarize what is intended to be a road map for the WWTP for the next 20 to 40 years. Staff recommended the Board authorize the General Manager to execute an Agreement and Task Order No. 1 with RMC Water and Environment in the amount of \$265,217 for the Plant Master Plan.

It was moved by Director Fernandez, seconded by Director Toy, to Authorize the General Manager to Execute an Agreement and Task Order No. 1 with RMC Water and Environment in the amount of \$265,217 for the Plant Master Plan. Motion carried unanimously.

**AUTHORIZE THE GENERAL MANAGER TO EXECUTE AMENDMENT NO. 1 TO TASK ORDER NO. 2 WITH THE COVELLO GROUP, INC. FOR THE THICKENER CONTROL BUILDING IMPROVEMENTS PROJECT**

This item was reviewed by the Engineering and Information Technology Committee. Technical Services Manager Ghossain stated the purpose of this item was to provide an extension for The Covello Group to continue providing construction management services for the Thickener Control Building Improvements Project. The Project's completion date was delayed due to a number of previously unforeseen factors. Staff recommended the Board authorize the General Manager to execute Amendment No.1 to Task Order No. 2 with the Covello Group, Inc. in the amount of \$174,193 for providing extended construction management services for the Thickener Control Building Improvements Project.

It was moved by Vice President Kite, seconded by Director Fernandez, to Authorize the General Manager to execute Amendment No. 1 to Task Order No. 2 with The Covello Group, Inc. for the Thickener Control Building Improvements Project in the amount of \$174,193. Motion carried unanimously.

**AWARD THE CONSTRUCTION CONTRACT FOR THE HEADWORKS KNIFE GATE VALVES 1-3 REPLACEMENT PROJECT**

This item was reviewed by the Engineering & Information Technology Committee. Technical Services Manager Ghossain stated the Headworks Building was constructed during the 1993 Plant Upgrade Project. The Knife gate valves are housed within the

Headworks Building. The valves are over 20 years old and are at or near the end of their useful life. Staff recommended the Board award the construction contract, including Bid Alternate A, for the Knife Gate Valves 1-3 Replacement Project to D.W. Nicholson Corporation in the amount of \$478,800.

It was moved by Director Fernandez, seconded by Directory Toy, to Award the Construction Contract, including Bid Alternate A, for the Headworks Knife Gate Valves 1-3 Replacement Project to D.W. Nicholson Corporation in the amount of \$478,800. Motion carried unanimously.

**CONSIDER A RESOLUTION TO ACCEPT THE CONSTRUCTION OF THE PINE STREET EASEMENT IMPROVEMENTS PROJECT FROM VALENTINE CORPORATION AND AUTHORIZE RECORDATION OF A NOTICE OF COMPLETION**

This item was reviewed by the Engineering & Information Technology Committee. Technical Services Manager Ghossain stated the Pine Street Easement Improvements Project addressed erosion of the eastern foundation for the sewer main which parallels Mammoth Creek in Fremont. The Project eliminated structural dependence on the eastern pier and included modification to the existing bridge span. Staff recommended the Board consider a resolution to accept the construction of the Pine Street Easement Improvements Project from Valentine Corporation, and authorize recordation of a Notice of Completion.

It was moved by Vice President Kite, seconded by Secretary Lathi, to Adopt Resolution No. 2793, Accepting Construction of the Pine Street Easement Improvements Project Located in the City of Fremont, California from Valentine Corporation. Motion carried unanimously.

**CONSIDER A RESOLUTION TO ACCEPT THE CONSTRUCTION OF THE HIGH SPEED AERATION BLOWER PROJECT FROM D.W. NICHOLSON CORPORATION AND AUTHORIZE RECORDATION OF A NOTICE OF COMPLETION**

This item was reviewed by the Engineering & Information Technology Committee. Technical Services Manager Ghossain stated the High Speed Aeration Blower Project included installation of one 600-horsepower high speed aeration blower at the east aeration blower building. Staff recommended the Board consider a resolution to accept the construction of the High Speed Aeration Blower Project form D.W. Nicholson Corporation and authorize recordation of a Notice of Completion.

It was moved by Directory Toy, seconded by Secretary Lathi, to Adopt Resolution No. 2794, Accepting the Construction of the High Speed Aeration Blower Project Located in the City of Union City, California from D.W. Nicholson Corporation. Motion carried unanimously.

**INFORMATION ITEMS:**

### **Check Register**

All questions were answered to the Board's satisfaction.

### **Report on the East Bay Dischargers Authority (EBDA) Meeting of November 17, 2016**

Director Toy provided an overview of the report included in the Board Meeting Packet.

### **COMMITTEE MEETING REPORTS:**

The Legal/Community Affairs, Budget & Finance, Legislative, Engineering and Information Technology, Personnel, and Ad Hoc Committees met.

The Ad Hoc Subcommittee for Communications Strategy recently reviewed a draft communications plan developed along with staff. The Subcommittee recommended the Board review the draft plan at a future Board Workshop. Staff will reach out to the Board to schedule a date for the workshop.

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

General Manager Eldredge reported the following:

- Attended the Bay Area Biosolids to Energy (BAB2E) meeting last week which included a discussion regarding approval of its budget and agency dues. It was decided that the draft strategic plan should be finalized before review of the budget and dues. It is hoped that the strategic plan will be approved next month with revised coalition goals. General Manager Eldredge will present the BAB2E strategic plan to the Board once it becomes available.
- The District's annual employee potluck will be held in the Boardroom from 1:00 – 3:00 p.m. on Thursday, December 15, 2016.
- The California Association of Sanitation Agencies (CASA) Winter Conference will be held January 18, 19, and 20, 2017. The Board should let staff know if they would like to be registered to attend before the January 3, 2017, registration deadline.
- District offices will be closed for the holidays on the following dates: December 23, December 26, December 30, and January 2.

### **OTHER BUSINESS:**

There was no other business.

### **ADJOURNMENT:**

The meeting was adjourned at 8:37 p.m. to a Board Workshop to be held in the Alvarado Conference Room on Monday, December 19, 2016, at 6:00 p.m.

The Board will then adjourn to the next scheduled Regular Board Meeting to be held in the Boardroom on Monday, January 9, 2017, at 7:00 p.m.

SUBMITTED:

ATTEST:

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REGINA McEVOY  
BOARD SECRETARY

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ANJALI LATHI  
SECRETARY

APPROVED:

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TOM HANDLEY  
PRESIDENT

Adopted this 9<sup>th</sup> day of January, 2017

**MINUTES OF THE SPECIAL MEETING OF THE  
BOARD OF DIRECTORS OF  
UNION SANITARY DISTRICT  
December 19, 2016**

**CALL TO ORDER**

President Handley called the special meeting to order at 6:00 p.m.

**ROLL CALL**

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

STAFF: Paul Eldredge, General Manager/District Engineer  
Pamela Arends-King, Business Services Manager/CFO  
Sheila Tolbert, Human Resources Manager  
Michelle Powell, Communications and Intergovernmental Relations Coordinator

**PUBLIC COMMENT**

There was no public comment.

**COMBINED BOARD WORKSHOP**

Staff presented information related to the following topics to the Board, and responded to Board questions:

- Newsletter
- Discuss Job Descriptions for Various Positions

**ADJOURNMENT:**

The special meeting was adjourned at approximately 8:15 p.m. to the next Regular Board Meeting in the Boardroom on Monday, January 9, 2017, at 7:00 p.m.

SUBMITTED:

ATTEST:

\_\_\_\_\_  
REGINA McEVOY  
SECRETARY TO THE BOARD

\_\_\_\_\_  
ANJALI LATHI  
SECRETARY

APPROVED:

\_\_\_\_\_  
TOM HANDLEY  
PRESIDENT

Adopted this 9<sup>th</sup> day of January, 2017



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2017

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

**FROM:** Paul R. Eldredge, General Manager/District Engineer  
Sami E. Ghossain, Manager of Technical Services  
Rollie Arbolante, Customer Service Team Coach  
Karen W. Murphy, General Counsel

**SUBJECT:** Agenda Item No. 8 - Meeting of January 9, 2017  
**Consider a Resolution to Terminate Maintenance Agreement for Paseo Padre Sanitary Sewer Lift Station**

### **Recommendation**

It is recommended that the Board adopt the resolution to terminate the Maintenance Agreement for the Paseo Padre Sanitary Sewer Lift Station.

### **Background**

The District previously entered into a Maintenance Agreement for Paseo Padre Sanitary Sewer Lift Station ("Agreement") with Kaiser Development Company, Ardenwood Technology Park Associates I, Ardenwood Forest Venture, and Sutter Hill Limited, the owners of 43 lots in Local Improvement District No. 25, (collectively, the "Lot Owners") dated September 20, 1985. The Agreement provides that the costs incurred by the District in constructing the Paseo Padre Lift Station, as well as ongoing maintenance, replacement and repair costs, would be paid by the Lot Owners. The Agreement and its obligations run with the land and are applicable to subsequent owners.

The Agreement was recently brought to the attention of the District by a purchaser of one of the parcels encumbered by the Agreement. District staff subsequently researched the history of the Agreement. The District collected the construction costs for the Lift Station, as provided in the Agreement. However, while the District collected ongoing operational costs for a short

period of time, it has not collected any monies under the Agreement for at least 20 years. To the best of staff's knowledge, there are no other agreements like this within the District and this agreement had not been previously amended or terminated. This Agreement is inconsistent with the District's operational practices. The District has included all costs associated with maintaining the Paseo Padre Lift Station in its Cost of Service Analysis and has consequently received the necessary revenue to maintain the station from all rate payers, consistent with District and industry practices for pump/lift stations.

In order to acknowledge that the initial purpose of the Agreement has been satisfied and clarify in the District's records that the District no longer collects payments under the Agreement, it is recommended that the Board adopt a resolution authorizing the District to execute a Termination of the Agreement.

Attachments: Proposed Resolution and Form of Termination of Agreement

**UNION SANITARY DISTRICT  
RESOLUTION NO. \_\_\_\_**

**A RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A  
TERMINATION OF THE MAINTENANCE AGREEMENT FOR  
PASEO PADRE LIFT STATION**

WHEREAS, the District previously entered into a Maintenance Agreement for Paseo Padre Sanitary Sewer Lift Station with Kaiser Development Company, Ardenwood Technology Park Associates I, Ardenwood Forest Venture, and Sutter Hill Limited, the owners of 43 lots in Local Improvement District No. 25, dated September 20, 1985 and recorded in the Official Records of Alameda County as Document No. 85-205703 (“Agreement”); and

WHEREAS, the Agreement runs with the land and provides that the costs incurred by the District in constructing the Paseo Padre Lift Station, as well as ongoing maintenance, replacement and repair costs, would be paid by the lot owners; and

WHEREAS, the District collected the initial construction costs for the Paseo Padre Lift Station, as provided in the Agreement; and

WHEREAS, while the District initially collected ongoing costs under the Agreement, the District subsequently included the costs in its Cost of Service Analysis, similar to how the costs for all other District pump and lift stations are managed in the District and no longer collects costs under the Agreement; and

WHEREAS, the District desires to formally terminate the Agreement to acknowledge that the initial purpose of the Agreement has been satisfied and clarify in the District’s records that the District no longer collects payments under the Agreement

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE UNION SANITARY DISTRICT, AS FOLLOWS:

1. The Board hereby approves the formal termination of the Agreement.
2. The General Manager/District Engineer, or his designee, is hereby authorized to execute a termination of the Agreement, in the form attached hereto, with minor or technical revisions approved by the General Manager/District Engineer in consultation with the General Counsel.

The foregoing Resolution was duly and regularly adopted and passed by the Board of Directors of Union Sanitary District, Alameda County, California, at a meeting held on the 9th day of January, 2017.

AYES:  
NOES:  
ABSENT:  
ABSTAIN:

---

Tom Handley  
President, Board of Directors  
UNION SANITARY DISTRICT

Attest:

---

Anjali Lathi  
Secretary, Board of Directors  
UNION SANITARY DISTRICT

RECORDING REQUESTED BY )  
AND WHEN RECORDED MAIL TO: )  
 )  
Union Sanitary District )  
5072 Benson Road )  
Union City, CA 94587-2508 )  
Attention: District Secretary )  
 )

---

*The document is exempt from the payment of a recording fee pursuant to Government Code § 27383*

**ACKNOWLEDGEMENT OF TERMINATION OF MAINTENANCE AGREEMENT**

THIS ACKNOWLEDGEMENT OF TERMINATION OF DEVELOPMENT AGREEMENT (“**Acknowledgment**”) is made by the UNION SANITARY DISTRICT, a California sanitary district (“**District**”), in favor of KAISER DEVELOPMENT COMPANY, a California corporation, ARDENWOOD TECHNOLOGY PARK ASSOCIATES I, a California general partnership, and ARDENWOOD FOREST VENTURE, a California general partnership, and SUTTER HILL LIMITED, a California corporation (collectively, the “**Lot Owners**”), as of the date set forth below.

RECITALS

A. District and Lot Owners are parties to that certain Maintenance Agreement for Paseo Padre Sanitary Sewer Lift Station, dated September 20, 1985 and recorded in the Official Records of Alameda County as Document No. 85-205703 (“**Agreement**”) concerning those certain real properties located in the City of Fremont, California legally described in Exhibit “A” attached hereto and made a part hereof.

B. The District collected the initial construction costs for the Paseo Padre Lift Station, as provided in Section 1 of the Agreement, and no longer collects costs under the Agreement.

C. The District desires to record a written statement acknowledging the termination of the Agreement.

NOW, THEREFORE, District hereby acknowledges and agrees as follows:

1. The Lot Owners have funded the initial construction of the Paseo Padre Lift Station and the District no longer collects costs under the Agreement.
2. The Agreement has terminated as of the date set forth below.

IN WITNESS WHEREOF, District has executed this Acknowledgement as of the date of execution set forth below.



EXHIBIT A

**LEGAL DESCRIPTION**

*[to be inserted]*



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2017

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

**FROM:** Paul R. Eldredge, General Manager/District Engineer  
Sami E. Ghossain, Manager of Technical Services  
Rollie Arbolante, Customer Service Team Coach  
Rod Schurman, Associate Engineer

**SUBJECT:** Agenda Item No. 9 - Meeting of January 9, 2017  
**Consider a Resolution to Accept a Sanitary Sewer Easement for Tract 8158 – Darrow Farm, located near Mission Boulevard west of Interstate 680 in the City of Fremont**

### **Recommendation**

Consider a resolution to accept a sanitary sewer easement for Tract 8158 – Darrow Farm, located near Mission Boulevard, west of Interstate 680, in the city of Fremont.

### **Background**

Robson Homes, LLC is constructing twenty-four single-family residential units for Tract 8158, at 42425 Mission Boulevard, west of Interstate 680, in the city of Fremont. A vicinity map is attached. Sanitary sewer service to the residential development will be provided by a new 8-inch main in Emory Terrace and Emory Common, connected to an existing 8-inch main in an existing sanitary sewer easement off of Via San Dimas. The roadways of the development do not meet the City of Fremont street dimensions and structure setback requirements for public streets and were, therefore, designated as private streets. Robson Homes, LLC has constructed the new 8-inch sewer main and has granted the District a sanitary sewer easement that provides for access, maintenance and service of the new sewer mains in the private roadways of the development.

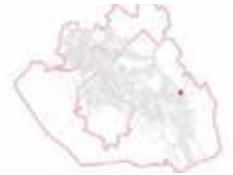
District staff has reviewed the legal description and plat map of the easement, and recommends approval.

PRE/SEG/RA/RS:ks

Attachments: Vicinity Map  
Resolution  
Grant of Easement with Exhibits A and B

# GRANT OF EASEMENT

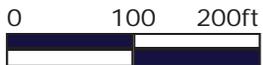
Vicinity Map, Tract 8158 - Darrow Farm



## Legend

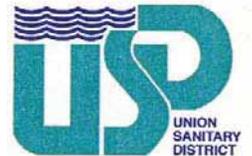
- Streets
- Curbs
- Parcels
- 2014 Aerial Photo
- Sewer Easement
- Sewer Main

For USD use only



**Disclaimer:**

The information on this map is provided by Union Sanitary District (USD) for internal use only. Such information is derived from multiple sources which may not be current, be outside the control of USD, and may be of indeterminate accuracy. The information provided hereon may be inaccurate or out of date and any person or entity who relies on said information for any purpose whatsoever does so solely at their own risk.



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

**ACCEPT A SANITARY SEWER EASEMENT FOR  
TRACT 8158 – DARROW FARM  
LOCATED NEAR MISSION BOULEVARD WEST OF INTERSTATE 680  
IN THE CITY OF FREMONT, CALIFORNIA**

RESOLVED by the Board of Directors of UNION SANITARY DISTRICT, that it hereby accepts the Grant of Easement from Robson Homes LLC, executed on March 27, 2015, as described in the Grant of Easement for Sanitary Sewer Purposes and by attached Exhibit A and Exhibit B.

FURTHER RESOLVED by the Board of Directors of UNION SANITARY DISTRICT that it hereby authorizes the General Manager/District Engineer, or his designee, to attend to the recordation thereof.

On motion duly made and seconded, this resolution was adopted by the following vote on January 9, 2017:

AYES:

NOES:

ABSENT:

ABSTAIN:

---

TOM HANDLEY  
President, Board of Directors  
Union Sanitary District

Attest:

---

ANJALI LATHI  
Secretary, Board of Directors  
Union Sanitary District

**GRANT OF EASEMENT**

**FOR SANITARY SEWER PURPOSES**

THIS INDENTURE, made this 27<sup>th</sup> day of MARCH, 2015, by and between Robson Homes, LLC, the Party/~~Parties~~ of the First Part, and Union Sanitary District, the Party/~~Parties~~ of the Second Part,

**WITNESSETH:**

That said Party/~~Parties~~ of the First Part does hereby grant to the Party of the Second Part and to its successors and assigns forever, for the use and purposes herein stated, the rights of way and easements hereinafter described, located in the City of Fremont, County of Alameda, State of California:

**See Exhibit "A" and Exhibit "B"**

together with the right and privilege of constructing, reconstructing, cleaning, repairing and maintaining at any time, a sanitary sewer and appurtenances along, upon, over, in, through and across the above described property; together with free ingress and egress to and for the said Party of the Second Part, its successors and assigns, its agents and employees, workmen, contractors, equipment, vehicles and tools, along, upon, over, in, through and across said right of way; together with the right of access by its successors and assigns, its agents and employees, workmen, contractors, equipment, vehicles and tools to said right of way from the nearest public street, over and across the adjoining property, if such there be; otherwise by such route or routes across said adjoining property as shall occasion the least practicable damage and inconvenience to the Party of the First Part, for constructing, cleaning, repairing and maintaining said sanitary sewer and appurtenances; together with free ingress and egress over the land immediately adjoining for maintenance, repair and replacement as well as the initial construction of said sewer.

IN WITNESS WHEREOF the said Party/~~Parties~~ of the First Part have executed this indenture the day and year first above written.

**Party/~~Parties~~ of the First Part**

Robson Homes, LLC, a California limited liability company; By: Robson Properties Inc., a California Corporation, Its **Manager**



**Signature**

By: Mark E. Robson, President

(Notarize)

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

**CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )  
County of Santa Clara )  
On March 27, 2015 before me, Katherine Saviano  
Date Here Insert Name and Title of the Officer  
personally appeared Mark E. Robson  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Katherine Saviano  
Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_  
Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

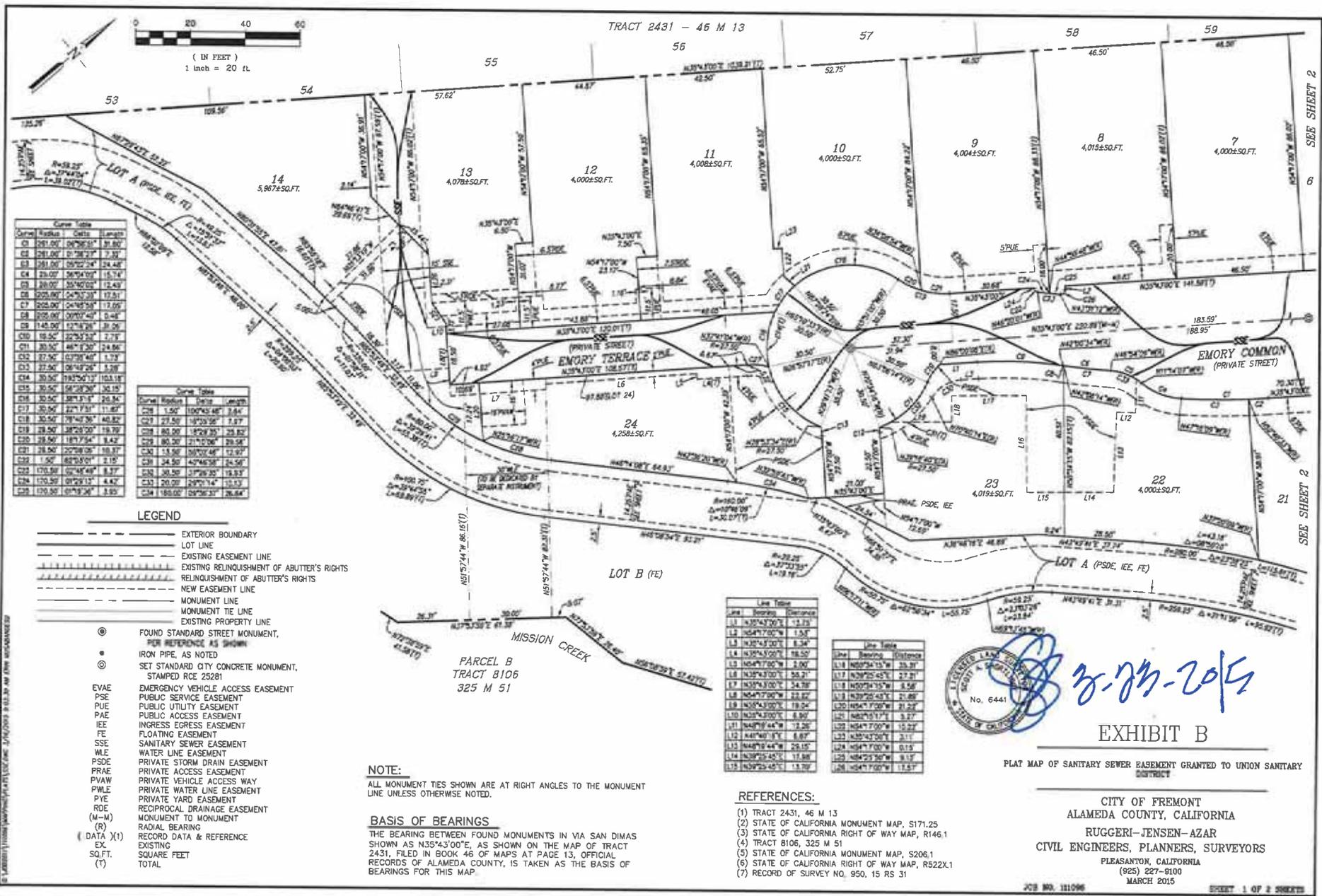
Signer's Name: \_\_\_\_\_  
 Corporate Officer -- Title(s): \_\_\_\_\_  
 Partner --  Limited  General  
 Individual  Attorney in Fact  
 Trustee  Guardian or Conservator  
 Other: \_\_\_\_\_  
Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_  
 Corporate Officer -- Title(s): \_\_\_\_\_  
 Partner --  Limited  General  
 Individual  Attorney in Fact  
 Trustee  Guardian or Conservator  
 Other: \_\_\_\_\_  
Signer Is Representing: \_\_\_\_\_

**EXHIBIT A**

**Real property** situate in the City of Fremont, County of Alameda, State of California, and being all of the Private Streets known as Emory Common and Emory Terrace, along with the Sanitary Sewer Easement(s) as labeled "SSE" dedicated and shown on Exhibit B – Plat Map of Sanitary Sewer Easement Granted to Union Sanitary District.





Curve	Radius	Chord	Delta	Length
C1	261.00'	107.9631'	31.80°	7.30'
C2	261.00'	107.9631'	31.80°	7.30'
C3	261.00'	107.9631'	31.80°	7.30'
C4	261.00'	107.9631'	31.80°	7.30'
C5	261.00'	107.9631'	31.80°	7.30'
C6	261.00'	107.9631'	31.80°	7.30'
C7	261.00'	107.9631'	31.80°	7.30'
C8	261.00'	107.9631'	31.80°	7.30'
C9	261.00'	107.9631'	31.80°	7.30'
C10	261.00'	107.9631'	31.80°	7.30'
C11	261.00'	107.9631'	31.80°	7.30'
C12	261.00'	107.9631'	31.80°	7.30'
C13	261.00'	107.9631'	31.80°	7.30'
C14	261.00'	107.9631'	31.80°	7.30'
C15	261.00'	107.9631'	31.80°	7.30'
C16	261.00'	107.9631'	31.80°	7.30'
C17	261.00'	107.9631'	31.80°	7.30'
C18	261.00'	107.9631'	31.80°	7.30'
C19	261.00'	107.9631'	31.80°	7.30'
C20	261.00'	107.9631'	31.80°	7.30'
C21	261.00'	107.9631'	31.80°	7.30'
C22	261.00'	107.9631'	31.80°	7.30'
C23	261.00'	107.9631'	31.80°	7.30'
C24	261.00'	107.9631'	31.80°	7.30'
C25	261.00'	107.9631'	31.80°	7.30'

Curve	Radius	Chord	Delta	Length
C26	261.00'	107.9631'	31.80°	7.30'
C27	261.00'	107.9631'	31.80°	7.30'
C28	261.00'	107.9631'	31.80°	7.30'
C29	261.00'	107.9631'	31.80°	7.30'
C30	261.00'	107.9631'	31.80°	7.30'
C31	261.00'	107.9631'	31.80°	7.30'
C32	261.00'	107.9631'	31.80°	7.30'
C33	261.00'	107.9631'	31.80°	7.30'
C34	261.00'	107.9631'	31.80°	7.30'
C35	261.00'	107.9631'	31.80°	7.30'
C36	261.00'	107.9631'	31.80°	7.30'
C37	261.00'	107.9631'	31.80°	7.30'
C38	261.00'	107.9631'	31.80°	7.30'
C39	261.00'	107.9631'	31.80°	7.30'
C40	261.00'	107.9631'	31.80°	7.30'
C41	261.00'	107.9631'	31.80°	7.30'
C42	261.00'	107.9631'	31.80°	7.30'
C43	261.00'	107.9631'	31.80°	7.30'
C44	261.00'	107.9631'	31.80°	7.30'
C45	261.00'	107.9631'	31.80°	7.30'

- LEGEND**
- EXTERIOR BOUNDARY
  - LOT LINE
  - EXISTING EASEMENT LINE
  - EXISTING RELINQUISHMENT OF ABUTTER'S RIGHTS
  - RELINQUISHMENT OF ABUTTER'S RIGHTS
  - NEW EASEMENT LINE
  - MONUMENT LINE
  - MONUMENT LINE
  - EXISTING PROPERTY LINE
  - FOUND STANDARD STREET MONUMENT, PER REFERENCE AS SHOWN
  - IRON PIPE, AS NOTED
  - SET STANDARD CITY CONCRETE MONUMENT, STAMPED RCE 25281
  - EVAE EMERGENCY VEHICLE ACCESS EASEMENT
  - PSE PUBLIC SERVICE EASEMENT
  - PUE PUBLIC UTILITY EASEMENT
  - PAE PUBLIC ACCESS EASEMENT
  - IEE INGRESS EGRESS EASEMENT
  - FE FLOODING EASEMENT
  - SSE SANITARY SEWER EASEMENT
  - WLE WATER LINE EASEMENT
  - PSDE PRIVATE STORM DRAIN EASEMENT
  - PRAE PRIVATE ACCESS EASEMENT
  - PVAW PRIVATE VEHICLE ACCESS WAY
  - PWLE PRIVATE WATER LINE EASEMENT
  - PYE PRIVATE YARD EASEMENT
  - RDE RECIPROCAL DRAINAGE EASEMENT
  - (M-M) MONUMENT TO MONUMENT
  - (R) RADIAL BEARING
  - (DATA X(1)) RECORD DATA & REFERENCE
  - EX. EXISTING
  - SQ.FT. SQUARE FEET
  - (T) TOTAL

**NOTE:**  
 ALL MONUMENT TIES SHOWN ARE AT RIGHT ANGLES TO THE MONUMENT LINE UNLESS OTHERWISE NOTED.

**BASIS OF BEARINGS**  
 THE BEARING BETWEEN FOUND MONUMENTS IN VIA SAN DIMAS SHOWN AS N35°43'00"E, AS SHOWN ON THE MAP OF TRACT 2431, FILED IN BOOK 46 OF MAPS AT PAGE 13, OFFICIAL RECORDS OF ALAMEDA COUNTY, IS TAKEN AS THE BASIS OF BEARINGS FOR THIS MAP.

Line	Bearing	Distance
L1	N35°43'00"E	13.73'
L2	N54°17'00"W	1.58'
L3	N35°43'00"E	8.34'
L4	N35°43'00"E	18.50'
L5	N04°17'00"W	3.00'
L6	N35°43'00"E	50.31'
L7	N35°43'00"E	54.78'
L8	N04°17'00"W	22.87'
L9	N35°43'00"E	19.54'
L10	N35°43'00"E	8.80'
L11	N04°17'00"W	13.26'
L12	N04°17'00"W	8.87'
L13	N04°17'00"W	28.15'
L14	N35°43'00"E	11.88'
L15	N35°43'00"E	13.70'

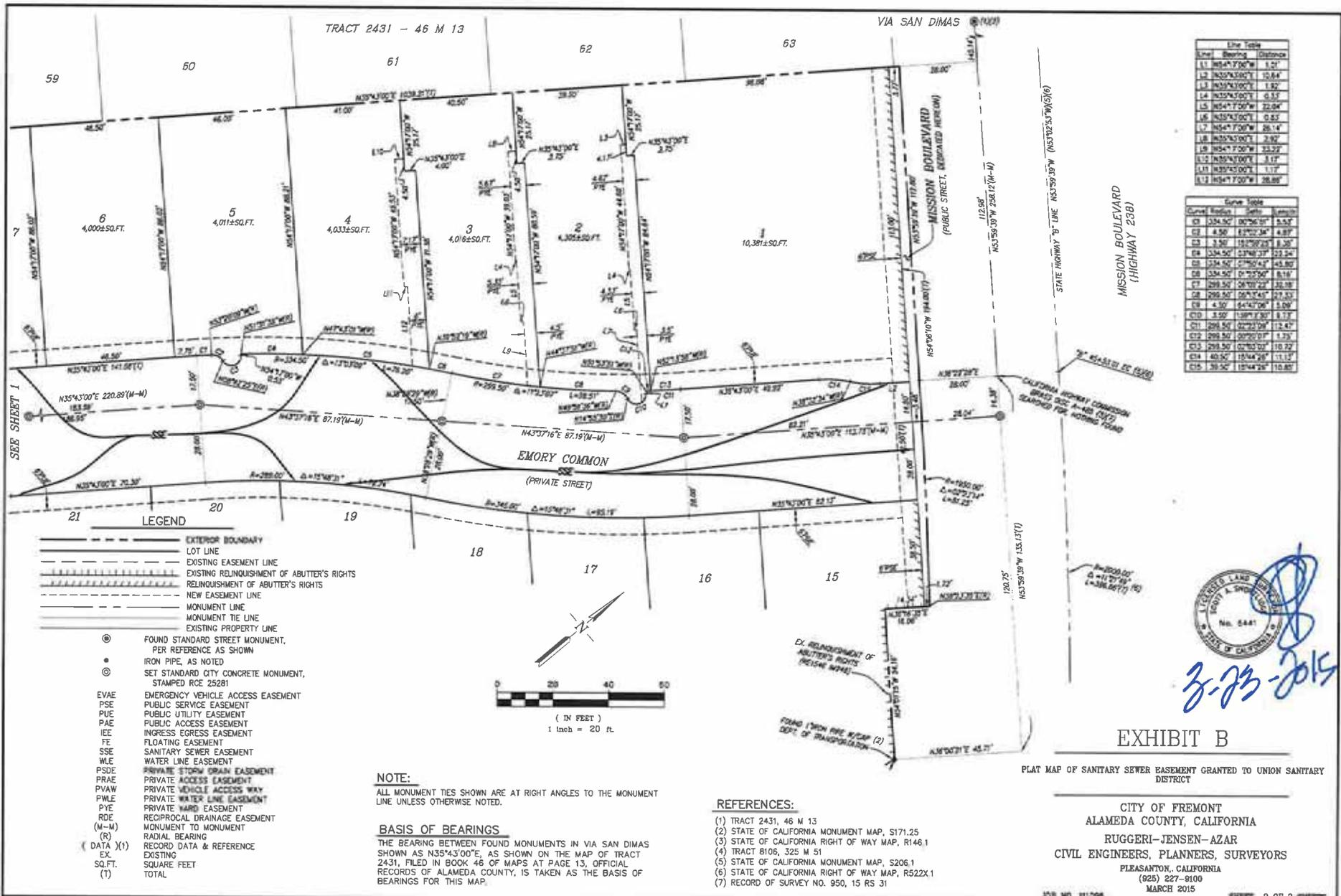


*8-23-2015*

**EXHIBIT B**

PLAT MAP OF SANITARY SEWER EASEMENT GRANTED TO UNION SANITARY DISTRICT

CITY OF FREMONT  
 ALAMEDA COUNTY, CALIFORNIA  
 RUGGERI-JENSEN-AZAR  
 CIVIL ENGINEERS, PLANNERS, SURVEYORS  
 PLEASANTON, CALIFORNIA  
 (925) 227-9100  
 MARCH 2015



3-23-2015

SEAL OF THE SURVEYOR  
 JOHN A. SHUGART  
 No. 5441  
 STATE OF CALIFORNIA

**EXHIBIT B**

PLAT MAP OF SANITARY SEWER EASEMENT GRANTED TO UNION SANITARY DISTRICT

CITY OF FREMONT  
 ALAMEDA COUNTY, CALIFORNIA  
 RUGGERI-JENSEN-AZAR  
 CIVIL ENGINEERS, PLANNERS, SURVEYORS  
 PLEASANTON, CALIFORNIA  
 (925) 227-9100  
 MARCH 2015



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2017

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

**FROM:** Paul R. Eldredge, General Manager/District Engineer  
Sami E. Ghossain, Manager of Technical Services  
Rollie Arbolante, Customer Service Team Coach  
Rod Schurman, Associate Engineer

**SUBJECT:** Agenda Item No. 10 - Meeting of January 9, 2017  
**Consider a Resolution to Accept a Sanitary Sewer Easement for Tract 8207 – Palmdale Estates Phase 1A, Located near Mission Boulevard west of Saint Joseph Terrace in the City of Fremont**

### **Recommendation**

Consider a resolution to accept a sanitary sewer easement for Tract 8207 – Palmdale Estates Phase 1A, located on Mission Boulevard west of Saint Joseph Terrace in the city of Fremont.

### **Background**

Robson Homes, LLC is constructing fifteen single-family residential units for Phase 1A of Tract 8207, at 43151 Mission Boulevard, west of Saint Joseph Terrace, in the city of Fremont. A vicinity map is attached. Sanitary sewer service to the residential development will be provided by new 8-inch mains in Calle Hermana, Calle Familia, Avenida Palmdale and Bryant Terrace, connected to an existing 8-inch main in Bryant Terrace. The roadways of the development do not meet the City of Fremont street dimensions and structure setback requirements for public streets and were, therefore, designated as private streets. Robson Homes, LLC has constructed the new 8-inch sewer mains and has granted the District a sanitary sewer easement that provides for access, maintenance and service of the new sewer mains in the private roadways of the development.

District staff has reviewed the legal description and plat map of the easement, and recommends approval.

PRE/SEG/RA/RS:ks

Attachments: Vicinity Map  
Resolution  
Grant of Easement with Exhibits A and B

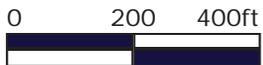
# GRANT OF EASEMENT

## Vicinity Map, Tract 8207 - Palmdale Estates Phase 1A



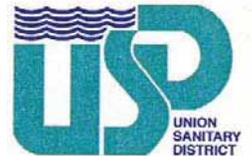
### Legend

- Streets
- Curbs
- Parcels
- 2014 Aerial Photo
- Sewer Easement
- Sewer Main



### For USD use only

*Disclaimer:*  
The information on this map is provided by Union Sanitary District (USD) for internal use only. Such information is derived from multiple sources which may not be current, be outside the control of USD, and may be of indeterminate accuracy. The information provided hereon may be inaccurate or out of date and any person or entity who relies on said information for any purpose whatsoever does so solely at their own risk.



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

**ACCEPT A SANITARY SEWER EASEMENT FOR  
TRACT 8207 – PALMDALE ESTATES PHASE 1A  
LOCATED NEAR MISSION BOULEVARD WEST OF SAINT JOSEPH TERRACE  
IN THE CITY OF FREMONT, CALIFORNIA**

RESOLVED by the Board of Directors of UNION SANITARY DISTRICT, that it hereby accepts the Grant of Easement from Robson Homes LLC, executed on April 5, 2016, as described in the Grant of Easement for Sanitary Sewer Purposes and by attached Exhibit A and Exhibit B.

FURTHER RESOLVED by the Board of Directors of UNION SANITARY DISTRICT that it hereby authorizes the General Manager/District Engineer, or his designee, to attend to the recordation thereof.

On motion duly made and seconded, this resolution was adopted by the following vote on January 9, 2017:

AYES:

NOES:

ABSENT:

ABSTAIN:

---

TOM HANDLEY  
President, Board of Directors  
Union Sanitary District

Attest:

---

ANJALI LATHI  
Secretary, Board of Directors  
Union Sanitary District

**GRANT OF EASEMENT**

**FOR SANITARY SEWER PURPOSES**

THIS INDENTURE, made this 5<sup>th</sup> day of April 2016, by and between Robson Homes, LLC, the Party/Parties of the First Part, and Union Sanitary District, the Party/Parties of the Second Part,

**WITNESSETH:**

That said Party/Parties of the First Part does hereby grant to the Party of the Second Part and to its successors and assigns forever, for the use and purposes herein stated, the rights of way and easements hereinafter described, located in the City of Fremont, County of Alameda, State of California:

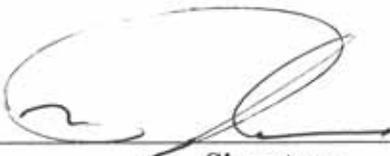
**See Exhibit "A" and Exhibit "B"**

together with the right and privilege of constructing, reconstructing, cleaning, repairing and maintaining at any time, a sanitary sewer and appurtenances along, upon, over, in, through and across the above described property; together with free ingress and egress to and for the said Party of the Second Part, its successors and assigns, its agents and employees, workmen, contractors, equipment, vehicles and tools, along, upon, over, in, through and across said right of way; together with the right of access by its successors and assigns, its agents and employees, workmen, contractors, equipment, vehicles and tools to said right of way from the nearest public street, over and across the adjoining property, if such there be; otherwise by such route or routes across said adjoining property as shall occasion the least practicable damage and inconvenience to the Party of the First Part, for constructing, cleaning, repairing and maintaining said sanitary sewer and appurtenances; together with free ingress and egress over the land immediately adjoining for maintenance, repair and replacement as well as the initial construction of said sewer.

IN WITNESS WHEREOF the said Party/Parties of the First Part have executed this indenture the day and year first above written.

**Party/Parties of the First Part**

Robson Homes, LLC, a California limited liability company; By: Robson Properties Inc., a California Corporation, Its Manager

  
\_\_\_\_\_  
**Signature**

By: Mark E. Robson, President

(Notarize)

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

**CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )  
County of SANTA CLARA )  
On APRIL 5 2014 before me, SUSAN BUNCE, NOTARY PUBLIC  
Date Here Insert Name and Title of the Officer  
personally appeared MARIE E. ROBSON  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.  
Signature [Handwritten Signature]  
Signature of Notary Public



Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_  
Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_  
 Corporate Officer — Title(s): \_\_\_\_\_  
 Partner —  Limited  General  
 Individual  Attorney in Fact  
 Trustee  Guardian or Conservator  
 Other: \_\_\_\_\_  
Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_  
 Corporate Officer — Title(s): \_\_\_\_\_  
 Partner —  Limited  General  
 Individual  Attorney in Fact  
 Trustee  Guardian or Conservator  
 Other: \_\_\_\_\_  
Signer Is Representing: \_\_\_\_\_

November 22, 2016

EXHIBIT "A"

LEGAL DESCRIPTION FOR

**SANITARY SEWER EASEMENT (SSE)  
CITY OF FREMONT, CALIFORNIA**

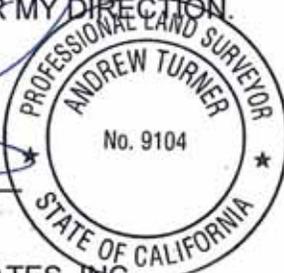
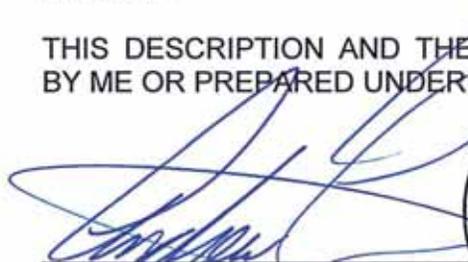
ALL THAT CERTAIN REAL PROPERTY SITUATE IN THE CITY OF FREMONT,  
COUNTY OF ALAMEDA, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEING ALL OF LOTS B, C, D & E, LABELED AS S.S.E. – SANITARY SEWER  
EASEMENT AS SHOWN UPON THAT CERTAIN SUBDIVISION MAP ENTITLED  
"TRACT 8207", RECORDED DECEMBER 18, 2015 IN BOOK 337 OF MAPS, AT  
PAGES 1-11 IN THE OFFICE OF THE RECORDER OF SAID ALAMEDA COUNTY

CONTAINING AN AREA OF 26,076 SQUARE FEET (0.599 ACRES) OF LAND,  
MORE OR LESS.

A PLAT ENTITLED "EXHIBIT B" IS ATTACHED HERETO AND MADE A PART  
HEREOF.

THIS DESCRIPTION AND THE ACCOMPANYING PLAT WERE PREPARED  
BY ME OR PREPARED UNDER MY DIRECTION.



ANDREW TURNER  
LS 9104  
CIVIL ENGINEERING ASSOCIATES, INC.  
JOB NO. 12-134

11/22/16  
DATE

# EXHIBIT B

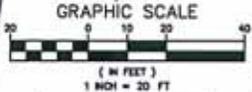
PLAT MAP OF SANITARY SEWER EASEMENT GRANTED TO UNION SANITARY DISTRICT.  
CITY OF FRODOPT, ALAMEDA COUNTY, CALIFORNIA



**Civil Engineering Associates**

Civil Engineers • Planners • Surveyors

224 Airport Parkway Suite 525  
San Jose, CA 95110



### LEGEND

- DISTINCTIVE BOUNDARY
- RIGHT OF WAY
- NEW LOT LINE
- EXISTING LOT LINE
- CENTERLINE
- MONUMENT LINE
- NEW EASEMENT LINE
- EXISTING EASEMENT LINE
- BOUNDARY TO
- ⊙ FOUND BRASS DISK IN CITY MONUMENT WELL (AS NOTED)
- SET STANDARD PUBLIC STREET MONUMENT
- FOUND IRON PIPE (AS NOTED)
- SET 3" IRON PIPE, TAGGED R.C.E. 31954
- (M-M) MONUMENT TO MONUMENT
- (PL-M) PROPERTY LINE TO MONUMENT
- (100.00') RECORD DATA
- (R) RADIAL BEARING
- (T) TOTAL
- SWF SEARCHED FOR NOT FOUND
- A.E. ACCESS EASEMENT
- C.C. CONSERVATION EASEMENT
- E.V.A.E. EMERGENCY VEHICLE ACCESS EASEMENT
- F.O. FOR BENEFIT OF
- L.C. LANDSCAPE EASEMENT
- P.E. PEDESTRIAN EASEMENT
- P.D.E. PRIVATE DRAINAGE EASEMENT
- P.I.E.E. PRIVATE INGRESS AND EGRESS EASEMENT
- P.P.A.E. PRIVATE PEDESTRIAN ACCESS EASEMENT
- P.S.S.E. PRIVATE SANITARY SEWER EASEMENT
- P.S.Y.E. PRIVATE SIDE YARD EASEMENT
- P.S.D.E. PRIVATE STORM DRAIN EASEMENT
- P.U.V.E. PRIVATE UTILITY AND VEHICLE EASEMENT
- P.W.L.E. PRIVATE WATER LINE EASEMENT
- P.U.E. PUBLIC UTILITY EASEMENT
- S.S.E. SANITARY SEWER EASEMENT
- S.D.E. STORM DRAIN EASEMENT
- T.A.E. TRASH AREA EASEMENT
- U.E. UTILITY EASEMENT (PRIVATE)
- W.L.E. WATER LINE EASEMENT

LINE #	BEARING	LENGTH
L1	N82°54'32"E	54.75'
L2	N82°54'32"E	54.75'
L3	N82°54'32"E	54.75'
L4	N82°54'32"E	54.75'
L5	N82°54'32"E	54.75'
L6	N82°54'32"E	54.75'
L7	N82°54'32"E	54.75'
L8	N82°54'32"E	54.75'
L9	N82°54'32"E	81.00'
L10	N82°54'32"E	58.00'
L11	N82°54'32"E	58.50'
L12	N82°54'32"E	56.50'

CURVE #	RADIUS	DELTA	LENGTH
C1	25.00'	73°54'	3.30'
C2	25.00'	113°22'	5.07'



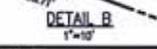
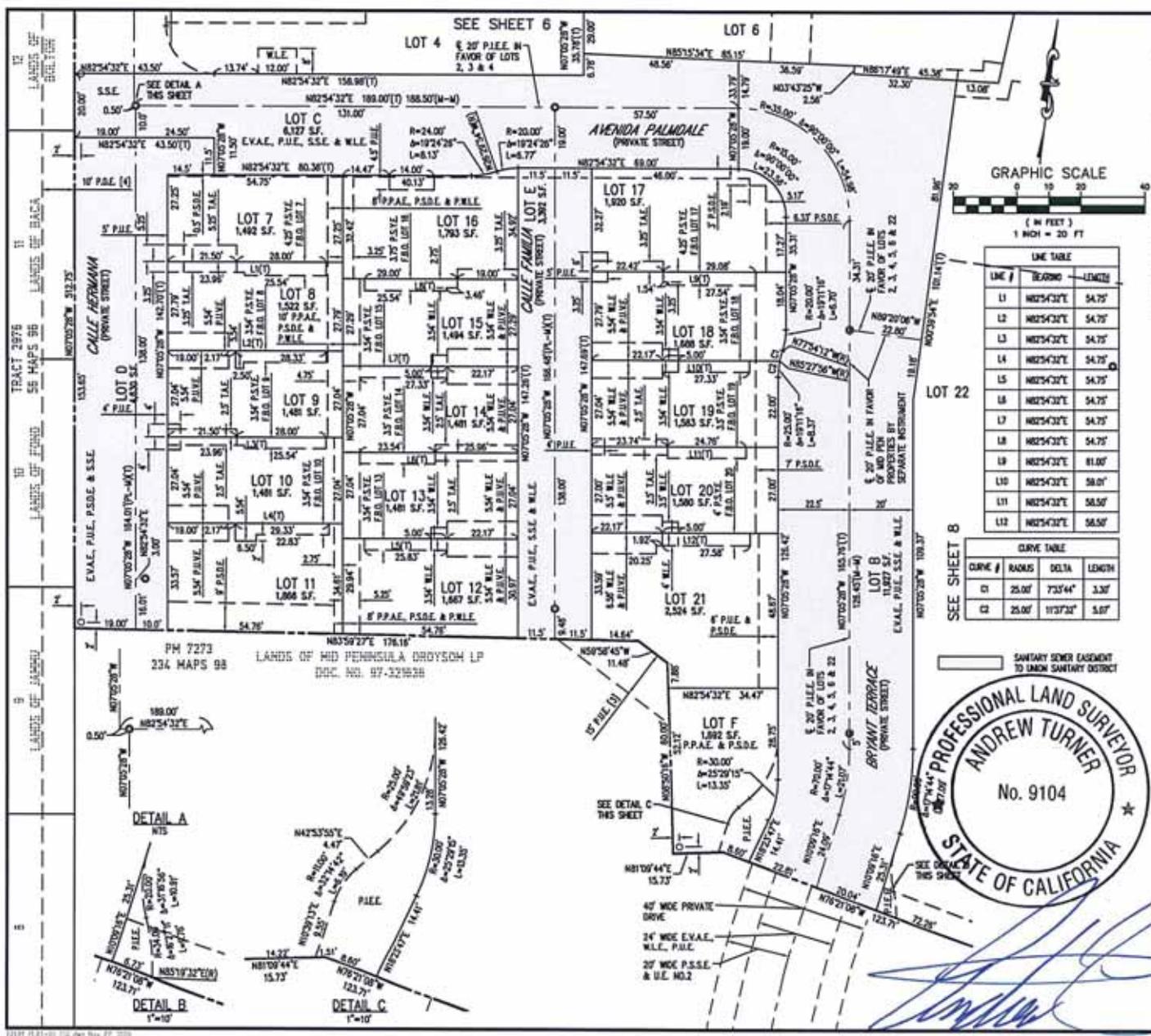
### NOTES

- ALL DIMENSIONS SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF.
- THE AREA WITHIN THE DISTINCTIVE BORDER = 14.84 ACRES.

### BASIS OF BEARINGS

THE BEARING, NORTH 81°01'01" EAST, ON THE CENTERLINE OF WASHINGTON BOULEVARD, BETWEEN THE FOUND MONUMENTS AT MISSION BOULEVARD AND STARR STREET, AS SAID CENTERLINE AND MONUMENTS ARE SHOWN ON THAT CERTAIN PARCEL MAP BASE, RECORDED IN BOOK 213 OF MAPS AT PAGES 45. ALAMEDA COUNTY RECORDS, WAS USED AS THE BASIS OF ALL BEARINGS SHOWN ON THIS MAP.

11/22/16



11/21/16 10:00 AM 11/22/16



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2017

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

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

**SUBJECT:** Agenda Item No. 11 - Meeting of January 9, 2017  
**Authorize the General Manager to Execute Task Order No. 2 with Carollo Engineers for the Plant Solids System/Capacity Assessment**

### **Recommendation**

Staff recommends the Board authorize the General Manager to execute Task Order No. 2 with Carollo Engineers (Carollo) in the amount of \$279,698 for the Plant Solids System/Capacity Assessment (Project).

### **Background**

The District's Alvarado Wastewater Treatment Plant currently treats approximately 22 million gallons per day (mgd) based on average dry weather flows. Since 2004, the plant's influent flows have been steadily decreasing while influent total suspended solids (TSS) and biochemical oxygen demand (BOD) mass loading rates have been increasing. Figure 2 shows the monthly average flows and mass loading rates for the period of July 2006 to June 2016. The treatment plant is currently rated for a treatment capacity of 33 mgd, this capacity was based on lower influent solids concentrations than those currently experienced (257 mg/l vs 357 mg/l Average Daily Dry Weather TSS). In addition, regulatory requirements to implement nutrient removal, and other future projects such as achieving energy neutrality may impact the plant's operations and further affect treatment capacity.

On November 23, 2015, the Board authorized the General Manager to execute an Agreement and Task Order No. 1 with Carollo in the amount of \$238,117 for the first phase of the Project. In Phase 1, the purpose of the assessment was to determine the current capacity of the treatment plant solids system, more specifically, for the removal of conventional pollutants (BOD, TSS) for all solids treatment unit processes, operations, and associated conveyance systems, such as: Sludge Degritting, Gravity Thickening, Gravity Belt Thickening, Digestion, and Sludge Dewatering.

In addition to the capacity assessment of the current solids processes, the District also evaluated planning for potential changes in the future, or treatment process improvements. This evaluation included:

1. Identifying methods by which to produce Class A biosolids for the 33 mgd flow scenario,
2. Identifying improvements that could help the plant achieve energy neutrality for current conditions and at 33 mgd with and without Class A processes, and
3. Identifying additional regulations that should be addressed.

It is anticipated that the Phase 1 report will be finalized once the Phase 2 report is complete, with both reports being combined into a single document. These two reports will be key components of the Plant Master Plan project that is currently underway. Once both phases are completed, a detailed report will be presented to the Board for discussion and consideration. Some key findings from Phase 1 of the Project are as follows:

- Current biosolids loadings for anaerobic digestion have reached the original design capacity with all digesters in service. Primary Digester No. 6, the largest digester, cannot reliably be taken out of service for cleaning until additional digestion capacity is provided. Adding Digester 7 should be started as soon as possible.
- Co-digestion of external feedstock can help the plant achieve energy neutrality. However, to produce and utilize additional digester gas the District needs to construct a receiving station and expand the existing cogeneration and gas conditioning systems and explore other methods of reusing the additional digester gas. The payback period associated with these improvements is currently being evaluated and will be discussed in more detail at a later date.

The second phase of the Project will determine the current capacity of the liquids side of the treatment plant unit processes, which includes: Headworks, Primary Clarifiers, Aeration Basins, Secondary Clarifiers, and Chlorine Contact Basin. The existing liquid treatment systems will be studied, similar to Phase 1, and methods for process optimization.

## Project Scope

The main goals of Phase 2 of the Project are as follows:

- Evaluate the existing liquid treatment capacity of all unit processes and operations with current and anticipated future solids loadings.
- Determine the current capacity of the treatment plant for treating conventional pollutants relative to current influent conditions.
- Recommend project(s) to improve operation and efficiency the existing liquids treatment of all unit processes or identify alternate treatment strategies to ensure that the District is able to maintain a stable and compliant activated sludge treatment system for existing and future anticipated flows and loadings.

The capacity evaluation will include the further development of a dynamic process model to determine the capacity of the plant's existing liquids system processes using current influent loading concentrations. Recommendations to improve operations, increase capacity, and/or increase stability of the existing processes will be described and included in planning level costs.

The scope of work and fees for this project are summarized below:

Task	Description	Fee
1	Project Plan and Project Management	\$16,789
2	Project Overall Approach	\$13,350
3	Solids System/Capacity Assessment Report Outline and Table of Contents	\$2,477
4	Existing Activated Sludge Process Optimization	\$34,988
5	Basis of Analysis (Liquids Treatment Facilities)	\$22,924
6	Capacity Evaluation and Process Optimization (Liquids Treatment Facilities)	\$105,131
7	Executive Summary and CIP Development	\$28,276
8	Workshop Nos. 1 and 2	\$18,466
9	Draft and Final Reports	\$26,029
10	District Presentation to Board of Directors	\$11,268
	<b>Total Not-to-Exceed Fee</b>	<b>\$279,698</b>

Staff has reviewed the scope and fee and found the proposal to be reasonable, considering the required level of effort. All work under this task order is expected to be completed by November 2017.

Staff recommends the Board authorize the General Manager to execute Task Order No. 2 with Carollo Engineers in the amount of \$279,698 for the Plant Solids System/Capacity Assessment.

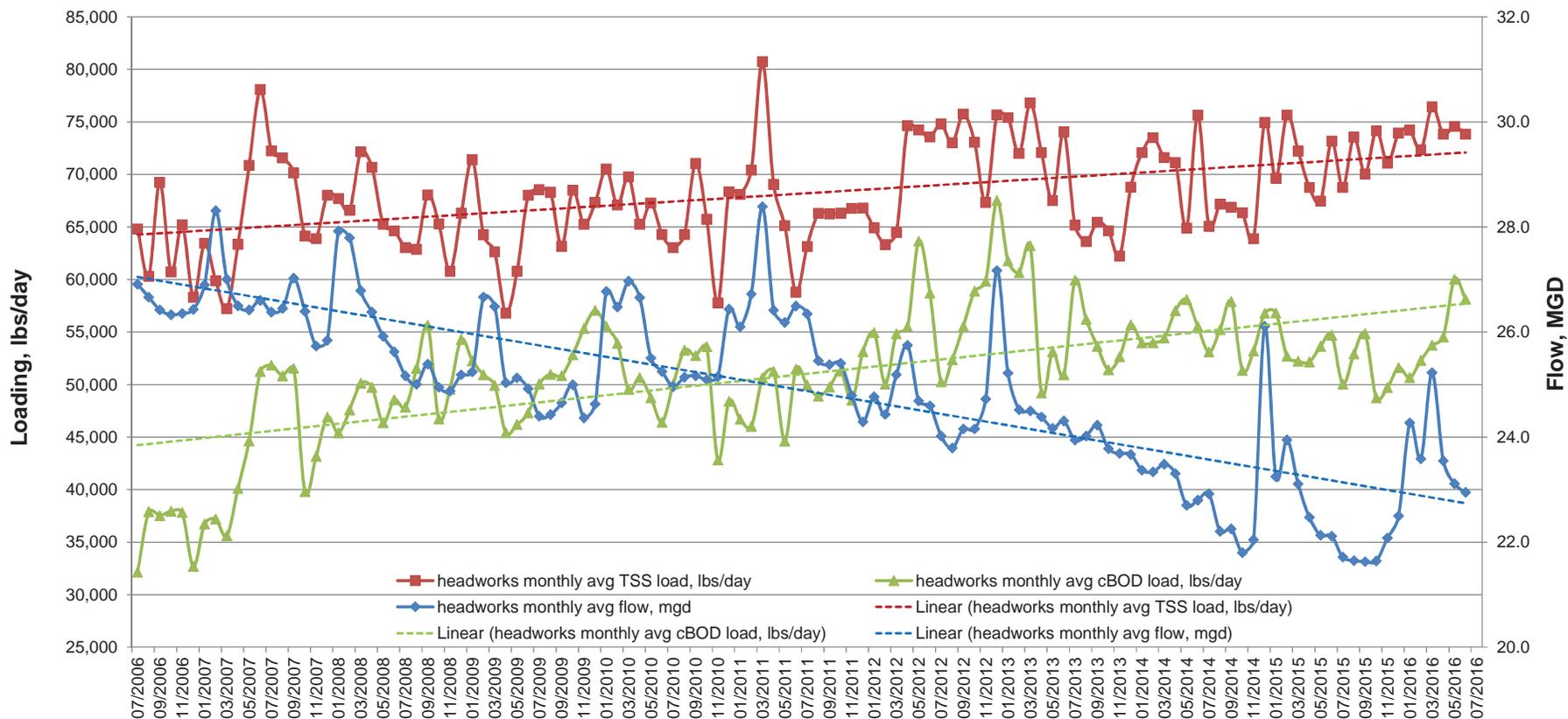
PRE/SEG/RC/CB:ks

Attachments: Figure 1 – WWTP Site Plan  
Figure 2 – Solids Loading vs. Flow Chart  
Task Order No. 2

FIGURE 1 – PLANT SOLIDS SYSTEM/CAPACITY ASSESSMENT – PHASE 2



**FIGURE 2 - SOLIDS LOADING VS. FLOW CHART**  
**Headworks Monthly Avg Flows and Loads (July 2006 to June 2016)**



**PLANT SOLIDS SYSTEM/CAPACITY ASSESSMENT  
PROJECT NO. 300-464**

TASK ORDER NO. 2

to

AGREEMENT

BETWEEN

UNION SANITARY DISTRICT

AND

CAROLLO ENGINEERS, INC.

FOR

PROFESSIONAL SERVICES

Dated November 30, 2015

1. PURPOSE

The purpose of Task Order No. 2 is to provide professional services for Phase 2 of the Plant Solids System/Capacity Assessment (Project).

2. PROJECT UNDERSTANDING

The District's Alvarado Wastewater Treatment Plant (WWTP) currently treats approximately 22 million gallons per day (mgd) based on average dry weather flows (ADWF). Since 2004, the plant's influent flows have been steadily decreasing while influent total suspended solids (TSS) and biochemical oxygen demand (BOD) mass loading rates have been increasing. While previous work has indicated a treatment capacity of 33 mgd, this capacity was based on lower influent solids concentrations than those currently experienced. In addition, regulatory requirements to implement nutrient removal may impact the plant's operations and further affect treatment capacity.

In the first Phase of this Project, the District sought to determine the current capacity of the solids treatment systems for the removal of conventional pollutants (BOD, TSS), and begin planning for potential changes in the future, including solids processes that may be required to achieve the permitted 33 mgd capacity. Phase 1 of this project also sought to identify methods by which to produce Class A biosolids for the 33 mgd flow scenario, identify improvements that could help the plant achieve energy neutrality for current conditions and at 33 mgd, and identify additional regulations that should be addressed.

The second phase of the Project includes an assessment of current liquid treatment system capacity, with an intent to identify capacity-limiting processes. The existing liquid treatment systems will be studied, similar to Phase 1, and methods for process optimization will be identified. Processes and projects necessary to achieve the plant's rated capacity (33 mgd) will be identified for current effluent requirements.

### 3. PROJECT GOALS

The main goals of the District's Project are as follows:

- Evaluate the existing liquid treatment capacity of all unit processes and operations.
- Determine the current capacity of the treatment plant for treating conventional pollutants relative to current influent conditions.
- Determine the processes and project(s) needed to achieve rated capacity of 33 mgd without nutrient limits.
- Recommend project(s) to improve the existing liquids treatment of all unit processes or identify alternate treatment strategies to ensure that the District is able to maintain a stable and compliant activated sludge treatment system.

### 4. PROJECT COORDINATION

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

### 5. SCOPE OF SERVICES

The task numbers in this Scope of Services are associated with the cost data presented in Exhibit B.

#### **TASK 1 – PROJECT PLAN AND PROJECT MANAGEMENT**

Engineer shall update the Phase 1 project plan that describes the project team, scope of services, project schedule, quality management procedures, communication protocol, and other procedures required to effectively conduct the study. The plan will be updated to include a description of the new data required, methods by which the Phase 2 work will be conducted, alternatives that will be evaluated, and the cost analysis approach and basis.

Engineer shall monitor and track the overall project scope, budget, and schedule. Engineer shall prepare and submit a monthly invoice to the District. A decision log will be maintained throughout the project to record the decisions made by the project team. The log will contain decisions made during meetings/workshops as well as during telephone conversations or emails. An updated log will be provided with meeting minutes from each meeting/workshop.

The project plan will also include a section with a data request for the required and available data, drawings, reports, and other information necessary for the project team to conduct the Phase 2 work. Those data recently sent for previous projects will be reviewed and the final data request will be modified accordingly to minimize duplication of effort by District staff. This data request will include, but is not limited to, the following types of information, some of which the District may not have readily available:

- Hourly diurnal flow data, aeration air flow data, and dissolved oxygen concentrations.
- Record drawings, original design criteria, original equipment specifications/O&M manuals for liquid treatment processes.
- Operating philosophies/standard operating procedures for each liquid treatment process unit. (This information will be confirmed and supplemented by interviews with operations staff.)
- Operating costs associated with liquid treatment processes (power, chemical, labor).

Data that are not available will be identified by the District, and if such data are critical for subsequent analyses, District will sample and collect those data.

Assumptions:

- It is assumed that data will be provided by the District in spreadsheet form, with columns, rows, and tabs labeled for easy discernment.

**TASK 2 – PROJECT OVERALL APPROACH**

Engineer shall conduct a 4-hour Kickoff Meeting with key project participants. The meeting will present the Project Plan and address the overall approach to conducting the project tasks, schedule, and budget, as well as communication and project team roles/responsibilities. The group will discuss the overall vision the District has for the Plant Solids System/Capacity Assessment, the drivers, and the long-term goals. Group will discuss the data request submitted with the Project Plan prior to the meeting, the data received, and a plan for how to move forward if specific requested data are not available. After the Kickoff Meeting, Engineer shall conduct a site visit and obtain operational feedback from plant staff on specific liquid treatment processes.

**TASK 3 – SOLIDS SYSTEM/CAPACITY ASSESSMENT REPORT OUTLINE AND TABLE OF CONTENTS**

Engineer shall develop an outline and table of contents for each Phase 2 chapter of the Solids System/Capacity Assessment Report (SSCAR). The Phase 2 Chapters of the SSCAR will include:

- Chapter 6 – Basis of Analysis (Liquid Treatment Facilities)
- Chapter 7 – Capacity Evaluation and Process Optimization (Liquid Treatment Facilities)

- Executive Summary (covering both Phase 1 and Phase 2 work)

Other than the Executive Summary, which will be issued separately, the Phase 1 chapters of the SSCAR will be compiled into Volume 1 and the Phase 2 chapters of the SSCAR will be compiled into Volume 2. Where appropriate, the Phase 1 chapter titles will be revised to indicate that they are specific to the solids processes. The Executive Summary and both Volumes in their entirety will represent the full SSCAR.

#### **TASK 4 – EXISTING ACTIVATED SLUDGE PROCESS OPTIMIZATION**

The purpose of this task is to identify potential secondary treatment process modifications to improve performance of existing facilities, especially during peak flow conditions. This task will focus on operational modifications to improve sludge settleability and optimize secondary clarifier performance. In addition, the Engineer shall devise and recommend alternatives for remediating the activated sludge problems. The following steps will be completed:

- Summarize the design basis and current operations of the secondary clarifiers, return sludge pumping system, and waste sludge pumping system.
- Review hydraulics of mixed liquor conveyance from control box 3 to east and west secondary clarifiers. Identify mixed liquor flow rate limitations. Review hydraulics of return sludge conveyance from east secondary clarifiers to sludge pit B and from west secondary clarifiers to sludge pit A. Identify return sludge flow rate limitations.
- Identify additional sampling and analysis and/or field observations to be made by District personnel as part of a special sampling campaign to supplement routinely-collected operations and performance data.
- Evaluate alternate operating strategies for primary effluent flow distribution, return activated sludge flow distribution, aeration tank inlet gate position, dissolved oxygen setpoints, mixed liquor flow distribution, return sludge pumping, waste sludge pumping, and solids residence time control.
- Conduct a workshop with District staff review findings and discuss recommended operating strategies. Prepare technical memorandum summarizing results and recommendations.

#### Assumptions:

Engineer shall review past project files for available documents. If not available in project files, it is assumed that the District will provide the following documents for review:

- 1978 Wastewater Treatment Facilities project clarifier mechanism specification and shop drawings
- Wastewater Treatment Facilities Expansion project operations and maintenance manual (specifically, section(s) addressing secondary clarifiers, RAS pumping, and WAS pumping systems)
- 2006/2009 West Secondary Clarifier Modifications project drawings

- 2006/2009 West Secondary Clarifier Modifications project clarifier mechanism specification and shop drawings
- Monthly operations and performance data Excel files and filament identification results for October, November, and December 2016.

#### **TASK 5 – SSCAR CHAPTER 6 – BASIS OF ANALYSIS (LIQUID TREATMENT FACILITIES)**

Engineer shall review data and documents provided by the District following the data request, and develop a Basis of Analysis that will summarize the reviewed information. Engineer shall also include a summary of discussions with operations staff to identify operational or mechanical limitations (if any) for the liquid treatment processes. The Basis of Analysis will be Chapter 6 of the SSCAR and will form the basis for the subsequent evaluations and assessments.

This Chapter of SSCAR will be submitted in Draft form to the District. Comments from District review of the Chapter will be reviewed and addressed by Engineer within two weeks of receipt. District comments and Engineer responses to the comments will be documented in a comment log. Any comments requiring further discussion with the District to reach resolution will be discussed via teleconference or electronic communication whenever possible. Key comments and associated resolution will be presented at Workshop No. 1. Revisions associated with the District's comments will be incorporated into the Draft SSCAR.

##### Assumptions:

- It is assumed that the District will compile all reviewer comments on the Draft Chapter into a single document within three weeks of submission.

#### **TASK 6 – SSCAR CHAPTER 7 – CAPACITY EVALUATION AND PROCESS OPTIMIZATION (LIQUID TREATMENT FACILITIES)**

Engineer shall evaluate capacity of the liquid treatment processes through a dynamic process model and through a comparison of each system's original design criteria to current loading and operational performance. This task will also include identification of liquid treatment processes or modifications that may be required to achieve the permitted 33 mgd treatment capacity (without nutrient limits), along with planning level costs for those processes or modifications. Development of a plant hydraulic profile is not included in this task. However, if the identified processes or modifications are thought to significantly change the plant's hydraulics, the existing plant hydraulic profile will be compared to the potential hydraulic changes to determine impact.

Engineer shall develop a dynamic process model of the WWTP and calibrate with data already received and new data provided following the data request. The process model will be used to assess how much additional capacity remains, if any, and to identify capacity gaps, limitations, and the current treatment capacity of each liquid process. The hydraulic loading, TSS loading, and CBOD loading will be incorporated into a unit process capacity reported as average dry weather flow. The process model will be developed

based on current plant flows and conditions, and updated to reflect the permitted 33 mgd condition.

In addition to process modeling, existing capacity will also be assessed relative to operational or mechanical limitations identified through discussions with operators. This operational analysis will include consideration of the primary and ancillary systems associated with the liquid treatment train, including but not limited to:

- Headworks
- Primary clarifiers
- Aeration basins
- Secondary clarifiers
- Chlorine contact basins

Some of these areas were considered at a high level in Phase 1 of this project. That analysis will be further developed through evaluation of liquid treatment-specific equipment in Phase 2.

In addition, Engineer shall evaluate options to optimize current liquid treatment processes. Engineer shall review processes to determine options to improve operations, increase capacity, and/or increase stability through improvement of the existing processes or adoption of alternate treatment strategies. Recommended project(s) to improve the existing unit processes will be described and included in planning level costs. When applicable, the Engineer shall consider the constructability of such improvements in their evaluation. An example of an optimization measure that will be considered is to modify the configuration of existing Aeration Basin Nos. 1-4 to be similar to Aeration Basin Nos. 5-7.

The capacity evaluation and process optimization methods and results will be documented in Chapter 7 - Capacity Evaluation and Process Optimization (Liquid Treatment Facilities) of the SSCAR. This Chapter of the SSCAR will be submitted in Draft form to the District. Comments from District review of the Chapter will be reviewed and addressed by Engineer within two weeks of receipt. District comments and Engineer responses to the comments will be documented in a comment log. Any comments requiring further discussion with the District to reach resolution will be discussed via teleconference or electronic communication whenever possible. Key comments and associated resolution will be presented at Workshop No. 2. Revisions associated with the District's comments will be incorporated into the Draft SSCAR.

Assumptions:

- No field samples will be collected or analyzed as part of the model construction. The model will be developed based on data provided by the District. Should field samples be required; District staff will be responsible for collection and analysis of samples.
- This scope assumes that a new hydraulic profile for the plant is not required and is not included in this task.

- Process model will be developed for the current processes at the WWTP.
- Process model will reflect average dry weather conditions and maximum month conditions.
- The alternative plant layouts established in the Site Use Study will not be evaluated.
- It is assumed that the District will compile all reviewer comments on the Draft Chapter into a single document within three weeks of submission.

## **TASK 7 – EXECUTIVE SUMMARY AND CIP DEVELOPMENT**

The objective of this task is to prepare an Executive Summary which will summarize the results and recommendations of Phases 1 and 2. The Executive Summary will include a list of recommended future projects for the plant, a site plan that includes the recommended projects, and associated planning level costs.

Based on comments received on the chapters and discussion at the Workshops, Engineer shall document the final projects and processes selected by the District for the solids and liquid processes in a memorandum. A site plan that shows the selected projects and processes will be developed for inclusion in the memorandum. The memorandum will be submitted to the District for review and approval, and subsequently used to develop the Executive Summary. The site plan and estimated planning-level costs for the selected projects and processes, will be incorporated into the Executive Summary.

This scope is based on an assumption that the District will select individual projects or processes that do not overlap each other or create multiple permutations of possible project and process combinations. If the District prefers to document multiple project combinations and permutations, the additional effort required to do so will be discussed with the District prior to commencement of this task.

The Executive Summary will be submitted as Draft for review by the District. Comments from District review of the Executive Summary will be reviewed and addressed by Engineer within two weeks of receipt. District comments and Engineer responses to the comments will be documented in a comment log. Any comments requiring further discussion with the District to reach resolution will be discussed via teleconference or electronic communication whenever possible. Revisions associated with the District's comments will be incorporated into the Draft SSCAR.

### Assumptions:

- The District will select individual projects or processes that do not overlap each other or create multiple permutations of possible project and process combinations. If the District prefers to document multiple project combinations and permutations that must be carried through the project, the additional effort required to do so will be discussed with the District prior to commencement of this task.
- It is assumed that the District will compile all reviewer comments on the Draft Executive Summary into a single document within three weeks of submission.

### **TASK 8 – WORKSHOP NOS. 1 AND 2**

Engineer shall conduct two workshops with District staff to review the findings of the project tasks. Each workshop is anticipated to last 3 to 4 hours and will be held at the District office.

Workshop No. 1 will present the findings of Task 5. Workshop No. 2 will present the findings and preliminary recommendations of Task 6. Key District comments on the SSCAR Chapters submitted prior to each workshop will also be presented and discussed. District input from the workshops will be used to develop the list of recommended future projects included in the SSCAR.

### **TASK 9 – DRAFT AND FINAL SSCAR**

The objective of this task is to prepare the Solids System/Capacity Assessment Report which will include the results of Phases 1 and 2. Other than the Executive Summary, which will be issued separately, the Phase 1 chapters of the SSCAR will be compiled into Volume 1 and the Phase 2 chapters of the SSCAR will be compiled into Volume 2. The results of Phase 1 have been previously submitted, and those results will form Volume 1. Where appropriate, the Phase 1 chapter titles will be revised to indicate that they are specific to the solids processes. In addition, based on District comments, Phase 1 will be reformatted to move the process optimization information in Chapter 3 to Chapter 2 and leave Chapter 3 focused solely on Class A biosolids production. The results of Phase 2, as described in this Task Order No. 2 will form Volume 2. The Executive Summary and both Volumes in their entirety will represent the complete SSCAR.

Volume 2 of the SSCAR will be submitted as Draft for review by the District. The Draft SSCAR will include revisions to the chapters based resolution of the District's comments for each chapter. Within two weeks of receipt of District comments on the draft report, Engineer shall prepare and submit the complete Final SSCAR, including Executive Summary, Volume 1 and Volume 2.

#### Assumptions:

- It is assumed that the District will compile all reviewer comments on the Draft SSCAR into a single document within two weeks of submission.
- It is assumed that the District will review and comment only on Phase 2 of the SSCAR, and that the completed Phase 1 of the SSCAR will not require content revisions.

### **TASK 10 – DISTRICT PRESENTATION TO BOARD OF DIRECTORS**

District staff will make a presentation of the final recommendations from the SSCAR to the District's Board of Directors. Presentation materials will be developed by the Engineer and provided to the District Project Manager within one week of the submission of the Final SSCAR. Within one week of receipt of District comments on the draft presentation, Engineer shall prepare and submit the final presentation material to the District's Project Manager. The presentation will be made by District staff at the first Board meeting

following submittal of the final presentation material. It is assumed that this meeting may last up to 4 hours. Engineer's staff in attendance will be limited to the Principal-in-Charge.

Assumptions:

- It is assumed that District staff will make the presentation to the Board of Directors.
- It is assumed that only the Engineer's Principal-in-Charge will attend the meeting.
- It is assumed that the District will compile all reviewer comments on the Draft presentation material into a single document within one week of submission.

6. DELIVERABLES

Project deliverables are listed below:

**TASK 1 – PROJECT PLAN AND PROJECT MANAGEMENT**

Deliverables:

- Project Plan (pdf)
- Monthly invoices (pdf)
- Data request (pdf and/or Excel file)

**TASK 2 – PROJECT OVERALL APPROACH**

Deliverables:

- Agenda, presentation material, meeting minutes, and decision log (pdf)

**TASK 3 – SOLIDS SYSTEM/CAPACITY ASSESSMENT REPORT OUTLINE AND TABLE OF CONTENTS**

Deliverables:

- Phase 2 SSCAR Outlines and Table of Contents per chapter (pdf)

**TASK 4 – EXISTING ACTIVATED SLUDGE PROCESS OPTIMIZATION**

Deliverables:

- Existing Activated Sludge Process Optimization TM (pdf)

**TASK 5 – SSCAR CHAPTER 6 – BASIS OF ANALYSIS (LIQUID TREATMENT FACILITIES)**

Deliverables:

- SSCAR Chapter 6 – Basis of Analysis (Liquid Treatment Facilities) (pdf)

**TASK 6 – SSCAR CHAPTER 7 – CAPACITY EVALUATION AND PROCESS OPTIMIZATION (LIQUID TREATMENT FACILITIES)**

Deliverables:

- SSCAR Chapter 7 – Capacity Evaluation and Process Optimization (Liquid Treatment Facilities) (pdf)
- Copy of Process Model (electronic file)

**TASK 7 – EXECUTIVE SUMMARY AND CIP DEVELOPMENT**

Deliverables:

- Memorandum summarizing recommended projects (pdf).
- Executive Summary (pdf)

**TASK 8 – WORKSHOP NOS. 1 AND 2**

Deliverables:

- Agenda, presentation material, meeting minutes, and decision log (pdf)

**TASK 9 – DRAFT AND FINAL SSCAR**

Deliverables:

- Draft Solids System/Capacity Assessment Report (Word and pdf)
- Final Solids System/Capacity Assessment Report, electronic pdf and five printed reports.

**TASK 10 – DISTRICT PRESENTATION TO BOARD OF DIRECTORS**

Deliverables:

- Draft presentation material for Board meeting (pdf)
- Final presentation material for Board meeting (pdf)

7. PAYMENT TO THE ENGINEER

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

Total charges to the DISTRICT not-to-exceed amount shall be \$279,698. A summary of the anticipated distribution of cost and manpower between tasks is shown in Exhibit B.

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

<b>Task Order / Amendment</b>	<b>Not to Exceed Amount</b>	<b>Board Authorization Required? (Yes/No)</b>	<b>District Staff Approval</b>
Task Order No. 1 – Plant Solids System/Capacity Assessment – Phase 1	\$238,117	Yes	Paul R. Eldredge
Task Order No. 2 – Plant Solids System/Capacity Assessment – Phase 2	\$279,698	Yes	Paul R. Eldredge
<b>Total</b>	<b>\$517,815</b>		

8. TIME OF COMPLETION

All work defined in this Task Order shall be complete in 300 calendar days after the execution of this Task Order and subject to the conditions of Article 3 of this Agreement. A summary of the anticipated work sequence is shown in Exhibit A. The anticipated milestones are as follows:

- Notice to Proceed: January 12, 2017.
- Submit Draft Project Plan: January 20, 2017.
- Submit Final Project Plan: February 1, 2017.
- Kickoff Meeting: February 7, 2017.
- Submit SSCAR Outlines and Tables of Contents: February 10, 2017.
- Submit Draft Chapter 6: March 20, 2017.
- Workshop No. 1: March 27, 2017.
- Submit Existing Activated Sludge Process Optimization TM: April 5, 2017
- Submit Revised Chapter 6: April 24, 2017.
- Submit Draft Chapters 7: June 6, 2017.
- Workshop No. 2: June 13, 2017.
- Submit Revised Chapter 7: July 11, 2017.
- Submit Final Project Memorandum: July 18, 2017.
- Submit Draft Executive Summary: August 8, 2017.

- Submit Final Executive Summary: August 29, 2017.
- Submit Draft SSCAR: September 11, 2017.
- Submit Final SSCAR: October 2, 2017.
- Present to Board of Directors: November 1, 2017

9. KEY PERSONNEL

Engineering personnel assigned to this Task Order No. 2 are as follows:

<u>Role</u>	<u>Key Person to be Assigned</u>
Principal-In-Charge	Scott Parker
Project Manager	Rashi Gupta
Lead Process Engineer	Ron Appleton

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

IN WITNESS WHEREOF, the parties hereto have made and executed this Task Order No. 2 as of January \_\_\_\_, 2017 and therewith incorporate it as part of the Agreement.

DISTRICT

ENGINEER

Union Sanitary District

Carollo Engineers, Inc.

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

By: \_\_\_\_\_  
Scott E. Parker  
Sr. Vice President

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

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

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

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

ID	Task Name	Duration	Start	Finish	Timeline														
					October 1	January 1	March 1	May 1	July 1	September 1	November 1	January							
1	Notice to Proceed	0 days	Thu 1/12/17	Thu 1/12/17	11/20	12/18	1/15	2/12	3/12	4/9	5/7	6/4	7/2	7/30	8/27	9/24	10/22	11/19	12/17
2	Task 1 - Project Plan and Project Management	205 days	Thu 1/12/17	Wed 10/25/17	[Gantt bar from 1/12 to 10/25]														
11	Task 2 - Project Overall Approach	10 days	Mon 1/30/17	Fri 2/10/17	[Gantt bar from 1/30 to 2/10]														
15	Task 3 - SSCAR Outline and TOC	13 days	Mon 2/6/17	Wed 2/22/17	[Gantt bar from 2/6 to 2/22]														
23	Task 4 - Existing Activated Sludge Process Optimization	60 days	Thu 1/12/17	Wed 4/5/17	[Gantt bar from 1/12 to 4/5]														
29	Task 5 - SSCAR Chapter 6 - Basis of Analysis (Liquid Treatment Facilities)	46 days	Mon 2/20/17	Mon 4/24/17	[Gantt bar from 2/20 to 4/24]														
41	Task 6 - SSCAR Chapter 7 - Capacity Evaluation and Process Optimization (Liquid Treatment Facilities)	66 days	Tue 4/11/17	Tue 7/11/17	[Gantt bar from 4/11 to 7/11]														
53	Task 7 - SSCAR Executive Summary and CIP Development	45 days	Wed 6/28/17	Tue 8/29/17	[Gantt bar from 6/28 to 8/29]														
66	Task 9 - Draft and Final SSCAR	24 days	Wed 8/30/17	Mon 10/2/17	[Gantt bar from 8/30 to 10/2]														
74	Task 10 - District Presentation to Board of Directors	21 days	Tue 10/3/17	Tue 10/31/17	[Gantt bar from 10/3 to 10/31]														

Project: Phase 2 Schedule.mpp  
 Date: Tue 1/3/17

Task		Project Summary		Manual Task		Start-only		Deadline	
Split		Inactive Task		Duration-only		Finish-only		Progress	
Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
Summary		Inactive Summary		Manual Summary		External Milestone			

Task	Subtasks	STAFF EFFORT											COSTS				
		SCOTT PARKER	RASHI GUPTA	RON APPLETON	TOSHIO SHIMADA	SARAH DESLAURIERS	BECKY GHERNI	KATHERINE EVE	ANDRE GHARAGOZIAN	GRAPHIC/CAD	DOCUMENT PROCESSING / ADMINISTRATIVE	TOTAL LABOR HOURS (CAROLLO)	TOTAL LABOR COST	DIRECT COSTS - PECE (2)	OTHER DIRECT COSTS - TRAVEL, MILEAGE, PRINTING (3)	TOTAL DIRECT COSTS	TOTAL
	Labor Rates (1), 3.21 Direct Labor Multiplier	\$ 308.67	\$ 213.96	\$ 231.89	\$ 199.34	\$ 169.49	\$ 154.87	\$ 118.78	\$ 263.73	\$ 134.70	\$ 104.83		\$ 11.70				
SCOPE																	
1	Project Plan and Project Management	7	42	8	0	0	10	4	0	0	8	79	\$ 15,864	\$ 924	\$ 924	\$ 16,789	
	Project Plan	1	6	2			2				8	19	\$ 3,205	\$ 222	\$ 222	\$ 3,427	
	Teleconferences	4	8	6			8	4				30	\$ 6,052	\$ 351	\$ 351	\$ 6,403	
	Project Management	2	28									30	\$ 6,608	\$ 351	\$ 351	\$ 6,959	
2	Project Overall Approach	5	18	14	0	0	14	4	0	0	6	61	\$ 11,913	\$ 714	\$ 723	\$ 13,350	
	Prep	1	8	4			4	4			2	23	\$ 4,252	\$ 269	\$ 269	\$ 4,521	
	Attendance and Site Visit	4	8	8			8					28	\$ 6,040	\$ 328	\$ 723	\$ 7,091	
	Meeting Documentation		2	2			2				4	10	\$ 1,621	\$ 117	\$ 117	\$ 1,738	
3	SSCAR Outline and TOC	1	2	2	0	0	2	5	0	0	2	14	\$ 2,314	\$ 164	\$ 164	\$ 2,477	
	Develop Outline	1	1	2			2	2				8	\$ 1,534	\$ 94	\$ 94	\$ 1,627	
	Develop TOC							1			1	2	\$ 224	\$ 23	\$ 23	\$ 247	
	Revision		1					2			1	4	\$ 556	\$ 47	\$ 47	\$ 603	
4	Existing Activated Sludge Process Optimization	1	5	96	0	0	20	28	6	4	8	168	\$ 33,022	\$ 1,966	\$ 1,966	\$ 34,988	
	Summarize Design Basis for Secondary Clarifiers		1	8			4				13	\$ 2,689	\$ 152	\$ 152	\$ 2,841		
	Review ML Conveyance Hydraulics		1	8			8				17	\$ 3,308	\$ 199	\$ 199	\$ 3,507		
	Identify Additional Sampling/Analysis		1	8				4			13	\$ 2,544	\$ 152	\$ 152	\$ 2,696		
	Evaluate Alternate Operating Strategies		1	40				8	2		51	\$ 10,967	\$ 597	\$ 597	\$ 11,564		
	Prepare TM/Workshop Materials	1	1	32			8	16	4	4	8	74	\$ 13,515	\$ 866	\$ 866	\$ 14,381	
5	SSCAR Chapter 6 - Basis of Analysis (Liquid Treatment Facilities)	1	16	12	0	0	24	64	8	4	8	137	\$ 21,321	\$ 1,603	\$ -	\$ 1,603	\$ 22,924
	Drawing Review and Data Analysis		4	8			8	32				52	\$ 7,751	\$ 608	\$ 608	\$ 8,359	
	Operator Interviews		8				8	8				24	\$ 3,901	\$ 281	\$ 281	\$ 4,182	
	Chapter 6 Development and Revision	1	4	4			8	24	8	4	8	61	\$ 9,669	\$ 714	\$ 714	\$ 10,383	
6	SSCAR Chapter 7 - Capacity Evaluation and Process Optimization (Liquid Treatment Facilities)	1	39	134	32	0	88	264	12	16	16	602	\$ 98,088	\$ 7,043	\$ -	\$ 7,043	\$ 105,131
	Determine Design Criteria and Actual Ops - Headworks		1				4	8				13	\$ 1,784	\$ 152	\$ 152	\$ 1,936	
	Determine Design Criteria and Actual Ops - Primary Clarifiers		1				4	8				13	\$ 1,784	\$ 152	\$ 152	\$ 1,936	
	Determine Design Criteria and Actual Ops - Aeration Basins		1	4			4	8				17	\$ 2,711	\$ 199	\$ 199	\$ 2,910	
	Determine Design Criteria and Actual Ops - Secondary Clarifiers		1	4			4	8				17	\$ 2,711	\$ 199	\$ 199	\$ 2,910	
	Determine Design Criteria and Actual Ops - Disinfection		1				4	8				13	\$ 1,784	\$ 152	\$ 152	\$ 1,936	
	Dynamic Process Modeling - Setup and Existing Conditions			40	16			40				96	\$ 17,216	\$ 1,123	\$ 1,123	\$ 18,339	
	Process Modeling - 33 MGD Flow without Nutrient Limits			16	16			16				48	\$ 8,800	\$ 562	\$ 562	\$ 9,362	
	Identify Processes for 33 MGD Liquid Processes		2	16			4	16				38	\$ 6,658	\$ 445	\$ 445	\$ 7,103	
	Planning Level Costs for 33 MGD Liquid Processes		2				4	16				22	\$ 2,948	\$ 257	\$ 257	\$ 3,205	
	Identify Processes for 33 MGD Solids Processes		2	2			4	8				16	\$ 2,461	\$ 187	\$ 187	\$ 2,649	
	Planning Level Costs for 33 MGD Solids Processes		2				4	8				14	\$ 1,998	\$ 164	\$ 164	\$ 2,161	
	Optimization Options and Costs - Headworks		2				4	16				22	\$ 2,948	\$ 257	\$ 257	\$ 3,205	
	Optimization Options and Costs - Primary Clarifiers		2				4	16				22	\$ 2,948	\$ 257	\$ 257	\$ 3,205	
	Optimization Options and Costs - Aeration Basins		2	24			4	16				46	\$ 8,513	\$ 538	\$ 538	\$ 9,051	
	Optimization Options and Costs - Secondary Clarifiers		2				4	16				22	\$ 2,948	\$ 257	\$ 257	\$ 3,205	
	Optimization Options and Costs - Disinfection		2				4	16				22	\$ 2,948	\$ 257	\$ 257	\$ 3,205	
	Chapter 7 and Revisions	1	16	28			32	40	12	16	16	161	\$ 26,929	\$ 1,884	\$ 1,884	\$ 28,813	

Union Sanitary District  
 Alvarado WWT - Solids System and Capacity Assessment Report  
 Exhibit B: Phase 2 - Estimated Level of Effort and Fee

Task	Subtasks	STAFF EFFORT											COSTS				
		SCOTT PARKER	RASHI GUPTA	RON APPLETON	TOSHIO SHIMADA	SARAH DESLAURIERS	BECKY GHERNI	KATHERINE EVE	ANDRE GHARAGOZIAN	GRAPHICS/CAD	DOCUMENT PROCESSING / ADMINISTRATIVE	TOTAL LABOR HOURS (CAROLLO)	TOTAL LABOR COST	DIRECT COSTS - PECE (2)	OTHER DIRECT COSTS - TRAVEL, MILEAGE, PRINTING (3)	TOTAL DIRECT COSTS	TOTAL
SCOPE	Labor Rates (1), 3.21 Direct Labor Multiplier	\$ 308.67	\$ 213.96	\$ 231.89	\$ 199.34	\$ 169.49	\$ 154.87	\$ 118.78	\$ 263.73	\$ 134.70	\$ 104.83			\$ 11.70			
7	SSCAR Executive Summary and CIP Development	2	20	8	0	2	44	72	0	12	20	180	\$ 26,170	\$ 2,106	\$ -	\$ 2,106	\$ 28,276
	Finalization of Phases, Executive Summary Development and Revisions	2	20	8		2	44	72		12	20	180	\$ 26,170	\$ 2,106		\$ 2,106	\$ 28,276
8	Workshop Nos. 1, 2	8	16	16	0	0	26	12	0	4	4	86	\$ 16,013	\$ 1,006	\$ 1,447	\$ 2,453	\$ 18,466
	Workshop No. 1 Prep, Attendance, Documentation	4	8	8			16			2	2	40	\$ 7,758	\$ 468	\$ 723	\$ 1,191	\$ 8,950
	Workshop No. 2 Prep, Attendance, Documentation	4	8	8			10	12		2	2	46	\$ 8,255	\$ 538	\$ 723	\$ 1,262	\$ 9,516
9	Draft and Final SSCAR	2	10	0	0	2	32	56	0	8	40	150	\$ 19,974	\$ 1,755		\$ 6,055	\$ 26,029
	Phase 2 Draft SCAR Production	1	4				16	24			20	65	\$ 8,590	\$ 761		\$ 761	\$ 9,350
	Revisions of Draft Phase 2 SCAR						4	12			8	26	\$ 3,311	\$ 304		\$ 304	\$ 3,616
	Final SCAR Production	1	4			2	12	20		8	12	59	\$ 8,073	\$ 690	\$ 4,300	\$ 4,990	\$ 13,063
10	District Presentation to Board of Directors	5	8	2	0	0	12	24	0	12	2	65	\$ 10,254	\$ 761	\$ 253	\$ 1,014	\$ 11,268
	Prep	1	8	2			12	24		12	2	61	\$ 9,019	\$ 714	\$ 140	\$ 854	\$ 9,873
	Attendance	4										4	\$ 1,235	\$ 47	\$ 113	\$ 160	\$ 1,395
	SCOPE - TOTAL HOURS	33	176	292	32	4	272	533	26	60	114	1542					
	SCOPE - COST	\$ 10,186	\$ 37,657	\$ 67,710	\$ 6,379	\$ 678	\$ 42,124	\$ 63,310	\$ 6,857	\$ 8,082	\$ 11,950		\$ 254,933	\$ 18,041	\$ 2,424	\$ 24,765	\$ 279,698

Notes: (1) Labor rates subject to annual adjustment effective January 1 of every calendar year.  
 (2) PECE = Project Equipment and Communication Expense  
 (3) Mileage charges at Federal Rate of \$0.54/mile, travel charges at cost



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2017

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

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

**SUBJECT:** Agenda Item No. 12 - Meeting of January 9, 2017  
**Authorize the General Manager to Execute an Agreement and Task Order No. 1 with CH2M HILL Engineers, Inc. for the Odor Control Alternatives Study**

### **Recommendation**

Staff recommends the Board authorize the General Manager to execute an Agreement and Task Order No. 1 with CH2M HILL Engineers, Inc. in the amount of \$139,801 for the Odor Control Alternatives Study.

Funds for this project have been budgeted in the Special Projects Fund.

### **Background**

The District constructed an odor scrubber system in the mid-1980s to mitigate air emissions at the Alvarado Wastewater Treatment Plant (WWTP). The odor scrubber system consisted of 18 atomized mist wet scrubber towers, air compressors, and a chemical delivery system that convey sodium hypochlorite to the scrubber towers. The 18 scrubber towers have been in operation since constructed, though some upgrades have been made to the system. Figure 1 shows the location of the existing scrubber towers and other improvements as described in this Board report.

### **Odor Control Evaluation – Phase 1**

The District contracted with Brown & Caldwell (BC) to conduct Phase 1 of the Odor Control Evaluation in September 2007. The evaluation focused on the odor scrubber system effectiveness and overall condition. BC's key findings were that some of the odor control

scrubbers showed variable performance on hydrogen sulfide removal and needed to be rehabilitated/modified. The consultant also recommended that a more detailed study needed to be conducted of the whole odor control system to develop a more comprehensive rehabilitation plan of the existing odor control system.

### Odor Control Evaluation – Phase 2

The District contracted with BC to conduct Phase 2 of the Odor Control Evaluation in July 2008. BC's findings confirmed the need for several odor control enhancements and further identified a packed tower chemical scrubbing system as an option for future consideration if deemed necessary. Based on BC's model runs, the Phase 2 evaluation recommended three phases of odor control improvement projects and summarized as follows:

1. Phase 1 projects included physical modifications that could be completed by the District in the short-term.
  - a. Conduct ventilation evaluation and air balancing of the Alvarado Influent Pump Station, East Aeration Basins, Gravity Sludge Thickeners, and WAS Thickener Building to eliminate fugitive odor emissions from these structures.
  - b. Construct a new West Aeration Basins scrubber connection to ventilate the effluent channel of Lift Station No. 2.
  - c. Modify the scrubber tower stack discharges to increase outlet velocities and improve atmospheric mixing and dispersion.
  - d. Construct a new odor dispersion wall east of Secondary Clarifier Nos. 5 and 6.

The District implemented these improvements in 2010. In addition, the District currently operates a Piiian mist system that was installed in 2007 on the east fence, to neutralize any odors at the property line. This system was modified and enhanced in 2016 to further ensure its effectiveness. Figures 2 through 4 show some of the improvements described above.

2. Phase 2 projects included new or retrofitted packed tower scrubbers at the Headworks, West and East Primary Clarifiers, West and East Aeration Basins, and Alvarado Influent Pump Station. The estimated project cost for this phase ranged from \$11 million to \$15 million (in 2009 dollars) depending on the level of redundancy.
3. The Phase 3 projects included a new or retrofitted packed tower scrubber for the Gravity Sludge Thickeners and new activated carbon adsorbers for the WAS Thickening Building and the Dewatering Building. The estimated project cost for these improvements was \$5.8 million in 2009 dollars.

Additionally, BC recommended new carbon adsorbers or biofilters for second-stage odor polishing. The estimated project cost for the second-stage polishing scrubbers ranged from \$5

million to \$20 million (in 2009 dollars) depending on the number of sources and the technology selected.

The Phase 3 improvements were identified as potential future projects that may or may not be needed to meet the District's odor control goals. Following Phases 1 and 2 improvements, BC recommended retesting the odor sources at the WWTP to evaluate whether Phase 3 improvements are needed.

### Odor Control Study Update

In 2014, the District contracted with BC to consider advancements made in odor control technology systems since completion of the Phase 2 evaluation in 2009 and provide a detailed comparison of the packed tower chemical scrubbing technology with advanced mist scrubbing and activated carbon adsorption odor technologies based upon a life-cycle cost analysis. Although the District believes the current odor control system is performing adequately, it seemed prudent to see if there was other technologies that could reduce operating costs or provide greater reliability.

The study concluded that the proposed advanced mist scrubbing alternative would require a low capital cost investment for all process areas, but annual O&M costs would be relatively high, primarily due to the high labor cost associated with maintaining multiple new pieces of equipment. Conversely, the activated carbon adsorption alternative would require a much higher capital investment than the advanced mist scrubbing alternative, but annual labor costs to maintain the relatively simple adsorbers are lower.

### Why Update the Study

Previous odor control evaluations mainly focused on technologies that were similar to the existing technology the District was already using and fit within the constraints of the existing property. Staff would like to hire a consultant to conduct additional air sampling, develop and run a new odor dispersion model, and mainly focus on evaluating alternative odor control technologies not identified in previous odor control evaluations. This will potentially provide the District other options to evaluate when considering any future odor control enhancements in the future if deemed necessary.

### **Request for Proposal**

Staff prepared a Request for Proposal (RFP) for the Odor Control Alternatives Study. The RFP was sent to seven firms in August 2016. The seven firms were Brown and Caldwell, CH2M HILL, Lee & Ro, RMC Water and Environment, CDM Smith, Valentine Environmental Engineers, and Webster Environmental Associates. After reviewing the project scope in detail, Brown & Caldwell, RMC, and CDM Smith declined to submit a proposal due to staff unavailability.

Staff received proposals from CH2M HILL, Webster Environmental Associates, and Valentine Environmental Associates in September 2016. Webster Environmental’s proposal listed Lee & Ro as a subconsultant for the Study. A panel consisting of engineering and operations staff reviewed the proposals and selected CH2M HILL for the Study due to their proposed team members’ relevant experience, qualifications, and approach to the project.

**Task Order No. 1**

Task Order No. 1 will include the following scope of services:

1. Review findings from previous odor control and sampling reports and related data.
2. Conduct air sampling at the WWTP and in the general vicinity where recent complaints have occurred to help identify potential nuisance level odorous compounds present and possible sources.
3. Develop and conduct a dispersion model of the WWTP facilities, odor sources, and odor receptors in the adjacent properties under different weather conditions.
4. Prepare a report to summarize findings, evaluate odor control alternatives not included in previous odor control studies, and recommended odor control alternatives for implementation, if deemed necessary. The recommended alternatives will include life cycle costs.

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

<b>Task No.</b>	<b>Task Description</b>	<b>Fee</b>
1	Project Kick-off – Includes Preliminary Site Investigations and Meetings	\$10,371
2	Odor Sampling and Offsite Odor Survey	\$52,454
2A	Fecal and Musty Odorant Analysis (Optional)	\$16,142
3	Dispersion Modeling	\$19,160
4	Odor Criteria Workshop	\$5,316
5	New Odor Control Alternatives Economic and Non-Economic Criteria Analysis	\$6,408
6	Workshop to Present Initial Findings, Conclusions and Recommendations	\$6,622
7	Draft and Final Odor Study Report	\$18,960
8	Project Management	\$4,368
	<b>Total Not-to-Exceed Fee</b>	<b>\$139,801</b>

Staff believes the total not-to-exceed fee of \$139,801 is reasonable given the effort needed to conduct the air sampling under different weather conditions, development of the dispersion model, and the analysis of alternative odor control technologies.

### **Schedule**

Staff anticipates completion of the study by November 2017. CH2M HILL will conduct three separate air sampling events during the spring and summer of 2017. There will be two summer events under different weather conditions. After the last air sampling event, CH2M HILL will conduct a workshop with staff to present the findings, conclusions and recommendations.

Staff recommends the Board authorize the General Manager to execute an Agreement and Task Order No. 1 with CH2M HILL Engineers, Inc. in the amount of \$139,801 for the Odor Control Alternatives Study.

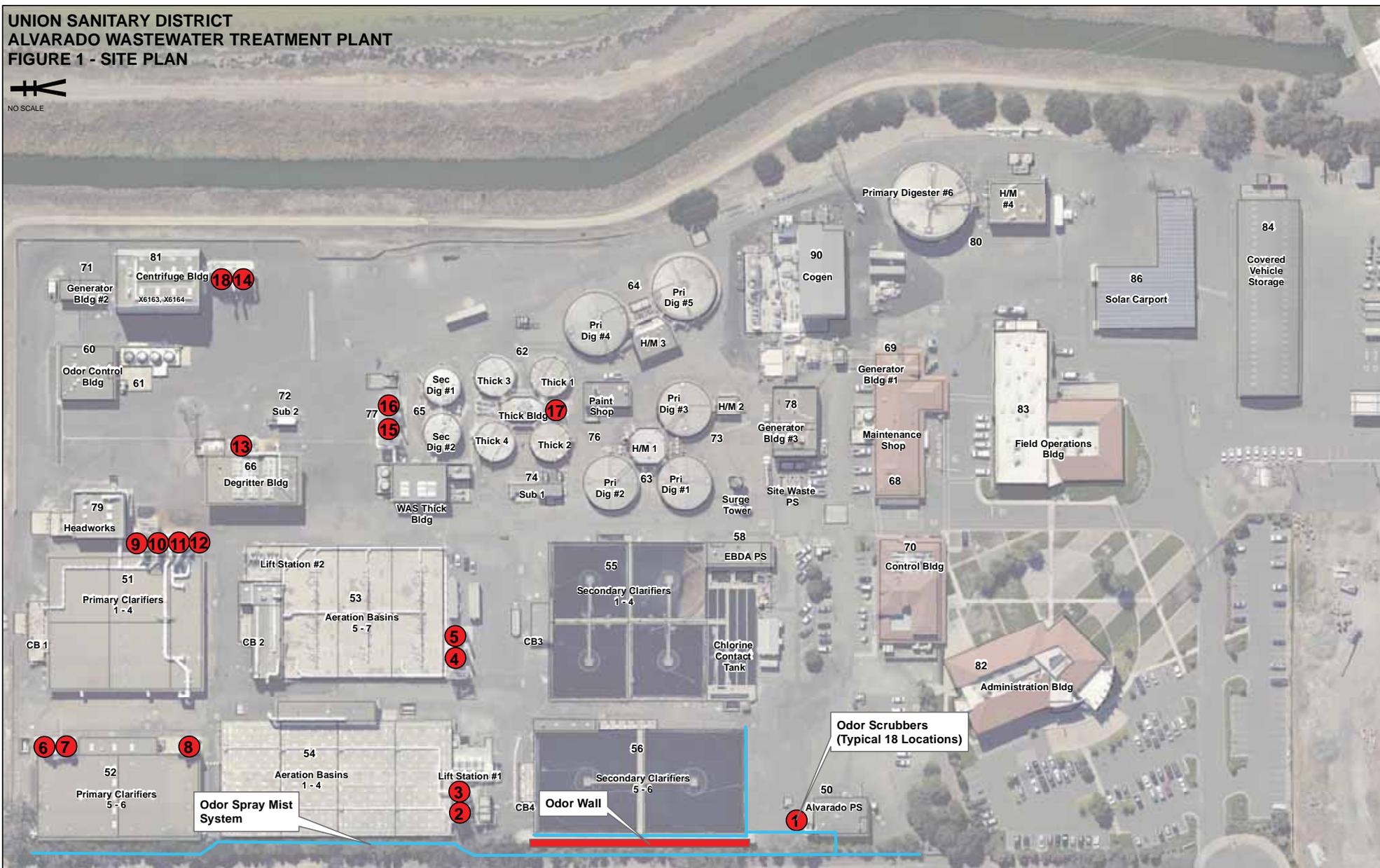
PRE/SEG/RC/KC:ks

Attachments: Figure 1 – Site Plan  
Figure 2 – Existing Scrubber Towers  
Figure 3 – Existing Odor Dispersion Wall  
Figure 4 – Existing Piiian Mist System  
Task Order No. 1  
Agreement

**UNION SANITARY DISTRICT  
ALVARADO WASTEWATER TREATMENT PLANT  
FIGURE 1 - SITE PLAN**

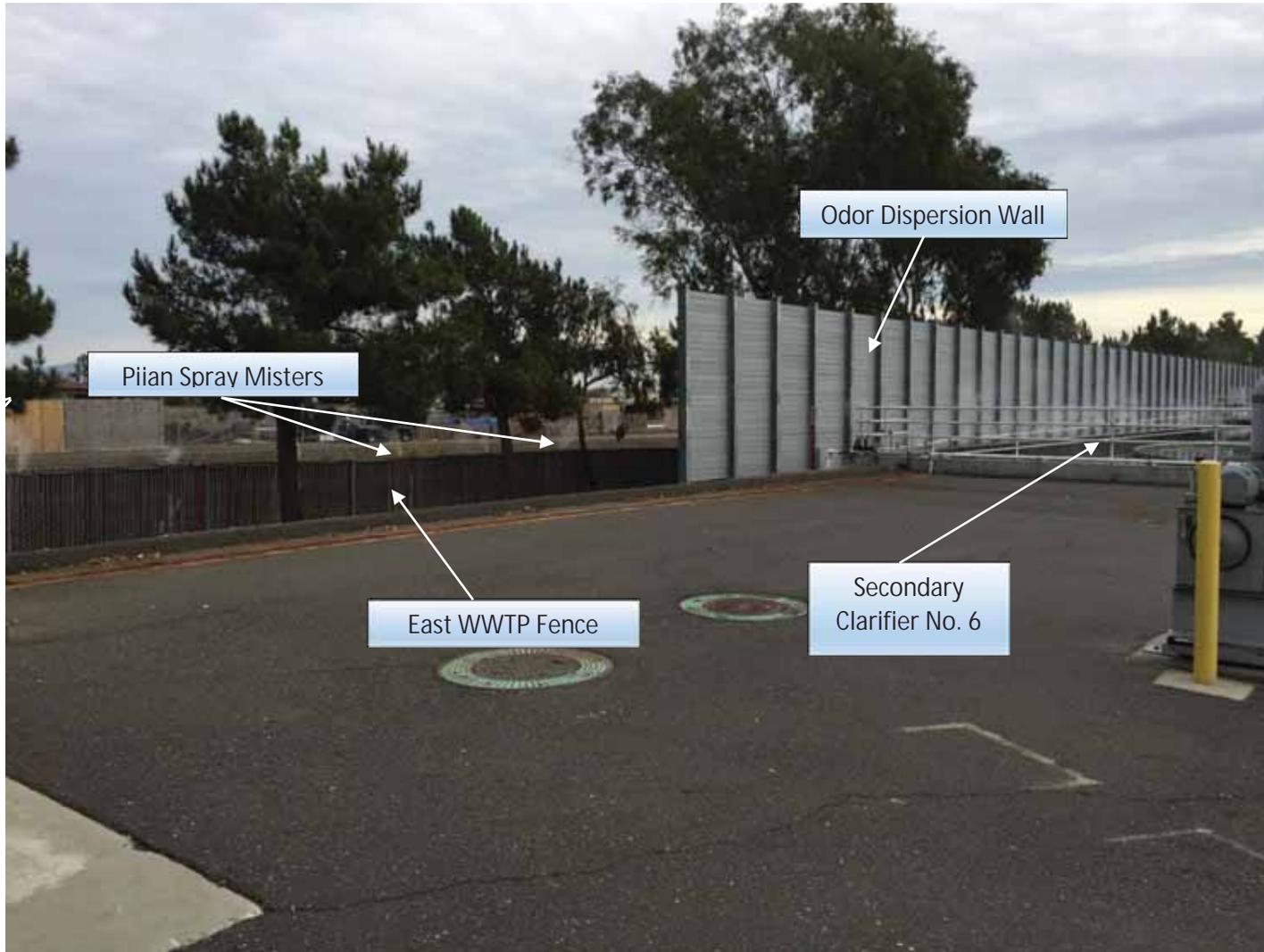


NO SCALE





*Figure 2 – Existing Scrubber Towers*



*Figure 3 – Existing Odor Dispersion Wall*



*Figure 4 – Existing Piiian Mist System*

**ODOR CONTROL ALTERNATIVES STUDY**

**TASK ORDER NO. 1**

**to**

**AGREEMENT**

**BETWEEN**

**UNION SANITARY DISTRICT**

**AND**

**CH2M HILL ENGINEERS, INC.**

**FOR**

**PROFESSIONAL SERVICES**

**DATED JANUARY \_\_\_\_\_, 2017**

**1. PURPOSE**

The purpose of Task Order No. 1 is to authorize the preparation of an Odor Control Alternatives Study (Study) for the Alvarado Wastewater Treatment Plant (WWTP). Preparation of the study will include:

1. Review findings from previous odor control and sampling reports and related data
2. Conduct air sampling at the WWTP and in the neighborhood where recent complaints have occurred to help identify potential nuisance level odorous compounds present there and from the WWTP
3. Develop and conduct a dispersion model of the WWTP facilities, odor sources, odor receptors in the adjacent properties, and other pertinent factors to analyze odors under different weather conditions
4. Development of a report to summarize findings, evaluate odor control alternatives not included in previous odor control studies, and recommend alternatives for implementation

The project elements described above are further described in the below scope of services.

## **2. PROJECT COORDINATION**

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

## **3. SCOPE OF SERVICES**

### **Task 1: Project Kick-off**

1. The Engineer shall conduct a project kickoff workshop to undertake the following:
  - Establish the Study goals
  - Confirm project stakeholders and project team
  - Agree on quantitative WWTP fence line odor goals
  - Agree on odor sampling to be conducted and sampling locations
  - Review the project approach and schedule
2. The Engineer shall conduct field investigations with District staff to confirm understanding of the project background and constraints of the existing odor control systems and operations and maintenance (O&M) issues. The investigation will include a tour of the WWTP to confirm current odor sources, and of the neighborhood surrounding the plant to gain understanding of odor hot spots and potential sewer collection system odor impacts.
3. The Engineer shall develop an appropriate approach for the Study, based on findings of the kick-off workshop, field investigations, and review of existing documents.
4. The Engineer shall review existing relevant odor control and sampling reports and data for the WWTP, and conduct a gap analysis focused on identifying additional sampling needs.

### **Assumptions:**

- The District will provide all relevant past odor studies.
- The Engineer has budgeted 4 hours for the kickoff workshop and includes attendance by the Engineer's Project Manager and Technical Director.
- The Engineer has budgeted 8 hours for field investigations and includes attendance by the Engineer's Project Manager, Technical Director and local staff.
- The District will submit review comments to the Engineer within 2 weeks after receipt of the deliverable. Review comments will be consolidated and provided in an Excel table and labeled with the reviewer's initials, date, comment status, and an adjudication column.

**Deliverables:**

- Draft and final Kickoff Workshop agenda and PowerPoint files
- Summary meeting minutes

**Task 2: Odor Sampling Events and Offsite Odor Survey**

1. The Engineer shall develop and prepare a sampling plan for the Alvarado WWTP and adjacent marsh on the west side of the Alvarado WWTP. Engineer shall conduct three sampling events on dates acceptable to the District; one in spring 2017, one in mid-summer 2017, and one in August 2017. The sampling shall include gas and liquid phase odors for odor panel analysis, and reduced sulfur compound analysis to determine the source of the odor complaints. Sampling analyses will focus on five of the nine key odorant compounds including hydrogen sulfide, methyl mercaptan, dimethyl disulfide, dimethyl sulfide, and ammonia. The Engineer shall be responsible for collecting all air samples using Tedlar bags, flux chambers, sweep gas, and vacuum sample boxes, and shipping the samples overnight to outside air quality laboratories for analysis. Air quality laboratories shall receive the samples, conduct specific analyses, and provide results. The results of the odor panel analyses shall be compared to the results of the air testing conducted in the adjacent neighborhood for the purposes of correlation. Gas phase odor sources to be sampled for each sample event include the following:

Spring 2017

- Combustion sources (cogeneration and flares)
- Alvarado Influent Pump Station (IPS) scrubber inlet and stack
- Grit Removal scrubber inlet and stacks
- Primary Clarifier scrubber inlet and stacks
- Aeration basins scrubber inlet and stacks
- Thickening scrubber stacks – Gravity Thickener Tanks and Gravity Belt Thickener Building scrubber stacks
- Dewatering scrubber stacks
- Secondary clarifier quiescent zone
- Secondary clarifier weir zone
- Adjacent marsh

Summer 2017

- Alvarado IPS scrubber inlet and stack
- Primary Clarifier scrubber inlet and stacks
- Aeration basins scrubber inlet and stacks
- Grit Removal scrubber stack
- Secondary clarifier quiescent zone
- Secondary clarifier weir zone

- Adjacent marsh

August 2017

- Alvarado IPS scrubber inlet and stack
- Primary Clarifier scrubber inlet and stacks
- Aeration basins scrubber inlet and stacks
- Dewatering scrubber stacks
- Secondary clarifier quiescent zone
- Secondary clarifier weir zone
- Adjacent marsh

Liquid phase sources to be sampled included the following:

- Raw Sewage
  - Primary influent
  - Primary effluent
  - Secondary Clarifier effluent
  - Mixed Liquor
  - Adjacent marsh source will be sampled to provide ambient data
2. The Engineer shall prepare and conduct an offsite odor survey plan which includes up to six survey stations within the adjacent community to the east of the Alvarado WWTP. A hand-held field olfactometer, Nasal Ranger, and/or Scentroid will be used to obtain odor measurements to identify potential WWTP and non-WWTP odor sources impacting the community. Odor measurements will occur in the early morning, mid-day, late afternoon, and evening. The information recorded for each survey station shall include location, date, time, description, intensity, and meteorological conditions. The survey will assess locations where community members have complained in the past and also look for potential new odor sources in the areas.

**Assumptions:**

- The Engineer has budgeted three 2-day sampling events to be conducted at the WWTP during spring 2017, summer 2017, and August 2017.
- The Engineer has budgeted two 2-day offsite odor survey events which will be conducted concurrently with the spring and summer liquid and gas sampling event.

**Deliverables:**

- Draft and final Sampling and Odor Survey Plan and laboratory analysis results (preliminary laboratory results will be provided after each sampling event prior to finalizing the results)

## **Optional Task 2A: Fecal and Musty Odorant Analyses**

The Engineer shall conduct odor sampling for fecal and musty odorant analysis to be completed at University of California at Los Angeles (UCLA) to supplement the odor sampling effort completed under Task 2. Alvarado WWTP gas phase odor sources to be sampled include: Alvarado IPS scrubber stack, primary clarifier scrubber inlet and stack, aeration basins scrubber inlet and stack, thickening scrubber stack, secondary clarifier weir zone, and adjacent marsh. A sampling plan will be prepared and sampling will be conducted in spring or summer 2017 in conjunction with the sampling effort described in Task 2.

Analysis results will include both Odor Profile Method (OPM) intensity values and chemical analyses concentration values for four musty and fecal odorants including 2-methyl isoborneol (MIB), 2-isopropyl-3-methoxypyrazine (IPMP), skatole, and indole.

The Engineer shall be responsible for collecting air samples using Teflon bags, flux chamber, sweep gas, and vacuum sample box, and shipping the samples to UCLA for analysis. UCLA shall receive the samples, conduct OPM analysis and chemical analysis, and provide results. Air bag sampling will use Tedlar, Suma canisters, or Teflon bags. Up to 8 samples will be obtained during the sampling event. Samples will be shipped overnight for laboratory analysis. Only 8 sample locations are needed to determine these non-H<sub>2</sub>S odorants offsite impacts because H<sub>2</sub>S is the dominate odorant at the other 5 locations and these odorants add an insignificant total odor contribution at these locations.

### **Assumptions:**

- One 2-day sampling event will be conducted at the WWTP in spring or summer 2017. Air bag sampling will use Teflon bags. Up to 8 samples will be obtained during the sampling event. Locations will be selected based on Task 2's sampling results and at locations where the total odors are not dominated by H<sub>2</sub>S odor impacts contributions.
- Samples will be shipped overnight for laboratory analysis.
- Sampling will take place the same time as Task 2 sampling event so miscellaneous sampling equipment (e.g.; flux hood, sweep gas, etc.) from Task 2 can utilized for this sampling.

### **Deliverables:**

- Draft and final Sampling Plan and laboratory analysis results

### **Task 3: Dispersion Modeling**

The Engineer shall conduct dispersion modeling using the AERMOD dispersion modeling. A model will be developed as part of this task to evaluate the WWTP's current odor footprint and to evaluate alternatives for odor control to be implemented to achieve the fence line odor goals selected in Task 1. Model results will be compared to the previous studies results to draw independent conclusions on offsite odor impacts.

The Engineer shall develop and set up an AERMOD model and complete modeling to evaluate baseline (existing) emissions from the WWTP for all key odorants, using relevant previous sampling results and new sampling results from Task 2. The updates will reflect changes in the WWTP liquids, solids, and odor control facilities that were sampled in Task 2.

Modeling will utilize annual meteorological data to understand offsite exceedances of the odor goal annually. In addition, modeling will evaluate, in particular, offsite impacts resulting from very low wind speeds (less than 0.5 meters per second) which can have the highest potential for offsite odor impacts to the community. Modeling will also show the effectiveness of the existing air dispersion shear wall under very low wind conditions.

Engineer shall develop the AERMOD model for the WWTP, including input and output files, meteorological database used, sampling data used, assumptions for how low wind speeds since the model used in previous studies is no longer used for odor assessments. Engineer shall compare results from AERMOD to previous modeling to form opinions on needed odor control requirements.

#### **Assumptions:**

- District will provide documentation for establishing the height of the existing air dispersion shear wall
- Up to six different alternatives to achieve the fence line odor goal will be modeled. A total of 12 model runs will be completed (including baseline, individual alternatives, and alternative combinations)

**Deliverables:**

- AERMOD dispersion model representative of the existing WWTP & discussion on previous odor modeling results
- Odor isopleth plots showing baseline odor emissions from the WWTP
- Odor isopleth plots showing phased reduction of odors resulting from recommended odor control improvements, to achieve the fence line odor goal
- AERMOD odor dispersion model files, including input and output files, meteorological databased used, sampling data used, and assumptions for how low wind speeds were addressed in the modeling. AERMOD model shall be validated to confirm that it can reasonably predict offsite odor emissions from the Alvarado WWTP

**Task 4: Odor Criteria Workshop**

The Engineer shall conduct a workshop with District staff to present viable candidate technologies to be considered for implementation at the Alvarado WWTP and to establish non-economic criteria, which, along with life-cycle cost, will be the basis to evaluate the odor control technology alternatives and ranking of evaluated alternatives.

**Assumptions:**

- The Engineer budget allowance includes one 4-hour meeting.
- The Engineer will provide preliminary criteria list, weighting and scoring scales a minimum of one week prior to the scheduled meeting.
- The District will provide final criteria list, associated weighting, and scoring scales to the Engineer within one week after the meeting.

**Deliverables:**

- Draft and final meeting/conference call agenda, PowerPoint presentation file, and meeting minutes

**Task 5: New Odor Control Alternatives Economic and Non-Economic Criteria Analysis**

The Engineer shall develop alternatives to reduce Alvarado WWTP offsite odor impacts to meet the District's fence line odor goals. The alternatives shall utilize a Multi-Criteria Analysis (MCA) tool to evaluate the non-economic impacts of each alternative. A life cycle-cost shall be included with each alternative. The Engineer shall develop recommendations for the preferred odor control alternative(s) based on the non-economic impacts and life-cycle cost of each alternative. The recommendations shall consider the previously evaluated alternatives.

**Assumptions:**

- Odor technologies not previously evaluated in past odor studies will be selected for evaluation
- The non-economic criteria confirmed in Task 4 will be the basis for the MCA evaluation.
- The final non-economic criteria weighting and scoring scale developed in Task 4 will be entered into the MCA evaluation.
- A conceptual, engineering order-of-magnitude cost estimate (up to 10% design) will be prepared for each alternative.
- The Engineer shall review past studies economic and non-economic results for simple comparison purposes only.

**Deliverables:**

- A brief narrative description of the odor control technology and target odor removal, example site layout, and conceptual cost estimate will be provided for each new alternative (will be included as part of Task 6 and Task 7 deliverables).
- Completed MCA analysis for all new alternatives (will be included as part of Task 6 and Task 7 deliverables), life-cycle cost, and simple comparison of previous technologies found in past studies.

**Task 6: Workshop to Present Initial Findings, Conclusions and Recommendations**

The Engineer shall compile data and conduct a workshop to present initial findings, conclusions, and recommendations and obtain consensus on the recommendations to be presented in the draft report.

**Assumptions:**

- The Engineer has budgeted one 4-hour meeting for this workshop.
- The District will make available key representatives from engineering, O&M team, USD decision-makers, and public stakeholders (if desired).

**Deliverables:**

- Draft and final workshop agenda and PowerPoint presentation files
- Meeting minutes

### **Task 7: Draft and Final Odor Study Report**

The Engineer shall prepare a draft and final Odor Control Alternatives Study Report that details the source and type of odorants at the Alvarado WWTP and surrounding marsh. The report shall document the findings, decisions, conclusions, and recommendations resulting from Tasks 1 through 6, including an implementation plan for the District's capital improvement program. The final report shall adjudicate and incorporate all District comments from the draft report.

The report will be in technical memorandum format with each section aligned to the tasks stated above. No separate technical memorandums will be provided at the completion of each task. The expected report sections are as follows:

#### **Executive Summary**

- Section 1: Introduction and Background
- Section 2: Offsite Odor Goals
- Section 3: Wastewater Treatment Processes
- Section 4: Odor Assessment
- Section 5: Dispersion Modeling
- Section 6: Vapor Phase Odor Control Technologies
- Section 7: Alternative Development and Evaluation
- Section 8: Implementation Plan
- Section 9: Findings and Recommendations

#### **Assumptions:**

- The timeline and specifics for District review of project deliverables shall be as described in Task 1.

#### **Deliverables:**

- One draft submittal Odor Study report, in electronic PDF format
- Five hard copies and one electronic PDF copy of the final Study

### **Task 8: Project Management**

The Engineer shall manage the efforts of the project team members and coordinate with the District's Project Manager. The Engineer shall prepare and submit monthly invoices. Monthly invoices shall be broken down by each task and list a summary of monthly work completed by the Engineer.

**Assumptions:**

- The project duration will not exceed 10 months

**Deliverables:**

- Monthly invoices with summary of work completed

**4. NOT USED**

**5. NOT USED**

**6. NOT USED**

**7. PAYMENT TO THE ENGINEER**

Compensation shall be on a time and materials cost basis for services provided under Article 2 of this Agreement in accordance with the Billing Rate Schedule contained in Exhibit A except that subconsultants will be billed at actual cost plus 5%, outside services and travel will be billed at actual cost, and mileage will be billed at prevailing IRS standard mileage rate. The billing rate schedule is generally comparable to a labor multiplier of approximately 3.06.

The estimated costs for Tasks 1 through 8, are presented in Exhibit B. Total charges to the District shall not exceed \$139,801.

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

<b>Task Order / Amendment</b>	<b>Not to Exceed Amount</b>	<b>Board Authorization Required? (Yes/No)</b>	<b>District Staff Approval</b>
Task Order No. 1	\$139,801	Yes	Paul Eldredge
<b>Total</b>	<b>\$139,801</b>		

**8. TIME OF COMPLETION**

The estimated time of completion is as follows:

<b>Milestone</b>	<b>Schedule</b>
Request for detailed background information	1 week from authorization to proceed

<b>Milestone</b>	<b>Schedule</b>
Initial Project Meeting	1 week from receipt of background information
Kickoff Meeting	1 day after Initial Project Meeting
Odor Criteria Workshop	12 weeks from kickoff meeting
Spring Odor Sampling Event and Offsite Odor Survey	14 weeks from kickoff meeting
Summer Odor Sampling Event	22 weeks from kickoff meeting
August Odor Sampling Event	28 weeks from kickoff meeting
Findings and Results Workshop	6 weeks from August Odor Sampling Event
Deliver draft Study Report	4 weeks following Findings and Results Workshop
Deliver final Study Report	2 weeks following receipt of District comments on the draft study

## 9. KEY PERSONNEL

Key engineering personnel assigned to Task Order No. 1 are as follows:

<b>Role</b>	<b>Personnel</b>
Project Manager	Jay Witherspoon
Technical Director	Scott Cowden
QA/QC Manager	Bart Kraakman
Associate Engineer	Giuseppe Tomasino, Local Staff

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

IN WITNESS WHEREOF, the parties hereto have made and executed this Task Order No. 1 as of January \_\_\_\_\_, 2017 and therewith incorporated it as part of the Agreement.

DISTRICT:  
UNION SANITARY DISTRICT

ENGINEER:  
CH2M HILL ENGINEERS, INC.

By:

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

By:

\_\_\_\_\_  
Greg Eldridge  
Vice President

### EXHIBIT A: BILLING RATE SCHEDULE

Professional Engineering Services – Hourly Rates <sup>a</sup>		
Project Manager	Jay Witherspoon	\$276
Technical Director	Scott Cowden	\$230
QAQC Manager	Bart Kraakman	\$188
Assistant Engineer	Giuseppe Tomasino, TBD	\$130, \$142
Cost Estimator	TBD	\$134
Editor	TBD	\$149
Subcontracts Administrator	TBD	\$107
Accountant	TBD	\$82

<sup>a</sup> Labor rates include direct costs, indirect costs, and profit resulting in a raw labor multiplier of 3.06.

**EXHIBIT B - FEE ESTIMATE**

Work Task Description	Level of Effort by Task											Task Expenses	Lab Expenses	Total Expenses	Task Totals	
	Tomasino \$130	Local Staff Engineer \$142	Demith \$106	Kraakman \$188	Cowden \$230	Witherspoon \$276	Cost Estimator \$134	Accountant \$82	Subcontract Admin \$117	Editor \$149	Total Hours					Task Labor <sup>a</sup>
Task 1 – Project Kickoff	24	0	0	0	20	4	0	0	0	0	48	\$ 8,824	\$ 1,547	\$ -	\$ 1,547	\$ 10,371
Task 2 – Odor Sampling and Offsite Odor Survey	120	40	0	0	8	0	0	0	0	0	168	\$ 23,120	\$ 12,034	\$ 17,300	\$ 29,334	\$ 52,454
Task 2A – Fecal and Musty Odorant Analysis (optional)	12	0	0	0	6	0	0	4	8	0	30	\$ 4,204	\$ 2,383	\$ 9,555	\$ 11,938	\$ 16,142
Task 3 – Dispersion Modeling	56	0	60	0	24	0	0	0	0	0	140	\$ 19,160	\$ -	\$ -	\$ -	\$ 19,160
Task 4 – Odor Criteria Workshop	8	0	0	0	12	2	0	0	0	0	22	\$ 4,352	\$ 964	\$ -	\$ 964	\$ 5,316
Task 5 – Odor Control Alternatives Economic and Non-Economic Criteria Analysis	24	0	0	2	8	0	8	0	0	0	42	\$ 6,408	\$ -	\$ -	\$ -	\$ 6,408
Task 6 – Workshop to Present Initial Findings, Conclusions, and Recommendations	12	0	0	0	12	4	0	0	0	0	28	\$ 5,424	\$ 1,198	\$ -	\$ 1,198	\$ 6,622
Task 7 – Draft and Final Odor Study Report	56	0	0	6	32	4	0	0	0	12	110	\$ 18,660	\$ 300	\$ -	\$ 300	\$ 18,960
Task 8 – Project Management	4	0	0	0	0	8	0	20	0	0	32	\$ 4,368	\$ -	\$ -	\$ -	\$ 4,368
<b>Grand Total</b>	<b>316</b>	<b>40</b>	<b>60</b>	<b>8</b>	<b>122</b>	<b>22</b>	<b>8</b>	<b>24</b>	<b>8</b>	<b>12</b>	<b>620</b>	<b>\$94,520</b>	<b>\$18,426</b>	<b>\$26,855</b>	<b>\$45,281</b>	<b>\$139,801</b>

<sup>a</sup> Labor rates include direct costs, indirect costs, and profit resulting in a raw labor multiplier of 3.06.

## Odor Control Alternatives Study

AGREEMENT  
BETWEEN  
UNION SANITARY DISTRICT  
AND  
CH2M HILL ENGINEERS, INC.  
FOR  
PROFESSIONAL SERVICES

THIS IS AN AGREEMENT MADE AS OF January \_\_\_\_\_, 2017, BETWEEN UNION SANITARY DISTRICT (hereinafter referred to as District), and CH2M HILL Engineers Inc. (hereinafter referred to as Engineer).

WITNESSETH:

WHEREAS, District intends to retain CH2M HILL Engineers, Inc. to prepare an odor control alternatives study (hereinafter referred to as Project), and,

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

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

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

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

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

### ARTICLE 2 - COMPENSATION

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

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

Definitions are as follows:

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

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

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

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

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

### ARTICLE 3 - PERIOD OF SERVICE

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

### ARTICLE 4 - DISTRICT'S RESPONSIBILITIES

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

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

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

#### ARTICLE 5 - STANDARD OF CARE

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

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

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

#### ARTICLE 7 - SUBCONTRACTING

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

#### ARTICLE 8 - ENGINEER-ASSIGNED PERSONNEL

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

## ARTICLE 9 - OWNERSHIP OF DOCUMENTS

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

## ARTICLE 10 - RECORDS OF LABOR AND COSTS

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

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

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

## ARTICLE 11 - INSURANCE

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

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

Comprehensive Automobile Liability Insurance shall not be less than \$1,000,000 Combined Single Limit.

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

the payment of any loss. Engineer agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation.

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

## ARTICLE 12 - LIABILITY AND INDEMNIFICATION

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

received by Engineer under this Agreement or the maximum amount of professional liability insurance available at the time of any settlement or judgment, which ever is greater.

#### ARTICLE 13 - INDEPENDENT CONTRACTOR

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

#### ARTICLE 14 - COMPLIANCE WITH LAWS

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

#### ARTICLE 15 - NONDISCLOSURE OF PROPRIETARY INFORMATION

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

#### ARTICLE 16 - TERMINATION OF CONTRACT

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

Services on a schedule acceptable to District. In the event of termination or suspension for District's convenience, District will pay Engineer for all services performed and costs incurred including termination or suspension expenses. Upon restart of a suspended project, equitable adjustment shall be made to Engineer's compensation.

## ARTICLE 17 - UNCONTROLLABLE FORCES

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

## ARTICLE 18 - MISCELLANEOUS

- 18.1 A waiver by either District or Engineer of any breach of this Agreement shall not be binding upon the waiving party unless such waiver is in

writing. In the event of a written waiver, such a waiver shall not affect the waiving party's rights with respect to any other or further breach.

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

#### ARTICLE 19 - INTEGRATION AND MODIFICATION

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

#### ARTICLE 20 - SUCCESSORS AND ASSIGNS

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

performance of the Services hereunder and in accordance with Article 7.

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

## ARTICLE 21 – INFORMATION SYSTEM SECURITY

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

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

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

## ARTICLE 22 – EMPLOYEE BACKGROUND CHECK

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

1. California residents: Criminal Records (County and State Criminal Felony and Misdemeanor

2. Out of State residents: Federal criminal search of the National Criminal Database,

The background check shall be conducted and the results submitted to the District prior to initial access by Consultant Employees. If at any time, it is discovered that a Consultant Employee has a criminal record that includes a felony or misdemeanor, the Engineer is required to inform the District immediately and the District will assess the circumstances surrounding the conviction, time frame, nature, gravity, and relevancy of the conviction to the job duties, to determine whether the Consultant Employee will be placed or remain on a District assignment. The District may withhold consent at its sole discretion. The District may also conduct its own criminal background check of the Consultant Employees. Failure of the Engineer to comply with the terms of this paragraph may result in the termination of its contract with the District.

ARTICLE 23 - EXCEPTIONS

No exceptions.

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

UNION SANITARY DISTRICT

CH2M HILL ENGINEERS, INC.

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

By: \_\_\_\_\_  
Greg Eldridge  
Vice President

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

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



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2017

**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. 13 – Meeting of January 9, 2017  
**Consider a Resolution to Accept the Construction of the Alvarado-Niles Road Sanitary Sewer Rehabilitation Project from SAK Construction and Authorize Recordation of a Notice of Completion**

## **Recommendation**

Staff recommends the Board consider a resolution to accept the construction of the Alvarado-Niles Road Sanitary Sewer Rehabilitation Project from SAK Construction, and authorize recordation of a Notice of Completion.

## **Background**

Television inspections of the Alvarado Basin identified portions of the Alvarado-Niles Road trunk sewer as having extensive corrosion due to Hydrogen Sulfide. These sewers were installed in the mid 1960s using reinforced concrete pipe that is highly susceptible to corrosion.

The Project rehabilitated approximately 9,200 linear feet of the existing 27-inch and 30-inch diameter reinforced concrete trunk sewer which runs from under the Alvarado-Niles Road Bridge (above the BART and Union Pacific Railroad tracks) in Fremont to the vicinity of the Alvarado-Niles Road and Western Avenue intersection in Union City. Please see the location map provided in Exhibit A. Additionally, the project rehabilitated approximately 125 linear feet of existing 8-inch diameter cast iron pipe at four locations.

The project scope of work included traffic control, sewage flow control, lateral reinstatement, manhole rehabilitation, construction of various access improvements, and surface restoration. West Yost & Associates completed the project design in February 2016.

## **Construction Contract**

On March 14, 2016, the Board awarded the construction contract for the Project to SAK Construction in the amount of \$3,282,618. Staff issued the Notice to Proceed to SAK Construction on April 4, 2016. The 224-day project was scheduled to be completed on November 13, 2016, and SAK Construction substantially completed the project on October 11, 2016. Brown & Caldwell provided construction management services for the project.

## **Change Orders**

The project includes three change orders at a total credit of -\$33,556.00, which is approximately -1% of the original contract amount. All negotiations have been finalized and the change orders have been executed. A description of these change orders follows.

### **Change Order No. 1**

Contract Change Order No. 1 is in the credit amount of -\$17,372.60 and is for balancing the final pay item quantities. This amount is primarily attributed to not exercising the full quantity of bid items associated with manhole steps installation, lateral reinstatement, pavement grinding and overlay, and disposal of hazardous material.

### **Change Order No. 2**

Contract Change Order No. 2 is in the credit amount of -\$26,690.17 and is for the change in scope to Bid Item No. 11. The original contract included Bid Item No. 11 to install five new cleanouts on existing laterals that connected directly to the trunk sewer being rehabilitated. The primary purpose of the proposed cleanouts was to provide a way for the contractor to control flow into the sewer main to be rehabilitated. The Contractor investigated the properties that these laterals served and discovered that there were buried existing cleanouts on each lateral that could be used for sewer flow control purposes during the rehabilitation work. As such, the installation of the new cleanouts was unnecessary, and Bid Item No. 11 is credited back in its entirety, while the investigative work was quantified on a force account basis.

### **Change Order No. 3**

Contract Change Order No. 3 is in the amount of \$10,506.77 and is for restoration of a buried survey monument discovered during bypass trenching operations at the intersection of Alvarado-Niles Rd. and Meyers Dr. Restoration included the necessary field work as well as employment of a Professional Land Surveyor to file a corner record with the County of Alameda.

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

**Table 1**  
**Change Order Summary**

No.	Description	Amount
1	Balancing Change Order	-\$17,372.60
2	Bid Item #11 Scope Change	-\$26,690.17
3	Survey Monument at Meyers Dr.	\$10,506.77
<b>Change Order Total (Approx. -1% of Contract Amount)</b>		<b>-\$33,556.00</b>

All punchlist work is complete and the District has assumed beneficial use of the Project.

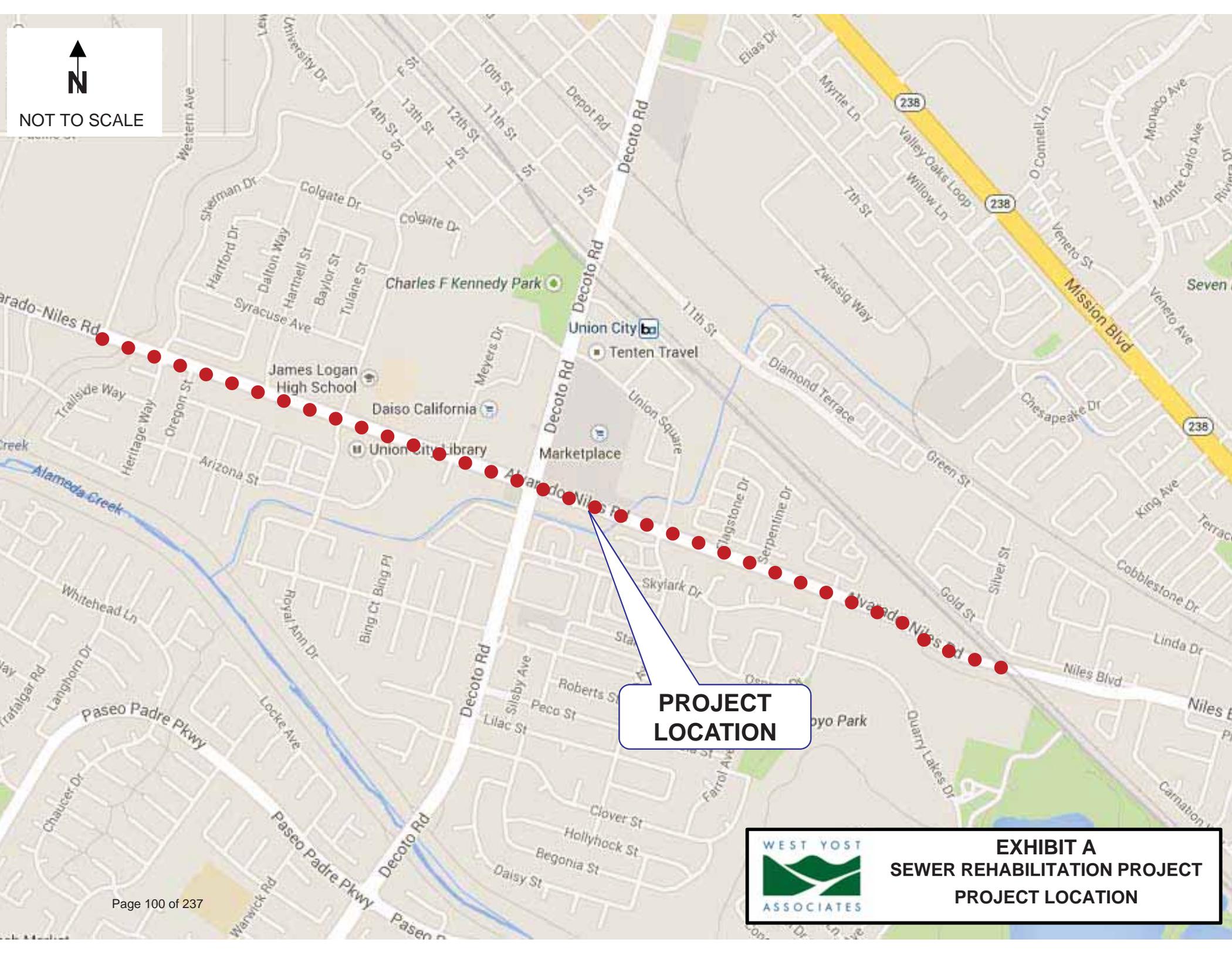
Staff recommends the Board consider a resolution to accept the construction of the Alvarado-Niles Road Sanitary Sewer Rehabilitation Project from SAK Construction, and authorize recordation of a Notice of Completion.

PRE/SEG/RC/CE:ks

Attachments: Exhibit A – Location Map  
Exhibit B – Photos  
Resolution  
Notice of Completion



NOT TO SCALE



**PROJECT  
LOCATION**



**EXHIBIT A  
SEWER REHABILITATION PROJECT  
PROJECT LOCATION**

# EXHIBIT B - PHOTOS

*Photo 1A – Alvarado-Niles Rd. between Osprey Dr. and Serpentine Dr.: Pre-Lining*



*Photo 1B – Alvarado-Niles Rd. between Osprey Dr. and Serpentine Dr.: Post-Lining*



# EXHIBIT B - PHOTOS

*Photo 2A – Alvarado-Niles Rd. near Decoto Rd.: Pre-Lining*



*Photo 2B – Alvarado-Niles Rd. near Decoto Rd.: Post-Lining*



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

**ACCEPT CONSTRUCTION OF THE  
ALVARADO-NILES ROAD SANITARY SEWER REHABILITATION PROJECT  
LOCATED IN THE CITY OF UNION CITY, CALIFORNIA  
FROM SAK CONSTRUCTION, LLC**

RESOLVED, by the Board of Directors of the UNION SANITARY DISTRICT that it hereby accepts the Alvarado-Niles Road Sanitary Sewer Rehabilitation Project from SAK Construction, LLC, effective January 9, 2017.

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

On motion duly made and seconded, this resolution was adopted by the following vote on January 9, 2017:

AYES:

NOES:

ABSENT:

ABSTAIN:

\_\_\_\_\_  
TOM HANDLEY  
President, Board of Directors  
Union Sanitary District

Attest:

\_\_\_\_\_  
ANJALI LATHI  
Secretary, Board of Directors  
Union Sanitary District



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

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

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

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**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 March 21, 2016, by said District and **SAK CONSTRUCTION, LLC**, 864 Hoff Rd., O'Fallon, MO 63366, Contractor for the Project, "Alvarado-Niles Road Sanitary Sewer Rehabilitation Project," was substantially completed on October 11, 2016, and accepted by said District on January 9, 2017.

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

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

The description of the site where said work was performed and completed is on Alvarado-Niles Road, in the city of Union City, County of Alameda, State of California.

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

Executed on January 9, 2017 at UNION CITY, CALIFORNIA.

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



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 3, 2017

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

**FROM:** Paul R. Eldredge, General Manager/District Engineer  
Pamela Arends-King, Business Services Manager/CFO  
Sheila Talbert, Human Resources Manager

**SUBJECT:** Agenda Item No. 14– Meeting of January 9, 2017  
**APPROVAL OF THE PRINCIPAL AND FINANCIAL ANALYST JOB SERIES**

### **Recommendation**

Consider and approve the Accounting and Financial Analyst job series and salary range.

### **Background**

At the December 19, 2016 Board workshop, proposed modifications to the Senior Accountant and the Principal Financial Analyst positions were evaluated and discussed. In preparation for this workshop, a thorough study of the job duties for both positions was completed to determine the best staffing for the finance related responsibilities of the Business Services Workgroup. It was determined the current positions were separate with little to no overlapping or sharing of job duties or knowledge.

To address these needs staff is recommending replacing the existing classification of Senior Accountant and Principal Financial Analyst with a new Accounting and Financial Analyst series. The series will include three new positions which are: Accounting and Financial Analyst I and II and Senior Accounting and Financial Analyst. Of these three positions only two positions will be filled; 1) the Accounting and Financial Analyst I or II, the qualifications of the candidate pool will determine the level for filling the positions; and 2) the Senior Accountant and Financial Analyst.

The new positions establish a progression/continuity in duties and knowledge and provides more opportunities for career advancement at the District. All three positions require a four year college degree with a major in accounting or a closely related field with and emphasis in accounting and a specific number of years of experience. The job duties and knowledge requirements range from entry-level to complex accounting functions and basic to advance forecasting, financial planning and budgeting.

There is no salary increase for the new Senior Accounting Financial Analyst and Accounting and Financial Analyst II positions as those positions will use the current salary ranges for the Principal Financial Analyst (\$104,382 to \$137,000 annually) and the Senior Accountant positions (\$95,800 to \$125,737 annually).

A new salary range was created for the Accounting and Financial Analyst I position, however, the salary range for this position is approximately 10% less than the existing Senior Accountant position. The salary range is \$86,840 to \$113,984 annually. This salary range was comparable to agencies with a similar position and addresses compaction with the Accounting Technician Specialist.

### **Attachments**

Accounting and Financial Analyst I job description with salary range

Accounting and Financial Analyst II job description with salary range

Senior Accounting and Financial Analyst job description with salary range



## Accounting and Financial Analyst I

Bargaining Unit: Professional

Class Code: 2061

UNION SANITARY DISTRICT  
 Established Date: Dec 19, 2016  
 Revision Date: Dec 19, 2016

### SALARY RANGE

\$41.75 - \$54.80 Hourly  
 \$3,340.00 - \$4,384.00 Biweekly  
 \$7,236.67 - \$9,498.67 Monthly  
 \$86,840.00 - \$113,984.00 Annually

### DESCRIPTION:

Under general supervision in a team environment, performs professional accounting of some complexity; oversees payroll, benefits, and accounts payable/receivables; maintains financial accounts and programs; provides support to financial planning and budget processes; and acts as a financial resource for the District. This is a sub-journey level position in the Accounting and Financial Analyst series. Individuals in this class normally advance to Accounting and Financial Analyst II after gaining experience and achieving proficiency to meet the requirements of the higher-level classification.

### EXAMPLES OF DUTIES:

Perform work involving confidential information relating to payroll/benefits and labor relations data; implement negotiated salary/benefits conditions; personally process sensitive and/or confidential payroll matters.

Audit the District's payroll and accounts payable and receivable functions; serves as the back-up for Payroll and Accounts Payable.

Maintain and balance major general ledger accounts; create general ledger accounts; prepare journal entries; assist in analyzing and reconciling details of all major general ledger accounts to proper control totals.

Establish cost areas for new projects and activities, analyze and balance project accounts.

Assist in the completion of the annual operating and capital budgets and financial forecasting and planning.

Audit billing, check-writing, payroll, and other accounting functions for accuracy; ensure proper documentation; perform monthly bank reconciliations and daily cash reconciliation and cash flow projections.

Complete entry level and some complex accounting functions to properly represent the District's current financial position and periodic activity and prepare reoccurring financial reports.

Maintain fixed asset program, including depreciation; assist in establishing replacements, insurance values, and fixed asset replacement provisions.

Assist with financial analyses of the District's financial condition and financial or rate impacts associated with various District initiatives and major capital projects.

Maintain deferred compensation schedules and reconcile these schedules to the Plan Administrator's reports.

Act as a financial resource for the District, providing financial information to public agencies, contractors, and others.

Assist in monitoring of capital improvement project expenditures; maintain financial records and control of capital projects.

Assist in the completion of the year-end accounting functions and the preparation of the year-end audit.

Budget Point Resource: meet regularly with Budget Points to discuss issues; act as a resource for the points; coach, train, and develop staff who are responsible for team budgets.

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

**QUALIFICATIONS:**

Education: Completion of four years' college, resulting in graduation, with a major in accounting or a closely related field with an emphasis in accounting.

Experience: One to three years' experience in payroll, with some accounts payable and bookkeeping experience desired.

Knowledge of: Generally accepted accounting principles and practices applicable to public agencies; principles and practices of payroll and accounts payable; pertinent state and federal laws governing wage and hour calculations, tax deductions, and payroll-related issues; accounting and finance computer programs; electronic data processing principles as applied to general, cots, payroll, accounts payable, and managerial accounting; standard office practices and procedures; basic forecasting and methods and techniques of financial analysis.

Skill in: performing less complex general accounting work; making mathematical calculations with speed and accuracy; learning to, and performing the analysis, auditing, and verification of accounting records and documents; preparing financial statements and schedules; preparing neat, clear, accurate and concise reports and correspondence; tracing the source of errors in accounting operations.

Ability to: understand and carry out oral and written instructions in English; learn and apply District policies and procedures; learn to analyze and verify statements and schedules; learn to analyze financial systems reports; read and interpret complex reports, orders, and legal forms; analyze and verify statements and schedules; work under time constraints and with limited direction; analyze situations accurately and adopt an effective course of action; organize work, set priorities, meet critical deadlines, and follow up on assignments; maintain confidentiality of information.

Interpersonal Effectiveness: Ability to work effectively in a team based organization focused on continuous improvement; establish and maintain a positive customer service attitude and effective working relationships with customers; demonstration of strong two-way communication skills, including the ability to listen, explain, and facilitate; ability to ask for input; offer help without being asked; accept suggestions; work with others to solve problems; and provide recognition and encouragement.

Customer Service: Can analyze budget requirements, identifying issues and concerns, exploring solutions, and implementing improvements; seeks ways to continuously improve processes; can be counted on to follow through.

Licenses, Certificates, or Credentials: Must possess a valid Class C California driver's license, have and maintain a satisfactory driving record, and be insurable by the District to operate District vehicles.

Other Requirements: Must possess the physical characteristics to perform the critical and important duties of the job. Must be willing to work overtime as needed.

**ADDITIONAL INFORMATION:**

Disaster Service Worker

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

Approved by the Board of Directors. Revised.

Position status: Unclassified, Non-exempt (Professional, Sub-journey level)



## Accounting and Financial Analyst II

Bargaining Unit: Professional

Class Code: 2061

UNION SANITARY DISTRICT  
 Established Date: Dec 19, 2016  
 Revision Date: Dec 19, 2016

### SALARY RANGE

\$46.06 - \$60.45 Hourly  
 \$3,684.62 - \$4,836.06 Biweekly  
 \$7,983.33 - \$10,478.12 Monthly  
 \$95,800.02 - \$125,737.46 Annually

### DESCRIPTION:

Under general supervision in a team environment, performs professional accounting of substantial complexity; oversees payroll, benefits, and accounts payable/receivable; maintains financial accounts and programs; provides support to financial planning and operating and capital budget preparation; analyzes and prepares financial and statistical reports; assists in rate analysis and revenues requirements; and acts as a financial resource for the District. This position is alternatively staffed with the Accounting and Financial Analyst I position. This is a technical specialist level classification.

The Accounting and Financial Analyst II is distinguished from the Senior Accounting and Financial Analyst series in that the latter is the most senior financial position and performs professional financial and accounting work of substantial complexity and prepares the annual budget, oversees major financial projects, and monitors rates and revenue structures.

### EXAMPLES OF DUTIES:

Perform work involving confidential information relating to payroll/benefits and labor relations data; implement negotiated salary/benefits conditions; personally process sensitive and/or confidential payroll matters.

Audit the District's payroll and accounts payable and receivable functions; serves as the backup for Payroll and Accounts Payable.

Advise management of legislative and regulatory changes affecting payroll and benefits procedures.

Coordinate regular meetings with Human Resources and Financial staff to exchange information matters that affect wages, benefits, and compensation.

Provide technical guidance and direction to accounting technicians in the performance of payroll, benefits, and AP/AR duties; help provide direction on improving accounting work flow.

Provide support to a variety of finance and accounting activities, including financial planning and forecasting and annual budget processes; project accounting activities (account assignment, account validation and maintenance, and project reporting) ; deferred compensation; Cash management and investments.

Perform ad hoc accounting assignments, such as social committee audit, personnel budget projects, historical comparisons of financial data, and workers' compensation and other benefits analyses.

Complete entry level to complex accounting functions to properly represent the District's current financial position and periodic activity and prepare reoccurring financial reports.

Maintain and balance major general ledger accounts; analyze and reconcile details of all major general ledger accounts to proper control totals.

Establish cost areas for new projects and activities; analyze and balance project accounts. Monitor capital improvement project expenditures; maintain financial records and control of capital projects.

Conducts financial analyses of the District's financial condition and financial or rate impacts associated with various District initiatives and major capital projects.

Complete year-end accounting functions and assist in the preparation of the year-end audit and preparation of the Comprehensive Annual Financial Report.

Maintain fixed asset program, including depreciation; assist work groups in establishing replacements, insurance values, and fixed asset replacement provisions.

Prepare and ensure the accuracy of financial and budgetary reports, including preparing or assisting in the preparation of special financial reports.

Maintain deferred compensation schedules and reconcile these schedules to the Plan Administrator's reports.

Act as a financial resource for the District with staff, auditors, brokers, vendors, public agencies, contractors, and others.

Audit billing, check writing, payroll, and other accounting functions for accuracy; ensure proper documentation; perform monthly bank reconciliations.

Stay current and informed on those accounting issues that affect the District.

Budget Point Resource: meet regularly with Budget Points to discuss issues; act as a resource for the points; coach, train, and develop staff who are responsible for team budgets.

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

### **QUALIFICATIONS:**

**Education:** Completion of four years' college, resulting in graduation, with a major in accounting or a closely related field.

**Experience:** Three – five years' professional accounting experience.

**Knowledge of:** Generally accepted accounting principles and practices applicable to public agencies; ; principles and practices of payroll administration; pertinent state and federal laws governing wage and hour calculations, tax deductions, and payroll related issues; accounting and finance computer programs; electronic data processing principles as applied to general, cost, payroll, accounts payable, and managerial accounting; standard office practices and procedures; advanced forecasting and methods and techniques of financial analysis.

**Skill in:** Performing complex general accounting work; making mathematical calculations with speed and accuracy; analyzing, auditing, and verifying accounting records and documents; preparing financial statements and schedules; designing, modifying, and using complex spreadsheets and other computer programs for accounting applications; preparing neat, clear, accurate and concise reports and correspondence; tracing the source of errors in accounting operations; analyzing financial systems reports.

**Ability to:** Understand and carry out oral and written instructions in English; learn and effectively use the District's computerized financial system; apply District policies and procedures; analyze and verify statements and schedules; read and interpret complex reports, orders, and legal forms; analyze and verify statements and schedules; work under time constraints and with minimal direction; analyze situations accurately and adopt an effective course of action; organize work, set priorities, meet critical deadlines, and follow up on assignments; maintain confidentiality of information.

**Interpersonal Effectiveness:** Ability to work effectively in a team based organization focused on continuous improvement; establish and maintain a positive customer service attitude and effective working relationships with customers; demonstration of strong two-way communication skills, including the ability to listen, explain, and facilitate; ability to ask for input; offer help without being asked; accept suggestions; work with others to solve problems; and provide recognition and encouragement.

**Customer Service:** Can analyze budget requirements, identifying issues and concerns, exploring solutions, and implementing improvements; seeks ways to continuously improve processes; can be counted on to follow through.

**Licenses, Certificates, or Credentials:** Must possess a valid Class C California driver's license, have and maintain a satisfactory driving record, and be insurable by the district to operate District vehicles.

**Other Requirements:** Must possess the physical characteristics to perform the critical and important duties of the job. Must be willing to work overtime as needed.

### **ADDITIONAL INFORMATION:**

#### **Disaster Service Worker**

Employees of Union Sanitary District are, by State and Federal law, Disaster Service Workers. In the event of a declaration of emergency, any employee may be assigned activities that promote the protection of public health

and safety or the preservation of lives and property, either at the District or within the local or their own community.

Approved by the Board of Directors:

Position status: Unclassified, Non-exempt (Professional, Technical Specialist level)

Recruitment: Internal and External



UNION SANITARY DISTRICT  
Established Date: Dec 16, 2016  
Revision Date: Dec 16, 2016

## Senior Accounting and Financial Analyst

Class Code: 2060

Bargaining Unit: Professional

### SALARY RANGE

\$50.18 - \$65.87 Hourly  
\$4,014.68 - \$5,269.26 Biweekly  
\$8,698.47 - \$11,416.74 Monthly  
\$104,381.68 - \$137,000.86 Annually

### DESCRIPTION:

Under general supervision in a team environment, the Senior Accounting and Financial Analyst serves as the most senior financial position and performs professional financial and accounting work of substantial complexity; prepares annual budget; oversees major financial projects; monitors rates and revenue structures; provides technical direction to accounting staff, and provides Budget Points with the resources and support necessary to perform their functions.

### EXAMPLES OF DUTIES:

Participates in the preparation and administration of the District's operating and capital improvement budgets; quantifies impact of budget on the District's financial performance; submits budget recommendations; and monitors expenditures.

Performs complex administrative and financial analyses, including problem identification, selection of methodology, and evaluation of alternative solutions and presentation of findings to management.

Analyze past and present financial operations and expenditures and estimate future revenues to use in preparation of the annual budget and long-range financial forecasts.

Coordinates and provides documentation for debt issuance, regulatory disclosure compliance and debt administration.

Completes complex accounting functions and reviews accounting staff work.

Establish financial controls and review expenditures for conformance with approved budgets; prepare and review reports and statements; develop operating and other statistics used for budgeting purchases and costs.

Monitor capital improvement project expenditures; maintain financial records and control of capital projects.

Prepares analytical and statistical reports on operations and activities in the areas of administration, finance and information systems including policies, procedures, methods and proposals to improve efficiency, cost effectiveness and quality of operations.

Develops financial analysis models, conducts financial analyses and financial management audits and participates in rate studies and fee schedules.

Initiate changes to and lead the design, control, operation, and enhancement of computerized financial systems, including budget control, general ledger control, contracts, accounts payable, revenue, billing, bank investments, payroll, project construction accounting, and fixed assets.

Coordinates the annual financial audit and completion of the Comprehensive Annual Financial Report with accounting staff and certified public accounting firm and ensure other regulatory annual reports are completed in a timely manner.

Lead Board Audit Committee activities, including auditor procurement and financial statement review and chartering.

Act as the finance liaison to all work groups in recommending and administering accounting/administration policies and procedures; answer financial questions from the Board of Directors, District staff, public agencies, and others.

Represent the District in meetings with governmental and regulatory agencies, private firms, the public, and others; participate and work with other public agencies and organizations on technical studies to achieve goals of mutual benefit and good.

Conducts independent financial analyses of the District's financial condition and financial or rate impacts associated with various District initiatives and financing major capital infrastructure projects.

Develop and maintain current and long term cash flow analysis for meeting the District's operational needs and investing idle funds.

Monitor rate and regulatory rulings of other regulatory agencies; inform management of trends and changes in ratemaking and legislation that affects operations.

Monitor rate and regulatory rulings of other regulatory agencies; inform management of trends and changes in ratemaking and legislation that affects operations.

Provide technical direction to accounting staff; establish and maintain procedures and practices; oversee the development of new systems and the review of existing practices; review and update financial policies; review and reconcile accounting and finance functions, such as posting to and balancing of accounts, opening and closing of accounts, auditing and making adjusting entries, and preparing periodic reports.

Analyze and recommend changes in methods, procedures, systems, forms, and records; develop procedures to implement new financial system requirements.

Maintain the accounting policies and procedures manual, reviewing and revising as necessary.

Serve as primary backup to Accounting and Financial Analyst I and/or Accounting and Financial Analyst II and in the absence of the Finance and Acquisitions Services Team Coash and Business Services Manager/Chief Financial Officer serve as authorized approver of various finance documents and functions as instructed.

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

**QUALIFICATIONS:**

Education and Experience: A typical way of acquiring the knowledge, skills, and abilities to perform this work is a bachelor's degree in accounting, finance or a closely related field; plus five to seven years professional, journey-level experience in financial analysis and accounting, which includes auditing, accounting procedures development, long-range financial forecasting, budget development, and debt management.

Knowledge of: Generally accepted accounting principles and practices applicable to public agencies; automated accounting systems and information; state and federal laws, rules, regulations, and procedures affecting public sector financial reporting; rate-making principles, concepts, and issues; forecasting and financial analysis methods and techniques.

Skill in: Managing projects and providing direction when appropriate; developing and instituting improvements to budgeting, cash flow analysis and long term financial forecasting; preparing accurate and thorough financial statements and schedules; analyzing, auditing, and verifying accounting records, reports, and documents; making mathematical calculations with speed and accuracy; preparing neat, clear, accurate, and concise reports and correspondence; analyzing financial system reports; organizing work, setting priorities, and exercising sound judgment.

Ability to: Understand and carry out oral and written instructions in English; analyze problems and make sound recommendations; drive solutions; apply accounting principles and Governmental Accounting Standards Board(GASB) pronouncements; learn and apply District policies and procedures; read and interpret complex reports, orders, and legal forms; analyze and verify statements and schedules; make effective presentations and oral reports.

Interpersonal Effectiveness: Ability to work effectively in a team-based organization focused on continuous improvement; establish and maintain a positive customer service attitude and effective working relationships with customers; demonstrate strong two-way communication skills, including the ability to listen, explain, and facilitate; ability to ask for and provide input, offer help without being asked, accept and make suggestions, work with others to solve problems, hold people accountable, and provide recognition and encouragement.

Customer Service/Point Resource: Can address customers and Budget Star Points' needs, identifying issues and concerns, exploring solutions, and implementing improvements. Seeks ways to continuously improve processes.

Licenses, Certificates, or Credentials: Must possess a valid Class C California driver's license, have and maintain a satisfactory driving record, and be insurable by the District to operate District vehicles.

Other Requirements: Must possess the physical characteristics to perform the critical and important duties of the job.

**ADDITIONAL INFORMATION:**

Disaster Service Worker

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

Approved by the Board of Directors:

Revised:

Position status: Unclassified, Exempt (Professional/Confidential)



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 9, 2017

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

**FROM:** Paul R. Eldredge, General Manager/District Engineer  
Sheila Tolbert, Human Resources Manager

**SUBJECT:** **Agenda Item No. 15 Meeting of January 9, 2017**  
**REVIEW AND CONSIDER REVISED CLASS DESCRIPTION AND SALARY FOR THE**  
**POSITION OF ASSISTANT TO THE GENERAL MANAGER/BOARD SECRETARY**

### **Recommendation**

Approve revisions to the Assistant to the General Manager/Board Secretary class description and salary.

### **Background**

The current Assistant to the General Manager/Board Secretary class description has been modified to add the duties of overseeing the District records management program and records retention schedules, and maintain associated policies and documents as well as updated to clarify existing duties and responsibilities. It is also proposed that the classification title is changed from "Assistant to the General Manager/Board Secretary" to "Executive Assistant to the General Manager/Board Clerk."

Based on an internal review by the Executive Team, it was decided that the current records management program needed to be revamped to improve the method by which District records are stored, retrieved and maintained including the purchase of new software and training of staff. Additionally, after consultation with District Counsel, it was determined that the District's records retention schedules needed updating. The overseeing of the District's records management program and records retention schedules is not a one-time project but includes duties that require on-going management and administration.

The proposed title change is to reflect work being performed at a professional, confidential level and to eliminate confusion with the responsibilities of the Secretary to the Board. The Secretary to the Board is held by a Board member and the duties are separate from the responsibility of the "Assistant to the General Manager/Board Secretary".

Based on a salary survey and the additional duties, a salary adjustment of a 1.9% increase is recommended. The current salary range is \$84,960.51 - \$111,510.88. The new annual salary is proposed to be \$86,574.76 - \$113,629.59.

At the Board workshop on December 19, 2016, the Board asked what the salary differential would be if the highest and lowest comparable agencies were removed from the survey, the differential would change from 1.90% to 1.14%.



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

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

Karen W. Murphy  
*Attorney*

**DATE:** January 9, 2017

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

**FROM:** Paul R. Eldredge, General Manager/District Engineer  
Pamela Arends-King, Business Services Work Group  
Manager/CFO  
Sheila Tolbert, Human Resources Manager

**SUBJECT: Agenda Item No. 16 - Meeting of January 9, 2017  
REVIEW AND CONSIDER THE REVISED AND  
CURRENT PUBLICLY AVAILABLE PAY SCHEDULES**

### **Recommendation**

Approve and sign the attached revised and current Publicly Available Pay Schedules (PAPS).

### **Background**

CalPERS conducts random audits to ensure compliance rules and regulations. CalPERS conducted an audit for the fiscal periods of July 1, 2011 through June 30, 2014. CalPERS issued a final report on June 2016, consisting of mostly minor and administrative findings; the report is attached for reference purpose only. Since receiving the final report staff has been working with CalPERS on resolving audit findings. It should be noted that this audit is separate and different from the Actuarial Report that will be coming before the Board in February 2017.

One of the audit findings noted that the District's PAPS did not included the following information: 1) the position title and pay rate for Board Member positions dating back to 2011; and, 2) special compensation amounts paid as lump sum payments.

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

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

Be fully approved and adopted by the employer's governing body in accordance with

- requirements of applicable public meetings laws;
- Identify the position title for every employee position;
- Show the pay rate for each identified position as a single amount or as multiple amounts within a range;
- Indicate the time base (i.e., bi-weekly, monthly, etc.);
- Be posted at the office of the employer or immediately accessible and available for public review from the employer during normal business hours or posted on the employer's internet website;
- Indicate an effective date and date of any revisions;
- Be retained by the employer and available for public inspection for not less than 5 years.

Based on the results of the CalPERS audit finding the District revised PAPS to include Board Member pay rate and/or Lump Sum Payments to employees.

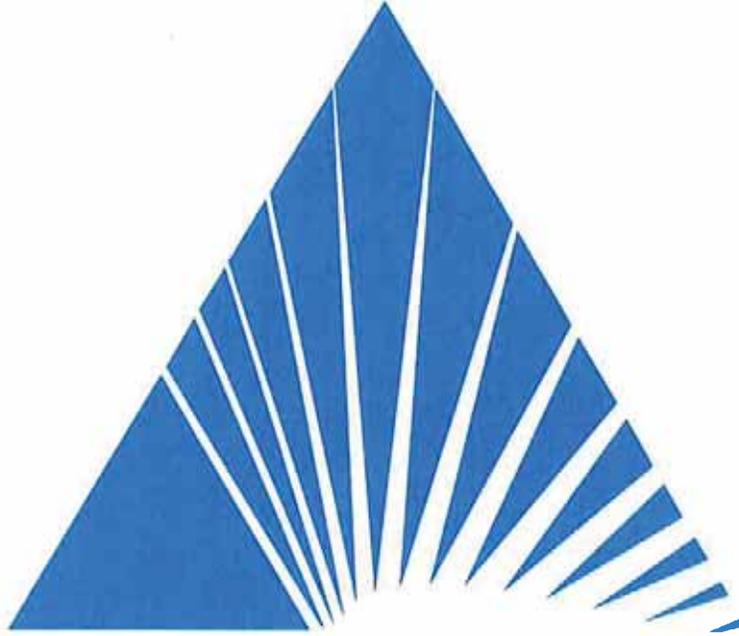
In addition to revising PAPS going back to 2012, we are also requesting approval of the new PAPS effective 09/01/16 which includes the following:

- Lump Sum payment;
- 2016 Unclassified Salary Increases; and
- The General Manager's new salary effective September 1, 2016, which was approved by the Board of Directors on November 14, 2016.

Attachments:

CalPERS Public Agency Review  
PAPS to be approved

# **Office of Audit Services**



# **CalPERS**

## **Public Agency Review**

## **Union Sanitary District**

**CalPERS ID: 6011550262**  
**Job Number: P14-025**

**June 2016**





California Public Employees' Retirement System  
Office of Audit Services  
P.O. Box 942701  
Sacramento, CA 94229-2701  
TTY: (877) 249-7442  
(916) 795-0802 phone, (916) 795-7836 fax  
[www.calpers.ca.gov](http://www.calpers.ca.gov)

June 23, 2016

CalPERS ID: 6011550262  
Job Number: P14-025

Sheila Tolbert, Human Resources Manager  
Union Sanitary District  
5072 Benson Road  
Union City, CA 94587

Dear Ms. Tolbert:

Enclosed is our final report on the results of the public agency review completed for the Union Sanitary District (Agency). Your written response, included as an appendix to the report, indicates agreement with the issues noted in the report except for Findings 2A and 2C. We appreciate the additional information that you provided with your response, and after consideration of this information we have added clarifying language to the Findings. However, the recommendations remain as stated in the report.

In accordance with our resolution policy, we have referred the issues identified in the report to the appropriate divisions at CalPERS. Please work with these divisions to address the recommendations specified in our report. It was our pleasure to work with your Agency. We appreciate the time and assistance of you and your staff during this review.

Sincerely,

A handwritten signature in cursive script, appearing to read "Beliz Chappuie".

BELIZ CHAPPUIE, Chief  
Office of Audit Services

Enclosure

cc: Board of Directors, Union Sanitary District  
Risk and Audit Committee Members, CalPERS  
Matthew G. Jacobs, General Counsel, CalPERS  
Anthony Suine, Chief, BNSD, CalPERS  
Renee Ostrander, Chief, EAMD, CalPERS  
Carene Carolan, Chief, MAMD, CalPERS



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# UNION SANITARY DISTRICT

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# STANDARD OPERATING PROCEDURE

## STANDARD OPERATING PROCEDURE

1. Purpose

2. Scope

3. Responsibilities

4. Procedure

5. References

6. Revision History

7. Approval

8. Distribution

9. Training

10. Records

11. Change Control

12. Review

13. Other

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# UNION SANITARY DISTRICT

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## RESULTS IN BRIEF

The objective of our review was to determine whether the Union Sanitary District (Agency) complied with applicable sections of the California Government Code (Government Code), California Public Employees' Pension Reform Act of 2013 (PEPRA), California Code of Regulations (CCR) and its contract with the California Public Employees' Retirement System (CalPERS).

The Office of Audit Services (OAS) noted the following findings during the review. Details are noted in the Results section beginning on page two of this report.

- Pay schedule did not meet all of the Government Code and CCR requirements.
- Special compensation was not reported in accordance with the Government Code and CCR.
- Compensation earnable was incorrectly reported.
- Eligible temporary and part-time employees were not enrolled into membership.

OAS recommends the Agency comply with applicable sections of the Government Code, PEPRA, CCR and its contract with CalPERS. We also recommend the Agency work with the appropriate CalPERS divisions to resolve issues identified in this report.

## SCOPE

The Agency contracted with CalPERS effective October 1, 1972 to provide retirement benefits for miscellaneous employees. By way of the Agency's contract with CalPERS, the Agency agreed to be bound by the terms of the contract and the Public Employees' Retirement Law (PERL). The Agency also agreed to make its employees members of CalPERS subject to all provisions of the PERL.

As part of the CalPERS Board of Administration (Board) approved plan, OAS reviewed the Agency's payroll reporting and member enrollment processes related to the Agency's retirement contract with CalPERS. The review was limited to the examination of sampled employees, records, and pay periods from July 1, 2011 through June, 30, 2014. The review objectives and methodology are listed in Appendix A.

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# UNION SANITARY DISTRICT

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## OFFICE OF AUDIT SERVICES REVIEW RESULTS

**1:** The Agency's pay schedule did not meet all of the Government Code and CCR requirements.

***Condition:***

The Agency's pay schedule effective March 1, 2014 did not meet all the requirements of the Government Code and CCR. Specifically, the pay schedule did not list the position title and payrate for the Board Member position.

Only compensation earnable as defined under Government Code Section 20636 and corresponding regulations can be reported to CalPERS and considered in calculating retirement benefits. For purposes of determining the amount of compensation earnable, a member's payrate is limited to the amount identified on a publicly available pay schedule. Per CCR Section 570.5, a pay schedule, among other things, must:

- Be duly approved and adopted by the employer's governing body in accordance with requirements of applicable public meetings laws;
- Identify the position title for every employee position;
- Show the payrate as a single amount or multiple amounts within a range for each identified position;
- Indicate the time base such as hourly, daily, bi-weekly, monthly, bi-monthly, or annually;
- Be posted at the office of the employer or immediately accessible and available for public review from the employer during normal business hours or posted on the employer's internet website;
- Indicate an effective date and date of any revisions;
- Be retained by the employer and available for public inspection for not less than five years; and
- Not reference another document in lieu of disclosing the payrate.

Pay amounts reported for positions that do not comply with the payrate definition and pay schedule requirements cannot be used to calculate retirement benefits because the amounts do not meet the definition of payrate under Government Code Section 20636(b)(1). When an employer does not meet the requirements for a publicly available pay schedule, CalPERS, in its sole discretion, may determine an amount that will be considered to be payrate as detailed in CCR Section 570.5.

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## UNION SANITARY DISTRICT

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***Recommendation:***

The Agency should ensure its pay schedule meets all of the Government Code and CCR requirements.

The Agency should work with CalPERS Employer Account Management Division (EAMD) to identify and make adjustments, if necessary, to any impacted active and retired member accounts pursuant to Government Code Section 20160.

***Criteria:***

Government Codes: § 20160, § 20636  
CCR: § 570.5

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## UNION SANITARY DISTRICT

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**2:** The Agency did not report special compensation in accordance with the Government Code and CCR.

**Condition:**

- A. The Agency did not report the monetary value for the rental and maintenance of uniforms for classic employees who were required to wear uniforms. Government Code Section 20636 and CCR Section 571 require the monetary value for the purchase, rental, and/or maintenance of required clothing be reported as special compensation for classic employees.

The Agency claims the uniforms were for personal health and safety and not required to be reported as special compensation. The Agency also cited a CalPERS determination where the required clothing was considered for personal health and safety for another CalPERS contracting agency performing similar services. However, the shirts have the Agency's logo and were required to be worn when employees were engaged in Agency business outside of the water treatment plant. CCR Section 571(a)(5) defines uniforms as required clothing which is a ready substitute for personal attire the employee would otherwise have to acquire and maintain. Only items that are solely for personal health and safety such as protective vests, pistols, bullets, and safety shoes are excluded. OAS determined the shirts and pants provided to employees are a ready substitute for personal attire the employee would otherwise have to acquire and maintain, and are not solely for personal health and safety.

- B. The Agency's written labor policies did not include the conditions for payment of the uniforms provided. Specifically, the policies for Union Local 1021 and the Rules and Regulation for unclassified employees contained uniform provisions. However, they did not indicate the conditions for payment of uniforms. CCR Section 571(b) requires the written labor policy or agreement contain the conditions for payment of, including, but not limited to, eligibility for, and amount of, the special compensation.
- C. The Agency incorrectly reported a bonus for a Collection Services Coach. Specifically, the employee earned Coach Compensation of \$2,800.00, effective August 24, 2014, which the Agency reported retroactively to CalPERS as special compensation. However, the bonus was not reportable as special compensation. CCR Section 571 defines Bonus Pay as compensation for superior performance. OAS reviewed the Agency's bonus program entitled Coaching Skill Compensation Program (Program). The Program stated that the objective was to provide coaches an opportunity to earn additional compensation by obtaining and successfully

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## UNION SANITARY DISTRICT

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demonstrating the use of coaching skills in the team based environment. The program also stated that a coach will be able to achieve up to \$5,000 in additional compensation as a reward, not an entitlement, for achieving the objectives of the coaching criteria. In addition, the Program stated that coaches must have an annual performance evaluation rating of consistently meeting expectations, or better, to be eligible for the bonus. Furthermore, OAS reviewed an Agency Compensation Plan which stated that the bonus was based on a coach's success in meeting annual performance goals. OAS found no indication the bonus was to be paid for superior performance which is required by CCR Section 571. The bonus pay is based on criteria other than superior performance and therefore, is not reportable as special compensation.

- D. The Agency incorrectly reported special compensation of \$27.04 for the Business Services Manager in the pay period ended May 31, 2014. The Agency has a Pay-for-Performance program allowing employees a merit increase based on annual performance evaluations that is applied to the employee payrate. However, if the additional pay exceeds the maximum amount listed on the publicly available pay schedule, the excess amount is reported as Off-Salary-Schedule Pay. For example, the Agency provided the Business Services Manager a 4.75 percent merit increase that raised the Business Services Manager annual salary to \$206,421.47. The maximum annual payrate for this position listed on the Agency's pay schedule was \$205,718.34. As a result the additional compensation exceeded the pay schedule by \$703.13. The Agency reported the excess amount bi-weekly as Off-Salary-Schedule Pay in increments of \$27.04. However, the pay did not meet the definition listed in the CCR Section 571(a)(1) which defines Off-Salary-Schedule Pay as compensation in addition to base salary paid in similar lump-sum amounts to a group or class of employees. These payments are routinely negotiated through collective bargaining in lieu of increase to the salary schedule. Additional compensation paid to an employee that exceeds the maximum amount listed on a pay schedule does not meet the definition of Off-Salary Schedule Pay and is not reportable as special compensation. Pursuant to Government Code Section 20636 payrate and special compensation must be in written schedules, ordinances, or similar documents that are available for public review.

The Agency sent an inquiry to CalPERS to address the Pay-for-Performance program and CalPERS indicated to the Agency that it did not believe the pay conflicted with proposed regulations to CCR 571. However, CalPERS did not review application of the program. Therefore, CalPERS was unaware that the payment exceeded the maximum salary listed in the pay schedule and the payment did not meet the definition of Off-Salary Schedule Pay.

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## UNION SANITARY DISTRICT

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Reportable special compensation is defined in CCR Section 571(a) and must be reported if it conforms with all of the requirements listed in CCR Section 571(b). Specifically, special compensation is required to be contained in a written labor policy or agreement indicating the eligibility and amount of special compensation. Also, special compensation must be available to all members in the group or class, part of normally required duties, performed during normal hours of employment, paid periodically as earned, and historically consistent with prior payments for the job classification.

***Recommendation:***

The Agency should report the monetary value for the purchase, rental, and maintenance of uniforms as special compensation.

The Agency should ensure the conditions for payment of the employer-provided uniforms are contained in the written labor agreements.

The Agency should ensure special compensation meets the Government Code and CCR requirements.

The Agency should work with EAMD to identify and make adjustments, if necessary, to any impacted active and retired member accounts pursuant to Government Code Section 20160.

***Criteria:***

Government Codes: § 20160, § 20630, § 20636  
CCR: § 571

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## UNION SANITARY DISTRICT

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**3: Compensation earnable was incorrectly reported.**

***Condition:***

- A. The Agency incorrectly reported a monthly payrate using an hourly payrate type. Specifically, the Agency reported an hourly payrate of \$8,007.39 for a Plant Operator III in the pay period ended March 6, 2013. However, the payrate was his monthly, not hourly payrate. Payrate is an important factor in computing a member's retirement allowance.
- B. The Agency under reported compensation paid to Plant Operators in the pay period ended May 28, 2014. Specifically, the Agency did not report all of the compensation paid to Plant Operators working on a holiday. The Plant Operators were regularly scheduled to work 12-hour shifts and were required to work on holidays as part of their normal schedule. Plant Operators were compensated at the rate of one and one-half hours for all hours worked on a holiday in addition to eight hours at the straight time rate. The Agency also provided additional compensation for Plant Operators who work a night/graveyard shift. Specifically, OAS identified the following:
- The Agency under reported regular earnings for three Plant Operators who worked 80 hours in the bi-weekly pay period ended May 28, 2014. Specifically, the Agency reported regular earnings for only 76 hours. Therefore, the Agency under reported regular earnings by four hours.
  - The Agency under reported Holiday Pay for three Plant Operators. Specifically, the Agency did not report Holiday Pay as special compensation for four hours at the half-time rate of pay. Pursuant to the Government Code and CCR, Holiday Pay is additional compensation for employees who are normally required to work on an approved holiday because they work in positions that require scheduled staffing without regard to holidays. If these employees are paid over and above their normal monthly rate of pay for approved holidays, the additional compensation is Holiday Pay and reportable to CalPERS.
  - The Agency under reported Shift Differential Pay, a reportable item of special compensation, for two Plant Operators. Specifically, the employees also were paid an additional amount of Shift Differential Pay for working on the holiday. However, the additional compensation of \$31.50 for one employee and \$28.08 for another was not reported to CalPERS.

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## UNION SANITARY DISTRICT

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***Recommendation:***

The Agency should ensure payrates are correctly reported.

The Agency should ensure compensation earnable is reported correctly.

The Agency should work with EAMD to identify and make adjustments, if necessary, to any impacted active and retired member accounts pursuant to Government Code Section 20160.

***Criteria:***

Government Codes: § 20160, § 20630, § 20636

CCR: § 571

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## UNION SANITARY DISTRICT

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4: The Agency did not enroll eligible part-time and temporary employees into membership.

**Condition:**

- A. The Agency did not enroll a part-time Maintenance Assistant II who worked more than 1,000 hours in Fiscal Year 2013-2014. Specifically, the part-time employee exceeded 1,000 hours worked in pay period ended June 28, 2014. However, the Agency did not enroll the employee into membership.
- B. The Agency did not enroll a temporary receptionist who worked more than 1,000 hours in Fiscal Year 2012-13. Specifically, the temporary receptionist was hired through a temporary agency and exceeded 1,000 hours worked in the pay period ended June 9, 2013. By applying common-law factors and completing a common-law employment test, OAS noted that the temporary receptionist hired through a temporary agency worked under the control of the Agency and was a common-law employee of the Agency. As such, this employee should have been enrolled and reported by the Agency. However, the Agency did not enroll the employee into membership.

For the purposes of the Government Code and for programs administered by the Board, the standard used for determining whether an individual is the employee of a contracting agency is the California common-law employment test as set forth in the California Supreme Court case titled *Tieberg v. Unemployment Ins. App. Bd.*, (1970) 2 Cal. 3d 943, which was cited with approval in *Metropolitan Water Dist. v. Superior Court (Cargill)*, (2004) 32 Cal. 4th 491, and which was adopted by the Board in two precedential decisions, *In the Matter of Lee Neidengard*, Precedential Decision No. 05-01, effective April 22, 2005, and *In the Matter of Galt Services Authority*, Precedential Decision No. 08-01, effective October 22, 2008.

Applying the California common-law employment test, the most important factor in determining whether an individual performs services for a contracting agency is the right of the principal to control the manner and means of job performance and the desired result, whether or not this right is exercised. Where there is independent evidence that the principal has the right to control the manner and means of performing the service in question, CalPERS will determine that an employer-employee relationship exists between the employee and the principal.

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## UNION SANITARY DISTRICT

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Using the common-law test, OAS determined the temporary employee was working for the Agency as an employee. OAS determined that this individual was working for the Agency in an employee-employer relationship based in part of on the following information obtained from an Employment Relationship Questionnaire:

- The Agency stated they had the right to control how the individual did their work and the individual was required to comply with the Agency's instructions regarding work.
- The individual performed the services at the Agency's office and was provided with all the necessary office equipment and supplies.
- All particulars of her job were supervised by an Agency employee, including the determination of work hours.
- The individual was trained by an Agency employee and was required to follow procedures and policies set by the Agency.
- The Agency had first call on the individual's services.

Other factors to be taken into consideration under the common-law employment test are as follows:

- Whether or not the one performing services is engaged in a distinct occupation or business.
- The kind of occupation, with reference to whether, in the locality, the work is usually done under the direction of a principal or by a specialist without supervision.
- The skill required in the particular occupation.
- Whether the principal or the individual performing the services supplies the instrumentalities, tools, and the place of work for the person doing the work.
- The length of time for which the services are to be performed.
- The method of payment, whether by the time or by the job.
- Whether or not the work is a part of the regular business of the principal.
- Whether or not the parties believe they are creating the relationship of employer-employee.

Government Code 20028 defines an employee as any person in the employ of any contracting agency. Management and control of CalPERS is vested in the Board as provided in Government Code Section 20120. Each member and each person retired is subject to the PERL and the rules adopted by the Board pursuant to Government Code Section 20122. Government Code Section 20125 provides that the Board shall determine who are employees and is the sole judge of the conditions under which persons may be admitted to and continue to receive benefits under this system.

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## UNION SANITARY DISTRICT

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***Recommendation:***

The Agency should ensure employees are enrolled when membership eligibility requirements are met.

The Agency should work with EAMD to identify and make any adjustments, if necessary, to any impacted retired member accounts pursuant to Government Code Section 20160.

***Criteria:***

Government Codes: § 20044, § 20305, § 20160

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# UNION SANITARY DISTRICT

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## CONCLUSION

OAS limited this review to the areas specified in the scope section of this report and in the objectives outlined in Appendix A. The procedures performed provide reasonable, but not absolute, assurance that the Agency complied with the specific provisions of the PERL and CalPERS contract except as noted.

The findings and conclusions outlined in this report are based on information made available or otherwise obtained at the time this report was prepared. This report does not constitute a final determination in regard to the findings noted within the report. The appropriate CalPERS divisions will notify the Agency of the final determinations on the report findings and provide appeal rights, if applicable, at that time. All appeals must be made to the appropriate CalPERS division by filing a written appeal with CalPERS, in Sacramento, within 30 days of the date of the mailing of the determination letter, in accordance with Government Code Section 20134 and Sections 555-555.4, Title 2, of California Code of Regulations.

Respectfully submitted,



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BELIZ CHAPPUIE, CPA, MBA  
Chief, Office of Audit Services

Staff: Cheryl Dietz, CPA, Assistant Division Chief  
Alan Feblowitz, CFE, Senior Manager  
Noah Schreier, Auditor

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**UNION SANITARY DISTRICT**

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# **APPENDIX A**

## **OBJECTIVES**

# APPENDIX A

CONFIDENTIAL

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# UNION SANITARY DISTRICT

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## OBJECTIVES

The objectives of this review were to determine whether the Agency complied with:

- Applicable sections of the Government Code (Sections 20000 et seq.), PEPPRA, and Title 2 of the CCR.
- Reporting and enrollment procedures prescribed in the Agency's retirement contract with CalPERS.

This review did not include an assessment as to whether the Agency is a "public agency," and expresses no opinion or finding with respect to whether the Agency is a public agency or whether its employees are employed by a public agency.

## METHODOLOGY

To accomplish the review objectives, OAS interviewed key staff members to obtain an understanding of the Agency's personnel and payroll procedures, reviewed documents, and performed the following procedures.

- ✓ Reviewed:
  - Provisions of the contract and contract amendments between the Agency and CalPERS
  - Correspondence files maintained at CalPERS
  - Agency Board minutes and Agency Board resolutions
  - Agency written labor policies and agreements
  - Agency salary, wage, and benefit agreements including applicable resolutions
  - Agency personnel records and employee time records
  - Agency payroll information including Contribution Detail Transaction History reports
  - Documents related to employee payrate, special compensation, and benefits
  - Various other relevant documents
- ✓ Reviewed Agency payroll records and compared the records to data reported to CalPERS to determine whether the Agency correctly reported compensation.
- ✓ Reviewed payrates reported to CalPERS and reconciled the payrates to Agency public salary records to determine whether base payrates reported were accurate, pursuant to publicly available pay schedules that identify the position title, payrate and time base for each position, and duly approved by the Agency's governing body in accordance with requirements of applicable public meetings laws.

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## UNION SANITARY DISTRICT

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- ✓ Reviewed CalPERS reports to determine whether the payroll reporting elements were reported correctly.
- ✓ Reviewed the Agency's enrollment practices for temporary and part-time employees to determine whether individuals met CalPERS membership requirements.
- ✓ Reviewed the Agency's employment practices for retired annuitants to determine if retirees were lawfully employed and reinstated when unlawful employment occurs.
- ✓ Reviewed the Agency's independent contractors to determine whether the individuals were either eligible or correctly excluded from CalPERS membership.
- ✓ Reviewed the Agency's affiliated entity organizational structure to determine whether employees of the affiliated entity qualified for CalPERS membership and were enrolled as required.
- ✓ Reviewed the Agency's calculation and reporting of unused sick leave balances, if contracted to provide additional service credits for unused sick leave.

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## UNION SANITARY DISTRICT

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# APPENDIX B

## AGENCY'S WRITTEN RESPONSE

Note: The Agency provided an attachment to the response that was intentionally omitted from this appendix. Additionally, the names of individuals mentioned in the Agency's response were intentionally omitted from this appendix.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.



2. The second part of the document outlines the specific procedures and protocols for handling financial data. It details the steps for data collection, verification, and reporting, ensuring that all information is accurate and up-to-date.

3. The third part of the document provides a comprehensive overview of the financial system, including the roles and responsibilities of various stakeholders. It also discusses the challenges and opportunities associated with the current financial environment and offers recommendations for improvement.

approved by the Board on October 26, 2015 (attached). If you need additional information and/or require further action from the District, please let us know.

**2. The Agency did not report special compensation in accordance with the Government Code and CCR.**

**A. Agency did not report the monetary value for the rental and maintenance of uniforms for classic employees who were required to wear uniforms.**

**Response:** The District disagrees with the finding regarding uniforms. The District furnishes uniforms for the health and safety needs of employees because in performance of their job, both internally and externally within the plant, employees come into contact with hazardous materials.

The information provided in the audit finding is insufficient for the District to provide a more comprehensive response. Please let us know the specific concerns related to this finding.

**B. Agency written labor policies, specifically the Union Local 1021 and the Rules and Regulations for unclassified employees did not include the conditions for payment of, including and not limited to eligibility for, and amount of, the special compensation related to providing uniforms.**

**Response:** The District acknowledges the omission of the required language in the Memorandum of Understanding (MOU) between the District and SEIU, Local 1021 and the Rules and Regulations for unclassified employees related to uniforms. We will correct the language in the MOU when the agreement is re-negotiated. Because the Rules and Regulation for unclassified employees has the same language it will be updated at the same time.

**C. Agency incorrectly reported a bonus for a Collection Services Coach.**

**Response:** The District disagrees with the findings regarding the Coach bonus. The District has an established program for coach compensation which enables covered employees to earn a bonus for each July 1–June 30 fiscal year, up to an established maximum.

At the beginning of a fiscal year, each covered employee and one or more managers jointly establish up to four “coaching criteria” for the employee. After the completion of the fiscal year, managers evaluate the employee against the criteria. Three outcomes are possible:

<u>Evaluation results</u>	<u>Bonus amount</u>
No criteria accomplished	\$0
Partial accomplishment	30% – 60% of maximum
Successful accomplishment	70% – 100% of maximum

Notably, the Program *supplements* standard performance criteria by which employees are evaluated. After every fiscal year, the District first evaluates employees under a comprehensive set of performance-based criteria that are independent and separate from the Program. District managers perform the evaluation, assigning one of four possible ratings to each criterion: superior performance; exceeds expectations; meets expectations; and fails to meet expectations. Once the ratings are finalized and an overall rating is determined, the District compiles the ratings in a comprehensive “Appraisal,” which is issued to the employee.

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Then separate and apart from the Appraisal, the District evaluates whether the employee is entitled to a bonus under the Program. Thus the Program rewards performance above and beyond the standard performance criteria evaluated by the Appraisal. In other words, the Program rewards only superior performance. Historically, only employees who have achieved overall Appraisal ratings of "Exceeds Expectations" or "Superior Performance" have then qualified for a bonus under the Program, further demonstrating that the Program is tied to superior performance.

The District evaluated the Collection Services Coach's performance for the 2013-2014 fiscal year according to the above-described process. First, the District evaluated his performance under eight standard criteria, issuing the 18-page Appraisal (attached). The Collection Services Coach achieved an overall rating of "Exceeds Expectation." Next, the District evaluated whether this Coach satisfied the Program's supplemental goals, which again constitute performance above and beyond the standard performance benchmarks measured by the Appraisal – i.e., superior performance and based on that information determined the amount of the compensation earned. Therefore the bonus satisfies the requirements of the PERS laws to constitute Special Compensation.

- D. Agency incorrectly reported special compensation of \$27.04 for the Business Services Manager in the pay period ending May 31, 2014. Specifically, the additional pay exceeds the maximum amount listed on the PAPS, the excess amount is reported as Off-Salary Pay.**

**Response:** The District acknowledges the misinterpretation and application of "Off-Salary Pay" for a lump sum payment to employees. We ask that you provide direction as to how this matter should be corrected and the period of time to be covered by the adjustment.

**3. Compensation earnable was incorrectly reported.**

- A. Agency incorrectly reported a monthly payrate using an hourly payrate type.**

**Response:** The District corrected the compensation for the Plant Operator [REDACTED] which was processed with the July 1, 2015 payroll and submitted to CalPERS on July 8, 2015. The adjustment corrected the pay rate from hourly to monthly for the pay period of February 21 to March 6, 2013.

- B. Agency under reported compensation paid to Plant Operator who worked on a holiday.**

**Response:** The District acknowledges that the compensation for a Plant Operator who worked on a holiday needs to be modified. We have reviewed how a Plant Operator working a holiday is currently paid and reported, please see summary below:



<b>Current pay method for pay period containing a holiday worked</b>	
<b>Hours</b>	<b>Pay Type</b>
76	Regular*
76	Shift*
8	Holiday bonus*
8	Shift on Holiday bonus*
4	Overtime
4	Shift on Overtime

*\*Currently reported to PERS*

Based on the review and interpretation of the language in the audit findings, we propose to modify the method for calculating compensation for Plant Operators, who worked on a holiday, as follows:

<b>Revised method pay method for pay period containing a holiday worked</b>	
<b>Hours</b>	<b>Pay Type</b>
80	Regular
80	Shift
8	Holiday bonus
4	Holiday bonus @ .5
8	Shift on Holiday bonus
4	Shift on Holiday bonus @ .5

*Please note that in the revised reporting method we have corrected the 4 hours of Overtime and Shift on that Overtime as follows:*

- 4 hours of Overtime at the rate of 1.5
  - 4 hours of regular at the regular rate (1)
  - 4 hours of Holiday bonus at the rate of .5.
- 4 hours of shift on the Overtime at the rate of 1.5
  - 4 hours of Shift at the regular rate (1)
  - 4 hours of Shift on Holiday bonus at the rate of .5.

The District asks that PERS advise us if the above revised method is the correct. Once advised, the District will make the change with the next possible pay period that contains a holiday where Plant Operators are assigned to work, as administrative and system changes will need to be made.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data. The text also mentions that regular audits are necessary to identify any discrepancies or errors in the accounting system.

2. The second part of the document focuses on the classification of expenses. It provides a detailed list of categories, such as salaries, rent, utilities, and travel. Each category is defined with specific criteria to ensure consistency in reporting. The document also notes that certain expenses may be eligible for tax deductions, and it provides guidance on how to properly document these for tax purposes.

3. The third part of the document addresses the issue of budgeting. It explains how to create a realistic budget based on historical data and current market conditions. The text highlights the importance of monitoring the budget closely and making adjustments as needed. It also discusses the role of management in ensuring that the budget is followed and that resources are allocated efficiently. The document concludes by stating that a well-managed budget is essential for the long-term success of any organization.

4. The fourth part of the document discusses the importance of financial reporting. It outlines the key components of a financial statement, including the balance sheet, income statement, and cash flow statement. The text explains how these statements provide a comprehensive overview of the organization's financial health and performance.

5. The fifth part of the document focuses on the role of the accounting department. It describes the various functions of the department, such as recording transactions, reconciling accounts, and preparing financial reports. The text also discusses the importance of maintaining strong relationships with external auditors and tax authorities. The document concludes by stating that a professional and efficient accounting department is vital for the success of any business.

6. The sixth part of the document discusses the importance of staying up-to-date on changes in accounting standards and regulations. It emphasizes that the accounting profession is constantly evolving, and organizations must adapt to these changes to remain compliant. The text provides resources for staying informed, such as professional journals and industry conferences. The document concludes by stating that continuous learning is essential for success in the accounting field.

**4. Agency did not enroll eligible part-time and temporary employees into membership.**

**A. Agency did not enroll a part-time Maintenance Assistant II who worked more than 1,000 hours in Fiscal Year 2013-14.**

**Response:** The District added the casual employee [REDACTED] to CalPERS effective June 29, 2014 and the transaction was processed on October 16, 2014.

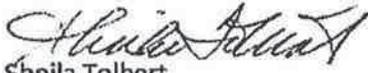
**B. Agency did not enroll a temporary receptionist who worked more than 1,000 hours in Fiscal Year 2012-2013.**

**Response:** The District has contacted the Nelson Staffing Agency to gather information about the temporary worker [REDACTED] so that we can enroll her in CalPERS for the time she exceeded the fiscal year limit of 1,000 hours. Although several attempts have been made, we have been unable to find the proper contact within the agency.

However, the District has put controls into place to prevent future occurrences of this nature.

We appreciate having the opportunity to review the draft audit report and provide responses for your consideration. We look forward to working with you to make adjustments, as necessary.

Sincerely,

  
Sheila Tolbert  
Human Resources Manager

Enclosures

cc: Noah Schreier, Auditor  
Pamela Arends-King, Business Services Work Group Manager/CFO

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent data collection procedures and the use of advanced analytical techniques to derive meaningful insights from the data.

3. The third part of the document focuses on the role of technology in data management and analysis. It discusses how modern software solutions can streamline data collection, storage, and processing, thereby improving efficiency and accuracy.

4. The fourth part of the document addresses the challenges associated with data management, such as data quality, security, and privacy. It provides strategies to mitigate these risks and ensure that the data remains reliable and secure throughout its lifecycle.

Yours faithfully,  
[Signature]  
[Name]  
[Title]  
[Organization]

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective March 11, 2012		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Weekly Pay Rate
Accountant I	\$2,644.38	\$3,091.50
Accountant II	\$2,908.81	\$3,400.66
Accounting Tech Specialist	\$2,850.79	\$3,334.15
Accounting Technician 1	\$2,303.68	\$2,694.28
Accounting Technician 2	\$2,534.06	\$2,963.69
Administrative Specialist I	\$2,145.02	\$2,633.52
Administrative Specialist II	\$2,257.91	\$2,772.12
Assistant Engineer	\$3,038.32	\$3,987.79
Assistant to the General Manager	\$2,686.64	\$3,526.22
Associate Engineer	\$3,482.63	\$4,570.95
Buyer I	\$2,218.84	\$2,912.22
Buyer II	\$2,610.39	\$3,426.14
Chemist 1	\$3,195.50	\$3,623.55
Chemist 2	\$3,355.29	\$3,804.74
Coach, Business Services	\$4,064.38	\$5,334.50
Coach, Capital Improvement Projects, Technical Support & Customer Service	\$4,532.49	\$5,948.90
Coach, Collection Services	\$3,667.54	\$4,813.64
Coach, Customer Service, Technical Support & Customer Service	\$4,176.51	\$5,481.67
Coach, Environmental Compliance	\$3,480.06	\$4,567.58
Coach - Fabrication, Maintenance & Construction (FMC)	\$3,647.88	\$4,787.85
Coach, Research & Support/Process Engineer, Treatment & Disposal Services	\$3,656.76	\$4,799.50
Coach, Total Productive Operations (TPO) - Day, Treatment & Disposal Services	\$3,683.30	\$4,834.33
Coach, Total Productive Operations (TPO) - Night, Treatment & Disposal Services	\$3,683.30	\$4,834.33
Collection System Worker I	\$2,411.23	\$2,720.82
Collection System Worker II	\$2,652.36	\$2,992.91
Communications Coordinator	\$3,041.15	\$3,696.12
Construction Inspector 1	\$2,603.11	\$3,165.84
Construction Inspector 2	\$2,863.40	\$3,482.42
Construction Inspector 3	\$2,977.95	\$3,621.72
Customer Service Fee Analyst	\$2,475.54	\$3,009.35
Engineering Assistant/Plan Checker	\$3,197.41	\$3,882.82
Engineering Technician 1	\$2,513.35	\$3,054.64
Engineering Technician 2	\$2,764.69	\$3,360.10

**Effective March 11, 2012**

**(REVISED - 01/09/2017)**

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Engineering Technician 3	\$3,041.15	\$3,696.12
Environmental Control (EC) Inspector 1	\$2,460.19	\$2,990.74
Environmental Control (EC) Inspector 3	\$3,072.24	\$3,734.76
Environmental Control (EC) Inspector 4	\$3,287.29	\$3,996.19
Environmental Control (EC) Outreach Representative	\$3,072.24	\$3,734.76
Environmental Control (EC) Specialist/Outreach	\$3,287.29	\$3,996.19
Environmental Control (EC)Inspector 2	\$2,767.77	\$3,364.65
Environmental Health and Safety Program Manager	\$3,448.32	\$4,525.92
Environmental Program Coordinator	\$3,148.62	\$4,132.57
Fleet Mechanic 1	\$2,656.25	\$3,016.70
Fleet Mechanic 2	\$2,975.01	\$3,378.71
General Manager	\$6,443.30	\$8,456.84
Human Resources Administrator	\$4,150.04	\$5,446.93
Human Resources Analyst	\$2,896.01	\$3,801.01
Information Technology Analyst	\$2,755.41	\$3,616.47
InformationTechnology Administrator	\$3,673.23	\$4,821.12
Instrument Tech/Electrician	\$3,257.86	\$3,715.95
Janitor	\$1,661.18	\$2,017.66
Laborator Analyst	\$3,043.18	\$3,450.84
Laboratory Director	\$3,670.98	\$4,507.01
Lead Collection System Worker	\$2,917.59	\$3,292.20
Maintenance Assistant	\$1,066.53	\$1,296.37
Manager, Business Services	\$5,754.70	\$7,553.05
Manager, Collection Services	\$5,482.59	\$7,195.90
Manager, Fabrication, Maintenance & Construction	\$5,482.59	\$7,195.90
Manager, Technical Support/Customer Services	\$5,482.59	\$7,195.90
Manager, Treatment & Disposal Services	\$5,482.59	\$7,195.90
Mechanic 1	\$2,687.23	\$3,051.90
Mechanic 2	\$3,009.71	\$3,418.14
Mechanic XL	\$3,589.05	\$3,589.05
Office Assistant 1	\$1,735.04	\$2,132.18
Office Assistant 2	\$1,977.94	\$2,430.66
Office Assistant 3	\$2,175.74	\$2,673.75
Painter	\$2,510.14	\$3,136.57
Planner/Scheduler 1	\$2,883.46	\$3,503.92
Planner/Scheduler 2	\$3,100.66	\$3,767.90
Plant Operations Trainer	\$3,659.72	\$4,139.22
Plant Operator 1	\$2,574.32	\$2,911.59
Plant Operator 2	\$2,857.49	\$3,231.88
Plant Operator 3	\$3,267.61	\$3,695.72
Plant Operator XL	\$3,880.50	\$3,880.50

**Effective March 11, 2012**

**(REVISED - 01/09/2017)**

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Principal Engineer	\$4,100.83	\$5,382.34
Principal Financial Analyst	\$3,494.41	\$4,586.41
Purchasing Agent	\$3,379.50	\$4,435.59
Quality Coordinator	\$3,823.04	\$5,017.74
Receptionist	\$1,894.58	\$2,302.74
Senior Accountant	\$2,992.24	\$3,927.31
Senior Database Administrator/Developer	\$3,419.44	\$4,488.01
Senior Engineer	\$3,778.75	\$4,959.61
Senior Geographic Information System (GIS)/Database Administrator	\$3,419.44	\$4,488.01
Senior Information Technology Analyst	\$3,061.56	\$4,018.30
Senior Network Administrator	\$3,317.50	\$4,354.22
Senior Planner/Scheduler	\$3,300.47	\$4,331.86
Stock Clerk	\$2,105.94	\$2,560.79
Storekeeper 1	\$2,663.92	\$3,238.02
Storekeeper 2	\$2,797.13	\$3,399.92
Technical Training Coordinator	\$2,993.70	\$3,929.23
Utility Worker	\$2,208.51	\$2,485.70

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

Approved by: \_\_\_\_\_  
President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective September 1, 2012		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accountant I	\$2,644.38	\$3,091.50
Accountant II	\$2,908.81	\$3,400.66
Accounting Tech Specialist	\$2,850.79	\$3,334.15
Accounting Technician I	\$2,303.68	\$2,694.28
Accounting Technician II	\$2,534.06	\$2,963.69
Administrative Specialist I	\$2,145.02	\$2,633.52
Administrative Specialist II	\$2,257.91	\$2,772.12
Assistant Engineer	\$3,099.08	\$4,067.55
Assistant to the General Manager	\$2,740.37	\$3,596.74
Associate Engineer	\$3,552.28	\$4,662.37
Buyer I	\$2,218.84	\$2,912.22
Buyer II	\$2,662.60	\$3,494.67
Chemist I	\$3,195.50	\$3,623.55
Chemist II	\$3,355.29	\$3,804.74
Coach, Business Services	\$4,145.67	\$5,441.19
Coach, Capital Improvement Projects, Technical Support & Customer Service	\$4,623.14	\$6,067.88
Coach, Collection Services	\$3,740.89	\$4,909.91
Coach, Customer Service, Technical Support & Customer Service	\$4,260.04	\$5,591.30
Coach, Environmental Compliance	\$3,549.66	\$4,658.93
Coach - Fabrication, Maintenance & Construction (FMC)	\$3,720.84	\$4,883.60
Coach, Research & Support/Process Engineer, Treatment & Disposal Services	\$3,729.90	\$4,895.49
Coach, Total Productive Operations (TPO) - Day, Treatment & Disposal Services	\$3,756.96	\$4,931.02
Coach, Total Productive Operations (TPO) - Night, Treatment & Disposal Services	\$3,756.96	\$4,931.02
Collection System Worker I	\$2,411.23	\$2,720.82
Collection System Worker II	\$2,652.36	\$2,992.91
Communications Coordinator	\$3,041.15	\$3,696.12
Construction Inspector I	\$2,603.11	\$3,165.84
Construction Inspector II	\$2,863.40	\$3,482.42
Construction Inspector III	\$2,977.95	\$3,621.72
Customer Service Fee Analyst	\$2,475.54	\$3,009.35
Deputy General Manager	5,869.80	7,704.11
Engineering Assistant/Plan Checker	\$3,197.41	\$3,882.82
Engineering Technician I	\$2,513.35	\$3,054.64
Engineering Technician II	\$2,764.69	\$3,360.10
Engineering Technician III	\$3,041.15	\$3,696.12

Effective September 1, 2012

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Environmental Control (EC) Inspector I	\$2,460.19	\$2,990.74
Environmental Control (EC)Inspector II	\$2,767.77	\$3,364.65
Environmental Control (EC) Inspector III	\$3,072.24	\$3,734.76
Environmental Control (EC) Inspector IV	\$3,287.29	\$3,996.19
Environmental Control (EC) Outreach Representative	\$3,072.24	\$3,734.76
Environmental Control (EC) Specialist/Outreach	\$3,287.29	\$3,996.19
Environmental Health and Safety Program Manager	\$3,517.29	\$4,616.44
Environmental Program Coordinator	\$3,211.60	\$4,215.22
Fleet Mechanic I	\$2,656.25	\$3,016.70
Fleet Mechanic II	\$2,975.01	\$3,378.71
General Manager	\$6,572.17	\$8,625.98
Human Resources Administrator	\$4,233.04	\$5,555.87
Human Resources Analyst	\$2,953.93	\$3,877.03
InformationTechnology Administrator	\$3,746.70	\$4,917.54
Information Technology Analyst	\$2,810.51	\$3,688.80
Instrument Tech/Electrician	\$3,257.86	\$3,715.95
Janitor	\$1,661.18	\$2,017.66
Laborator Analyst	\$3,043.18	\$3,450.84
Laboratory Director	\$3,670.98	\$4,507.01
Lead Collection System Worker	\$2,917.59	\$3,292.20
Maintenance Assistant	\$1,066.53	\$1,296.37
Manager, Business Services	\$5,869.80	\$7,704.11
Manager, Collection Services	\$5,592.24	\$7,339.82
Manager, Fabrication, Maintenance & Construction	\$5,592.24	\$7,339.82
Manager, Technical Support/Customer Services	\$5,592.24	\$7,339.82
Manager, Treatment & Disposal Services	\$5,592.24	\$7,339.82
Mechanic I	\$2,687.23	\$3,051.90
Mechanic II	\$3,009.71	\$3,418.14
Mechanic XL	\$3,589.05	\$3,589.05
Office Assistant I	\$1,735.04	\$2,132.18
Office Assistant II	\$1,977.94	\$2,430.66
Office Assistant III	\$2,175.74	\$2,673.75
Painter	\$2,510.14	\$3,136.57
Planner/Scheduler I	\$2,883.46	\$3,503.92
Planner/Scheduler II	\$3,100.66	\$3,767.90
Plant Operations Trainer	\$3,659.72	\$4,139.22
Plant Operator I	\$2,574.32	\$2,911.59
Plant Operator II	\$2,857.49	\$3,231.88
Plant Operator III	\$3,267.61	\$3,695.72
Plant Operator XL	\$3,880.50	\$3,880.50
Principal Engineer	\$4,182.84	\$5,489.98
Principal Financial Analyst	\$3,564.29	\$4,678.14
Purchasing Agent	\$3,447.09	\$4,524.30

**Effective September 1, 2012**

**(REVISED - 01/09/2017)**

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Quality Coordinator	\$3,899.50	\$5,118.10
Receptionist	\$1,894.58	\$2,302.74
Senior Accountant	\$3,052.08	\$4,005.86
Senior Database Administrator/Developer	\$3,487.82	\$4,577.77
Senior Engineer	\$3,854.32	\$5,058.80
Senior Geographic Information System (GIS)/Database Administrator	\$3,487.82	\$4,577.77
Senior Information Technology Analyst	\$3,122.79	\$4,098.67
Senior Network Administrator	\$3,383.85	\$4,441.30
Senior Planner/Scheduler	\$3,366.47	\$4,418.50
Stock Clerk	\$2,105.94	\$2,560.79
Storekeeper I	\$2,663.92	\$3,238.02
Storekeeper II	\$2,797.13	\$3,399.92
Technical Training Coordinator	\$3,053.58	\$4,007.82
Utility Worker	\$2,208.51	\$2,485.70
<b>Board of Directors:</b> Directors meet or serve in their official capacity 3 – 12 times per month with a maximum of six paid meetings/month at a rate of \$212.10 per meeting and are paid for a maximum of one meeting per day.		

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective February 1, 2013		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accountant I	\$2,644.38	\$3,091.50
Accountant II	\$2,908.81	\$3,400.66
Accounting Tech Specialist	\$2,850.79	\$3,334.15
Accounting Technician I	\$2,303.68	\$2,694.28
Accounting Technician II	\$2,534.06	\$2,963.69
Administrative Specialist I	\$2,145.02	\$2,633.52
Administrative Specialist II	\$2,257.91	\$2,772.12
Assistant Engineer	\$3,099.08	\$4,067.55
Assistant to the General Manager	\$2,740.37	\$3,596.74
Assistant Storekeeper	\$2,105.94	\$2,560.79
Associate Engineer	\$3,552.28	\$4,662.37
Buyer I	\$2,218.84	\$2,912.22
Buyer II	\$2,662.60	\$3,494.67
Chemist I	\$3,195.50	\$3,623.55
Chemist II	\$3,355.29	\$3,804.74
Coach, Business Services	\$4,145.67	\$5,441.19
Coach, Capital Improvement Projects, Technical Support & Customer Service	\$4,623.14	\$6,067.88
Coach, Collection Services	\$3,740.89	\$4,909.91
Coach, Customer Service, Technical Support & Customer Service	\$4,260.04	\$5,591.30
Coach, Environmental Compliance	\$3,549.66	\$4,658.93
Coach - Fabrication, Maintenance & Construction (FMC)	\$3,720.84	\$4,883.60
Coach, Research & Support/Process Engineer, Treatment & Disposal Services	\$3,729.90	\$4,895.49
Coach, Total Productive Operations (TPO) - Day, Treatment & Disposal Services	\$3,756.96	\$4,931.02
Coach, Total Productive Operations (TPO) - Night, Treatment & Disposal Services	\$3,756.96	\$4,931.02
Collection System Worker I	\$2,411.23	\$2,720.82
Collection System Worker II	\$2,652.36	\$2,992.91
Communications Coordinator	\$3,041.15	\$3,696.12
Construction Inspector I	\$2,603.11	\$3,165.84
Construction Inspector II	\$2,863.40	\$3,482.42
Construction Inspector III	\$2,977.95	\$3,621.72
Customer Service Fee Analyst	\$2,475.54	\$3,009.35
Deputy General Manager	5,869.80	7,704.11
Engineering Assistant/Plan Checker	\$3,197.41	\$3,882.82
Engineering Technician I	\$2,513.35	\$3,054.64
Engineering Technician II	\$2,764.69	\$3,360.10

**Effective February 1, 2013**

**(REVISED - 01/09/2017)**

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Engineering Technician III	\$3,041.15	\$3,696.12
Environmental Control (EC) Inspector I	\$2,460.19	\$2,990.74
Environmental Control (EC)Inspector II	\$2,767.77	\$3,364.65
Environmental Control (EC) Inspector III	\$3,072.24	\$3,734.76
Environmental Control (EC) Inspector IV	\$3,287.29	\$3,996.19
Environmental Control (EC) Outreach Representative	\$3,072.24	\$3,734.76
Environmental Control (EC) Specialist/Outreach	\$3,287.29	\$3,996.19
Environmental Health and Safety Program Manager	\$3,517.29	\$4,616.44
Environmental Program Coordinator	\$3,211.60	\$4,215.22
Fleet Mechanic I	\$2,656.25	\$3,016.70
Fleet Mechanic II	\$2,975.01	\$3,378.71
General Manager	\$6,572.17	\$8,625.98
Human Resources Administrator	\$4,233.04	\$5,555.87
Human Resources Analyst	\$2,953.93	\$3,877.03
InformationTechnology Administrator	\$3,746.70	\$4,917.54
Information Technology Analyst	\$2,810.51	\$3,688.80
Instrument Tech/Electrician	\$3,257.86	\$3,715.95
Janitor	\$1,661.18	\$2,017.66
Laborator Analyst	\$3,043.18	\$3,450.84
Laboratory Director	\$3,670.98	\$4,507.01
Lead Collection System Worker	\$2,917.59	\$3,292.20
Maintenance Assistant	\$1,066.53	\$1,296.37
Manager, Business Services	\$5,869.80	\$7,704.11
Manager, Collection Services	\$5,592.24	\$7,339.82
Manager, Fabrication, Maintenance & Construction	\$5,592.24	\$7,339.82
Manager, Technical Support/Customer Services	\$5,592.24	\$7,339.82
Manager, Treatment & Disposal Services	\$5,592.24	\$7,339.82
Mechanic I	\$2,687.23	\$3,051.90
Mechanic II	\$3,009.71	\$3,418.14
Mechanic XL	\$3,589.05	\$3,589.05
Office Assistant I	\$1,735.04	\$2,132.18
Office Assistant II	\$1,977.94	\$2,430.66
Office Assistant III	\$2,175.74	\$2,673.75
Painter	\$2,510.14	\$3,136.57
Planner/Scheduler I	\$2,883.46	\$3,503.92
Planner/Scheduler II	\$3,100.66	\$3,767.90
Plant Operations Trainer	\$3,659.72	\$4,139.22
Plant Operator I	\$2,574.32	\$2,911.59
Plant Operator II	\$2,857.49	\$3,231.88
Plant Operator III	\$3,267.61	\$3,695.72
Plant Operator XL	\$3,880.50	\$3,880.50
Principal Engineer	\$4,182.84	\$5,489.98
Principal Financial Analyst	\$3,564.29	\$4,678.14

**Effective February 1, 2013**

**(REVISED - 01/09/2017)**

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Purchasing Agent	\$3,447.09	\$4,524.30
Quality Coordinator	\$3,899.50	\$5,118.10
Receptionist	\$1,894.58	\$2,302.74
Senior Accountant	\$3,052.08	\$4,005.86
Senior Database Administrator/Developer	\$3,487.82	\$4,577.77
Senior Engineer	\$3,854.32	\$5,058.80
Senior Geographic Information System (GIS)/Database Administrator	\$3,487.82	\$4,577.77
Senior Information Technology Analyst	\$3,122.79	\$4,098.67
Senior Network Administrator	\$3,383.85	\$4,441.30
Senior Planner/Scheduler	\$3,366.47	\$4,418.50
Storekeeper I	\$2,663.92	\$3,238.02
Storekeeper II	\$2,797.13	\$3,399.92
Technical Training Coordinator	\$3,053.58	\$4,007.82
Utility Worker	\$2,208.51	\$2,485.70

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

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective May 1, 2013		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accountant I	\$2,644.38	\$3,091.50
Accountant II	\$2,908.81	\$3,400.66
Accounting Tech Specialist	\$2,850.79	\$3,334.15
Accounting Technician I	\$2,303.68	\$2,694.28
Accounting Technician II	\$2,534.06	\$2,963.69
Administrative Specialist I	\$2,145.02	\$2,633.52
Administrative Specialist II	\$2,257.91	\$2,772.12
Assistant Engineer	\$3,071.74	\$4,031.66
Assistant to the General Manager	\$2,659.77	\$3,490.95
Assistant Storekeeper	\$2,105.94	\$2,560.79
Associate Engineer	\$3,519.89	\$4,619.86
Buyer I	\$2,292.95	\$3,009.49
Buyer II	\$2,697.58	\$3,540.58
Chemist I	\$3,195.50	\$3,623.55
Chemist II	\$3,355.29	\$3,804.74
Coach, Business Services	\$4,092.83	\$5,371.84
Coach, Capital Improvement Projects, Technical Support & Customer Service	\$4,587.79	\$6,021.48
Coach, Collection Services	\$3,656.17	\$4,798.72
Coach, Customer Service, Technical Support & Customer Service	\$4,165.65	\$5,467.42
Coach, Environmental Compliance	\$3,372.17	\$4,425.98
Coach - Fabrication, Maintenance & Construction (FMC)	\$3,665.39	\$4,810.83
Coach, Research & Support/Process Engineer, Treatment & Disposal Services	\$3,694.06	\$4,848.45
Coach, Total Productive Operations (TPO) - Day, Treatment & Disposal Services	\$3,699.50	\$4,855.60
Coach, Total Productive Operations (TPO) - Night, Treatment & Disposal Services	\$3,879.20	\$5,091.45
Collection System Worker I	\$2,411.23	\$2,720.82
Collection System Worker II	\$2,652.36	\$2,992.91
Communications Coordinator	\$3,041.15	\$3,696.12
Construction Inspector I	\$2,603.11	\$3,165.84
Construction Inspector II	\$2,863.40	\$3,482.42
Construction Inspector III	\$2,977.95	\$3,621.72
Customer Service Fee Analyst	\$2,475.54	\$3,009.35
Engineering Assistant/Plan Checker	\$3,197.41	\$3,882.82
Engineering Technician I	\$2,513.35	\$3,054.64
Engineering Technician II	\$2,764.69	\$3,360.10
Engineering Technician III	\$3,041.15	\$3,696.12

**Effective May 1, 2013**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Environmental Control (EC) Inspector I	\$2,460.19	\$2,990.74
Environmental Control (EC)Inspector II	\$2,767.77	\$3,364.65
Environmental Control (EC) Inspector III	\$3,072.24	\$3,734.76
Environmental Control (EC) Inspector IV	\$3,287.29	\$3,996.19
Environmental Control (EC) Outreach Representative	\$3,072.24	\$3,734.76
Environmental Health and Safety Program Manager	\$3,495.56	\$4,587.93
Environmental Program Coordinator	\$3,051.02	\$4,004.46
Fleet Mechanic I	\$2,656.25	\$3,016.70
Fleet Mechanic II	\$2,975.01	\$3,378.71
General Manager	\$6,572.17	\$8,625.98
Human Resources Administrator	\$4,168.30	\$5,470.89
Human Resources Analyst	\$2,953.93	\$3,877.03
InformationTechnology Administrator	\$3,760.29	\$4,935.38
Information Technology Analyst	\$2,826.50	\$3,709.78
Instrument Tech/Electrician	\$3,257.86	\$3,715.95
Janitor	\$1,661.18	\$2,017.66
Laborator Analyst	\$3,043.18	\$3,450.84
Laboratory Director	\$3,670.98	\$4,507.01
Lead Collection System Worker	\$2,917.59	\$3,292.20
Maintenance Assistant	\$1,066.53	\$1,296.37
Manager, Business Services	\$5,749.52	\$7,546.25
Manager, Collection Services	\$5,461.21	\$7,167.84
Manager, Fabrication, Maintenance & Construction	\$5,461.21	\$7,167.84
Manager, Technical Support/Customer Services	\$5,461.21	\$7,167.84
Manager, Treatment & Disposal Services	\$5,461.21	\$7,167.84
Mechanic I	\$2,687.23	\$3,051.90
Mechanic II	\$3,009.71	\$3,418.14
Mechanic XL	\$3,589.05	\$3,589.05
Office Assistant I	\$1,735.04	\$2,132.18
Office Assistant II	\$1,977.94	\$2,430.66
Office Assistant III	\$2,175.74	\$2,673.75
Painter	\$2,510.14	\$3,136.57
Planner/Scheduler I	\$2,883.46	\$3,503.92
Planner/Scheduler II	\$3,100.66	\$3,767.90
Plant Operations Trainer	\$3,659.72	\$4,139.22
Plant Operator I	\$2,574.32	\$2,911.59
Plant Operator II	\$2,857.49	\$3,231.88
Plant Operator III	\$3,267.61	\$3,695.72
Plant Operator XL	\$3,880.50	\$3,880.50
Principal Engineer	\$4,150.86	\$5,448.00
Principal Financial Analyst	\$3,545.42	\$4,653.37
Purchasing Agent	\$3,378.49	\$4,434.26
Quality Coordinator	\$3,733.96	\$4,900.83

**Effective May 1, 2013**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Receptionist	\$1,894.58	\$2,302.74
Senior Accountant	\$3,039.22	\$3,988.97
Senior Database Administrator/Developer	\$3,467.99	\$4,551.74
Senior Engineer	\$3,768.92	\$4,946.71
Senior Geographic Information System (GIS)/Database Administrator	\$3,467.99	\$4,551.74
Senior Information Technology Analyst	\$3,140.55	\$4,121.97
Senior Network Administrator	\$3,343.71	\$4,388.61
Storekeeper I	\$2,663.92	\$3,238.02
Storekeeper II	\$2,797.13	\$3,399.92
Technical Training Coordinator	\$2,958.98	\$3,883.65
Utility Worker	\$2,208.51	\$2,485.70

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

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective May 5, 2013		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accountant I	\$2,644.38	\$3,091.50
Accountant II	\$2,908.81	\$3,400.66
Accounting Tech Specialist	\$2,850.79	\$3,334.15
Accounting Technician I	\$2,303.68	\$2,694.28
Accounting Technician II	\$2,534.06	\$2,963.69
Administrative Specialist I	\$2,145.02	\$2,633.52
Administrative Specialist II	\$2,257.91	\$2,772.12
Assistant Engineer	\$3,071.74	\$4,031.66
Assistant to the General Manager	\$2,659.77	\$3,490.95
Assistant Storekeeper	\$2,105.94	\$2,560.79
Associate Engineer	\$3,519.89	\$4,619.86
Buyer I	\$2,292.95	\$3,009.49
Buyer II	\$2,697.58	\$3,540.58
Chemist I	\$3,195.50	\$3,623.55
Chemist II	\$3,355.29	\$3,804.74
Coach, Business Services	\$4,092.83	\$5,371.84
Coach, Capital Improvement Projects, Technical Support & Customer Service	\$4,587.79	\$6,021.48
Coach, Collection Services	\$3,656.17	\$4,798.72
Coach, Customer Service, Technical Support & Customer Service	\$4,165.65	\$5,467.42
Coach, Environmental Compliance	\$3,372.17	\$4,425.98
Coach - Fabrication, Maintenance & Construction (FMC)	\$3,665.39	\$4,810.83
Coach, Research & Support/Process Engineer, Treatment & Disposal Services	\$3,694.06	\$4,848.45
Coach, Total Productive Operations (TPO) - Day, Treatment & Disposal Services	\$3,699.50	\$4,855.60
Coach, Total Productive Operations (TPO) - Night, Treatment & Disposal Services	\$3,879.20	\$5,091.45
Collection System Worker I	\$2,411.23	\$2,720.82
Collection System Worker II	\$2,652.36	\$2,992.91
Communications Coordinator	\$3,041.15	\$3,696.12
Construction Inspector I	\$2,603.11	\$3,165.84
Construction Inspector II	\$2,863.40	\$3,482.42
Construction Inspector III	\$2,977.95	\$3,621.72
Customer Service Fee Analyst	\$2,475.54	\$3,009.35
Deputy General Manager	\$5,869.77	\$7,704.08
Engineering Assistant/Plan Checker	\$3,197.41	\$3,882.82
Engineering Technician I	\$2,513.35	\$3,054.64
Engineering Technician II	\$2,764.69	\$3,360.10

Effective May 5, 2013

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Engineering Technician III	\$3,041.15	\$3,696.12
Environmental Control (EC) Inspector I	\$2,460.19	\$2,990.74
Environmental Control (EC)Inspector II	\$2,767.77	\$3,364.65
Environmental Control (EC) Inspector III	\$3,072.24	\$3,734.76
Environmental Control (EC) Inspector IV	\$3,287.29	\$3,996.19
Environmental Control (EC) Outreach Representative	\$3,072.24	\$3,734.76
Environmental Health and Safety Program Manager	\$3,495.56	\$4,587.93
Environmental Program Coordinator	\$3,356.80	\$4,405.80
Fleet Mechanic I	\$2,656.25	\$3,016.70
Fleet Mechanic II	\$2,975.01	\$3,378.71
General Manager	\$6,987.58	\$9,171.19
Human Resources Administrator	\$4,168.30	\$5,470.89
Human Resources Analyst	\$2,953.93	\$3,877.03
InformationTechnology Administrator	\$3,760.29	\$4,935.38
Information Technology Analyst	\$2,826.50	\$3,709.78
Instrument Tech/Electrician	\$3,257.86	\$3,715.95
Janitor	\$1,661.18	\$2,017.66
Laborator Analyst	\$3,043.18	\$3,450.84
Laboratory Director	\$3,670.98	\$4,507.01
Lead Collection System Worker	\$2,917.59	\$3,292.20
Maintenance Assistant	\$1,066.53	\$1,296.37
Manager, Business Services	\$5,749.52	\$7,546.25
Manager, Collection Services	\$5,461.21	\$7,167.84
Manager, Fabrication, Maintenance & Construction	\$5,461.21	\$7,167.84
Manager, Technical Support/Customer Services	\$5,461.21	\$7,167.84
Manager, Treatment & Disposal Services	\$5,461.21	\$7,167.84
Mechanic I	\$2,687.23	\$3,051.90
Mechanic II	\$3,009.71	\$3,418.14
Mechanic XL	\$3,589.05	\$3,589.05
Office Assistant I	\$1,735.04	\$2,132.18
Office Assistant II	\$1,977.94	\$2,430.66
Office Assistant III	\$2,175.74	\$2,673.75
Painter	\$2,510.14	\$3,136.57
Planner/Scheduler I	\$2,883.46	\$3,503.92
Planner/Scheduler II	\$3,100.66	\$3,767.90
Plant Operations Trainer	\$3,659.72	\$4,139.22
Plant Operator I	\$2,574.32	\$2,911.59
Plant Operator II	\$2,857.49	\$3,231.88
Plant Operator III	\$3,267.61	\$3,695.72
Plant Operator XL	\$3,880.50	\$3,880.50
Principal Engineer	\$4,150.86	\$5,448.00
Principal Financial Analyst	\$3,545.42	\$4,653.37
Purchasing Agent	\$3,378.49	\$4,434.26

Effective May 5, 2013

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Quality Coordinator	\$3,733.96	\$4,900.83
Receptionist	\$1,894.58	\$2,302.74
Senior Accountant	\$3,039.22	\$3,988.97
Senior Database Administrator/Developer	\$3,467.99	\$4,551.74
Senior Engineer	\$3,768.92	\$4,946.71
Senior Geographic Information System (GIS)/Database Administrator	\$3,467.99	\$4,551.74
Senior Information Technology Analyst	\$3,140.55	\$4,121.97
Senior Network Administrator	\$3,343.71	\$4,388.61
Storekeeper I	\$2,663.92	\$3,238.02
Storekeeper II	\$2,797.13	\$3,399.92
Technical Training Coordinator	\$2,958.98	\$3,883.65
Utility Worker	\$2,208.51	\$2,485.70

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

Approved by: \_\_\_\_\_  
President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective June 20, 2013		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accountant I	\$2,632.40	\$3,199.70
Accountant II	\$2,895.65	\$3,519.68
Accounting Tech Specialist	\$2,839.02	\$3,450.85
Accounting Technician I	\$2,294.17	\$2,788.58
Accounting Technician II	\$2,523.57	\$3,067.42
Administrative Specialist I	\$2,220.09	\$2,725.70
Administrative Specialist II	\$2,360.46	\$2,869.14
Assistant Engineer	\$3,071.74	\$4,031.66
Assistant to the General Manager	\$2,659.77	\$3,490.95
Assistant Storekeeper	\$2,179.64	\$2,650.42
Associate Engineer	\$3,519.89	\$4,619.86
Buyer I	\$2,292.95	\$3,009.49
Buyer II	\$2,697.58	\$3,540.58
Chemist I	\$3,085.44	\$3,750.38
Chemist II	\$3,239.72	\$3,937.90
Coach, Business Services	\$4,092.83	\$5,371.84
Coach, Capital Improvement Projects, Technical Support & Customer Service	\$4,587.79	\$6,099.56
Coach, Collection Services	\$3,656.17	\$4,798.72
Coach, Customer Service, Technical Support & Customer Service	\$4,165.65	\$5,520.94
Coach, Environmental Compliance	\$3,372.17	\$4,528.92
Coach - Fabrication, Maintenance & Construction (FMC)	\$3,665.39	\$4,810.83
Coach, Research & Support/Process Engineer, Treatment & Disposal Services	\$3,694.06	\$4,848.45
Coach, Total Productive Operations (TPO) - Day, Treatment & Disposal Services	\$3,699.50	\$4,855.60
Coach, Total Productive Operations (TPO) - Night, Treatment & Disposal Services	\$3,879.20	\$5,091.45
Collection System Worker I	\$2,495.62	\$2,816.05
Collection System Worker II	\$2,548.46	\$3,097.66
Communications Coordinator	\$3,147.23	\$3,825.49
Construction Inspector I	\$2,695.70	\$3,276.65
Construction Inspector II	\$2,965.26	\$3,604.30
Construction Inspector III	\$3,083.88	\$3,748.48
Customer Service Fee Analyst	\$2,562.46	\$3,114.68
Deputy General Manager	\$5,869.77	\$7,704.08
Engineering Assistant/Plan Checker	\$3,306.21	\$4,018.71
Engineering Technician I	\$2,601.32	\$3,161.55
Engineering Technician II	\$2,861.12	\$3,477.70
Engineering Technician III	\$3,147.23	\$3,825.49

**Effective June 20, 2013**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Environmental Control (EC) Inspector I	\$2,546.30	\$3,095.41
Environmental Control (EC)Inspector II	\$2,864.64	\$3,482.41
Environmental Control (EC) Inspector III	\$3,180.14	\$3,865.48
Environmental Control (EC) Inspector IV	\$3,402.74	\$4,136.06
Environmental Control (EC) Outreach Representative	\$3,180.14	\$3,865.48
Environmental Health and Safety Program Manager	\$3,495.56	\$4,587.93
Environmental Program Coordinator	\$3,356.80	\$4,405.80
Fleet Mechanic I	\$2,568.71	\$3,122.29
Fleet Mechanic II	\$3,079.14	\$3,496.97
General Manager	\$6,987.58	\$9,171.19
Human Resources Administrator	\$4,168.30	\$5,539.64
Human Resources Analyst	\$2,953.93	\$3,925.30
InformationTechnology Administrator	\$3,760.29	\$5,062.18
Information Technology Analyst	\$2,826.50	\$3,709.78
Instrument Tech/Electrician	\$3,371.88	\$3,846.01
Janitor	\$1,718.03	\$2,088.27
Junior Engineer	\$2,925.46	\$3,839.67
Laborator Analyst	\$2,938.38	\$3,571.62
Laboratory Director	\$3,837.70	\$4,664.75
Lead Collection System Worker	\$2,803.30	\$3,407.42
Maintenance Assistant	\$1,103.86	\$1,341.74
Manager, Business Services	\$5,749.52	\$7,694.86
Manager, Collection Services	\$5,461.21	\$7,290.06
Manager, Fabrication, Maintenance & Construction	\$5,461.21	\$7,167.84
Manager, Technical Support/Customer Services	\$5,461.21	\$7,308.94
Manager, Treatment & Disposal Services	\$5,461.21	\$7,309.29
Mechanic I	\$2,781.29	\$3,158.71
Mechanic II	\$3,115.05	\$3,537.77
Mechanic XL	\$3,714.66	\$3,714.66
Office Assistant I	\$1,815.54	\$2,206.80
Office Assistant II	\$2,069.70	\$2,515.74
Office Assistant III	\$2,276.69	\$2,767.34
Painter	\$2,598.00	\$3,246.34
Planner/Scheduler I	\$2,983.58	\$3,626.56
Planner/Scheduler II	\$3,208.36	\$3,899.78
Plant Operations Trainer	\$3,524.53	\$4,284.09
Plant Operator I	\$2,479.22	\$3,013.50
Plant Operator II	\$2,957.50	\$3,344.99
Plant Operator III	\$3,381.98	\$3,825.07
Plant Operator XL	\$4,016.32	\$4,016.32
Principal Engineer	\$4,150.86	\$5,608.39
Principal Financial Analyst	\$3,545.42	\$4,734.96

**Effective June 20, 2013**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Purchasing Agent	\$3,378.49	\$4,434.26
Quality Coordinator	\$3,733.96	\$5,001.19
Receptionist	\$1,960.89	\$2,383.34
Senior Accountant	\$3,039.22	\$4,096.39
Senior Database Administrator/Developer	\$3,467.99	\$4,551.74
Senior Engineer	\$3,768.92	\$4,946.71
Senior Geographic Information System (GIS)/Database Administrator	\$3,467.99	\$4,551.74
Senior Information Technology Analyst	\$3,140.55	\$4,121.97
Senior Network Administrator	\$3,343.71	\$4,388.61
Storekeeper I	\$2,757.17	\$3,351.35
Storekeeper II	\$2,895.02	\$3,518.92
Technical Training Coordinator	\$2,958.98	\$3,883.65
Utility Worker	\$2,116.57	\$2,572.70
Board of Directors: Directors meet or serve in their official capacity 3 – 12 times per month with a maximum of six paid meetings/month at a rate of \$212.10 per meeting and are paid for a maximum of one meeting per day.		

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective September 1, 2013		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accountant I	\$2,632.40	\$3,199.70
Accountant II	\$2,895.65	\$3,519.68
Accounting Tech Specialist	\$2,839.02	\$3,450.85
Accounting Technician I	\$2,294.17	\$2,788.58
Accounting Technician II	\$2,523.57	\$3,067.42
Administrative Specialist I	\$2,242.43	\$2,725.70
Administrative Specialist II	\$2,360.46	\$2,869.14
Assistant Engineer	\$3,305.19	\$4,338.06
Assistant to the General Manager	\$2,733.18	\$3,587.30
Assistant Storekeeper	\$2,179.64	\$2,650.42
Associate Engineer	\$3,666.67	\$4,812.51
Buyer I	\$2,375.49	\$3,117.83
Buyer II	\$2,794.70	\$3,668.04
Chemist I	\$3,085.44	\$3,750.38
Chemist II	\$3,239.72	\$3,937.90
Coach, Business Services	\$4,218.89	\$5,537.29
Coach, Capital Improvement Projects	\$4,901.60	\$6,433.34
Coach, Collection Services	\$3,943.18	\$5,175.42
Coach, Customer Service	\$4,429.34	\$5,813.50
Coach, Electrical & Instrumentation	\$3,960.09	\$5,197.62
Coach, Environmental Compliance	\$3,901.94	\$5,121.30
Coach - Mechanical Maintenance	\$3,864.79	\$5,072.54
Coach, Research & Support/Process Engineer	\$3,901.30	\$5,120.45
Coach, Total Plant Operations	\$3,904.83	\$5,125.09
Collection System Worker I	\$2,495.62	\$2,816.05
Collection System Worker II	\$2,548.46	\$3,097.66
Communications Coordinator	\$3,147.23	\$3,825.49
Construction Inspector I	\$2,695.70	\$3,276.65
Construction Inspector II	\$2,965.26	\$3,604.30
Construction Inspector III	\$3,083.88	\$3,748.48
Customer Service Fee Analyst	\$2,562.46	\$3,114.68
Deputy General Manager	\$5,869.77	\$7,704.08
Engineering Assistant/Plan Checker	\$3,306.21	\$4,018.71
Engineering Technician I	\$2,601.32	\$3,161.55
Engineering Technician II	\$2,861.12	\$3,477.70
Engineering Technician III	\$3,147.23	\$3,825.49
Environmental Control (EC) Inspector I	\$2,546.30	\$3,095.41
Environmental Control (EC) Inspector II	\$2,864.64	\$3,482.41
Environmental Control (EC) Inspector III	\$3,180.14	\$3,865.48
Environmental Control (EC) Inspector IV	\$3,402.74	\$4,136.06
Environmental Control (EC) Outreach Representative	\$3,180.14	\$3,865.48

**Effective September 1, 2013**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Environmental Health and Safety Program Manager	\$3,648.32	\$4,788.42
Environmental Program Coordinator	\$3,530.33	\$4,633.56
Fleet Mechanic I	\$2,568.71	\$3,122.29
Fleet Mechanic II	\$3,079.14	\$3,496.97
General Manager	\$6,987.57	\$9,171.19
Human Resources Administrator	\$4,425.90	\$5,809.00
Human Resources Analyst	\$3,110.49	\$4,082.52
InformationTechnology Administrator	\$4,207.01	\$5,521.70
Information Technology Analyst	\$3,004.57	\$3,943.49
Instrument Tech/Electrician	\$3,371.88	\$3,846.01
Janitor	\$1,718.03	\$2,088.27
Junior Engineer	\$2,925.09	\$3,839.18
Laborator Analyst	\$2,938.38	\$3,571.62
Laboratory Director	\$3,837.70	\$4,664.75
Lead Collection System Worker	\$2,803.30	\$3,407.42
Maintenance Assistant	\$1,103.86	\$1,341.74
Manager, Business Services	\$6,028.38	\$7,939.28
Manager, Collection Services	\$5,626.68	\$7,508.31
Manager, Maintenance	\$5,626.68	\$7,385.02
Manager, Technical Services	\$5,948.35	\$7,807.21
Manager, Treatment & Disposal Services	\$5,626.68	\$7,556.60
Mechanic I	\$2,781.29	\$3,158.71
Mechanic II	\$3,115.05	\$3,537.77
Mechanic XL	\$3,714.66	\$3,714.66
Office Assistant I	\$1,815.54	\$2,206.80
Office Assistant II	\$2,069.70	\$2,515.74
Office Assistant III	\$2,276.69	\$2,767.34
Painter	\$2,598.00	\$3,246.34
Planner/Scheduler I	\$2,983.58	\$3,626.56
Planner/Scheduler II	\$3,208.36	\$3,899.78
Plant Operations Trainer	\$3,524.53	\$4,284.09
Plant Operator I	\$2,479.22	\$3,013.50
Plant Operator II	\$2,957.50	\$3,344.99
Plant Operator III	\$3,381.98	\$3,825.07
Plant Operator XL	\$4,016.32	\$4,016.32
Principal Engineer	\$4,434.78	\$5,820.64
Principal Financial Analyst	\$3,506.43	\$4,823.22
Purchasing Agent	\$3,513.96	\$4,612.08
Quality Coordinator	\$3,812.01	\$5,284.76
Receptionist	\$1,960.89	\$2,383.34
Senior Accountant	\$3,147.72	\$4,198.39
Senior Database Administrator/Developer	\$3,765.20	\$4,941.82
Senior Engineer	\$4,007.49	\$5,259.84

**Effective September 1, 2013**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Senior Geographic Information System (GIS)/Database Administrator	\$3,765.20	\$4,941.82
Senior Information Technology Analyst	\$3,338.41	\$4,381.66
Senior Network Administrator	\$3,692.12	\$4,845.91
Storekeeper I	\$2,757.17	\$3,351.35
Storekeeper II	\$2,895.02	\$3,518.92
Technical Training Coordinator	\$3,378.26	\$4,433.97
Utility Worker	\$2,116.57	\$2,572.70

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

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective December 13, 2013		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accountant I	\$2,632.40	\$3,199.70
Accountant II	\$2,895.65	\$3,519.68
Accounting Tech Specialist	\$2,839.02	\$3,450.85
Accounting Technician I	\$2,294.17	\$2,788.58
Accounting Technician II	\$2,523.57	\$3,067.42
Administrative Specialist I	\$2,242.43	\$2,725.70
Administrative Specialist II	\$2,360.46	\$2,869.14
Assistant Engineer	\$3,305.19	\$4,338.06
Assistant to the General Manager	\$2,733.18	\$3,587.30
Assistant Storekeeper	\$2,179.64	\$2,650.42
Associate Engineer	\$3,666.67	\$4,812.51
Buyer I	\$2,375.49	\$3,117.83
Buyer II	\$2,794.70	\$3,668.04
Chemist I	\$3,085.44	\$3,750.38
Chemist II	\$3,239.72	\$3,937.90
Coach, Business Services	\$4,218.89	\$5,537.29
Coach, Capital Improvement Projects	\$4,901.60	\$6,433.34
Coach, Collection Services	\$3,943.18	\$5,175.42
Coach, Customer Service	\$4,429.34	\$5,813.50
Coach, Electrical & Instrumentation	\$3,960.09	\$5,197.62
Coach, Environmental Compliance	\$3,901.94	\$5,121.30
Coach - Mechanical Maintenance	\$3,864.79	\$5,072.54
Coach, Research & Support/Process Engineer	\$3,901.30	\$5,120.45
Coach, Total Plant Operations	\$3,904.83	\$5,125.09
Collection System Worker I	\$2,495.62	\$2,816.05
Collection System Worker II	\$2,548.46	\$3,097.66
Communications Coordinator	\$3,147.23	\$3,825.49
Construction Inspector I	\$2,695.70	\$3,276.65
Construction Inspector II	\$2,965.26	\$3,604.30
Construction Inspector III	\$3,083.88	\$3,748.48
Customer Service Fee Analyst	\$2,562.46	\$3,114.68
Deputy General Manager	\$5,869.77	\$7,704.08
Engineering Assistant/Plan Checker	\$3,306.21	\$4,018.71
Engineering Technician I	\$2,601.32	\$3,161.55
Engineering Technician II	\$2,861.12	\$3,477.70
Engineering Technician III	\$3,147.23	\$3,825.49
Environmental Control (EC) Inspector I	\$2,546.30	\$3,095.41
Environmental Control (EC) Inspector II	\$2,864.64	\$3,482.41
Environmental Control (EC) Inspector III	\$3,180.14	\$3,865.48
Environmental Control (EC) Inspector IV	\$3,402.74	\$4,136.06
Environmental Control (EC) Outreach Representative	\$3,180.14	\$3,865.48

**Effective December 13, 2013**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Environmental Health and Safety Program Manager	\$3,648.32	\$4,788.42
Environmental Program Coordinator	\$3,530.33	\$4,633.56
Fleet Mechanic I	\$2,568.71	\$3,122.29
Fleet Mechanic II	\$3,079.14	\$3,496.97
General Manager	\$6,987.57	\$9,171.19
Human Resources Administrator	\$4,425.90	\$5,809.00
Human Resources Analyst	\$3,110.49	\$4,082.52
InformationTechnology Administrator	\$4,207.01	\$5,521.70
Information Technology Analyst	\$3,004.57	\$3,943.49
Instrument Tech/Electrician	\$3,371.88	\$3,846.01
Janitor	\$1,718.03	\$2,088.27
Junior Engineer	\$2,974.67	\$3,904.26
Laborator Analyst	\$2,938.38	\$3,571.62
Laboratory Director	\$3,837.70	\$4,664.75
Lead Collection System Worker	\$2,803.30	\$3,407.42
Maintenance Assistant	\$1,103.86	\$1,341.74
Manager, Business Services	\$6,028.38	\$7,912.24
Manager, Collection Services	\$5,626.68	\$7,385.02
Manager, Maintenance	\$5,626.68	\$7,385.02
Manager, Technical Services	\$5,948.35	\$7,807.21
Manager, Treatment & Disposal Services	\$5,626.68	\$7,385.02
Mechanic I	\$2,781.29	\$3,158.71
Mechanic II	\$3,115.05	\$3,537.77
Mechanic XL	\$3,714.66	\$3,714.66
Office Assistant I	\$1,815.54	\$2,206.80
Office Assistant II	\$2,069.70	\$2,515.74
Office Assistant III	\$2,276.69	\$2,767.34
Painter	\$2,598.00	\$3,246.34
Planner/Scheduler I	\$2,983.58	\$3,626.56
Planner/Scheduler II	\$3,208.36	\$3,899.78
Plant Operations Trainer	\$3,524.53	\$4,284.09
Plant Operator I	\$2,479.22	\$3,013.50
Plant Operator II	\$2,957.50	\$3,344.99
Plant Operator III	\$3,381.98	\$3,825.07
Plant Operator XL	\$4,016.32	\$4,016.32
Principal Engineer	\$4,434.78	\$5,820.64
Principal Financial Analyst	\$3,506.43	\$4,602.18
Purchasing Agent	\$3,513.96	\$4,612.08
Quality Coordinator	\$3,812.01	\$5,003.26
Receptionist	\$1,960.89	\$2,383.34
Senior Accountant	\$3,147.72	\$4,131.38
Senior Database Administrator/Developer	\$3,765.20	\$4,941.82
Senior Engineer	\$4,007.49	\$5,259.84

**Effective December 13, 2013**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Senior Geographic Information System (GIS)/Database Administrator	\$3,765.20	\$4,941.82
Senior Information Technology Analyst	\$3,338.41	\$4,381.66
Senior Network Administrator	\$3,692.12	\$4,845.91
Storekeeper I	\$2,757.17	\$3,351.35
Storekeeper II	\$2,895.02	\$3,518.92
Technical Training Coordinator	\$3,378.26	\$4,433.97
Utility Worker	\$2,116.57	\$2,572.70
<p><b>Board of Directors:</b> Directors meet or serve in their official capacity 3 – 12 times per month with a maximum of six paid meetings/month at a rate of \$212.10 per meeting and are paid for a maximum of one meeting per day.</p>		

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective March 1, 2014		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accounting Tech Specialist	\$2,938.38	\$3,571.62
Accounting Technician II	\$2,611.90	\$3,174.78
Administrative Specialist I	\$2,320.92	\$2,821.10
Administrative Specialist II	\$2,443.06	\$2,969.57
Assistant Engineer	\$3,305.19	\$4,338.06
Assistant to the General Manager	\$2,733.18	\$3,587.30
Assistant Storekeeper	\$2,256.82	\$2,743.18
Associate Engineer	\$3,666.67	\$4,812.51
Buyer I	\$2,375.49	\$3,117.83
Buyer II	\$2,794.70	\$3,668.04
Chemist I	\$3,193.43	\$3,881.64
Chemist II	\$3,353.11	\$4,075.73
Coach, Business Services	\$4,218.89	\$5,537.29
Coach, Capital Improvement Projects	\$4,901.60	\$6,433.34
Coach, Collection Services	\$3,943.18	\$5,175.42
Coach, Customer Service	\$4,429.34	\$5,813.50
Coach, Electrical & Instrumentation	\$3,960.09	\$5,197.62
Coach, Environmental Compliance	\$3,901.94	\$5,121.30
Coach - Mechanical Maintenance	\$3,864.79	\$5,072.54
Coach, Research & Support/Process Engineer	\$3,901.30	\$5,120.45
Coach, Total Plant Operations	\$3,904.83	\$5,125.09
Collection System Worker I	\$2,397.86	\$2,914.61
Collection System Worker II	\$2,637.65	\$3,206.08
Communications Coordinator	\$3,257.39	\$3,959.38
Construction Inspector I	\$2,790.06	\$3,391.33
Construction Inspector II	\$3,069.05	\$3,730.45
Construction Inspector III	\$3,191.82	\$3,879.68
Customer Service Fee Analyst	\$2,652.14	\$3,223.70
Engineering Technician I	\$2,692.06	\$3,272.21
Engineering Technician II	\$2,961.26	\$3,599.42
Engineering Technician III	\$3,257.39	\$3,959.38
Environmental Compliance (EC) Inspector I	\$2,635.74	\$3,203.75
Environmental Compliance (EC) Inspector II	\$2,965.26	\$3,604.30
Environmental Compliance (EC) Inspector III	\$3,291.44	\$4,000.77
Environmental Compliance (EC) Inspector IV	\$3,521.84	\$4,280.82
Environmental Control (EC) Outreach Representative	\$3,291.44	\$4,000.77

**Effective March 1, 2014**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Environmental Health and Safety Program Manager	\$3,648.32	\$4,788.42
Environmental Program Coordinator	\$3,530.33	\$4,633.56
Fleet Mechanic I	\$2,658.62	\$3,231.57
Fleet Mechanic II	\$2,977.66	\$3,619.36
General Manager	\$7,074.72	\$9,285.56
Human Resources Administrator	\$4,425.90	\$5,809.00
Human Resources Analyst	\$3,110.49	\$4,082.52
Information Technology Administrator	\$4,207.01	\$5,521.70
Information Technology Analyst	\$3,004.57	\$3,943.49
Instrument Tech/Electrician	\$3,274.86	\$3,980.62
Janitor	\$1,778.16	\$2,161.36
Junior Engineer	\$2,974.67	\$3,904.26
Laboratory Director	\$3,972.02	\$4,828.02
Lead Collection System Worker	\$2,901.42	\$3,526.69
Maintenance Assistant	\$1,142.49	\$1,388.70
Manager, Business Services	\$6,028.38	\$7,912.24
Manager, Collection Services	\$5,626.68	\$7,385.02
Manager, Maintenance	\$5,626.68	\$7,385.02
Manager, Technical Services	\$5,948.35	\$7,807.21
Manager, Treatment & Disposal Services	\$5,626.68	\$7,385.02
Mechanic I	\$2,689.63	\$3,269.26
Mechanic II	\$3,012.40	\$3,661.59
Mechanic XL	\$3,714.66	\$3,844.68
Painter	\$2,764.26	\$3,359.97
Planner/Scheduler I	\$3,088.00	\$3,753.49
Planner/Scheduler II	\$3,320.65	\$4,036.27
Plant Operations Trainer	\$3,647.89	\$4,434.03
Plant Operator I	\$2,565.98	\$3,118.97
Plant Operator II	\$2,848.26	\$3,462.07
Plant Operator III	\$3,257.04	\$3,958.94
Plant Operator XL	\$4,016.32	\$4,156.90
Principal Engineer	\$4,434.78	\$5,820.64
Principal Financial Analyst	\$3,506.43	\$4,602.18
Purchasing Agent	\$3,513.96	\$4,612.08
Quality Coordinator	\$3,812.01	\$5,003.26
Receptionist	\$2,029.41	\$2,466.76
Senior Accountant	\$3,147.72	\$4,131.38
Senior Database Administrator/Developer	\$3,765.20	\$4,941.82

**Effective March 1, 2014**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Senior Engineer	\$4,007.49	\$5,259.84
Senior Geographic Information System (GIS)/Database Administrator	\$3,765.20	\$4,941.82
Senior Information Technology Analyst	\$3,338.41	\$4,381.66
Senior Network Administrator	\$3,692.12	\$4,845.91
Senior Process Engineer	\$4,007.49	\$5,259.84
Storekeeper I	\$2,853.67	\$3,468.66
Storekeeper II	\$2,996.34	\$3,642.08
Technical Training Program Manager	\$3,378.26	\$4,433.97
Utility Worker	\$2,190.65	\$2,662.75
<b>Board of Directors:</b> Directors meet or serve in their official capacity 3 – 12 times per month with a maximum of six paid meetings/month at a rate of \$212.10 per meeting and are paid for a maximum of one meeting per day.		

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective May 19, 2014		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accounting Tech Specialist	\$2,938.38	\$3,571.62
Accounting Technician II	\$2,611.90	\$3,174.78
Administrative Specialist I	\$2,320.92	\$2,821.10
Administrative Specialist II	\$2,443.06	\$2,969.57
Assistant Engineer	\$3,305.19	\$4,338.06
Assistant to the General Manager	\$2,974.95	\$3,904.62
Assistant Storekeeper	\$2,256.82	\$2,743.18
Associate Engineer	\$3,666.67	\$4,812.51
Buyer I	\$2,375.49	\$3,117.83
Buyer II	\$2,794.70	\$3,668.04
Chemist I	\$3,193.43	\$3,881.64
Chemist II	\$3,353.11	\$4,075.73
Coach, Business Services	\$4,218.89	\$5,537.29
Coach, Capital Improvement Projects	\$4,901.60	\$6,433.34
Coach, Collection Services	\$3,943.18	\$5,175.42
Coach, Customer Service	\$4,429.34	\$5,813.50
Coach, Electrical & Instrumentation	\$3,960.09	\$5,197.62
Coach, Environmental Compliance	\$3,901.94	\$5,121.30
Coach - Mechanical Maintenance	\$3,864.79	\$5,072.54
Coach, Research & Support/Process Engineer	\$3,901.30	\$5,120.45
Coach, Total Plant Operations	\$3,904.83	\$5,125.09
Collection System Worker I	\$2,397.86	\$2,914.61
Collection System Worker II	\$2,637.65	\$3,206.08
Communications Coordinator	\$3,257.39	\$3,959.38
Construction Inspector I	\$2,790.06	\$3,391.33
Construction Inspector II	\$3,069.05	\$3,730.45
Construction Inspector III	\$3,191.82	\$3,879.68
Customer Service Fee Analyst	\$2,652.14	\$3,223.70
Engineering Technician I	\$2,692.06	\$3,272.21
Engineering Technician II	\$2,961.26	\$3,599.42
Engineering Technician III	\$3,257.39	\$3,959.38
Environmental Compliance (EC) Inspector I	\$2,635.74	\$3,203.75
Environmental Compliance (EC) Inspector II	\$2,965.26	\$3,604.30
Environmental Compliance (EC) Inspector III	\$3,291.44	\$4,000.77
Environmental Compliance (EC) Inspector IV	\$3,521.84	\$4,280.82
Environmental Control (EC) Outreach Representative	\$3,291.44	\$4,000.77

**Effective May 19, 2014**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Environmental Health and Safety Program Manager	\$3,648.32	\$4,788.42
Environmental Program Coordinator	\$3,530.33	\$4,633.56
Fleet Mechanic I	\$2,658.62	\$3,231.57
Fleet Mechanic II	\$2,977.66	\$3,619.36
General Manager	\$7,074.72	\$9,285.56
Human Resources Administrator	\$4,425.90	\$5,809.00
Human Resources Analyst	\$3,110.49	\$4,082.52
Information Technology Administrator	\$4,207.01	\$5,521.70
Information Technology Analyst	\$3,004.57	\$3,943.49
Instrument Tech/Electrician	\$3,274.86	\$3,980.62
Janitor	\$1,778.16	\$2,161.36
Junior Engineer	\$2,974.67	\$3,904.26
Laboratory Director	\$3,972.02	\$4,828.02
Lead Collection System Worker	\$2,901.42	\$3,526.69
Maintenance Assistant	\$1,142.49	\$1,388.70
Manager, Business Services	\$6,028.38	\$7,912.24
Manager, Collection Services	\$5,626.68	\$7,385.02
Manager, Maintenance	\$5,626.68	\$7,385.02
Manager, Technical Services	\$5,948.35	\$7,807.21
Manager, Treatment & Disposal Services	\$5,626.68	\$7,385.02
Mechanic I	\$2,689.63	\$3,269.26
Mechanic II	\$3,012.40	\$3,661.59
Mechanic XL	\$3,714.66	\$3,844.68
Painter	\$2,764.26	\$3,359.97
Planner/Scheduler I	\$3,088.00	\$3,753.49
Planner/Scheduler II	\$3,320.65	\$4,036.27
Plant Operations Trainer	\$3,647.89	\$4,434.03
Plant Operator I	\$2,565.98	\$3,118.97
Plant Operator II	\$2,848.26	\$3,462.07
Plant Operator III	\$3,257.04	\$3,958.94
Plant Operator XL	\$4,016.32	\$4,156.90
Principal Engineer	\$4,434.78	\$5,820.64
Principal Financial Analyst	\$3,506.43	\$4,602.18
Purchasing Agent	\$3,513.96	\$4,612.08
Quality Coordinator	\$3,812.01	\$5,003.26
Receptionist	\$2,029.41	\$2,466.76
Senior Accountant	\$3,147.72	\$4,131.38
Senior Database Administrator/Developer	\$3,765.20	\$4,941.82

**Effective May 19, 2014**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Senior Engineer	\$4,007.49	\$5,259.84
Senior Geographic Information System (GIS)/Database Administrator	\$3,765.20	\$4,941.82
Senior Information Technology Analyst	\$3,338.41	\$4,381.66
Senior Network Administrator	\$3,692.12	\$4,845.91
Senior Process Engineer	\$4,007.49	\$5,259.84
Storekeeper I	\$2,853.67	\$3,468.66
Storekeeper II	\$2,996.34	\$3,642.08
Technical Training Program Manager	\$3,378.26	\$4,433.97
Utility Worker	\$2,190.65	\$2,662.75
<p><b>Board of Directors:</b> Directors meet or serve in their official capacity 3 – 12 times per month with a maximum of six paid meetings/month at a rate of \$212.10 per meeting and are paid for a maximum of one meeting per day.</p>		

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective August 24, 2014		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accounting Tech Specialist	\$2,938.38	\$3,571.62
Accounting Technician II	\$2,611.90	\$3,174.78
Administrative Specialist I	\$2,320.92	\$2,821.10
Administrative Specialist II	\$2,443.06	\$2,969.57
Assistant Engineer	\$3,427.81	\$4,499.00
Assistant to the General Manager	\$2,924.79	\$3,838.79
Assistant Storekeeper	\$2,256.82	\$2,743.18
Associate Engineer	\$3,821.77	\$5,016.08
Buyer I	\$2,455.78	\$3,223.21
Buyer II	\$2,889.16	\$3,792.02
Chemist I	\$3,193.43	\$3,881.64
Chemist II	\$3,353.11	\$4,075.73
Coach, Business Services	\$4,426.46	\$5,809.72
Coach, Capital Improvement Projects	\$5,128.54	\$6,731.21
Coach, Collection Services	\$4,105.64	\$5,388.65
Coach, Customer Service	\$4,580.38	\$6,011.74
Coach, Electrical & Instrumentation	\$4,150.57	\$5,447.62
Coach, Environmental Compliance	\$4,120.45	\$5,408.09
Coach - Mechanical Maintenance	\$4,032.52	\$5,292.68
Coach, Research & Support/Process Engineer	\$4,110.01	\$5,394.39
Coach, Total Plant Operations	\$4,063.75	\$5,333.68
Collection System Worker I	\$2,397.86	\$2,914.61
Collection System Worker II	\$2,637.65	\$3,206.08
Communications Coordinator	\$3,257.39	\$3,959.38
Construction Inspector I	\$2,790.06	\$3,391.33
Construction Inspector II	\$3,069.05	\$3,730.45
Construction Inspector III	\$3,191.82	\$3,879.68
Customer Service Fee Analyst	\$2,652.14	\$3,223.70
Engineering Technician I	\$2,692.06	\$3,272.21
Engineering Technician II	\$2,961.26	\$3,599.42
Engineering Technician III	\$3,257.39	\$3,959.38
Environmental Compliance (EC) Inspector I	\$2,635.74	\$3,203.75
Environmental Compliance (EC) Inspector II	\$2,965.26	\$3,604.30
Environmental Compliance (EC) Inspector III	\$3,291.44	\$4,000.77
Environmental Compliance (EC) Inspector IV	\$3,521.84	\$4,280.82
Environmental Control (EC) Outreach Representative	\$3,291.44	\$4,000.77

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective August 24, 2014		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Environmental Health and Safety Program Manager	\$3,798.63	\$4,985.70
Environmental Program Coordinator	\$3,728.03	\$4,893.04
Fleet Mechanic I	\$2,658.62	\$3,231.57
Fleet Mechanic II	\$2,977.66	\$3,619.36
General Manager	\$7,074.72	\$9,285.56
Human Resources Administrator	\$4,591.87	\$6,026.83
Human Resources Analyst	\$3,210.96	\$4,214.38
InformationTechnology Administrator	\$4,367.30	\$5,732.08
Information Technology Analyst	\$3,089.29	\$4,054.70
Instrument Tech/Electrician	\$3,274.86	\$3,980.62
Janitor	\$1,778.16	\$2,161.36
Junior Engineer	\$3,085.03	\$4,049.10
Laboratory Director	\$3,972.02	\$4,828.02
Lead Collection System Worker	\$2,901.42	\$3,526.69
Maintenance Assistant	\$1,142.49	\$1,388.70
Manager, Business Services	\$6,291.21	\$8,257.22
Manager, Collection Services	\$5,827.56	\$7,648.67
Manager, Maintenance	\$5,528.78	\$7,256.52
Manager, Technical Services	\$6,107.76	\$8,016.44
Manager, Treatment & Disposal Services	\$5,827.56	\$7,648.67
Mechanic I	\$2,689.63	\$3,269.26
Mechanic II	\$3,012.40	\$3,661.59
Mechanic XL	\$3,714.66	\$3,844.68
Organizational Performance Program Manager	\$3,985.83	\$5,231.41
Painter	\$2,764.26	\$3,359.97
Planner/Scheduler I	\$3,088.00	\$3,753.49
Planner/Scheduler II	\$3,320.65	\$4,036.27
Plant Operations Trainer	\$3,647.89	\$4,434.03
Plant Operator I	\$2,565.98	\$3,118.97
Plant Operator II	\$2,848.26	\$3,462.07
Plant Operator III	\$3,257.04	\$3,958.94
Plant Operator XL	\$4,016.32	\$4,156.90
Principal Engineer	\$4,640.11	\$6,090.14
Principal Financial Analyst	\$3,694.37	\$4,848.86
Purchasing Agent	\$3,637.65	\$4,774.42
Quality Coordinator	\$3,985.83	\$5,231.41

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective August 24, 2014		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Receptionist	\$2,029.41	\$2,466.76
Senior Accountant	\$3,314.23	\$4,349.93
Senior Database Administrator / Developer	\$3,875.52	\$5,086.62
Senior Engineer	\$4,144.15	\$5,439.20
Senior Geographic Information System (GIS)/Database Administrator	\$3,875.52	\$5,086.62
Senior Information Technology Analyst	\$3,432.55	\$4,505.22
Senior Network Administrator	\$3,785.53	\$4,968.51
Senior Planner/Scheduler	\$3,648.47	\$4,788.62
Senior Process Engineer	\$4,144.15	\$5,439.20
Storekeeper I	\$2,853.67	\$3,468.66
Storekeeper II	\$2,996.34	\$3,642.08
Technical Training Program Manager	\$3,625.89	\$4,758.98
Utility Worker	\$2,190.65	\$2,662.75
<b>Board of Directors:</b> Directors meet or serve in their official capacity 3 – 12 times per month with a maximum of six paid meetings/month at a rate of \$212.10 per meeting and are paid for a maximum of one meeting per day.		

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective October 4, 2014		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accounting Tech Specialist	\$2,938.38	\$3,571.62
Accounting Technician II	\$2,611.90	\$3,174.78
Administrative Specialist I	\$2,320.92	\$2,821.10
Administrative Specialist II	\$2,443.06	\$2,969.57
Assistant Engineer	\$3,427.81	\$4,499.00
Assistant to the General Manager	\$2,924.79	\$3,838.79
Assistant Storekeeper	\$2,256.82	\$2,743.18
Associate Engineer	\$3,821.77	\$5,016.08
Buyer I	\$2,455.78	\$3,223.21
Buyer II	\$2,889.16	\$3,792.02
Chemist I	\$3,193.43	\$3,881.64
Chemist II	\$3,353.11	\$4,075.73
Coach, Business Services	\$4,426.46	\$5,809.72
Coach, Capital Improvement Projects	\$5,128.54	\$6,731.21
Coach, Collection Services	\$4,105.64	\$5,388.65
Coach, Customer Service	\$4,580.38	\$6,027.79
Coach, Electrical & Instrumentation	\$4,150.57	\$5,447.62
Coach, Environmental Compliance	\$4,120.45	\$5,408.09
Coach - Mechanical Maintenance	\$4,032.52	\$5,292.68
Coach, Research & Support/Process Engineer	\$4,110.01	\$5,394.39
Coach, Total Plant Operations	\$4,063.75	\$5,333.68
Collection System Worker I	\$2,397.86	\$2,914.61
Collection System Worker II	\$2,637.65	\$3,206.08
Communications Coordinator	\$3,257.39	\$3,959.38
Construction Inspector I	\$2,790.06	\$3,391.33
Construction Inspector II	\$3,069.05	\$3,730.45
Construction Inspector III	\$3,191.82	\$3,879.68
Customer Service Fee Analyst	\$2,652.14	\$3,223.70
Engineering Technician I	\$2,692.06	\$3,272.21
Engineering Technician II	\$2,961.26	\$3,599.42
Engineering Technician III	\$3,257.39	\$3,959.38
Environmental Compliance (EC) Inspector I	\$2,635.74	\$3,203.75
Environmental Compliance (EC) Inspector II	\$2,965.26	\$3,604.30
Environmental Compliance (EC) Inspector III	\$3,291.44	\$4,000.77
Environmental Compliance (EC) Inspector IV	\$3,521.84	\$4,280.82
Environmental Control (EC) Outreach Representative	\$3,291.44	\$4,000.77

**Effective October 4, 2014**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Environmental Health and Safety Program Manager	\$3,798.63	\$5,001.64
Environmental Program Coordinator	\$3,728.03	\$4,893.04
Fleet Mechanic I	\$2,658.62	\$3,231.57
Fleet Mechanic II	\$2,977.66	\$3,619.36
General Manager	\$7,074.72	\$9,285.56
Human Resources Administrator	\$4,591.87	\$6,031.63
Human Resources Analyst	\$3,210.96	\$4,269.51
Information Technology Administrator	\$4,367.30	\$5,732.08
Information Technology Analyst	\$3,089.29	\$4,054.70
Instrument Tech/Electrician	\$3,274.86	\$3,980.62
Janitor	\$1,778.16	\$2,161.36
Junior Engineer	\$3,085.03	\$4,049.10
Laboratory Director	\$3,972.02	\$4,828.02
Lead Collection System Worker	\$2,901.42	\$3,526.69
Maintenance Assistant	\$1,142.49	\$1,388.70
Manager, Business Services	\$6,291.21	\$8,257.22
Manager, Collection Services	\$5,827.56	\$7,717.35
Manager, Maintenance	\$5,528.78	\$7,256.52
Manager, Technical Services	\$6,107.76	\$8,016.44
Manager, Treatment & Disposal Services	\$5,827.56	\$7,735.81
Mechanic I	\$2,689.63	\$3,269.26
Mechanic II	\$3,012.40	\$3,661.59
Mechanic XL	\$3,714.66	\$3,844.68
Painter	\$2,764.26	\$3,359.97
Planner/Scheduler I	\$3,088.00	\$3,753.49
Planner/Scheduler II	\$3,320.65	\$4,036.27
Plant Operations Trainer	\$3,647.89	\$4,434.03
Plant Operator I	\$2,565.98	\$3,118.97
Plant Operator II	\$2,848.26	\$3,462.07
Plant Operator III	\$3,257.04	\$3,958.94
Plant Operator XL	\$4,016.32	\$4,156.90
Principal Engineer	\$4,640.11	\$6,090.14
Principal Financial Analyst	\$3,694.37	\$4,874.40
Purchasing Agent	\$3,637.65	\$4,774.42
Organizational Performance Program Manager	\$3,985.83	\$5,363.77
Receptionist	\$2,029.41	\$2,466.76
Senior Accountant	\$3,314.23	\$4,349.93
Senior Database Administrator / Developer	\$3,875.52	\$5,086.62

**Effective October 4, 2014**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Senior Engineer	\$4,144.15	\$5,439.20
Senior Geographic Information System (GIS)/Database Administrator	\$3,875.52	\$5,086.62
Senior Information Technology Analyst	\$3,432.55	\$4,505.22
Senior Network Administrator	\$3,785.53	\$4,968.51
Senior Planner/Scheduler	\$3,648.47	\$4,788.62
Senior Process Engineer	\$4,144.15	\$5,439.20
Storekeeper I	\$2,853.67	\$3,468.66
Storekeeper II	\$2,996.34	\$3,642.08
Technical Training Program Manager	\$3,625.89	\$4,758.98
Utility Worker	\$2,190.65	\$2,662.75
<p><b>Board of Directors:</b> Directors meet or serve in their official capacity 3 – 12 times per month with a maximum of six paid meetings/month at a rate of \$212.10 per meeting and are paid for a maximum of one meeting per day.</p>		

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective December 8, 2014		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accounting Tech Specialist	\$2,938.38	\$3,571.62
Accounting Technician II	\$2,611.90	\$3,174.78
Administrative Specialist I	\$2,320.92	\$2,821.10
Administrative Specialist II	\$2,443.06	\$2,969.57
Assistant Engineer	\$3,427.81	\$4,499.00
Assistant to the General Manager	\$2,924.79	\$3,838.79
Assistant Storekeeper	\$2,256.82	\$2,743.18
Associate Engineer	\$3,821.77	\$5,016.08
Buyer I	\$2,455.78	\$3,223.21
Buyer II	\$2,889.16	\$3,792.02
Chemist I	\$3,193.43	\$3,881.64
Chemist II	\$3,353.11	\$4,075.73
Coach, Business Services	\$4,426.46	\$5,809.72
Coach, Capital Improvement Projects	\$5,128.54	\$6,731.21
Coach, Collection Services	\$4,105.64	\$5,388.65
Coach, Customer Service	\$4,580.38	\$6,011.74
Coach, Electrical & Instrumentation	\$4,150.57	\$5,447.62
Coach, Environmental Compliance	\$4,120.45	\$5,408.09
Coach - Mechanical Maintenance	\$4,032.52	\$5,292.68
Coach, Research & Support/Sr. Process Engineer	\$4,580.38	\$6,011.74
Coach, Total Plant Operations	\$4,063.75	\$5,333.68
Collection System Worker I	\$2,397.86	\$2,914.61
Collection System Worker II	\$2,637.65	\$3,206.08
Communications Coordinator	\$3,257.39	\$3,959.38
Construction Inspector I	\$2,790.06	\$3,391.33
Construction Inspector II	\$3,069.05	\$3,730.45
Construction Inspector III	\$3,191.82	\$3,879.68
Customer Service Fee Analyst	\$2,652.14	\$3,223.70
Engineering Technician I	\$2,692.06	\$3,272.21
Engineering Technician II	\$2,961.26	\$3,599.42
Engineering Technician III	\$3,257.39	\$3,959.38
Environmental Compliance (EC) Inspector I	\$2,635.74	\$3,203.75
Environmental Compliance (EC) Inspector II	\$2,965.26	\$3,604.30
Environmental Compliance (EC) Inspector III	\$3,291.44	\$4,000.77
Environmental Compliance (EC) Inspector IV	\$3,521.84	\$4,280.82
Environmental Control (EC) Outreach Representative	\$3,291.44	\$4,000.77

**Effective December 8, 2014**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Environmental Health and Safety Program Manager	\$3,798.63	\$4,985.70
Environmental Program Coordinator	\$3,728.03	\$4,893.04
Fleet Mechanic I	\$2,658.62	\$3,231.57
Fleet Mechanic II	\$2,977.66	\$3,619.36
General Manager	\$7,074.72	\$9,285.56
Human Resources Administrator	\$4,591.87	\$6,026.83
Human Resources Analyst	\$3,210.96	\$4,214.38
Information Technology Administrator	\$4,367.30	\$5,732.08
Information Technology Analyst	\$3,089.29	\$4,054.70
Instrument Tech/Electrician	\$3,274.86	\$3,980.62
Janitor	\$1,778.16	\$2,161.36
Junior Engineer	\$3,085.03	\$4,049.10
Laboratory Director	\$3,972.02	\$4,828.02
Lead Collection System Worker	\$2,901.42	\$3,526.69
Maintenance Assistant	\$1,142.49	\$1,388.70
Manager, Business Services	\$6,291.21	\$8,257.22
Manager, Collection Services	\$5,528.78	\$7,256.52
Manager, Collection Services*	\$5,827.56	\$7,648.67
Manager, Maintenance	\$5,528.78	\$7,256.52
Manager, Technical Services	\$6,107.76	\$8,016.44
Manager, Treatment & Disposal Services	\$5,528.78	\$7,256.52
Manager, Treatment & Disposal Services *	\$5,827.56	\$7,648.67
Mechanic I	\$2,689.63	\$3,269.26
Mechanic II	\$3,012.40	\$3,661.59
Mechanic XL	\$3,714.66	\$3,844.68
Organizational Performance Program Manager	\$3,985.83	\$5,231.41
Painter	\$2,764.26	\$3,359.97
Planner/Scheduler I	\$3,088.00	\$3,753.49
Planner/Scheduler II	\$3,320.65	\$4,036.27
Plant Operations Trainer	\$3,647.89	\$4,434.03
Plant Operator I	\$2,565.98	\$3,118.97
Plant Operator II	\$2,848.26	\$3,462.07
Plant Operator III	\$3,257.04	\$3,958.94
Plant Operator XL	\$4,016.32	\$4,156.90
Principal Engineer	\$4,640.11	\$6,090.14
Principal Financial Analyst	\$3,694.37	\$4,848.86
Purchasing Agent	\$3,637.65	\$4,774.42
Receptionist	\$2,029.41	\$2,466.76

**Effective December 8, 2014**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Senior Accountant	\$3,314.23	\$4,349.93
Senior Database Administrator / Developer	\$3,875.52	\$5,086.62
Senior Engineer	\$4,144.15	\$5,439.20
Senior Geographic Information System (GIS)/Database Administrator	\$3,875.52	\$5,086.62
Senior Information Technology Analyst	\$3,432.55	\$4,505.22
Senior Network Administrator	\$3,785.53	\$4,968.51
Senior Planner/Scheduler	\$3,648.47	\$4,788.62
Senior Process Engineer	\$4,144.15	\$5,439.20
Storekeeper I	\$2,853.67	\$3,468.66
Storekeeper II	\$2,996.34	\$3,642.08
Technical Training Program Manager	\$3,625.89	\$4,758.98
Utility Worker	\$2,190.65	\$2,662.75

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

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

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

## UNION SANITARY DISTRICT PAY SCHEDULE

Effective September 1, 2015		
(REVISED - 01/09/2017)		
Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Accounting Tech Specialist	\$3,041.23	\$3,696.63
Accounting Technician II	\$2,703.31	\$3,285.90
Administrative Specialist I	\$2,402.15	\$2,919.83
Administrative Specialist II	\$2,528.58	\$3,073.50
Assistant Engineer	\$3,596.80	\$4,720.80
Assistant to the General Manager	\$3,088.87	\$4,054.14
Assistant Storekeeper	\$2,335.82	\$2,839.19
Associate Engineer	\$4,022.80	\$5,279.92
Buyer I	\$2,726.87	\$3,579.02
Buyer II	\$3,029.86	\$3,976.69
Chemist I	\$3,305.21	\$4,017.50
Chemist II	\$3,470.47	\$4,218.38
Coach, Business Services	\$4,641.14	\$6,091.50
Coach, Capital Improvement Projects	\$5,355.22	\$7,028.73
Coach, Collection Services	\$4,291.62	\$5,632.75
Coach, Customer Service	\$5,355.22	\$7,028.73
Coach, Electrical & Instrumentation	\$4,368.06	\$5,733.08
Coach, Environmental Compliance	\$4,386.22	\$5,756.92
Coach - Mechanical Maintenance	\$4,289.80	\$5,630.36
Coach, Research & Support/Sr. Process Engineer	\$4,765.42	\$6,254.62
Coach, Total Plant Operations	\$4,330.69	\$5,684.03
Collection System Worker I	\$2,481.78	\$3,016.62
Collection System Worker II	\$2,729.97	\$3,318.30
Communications & Intergovernmental Relations Coordinator	\$3,565.94	\$4,334.41
Construction Inspector I	\$2,887.70	\$3,510.02
Construction Inspector II	\$3,176.47	\$3,861.02
Construction Inspector III	\$3,303.54	\$4,015.46
Customer Service Fee Analyst	\$2,744.97	\$3,336.52
Engineering Technician I	\$2,786.27	\$3,386.74
Engineering Technician II	\$3,064.90	\$3,725.41
Engineering Technician III	\$3,371.40	\$4,097.95
Environmental Compliance (EC) Inspector I	\$2,727.98	\$3,315.88
Environmental Compliance (EC) Inspector II	\$3,069.05	\$3,730.45
Environmental Compliance (EC) Inspector III	\$3,406.64	\$4,140.79
Environmental Compliance (EC) Inspector IV	\$3,645.10	\$4,430.65

**Effective September 1, 2015**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Environmental Control (EC) Outreach Representative	\$3,406.64	\$4,140.79
Environmental Health and Safety Program Manager	\$3,945.26	\$5,187.62
Environmental Program Coordinator	\$3,968.49	\$5,208.64
Fleet Mechanic I	\$2,751.67	\$3,344.67
Fleet Mechanic II	\$3,081.87	\$3,746.04
General Manager	\$7,446.35	\$9,772.11
Human Resources Manager	\$4,832.03	\$6,342.04
Human Resources Analyst II	\$3,350.31	\$4,397.29
InformationTechnology Administrator	\$4,635.89	\$6,084.60
Information Technology Analyst	\$3,237.58	\$4,249.32
Instrument Tech/Electrician	\$3,389.49	\$4,119.94
Janitor	\$1,840.39	\$2,237.01
Junior Engineer	\$3,237.12	\$4,248.72
Laboratory Director	\$4,111.05	\$4,997.00
Lead Collection System Worker	\$3,002.96	\$3,650.05
Maintenance Assistant	\$1,182.47	\$1,437.30
Manager, Business Services	\$6,598.22	\$8,660.17
Manager, Collection Services	\$5,819.59	\$7,638.22
Manager, Maintenance	\$5,819.59	\$7,638.22
Manager, Technical Services	\$6,401.55	\$8,402.03
Manager, Treatment & Disposal Services	\$5,819.59	\$7,638.22
Mechanic I	\$2,783.77	\$3,383.69
Mechanic II	\$3,117.83	\$3,789.75
Mechanic XL	\$3,714.66	\$3,979.24
Organizational Performance Program Manager	\$4,197.08	\$5,508.67
Painter	\$2,861.01	\$3,477.57
Planner/Scheduler I	\$3,196.08	\$3,884.86
Planner/Scheduler II	\$3,436.87	\$4,177.54
Plant Operations Trainer	\$3,775.57	\$4,589.22
Plant Operator I	\$2,655.79	\$3,228.14
Plant Operator II	\$2,947.94	\$3,583.24
Plant Operator III	\$3,371.03	\$4,097.51
Plant Operator XL	\$4,016.32	\$4,302.38
Principal Engineer	\$4,845.20	\$6,359.32
Principal Financial Analyst	\$3,850.64	\$5,053.97
Purchasing Agent	\$3,378.49	\$4,434.26
Receptionist	\$2,100.44	\$2,553.10
Senior Accountant	\$3,488.23	\$4,578.30

**Effective September 1, 2015**

(REVISED - 01/09/2017)

Position Title	Minimum Bi-Weekly Pay Rate	Maximum Bi-Weekly Pay Rate
Senior Database Administrator / Developer	\$4,071.23	\$5,343.49
Senior Engineer	\$4,311.57	\$5,658.94
Senior Geographic Information System (GIS)/Database Administrator	\$4,071.23	\$5,343.49
Senior Information Technology Analyst	\$3,597.31	\$4,721.47
Senior Network Administrator	\$3,943.39	\$5,175.70
Senior Planner/Scheduler	\$3,881.24	\$5,094.13
Senior Process Engineer	\$4,311.57	\$5,658.94
Storekeeper I	\$2,953.54	\$3,590.06
Storekeeper II	\$3,101.22	\$3,769.55
Technical Training Program Coordinator	\$3,781.44	\$4,963.14
Utility Worker	\$2,267.32	\$2,755.94

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

Approved by: \_\_\_\_\_  
 President, Board of Directors

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

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
163061	12/8/2016	800394.27	GSE CONSTRUCTION CO INC	THICKENER CONTROL BLDG IMPROV PHASE II	\$590,074.45	\$590,074.45
163225	12/22/2016	800444.7	MOUNTAIN CASCADE INC	FREMONT & PASEO PADRE LS IMPROVEMENTS	\$310,742.96	\$310,742.96
163247	12/22/2016	30104249	SYNAGRO WEST LLC	OCTOBER 2016 BIOSOLIDS DISPOSAL	\$64,857.16	\$64,857.16
163231	12/22/2016	170120161208	PACIFIC GAS AND ELECTRIC	SERV TO 11/18/16 PLANT	\$58,414.80	\$58,414.80
163138	12/15/2016	21007	MCGUIRE & HESTER	NEWARK BACKYARD SS RELOCATION - PHASE 3	\$56,876.50	\$56,876.50
163116	12/15/2016	6910	DW NICHOLSON CORP	HYPO TANKS AND PIPING REPLACEMENT	\$56,559.49	\$56,559.49
163195	12/22/2016	20150239	COVELLO GROUP INC	FREMONT & PASEO PADRE LS IMPROVEMENTS	\$20,484.00	\$48,687.50
	12/22/2016	201303531		THICKENER CONROL BUILDING IMPROVEMENTS PHASE II	\$28,203.50	
163246	12/22/2016	117824	SWRCB - STATE WATER RESOURCES	FY17 ANNUAL WDR FEES	\$20,000.00	\$43,257.00
	12/22/2016	117372		FY17 ANNUAL WDR FEES	\$10,000.00	
	12/22/2016	117871		FY17 ANNUAL WDR FEES	\$2,062.00	
	12/22/2016	121463		FY17 ANNUAL WDR FEES	\$11,195.00	
163217	12/22/2016	5708580	JM EQUIPMENT CO	2 UTILITY CARTS	\$36,116.04	\$36,116.04
163129	12/15/2016	32854R	HARRIS & ASSOCIATES	NEWARK BACKYARD SS RELOCATION - PHASE 3	\$34,707.50	\$34,707.50
163186	12/22/2016	5304	CDW GOVERNMENT LLC	RENEW SIEM SOFTWARE AND SUPPORT	\$7,838.76	\$33,477.59
	12/22/2016	8321		RENEW CISCO SMARTNET	\$22,521.36	
	12/22/2016	383		CS AND MMT COLOR PRINTER	\$3,117.47	
163062	12/8/2016	800394.27E	GSE CONSTRUCTION CO INC	THICKENER CONTROL BLDG IMPROV PHASE II - ESCROW PYMT	\$31,056.55	\$31,056.55

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163249	12/22/2016	45174885	TYLER TECHNOLOGIES INC	EDEN SOFTWARE MAINTENANCE SUPPORT	\$29,446.40	\$29,446.40
163256	12/22/2016	2031024	WEST YOST ASSOCIATES	NEWARK BACKYARD SS RELOCATION - PHASE 3	\$2,119.50	\$29,226.95
	12/22/2016	2031083		SLUDGE DEGRITTER SYSTEM	\$585.00	
	12/22/2016	2030967		HYPO TANKS & PIPING REPLACEMENT	\$7,953.75	
	12/22/2016	2031026		STANDARD SPECIFICATIONS & INFO BULLETIN	\$7,778.50	
	12/22/2016	2030966		PLANT FACILITIES IMPROVEMENTS	\$235.00	
	12/22/2016	2031025		PINE STREET EASEMENT	\$5,491.20	
	12/22/2016	2031027		FORCE MAIN CORROSION REPAIRS - WEST	\$5,064.00	
163214	12/22/2016	3976	INFOR PUBLIC SECTOR, INC	INFOR SOFTWARE ANNUAL SUPPORT	\$20,864.97	\$20,864.97
163077	12/8/2016	761520161123	PACIFIC GAS AND ELECTRIC	SERV TO 11/22/16 NEWARK PS	\$18,871.05	\$18,871.05
163224	12/22/2016	24996172	MOTION INDUSTRIES INC	1 SHEAVE	\$191.29	\$17,223.19
	12/22/2016	24996252		3 V-BELTS	\$82.11	
	12/22/2016	24873969		ASTD NUTS AND BOLTS	\$2,213.31	
	12/22/2016	24996180		ASTD PARTS & MATERIALS	\$127.88	
	12/22/2016	24996451		1 LIFT GATE CYLINDER	\$14,608.60	
163201	12/22/2016	6918	DW NICHOLSON CORP	HIGH SPEED AERATION BLOWER	\$14,709.84	\$14,709.84
163069	12/8/2016	11120808	KRONOS INC	WORKFORCE TIMEKEEPER ANNUAL SUPPORT 11/13/16 - 11/12/17	\$13,800.00	\$13,685.00
	12/8/2016	1130826		CREDIT FOR ANNUAL CLOUD HOSTING FEE - SERVICE LEVEL AGMT	\$-115.00	
163252	12/22/2016	36155	VALLEY OIL COMPANY	796 GALS MOBIL PEGASUS 805 OIL	\$13,379.17	\$13,379.17

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163044	12/8/2016	153114	CAROLLO ENGINEERS	COGENERATION PROJECT	\$3,932.25	\$13,288.68
	12/8/2016	153096		FREMONT & PASEO PADRE LS IMPROVEMENTS	\$4,345.05	
	12/8/2016	153113		PLANT SOLIDS SYSTEM/CAPACITY ASSESSMENT	\$5,011.38	
163160	12/15/2016	533620161122	US BANK CORP PAYMENT SYSTEM	MONTHLY CAL-CARD STMT - NOV 2016	\$13,177.25	\$13,177.25
163183	12/22/2016	208126	BURKE, WILLIAMS & SORENSON LLP	RECORDS RETENTION POLICY - OCTOBER 2016	\$400.40	\$13,156.00
	12/22/2016	208124		GENERAL LEGAL - OCTOBER 2016	\$11,668.80	
	12/22/2016	208125		GENERAL LEGAL/CIP - OCTOBER 2016	\$1,086.80	
163243	12/22/2016	3154658	SC FUELS	5,935 GALS UNLEADED REGULAR GASOLINE	\$13,098.07	\$13,098.07
163051	12/8/2016	1948120C	DELTA DENTAL SERVICE	NOVEMBER 2016 DENTAL	\$11,308.20	\$12,804.27
	12/8/2016	1948120A		NOVEMBER 2016 DENTAL	\$1,496.07	
163040	12/8/2016	11279917	BROWN & CALDWELL CONSULTANTS	ALVARADO-NILES ROAD SS REHABILITATION	\$11,490.42	\$11,490.42
163250	12/22/2016	788144	UNIVAR USA INC	5,008 GALS SODIUM HYPOCHLORITE	\$2,211.78	\$10,929.96
	12/22/2016	786815		4,833 GALS SODIUM HYPOCHLORITE	\$2,134.50	
	12/22/2016	786598		4,909 GALS SODIUM HYPOCHLORITE	\$2,168.06	
	12/22/2016	787038		4,999 GALS SODIUM HYPOCHLORITE	\$2,207.81	
	12/22/2016	788025		4,999 GALS SODIUM HYPOCHLORITE	\$2,207.81	
163064	12/8/2016	32942	HARRIS & ASSOCIATES	NEWARK BACKYARD SS RELOCATION - PHASE 3	\$9,330.00	\$9,330.00
163213	12/22/2016	1042053	INDUSTRIAL SAFETY SUPPLY	6 GAS DETECTORS	\$9,324.02	\$9,324.02

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163057	12/8/2016	3854	GEOSPHERE CONSULTANTS INC	NEWARK BACKYARD SS RELOCATION - PHASE 3	\$8,831.69	\$9,027.25
	12/8/2016	3921		NEWARK BACKYARD SS RELOCATION - PHASE 3	\$195.56	
163134	12/15/2016	105303	LECHLER INC.	3 GBT SPRAY WATER GEARBOX AND PARTS	\$8,943.75	\$8,943.75
163066	12/8/2016	16137	ICE SAFETY SOLUTIONS INC	6 AED'S WITH ACCESSORIES	\$8,696.49	\$8,696.49
163070	12/8/2016	37432220161201	LINCOLN NATIONAL LIFE INS COMP	LIFE & DISABILITY INSURANCE - DEC 2016	\$7,898.71	\$7,898.71
163137	12/15/2016	25492	MAR-LEN SUPPLY INC	FURNISH AND INSTALL NEW HIGH PRESSURE WASHER	\$7,563.70	\$7,563.70
163221	12/22/2016	2978	M-I-C INC	1 8" VAREC FLAME ARRESTER	\$7,082.99	\$7,082.99
163196	12/22/2016	192105	CRANE CARE OPERATIONS	NOVEMBER FMC CRANE CERTIFICATION	\$6,900.00	\$6,900.00
163094	12/8/2016	785515	UNIVAR USA INC	4,801 GALS SODIUM HYPOCHLORITE	\$2,120.37	\$6,359.78
	12/8/2016	785280		4,799 GALS SODIUM HYPOCHLORITE	\$2,119.49	
	12/8/2016	784589		4,800 GALS SODIUM HYPOCHLORITE	\$2,119.92	
163238	12/22/2016	47254831	ROBERT HALF INTERNATIONAL INC	TEMP LABOR-BRIONES, R., WKEND 12/02/16	\$3,896.72	\$6,290.78
	12/22/2016	47203832		TEMP LABOR-BRIONES, R., WKEND 11/25/16	\$2,394.06	
163163	12/22/2016	66496	3T EQUIPMENT COMPANY INC	1 1" X 800' PIRANHA SEWER HOSE @ 2500 PSI	\$2,200.00	\$6,047.86
	12/22/2016	66494		1 FLOW THROUGH PACKER	\$3,847.86	
163029	12/8/2016	4645025547	ALTAMONT LANDFILL & RESOURCE	SOIL DISPOSAL FEES FOR STEVENSON	\$5,608.06	\$5,608.06
163155	12/15/2016	7861	SOGOOD RETAIL LLC	REFUND # 19480	\$5,305.00	\$5,305.00

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163106	12/15/2016	8902836	AT&T	SERV: 10/20/16 - 11/19/16	\$19.71	\$5,099.62
	12/15/2016	8902860		SERV: 10/20/16 - 11/19/16	\$358.37	
	12/15/2016	8902838		SERV: 10/20/16 - 11/19/16	\$4,721.54	
163081	12/8/2016	22939	RMC WATER AND ENVIRONMENT	ALVARADO BASIN SEWER MASTER PLAN UPDATE	\$3,498.25	\$4,876.25
	12/8/2016	22875		AS NEEDED SUPPORT FOR PRETREATMENT PROGRAM	\$1,378.00	
163092	12/8/2016	130916	TOTAL WASTE SYSTEMS INC	NOVEMBER 2016 GRIT DISPOSAL	\$4,541.92	\$4,541.92
163103	12/15/2016	4105756020161130	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 11/30/16-MTR HYD 33481982	\$686.55	\$4,475.29
	12/15/2016	4105755320161130		SERV TO: 11/30/16-MTR HYD 19866546	\$575.24	
	12/15/2016	4105755520161130		SERV TO: 11/30/16-MTR HYD 19866544	\$814.72	
	12/15/2016	4105755720161130		SERV TO: 11/30/16-MTR HYD 19866542	\$585.36	
	12/15/2016	4105755820161130		SERV TO: 11/30/16-MTR HYD 15210655	\$818.10	
	12/15/2016	4105755420161130		SERV TO: 11/30/16-MTR HYD 29389785	\$497.66	
	12/15/2016	4105755620161130		SERV TO: 11/30/16-MTR HYD 18486436	\$497.66	
163171	12/22/2016	5904	APGN INC.	90 BLOWER 12 FILTERS	\$4,475.00	\$4,475.00
163080	12/8/2016	8441	RANGER PIPELINES INC	REFUND # 19461	\$4,400.00	\$4,400.00
163159	12/15/2016	786316	UNIVAR USA INC	5,001 GALS SODIUM HYPOCHLORITE	\$2,208.69	\$4,327.30
	12/15/2016	786038		4,797 GALS SODIUM HYPOCHLORITE	\$2,118.61	
163082	12/8/2016	47117254	ROBERT HALF INTERNATIONAL INC	TEMP LABOR-BRIONES, R., WKEND 11/11/16	\$4,065.79	\$4,065.79
163043	12/8/2016	30002	CALIFORNIA WATER TECHNOLOGIES	44,860 LBS FERROUS CHLORIDE	\$4,027.03	\$4,027.03

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163151	12/15/2016	47157766	ROBERT HALF INTERNATIONAL INC	TEMP LABOR-BRIONES, R., WKEND 11/18/16	\$4,024.06	\$4,024.06
163078	12/8/2016	1090922	POLYDYNE INC	42,500 LBS CLARIFLOC WE-539	\$4,020.50	\$4,020.50
163068	12/8/2016	74712	JJ JR'S TRUCK REPAIR & MAINT.	REPLACE WOOD DECK ON CRANE TRUCK	\$4,015.27	\$4,015.27
163185	12/22/2016	30053	CALIFORNIA WATER TECHNOLOGIES	44,480 LBS FERROUS CHLORIDE	\$4,010.43	\$4,010.43
163091	12/8/2016	1601	TONY LIPKA, CONSULTANT & TRNR	USD ELECTRICAL SAFETY POLICY TRAINING	\$4,000.00	\$4,000.00
163109	12/15/2016	681202	BRENNTAG PACIFIC, INC.	5128 LBS SODIUM HYDROXIDE	\$2,665.07	\$3,997.61
	12/15/2016	681201		2564 LBS SODIUM HYDROXIDE	\$1,332.54	
163181	12/22/2016	682841	BRENNTAG PACIFIC, INC.	2564 LBS SODIUM HYDROXIDE	\$1,332.54	\$3,997.60
	12/22/2016	684782		3846 LBS SODIUM HYDROXIDE	\$1,998.80	
	12/22/2016	682842		1282 LBS SODIUM HYDROXIDE	\$666.26	
163233	12/22/2016	1097051	POLYDYNE INC	42,000 LBS CLARIFLOC WE-539	\$3,973.20	\$3,973.20
163194	12/22/2016	50017274	CORELOGIC INFORMATION SOLUTION	METROSCAN ONLINE RENEWAL	\$3,960.00	\$3,960.00
163192	12/22/2016	58109	COKER PUMP AND EQUIPMENT	GBT POLY TANK BYPASS PUMPS AND FRAMES	\$3,912.55	\$3,912.55
163228	12/22/2016	C15729	NIXON-EGLI EQUIP OF S. CAL	1 SMART CUTTER KIT	\$3,840.14	\$3,840.14
163110	12/15/2016	30009	CALIFORNIA WATER TECHNOLOGIES	44,280 LBS FERROUS CHLORIDE	\$3,820.52	\$3,820.52
163147	12/15/2016	103613	PIIAN SYSTEMS LLC	6 ODOR NEUTRALIZER - INDUSTRIAL CONCENTRATE (5 GALLON PAIL)	\$3,646.98	\$3,646.98
163236	12/22/2016	161116	PROSAFE	32 HRS INSPECTIONS & 4 HRS SPCC INSPECTIONS	\$3,600.00	\$3,600.00

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163145	12/15/2016	013720161205	PACIFIC GAS AND ELECTRIC	SERV TO 12/04/16 BOYCE RD PS	\$2,609.49	\$3,520.92
	12/15/2016	898220161201		SERV TO 11/30/16 FREMONT PS	\$352.21	
	12/15/2016	096020161201		SERV TO 11/30/16 CATHODIC PROJECT	\$54.90	
	12/15/2016	140120161205		SERV TO 12/02/16 IRVINGTON PS	\$26.60	
	12/15/2016	380420161201		SERV TO 11/30/16 CHERRY ST PS	\$210.00	
	12/15/2016	666720161201		SERV TO 11/30/16 PASEO PADRE PS	\$201.43	
	12/15/2016	892820161201		SERV TO 11/30/16 HAYWARD MARSH	\$66.29	
163096	12/8/2016	20161201	VISION SERVICE PLAN - CA	DECEMBER 2016 VISION STMT	\$3,386.88	\$3,386.88
163144	12/15/2016	72559	OPTIMUM SOLUTIONS INC	OPTIMUM ANNUAL SUPPORT FEE 1/1/17 - 12/31/17	\$3,356.01	\$3,356.01
163033	12/8/2016	7121	ASHOKA PETROLEM INC	REFUND # 19473	\$3,300.00	\$3,300.00
163052	12/8/2016	7325	DEVCON CONSTRUCTION INC	REFUND # 19468	\$3,300.00	\$3,300.00
163123	12/15/2016	8361	GPMM INC	REFUND # 19479	\$3,300.00	\$3,300.00
163111	12/15/2016	16712755	CANON SOLUTIONS AMERICA INC	MONTHLY LEASE 6 CANON COLOR COPIERS	\$3,161.33	\$3,161.33
163254	12/22/2016	6498	VON EUW TRUCKING	8.5 HRS DUMP FEES & 69.99 TONS 3/4 CLASS II AB	\$3,020.30	\$3,020.30
163211	12/22/2016	3592820161219	HASLER INC.	POSTAGE BY PHONE - TMS 35928	\$3,000.00	\$3,000.00
163227	12/22/2016	19606	NEOGOV	NEOGOV ANNUAL SUPPORT RENEWAL 12/13/16 - 12/12/17	\$3,000.00	\$3,000.00
163139	12/15/2016	21007R	MCGUIRE & HESTER	NEWARK BACKYARD SS RELOCATION - PHASE 3 - RETENTION	\$2,993.50	\$2,993.50
163216	12/22/2016	17766	JENSEN INSTRUMENT COMPANY	1 DIGESTER 3 LEVEL TRANSMITTER	\$2,938.74	\$2,938.74
163046	12/8/2016	135538	CEL CONSULTING INC.	PINE STREET PIPE WELDING THERMAL MONITORING PROGRAM	\$2,628.20	\$2,628.20

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163115	12/15/2016	57166	CITYLEAF INC	2016 HOLIDAY TREE FOR ADMIN LOBBY	\$2,587.75	\$2,587.75
163157	12/15/2016	3322804386	STAPLES CONTRACT & COMMERCIAL	ASTD OFFICE & BREAKROOM SUPPLIES - INVENTORY	\$340.40	\$2,539.89
	12/15/2016	3322804375		ASTD OFFICE & BREAKROOM SUPPLIES - INVENTORY	\$1,145.51	
	12/15/2016	3322804384		ASTD OFFICE & BREAKROOM SUPPLIES - INVENTORY	\$542.62	
	12/15/2016	3322804380		ASTD OFFICE & BREAKROOM SUPPLIES - INVENTORY	\$351.78	
	12/15/2016	3322804390		15 ASTD CALENDARS - R&S	\$159.58	
163140	12/15/2016	8733	MCH ELECTRIC INC	REFUND # 19491	\$2,500.00	\$2,500.00
163239	12/22/2016	8634	ROBSON HOMES LLC	REFUND # 19493	\$2,500.00	\$2,500.00
163149	12/15/2016	916002932408	REPUBLIC SERVICES #916	RECYCLE & ROLL OFF - NOVEMBER 2016	\$2,466.04	\$2,466.04
163095	12/8/2016	9775689659	VERIZON WIRELESS	WIRELESS SERV 10/21/16-11/20/16	\$2,377.23	\$2,377.23
163203	12/22/2016	236643	FRANK A OLSEN COMPANY	MIX PUMPS 6A 6B BLEED OFF VALVES	\$2,355.34	\$2,355.34
163230	12/22/2016	XCTZ01P	PACHECO BROTHERS GARDENING INC	WEED ABATEMENT WORK DECEMBER 2016	\$915.00	\$2,280.00
	12/22/2016	XCTZ01O		LANDSCAPE MAINTENANCE SERVICES DECEMBER 2016	\$1,365.00	

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163208	12/22/2016	9283460310	GRAINGER INC	1 SILVER/DEMING DRILL	\$40.79	\$2,179.58
	12/22/2016	9288155840		1 MOTOR	\$325.71	
	12/22/2016	9288447197		ASTD PARTS & MATERIALS	\$93.67	
	12/22/2016	9281638883		1 ATOMIC CLOCK RADIO, DIGITAL	\$114.01	
	12/22/2016	9288155832		1 LED WALL PACK	\$187.24	
	12/22/2016	9280252983		1 HID BAL KIT	\$72.29	
	12/22/2016	9277058724		1 CART, FOLDING WIRE	\$568.48	
	12/22/2016	9278298949		ASTD PARTS & MATERIALS	\$88.40	
	12/22/2016	9276854362		ASTD PARTS & MATERIALS	\$1,057.43	
	12/22/2016	9305329816		CREDIT FOR 1 MOTOR, INV 9288155840	\$-325.71	
	12/22/2016	9299681891		CREDIT FOR 4 BULB EXTRACTORS INV 9288447197	\$-42.73	
163048	12/8/2016	271638		CURTIS & TOMPKINS, LTD	29 LAB SAMPLE ANALYSIS	
	12/8/2016	271547	2 LAB SAMPLE ANALYSIS		\$120.00	
	12/8/2016	269088	30 LAB SAMPLE ANALYSIS		\$960.00	
	12/8/2016	271654	4 LAB SAMPLE ANALYSIS		\$80.00	
	12/8/2016	271494	8 LAB SAMPLE ANALYSIS		\$80.00	

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163124	12/15/2016	9282276790	GRAINGER INC	CREDIT FOR 30 PACKS "C" BATTERIES ON INV 9268898161	\$-218.45	\$2,057.15
	12/15/2016	9268898161		ASTD PARTS & MATERIALS	\$1,353.06	
	12/15/2016	9272228165		25 FT ETHERNET CABLE	\$19.85	
	12/15/2016	9275625870		ASTD PARTS & MATERIALS	\$259.19	
	12/15/2016	9269983830		1 REAR VIEW CAMERA KIT	\$643.50	
163041	12/8/2016	170292300	BUCKLES SMITH ELECTRIC	ROCKWELL SOFTWARE ANNUAL SUPPORT	\$2,003.00	\$2,003.00
163076	12/8/2016	8429720	OPEN TEXT	OPENTEXT ALCHEMY ANNUAL SUPPORT	\$2,000.00	\$2,000.00
163028	12/8/2016	6111763	ALPHA ANALYTICAL LABORATORIES	19 LAB SAMPLE ANALYSIS	\$315.00	\$1,995.00
	12/8/2016	6111902		145 LAB SAMPLE ANALYSIS	\$1,680.00	
163023	12/8/2016	41904	ABACUS PRODUCTS INC	2500 RULERS FOR SCHOOL OUTREACH	\$1,940.10	\$1,940.10
163065	12/8/2016	9714347	HF&H CONSULTANTS, LLC	FINANCIAL PLANNING MODEL	\$1,930.00	\$1,930.00
163045	12/8/2016	4009	CDW GOVERNMENT LLC	AIRWATCH ANNUAL SUPPORT	\$1,861.47	\$1,861.47
163244	12/22/2016	1664101	SOMA ENVIRONMENTAL ENGINEERING	SOIL SAMPLE COLLECTION STEVENSON BLVD	\$1,822.00	\$1,822.00
163222	12/22/2016	622421	MISSION CLAY PRODUCTS LLC	17 COUPLINGS	\$1,748.10	\$1,748.10
163166	12/22/2016	161104256	AIRTECH MECHANICAL INC	HVAC CONTRACT - FMC BUILDINGS AND BOYCE	\$540.00	\$1,680.00
	12/22/2016	161204284		HVAC CONTRACT - BUILDINGS 70, 82 & 83	\$395.00	
	12/22/2016	161104264		HVAC CONTRACT - BUILDINGS 70, 82 & 83	\$745.00	
163187	12/22/2016	3520063191	CHARTWELL STAFFING SVCS INC	TEMP LABOR-ALVARADO MURCIA, S., WEEK ENDING 11/20/16	\$987.08	\$1,661.80
	12/22/2016	3520063932		TEMP LABOR-ALVARADO MURCIA, S., WEEK ENDING 11/27/16	\$674.72	

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163114	12/15/2016	53270045	CHANNING BETE COMPANY, INC.	1500 WASTEWATER TREATMENT WORKBOOK	\$1,518.00	\$1,518.00
163229	12/22/2016	100040126	OPTIV SECURITY INC	SECURITY AWARENESS TRAINING	\$1,500.00	\$1,500.00
163132	12/15/2016	10014978	HUBER TECHNOLOGY INC	2 WASHER COMPACTOR PANEL VIEWS	\$1,434.09	\$1,434.09
163198	12/22/2016	20161125.25	DALE HARDWARE INC	11/16 - ASTD PARTS & MATERIALS	\$1,421.40	\$1,421.40
163141	12/15/2016	92562579	MCMASTER SUPPLY INC	CREDIT FOR 1 WINDOW FRAME INV 76089384	\$-61.83	\$1,419.50
	12/15/2016	92797772		ASTD PARTS & MATERIALS	\$410.29	
	12/15/2016	91183254		CREDIT FOR 1 BENCH VISE INV 89035984	\$-222.68	
	12/15/2016	92423451		4 STRUT CHANNEL FLOOR MOUNTS	\$99.60	
	12/15/2016	92706097		1 MOBILE SAETY CABINET FOR FLAMMABLES	\$1,036.83	
	12/15/2016	92708122		2 PACKS DISPOSABLE DESICANNT BAG SILICA GEL	\$36.70	
	12/15/2016	89846254		1 WEATHER-RESISTANT COMPACT BENCH VISE W/SWIVEL BASE	\$120.59	
163258	12/22/2016	26849	WILEY PRICE & RADULOVICH LLP	LABOR & EMPLOYMENT LAW FEES	\$1,404.00	\$1,404.00
163127	12/15/2016	92983280	H & E EQUIPMENT SERVICES INC	EQUIP. RENTAL, REACH LIFT, 11/14 - 11/22/16	\$1,398.41	\$1,398.41
163150	12/15/2016	310834	RKI INSTRUMENTS INC	EAGLE CALIBRATION SERVICE LEVEL 3	\$735.63	\$1,377.63
	12/15/2016	310835		EAGLE CALIBRATION SERVICE LEVEL 1	\$642.00	
163059	12/8/2016	9268943058	GRAINGER INC	100 SWEATBANDS	\$261.81	\$1,350.85
	12/8/2016	9268943066		1 JUNC BOX ENCLSR	\$350.39	
	12/8/2016	9264178295		1000 FT COMM CABLE, SHEILDED, RISER	\$738.65	

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163097	12/8/2016	8046817235	VWR INTERNATIONAL LLC	2 PKS MICROFIBRE GLS GF 12.5CM	\$504.39	\$1,339.49
	12/8/2016	8046817236		10 PKS FILTER GLASS FIBR 4.25CM & 1 PK VIAL COD DIGESTION LR	\$835.10	
163143	12/15/2016	15520	NIXON-EGLI EQUIP OF S. CAL	11 EA 8" ROOT SAW BLADES	\$1,333.81	\$1,333.81
163025	12/8/2016	4071037120161123	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 11/18/16-BENSON ROAD	\$1,246.96	\$1,246.96
163169	12/22/2016	182025747139	AMAZON.COM LLC	1 REDFORM RECORD BOOK	\$60.61	\$1,239.71
	12/22/2016	282282974194		26 STANDARD DIARY DA	\$1,179.10	
163034	12/8/2016	8026514302	AT&T	SERV: 11/10/16 - 12/09/16	\$1,203.20	\$1,203.20
163168	12/22/2016	20161107	AMAZON.COM LLC	11/16 - ASTD OFFICE SUPPLIES	\$1,184.39	\$1,184.39
163219	12/22/2016	93319919	MCMASTER SUPPLY INC	2 LOW-PROFILE ORGANIZING DRAWER FOR WORKBENCHES	\$97.44	\$1,157.01
	12/22/2016	93908580		1 BRONZE STANDARD-PORT ON/OFF VALVE	\$481.83	
	12/22/2016	93972573		2 LONG-LIFE RECHARGE NO MAINT LARGE-CELLL BATTERIES	\$102.95	
	12/22/2016	93033690		ASTD PARTS & MATERIALS	\$40.07	
	12/22/2016	93089087		ASTD PARTS & MATERIALS	\$158.97	
	12/22/2016	93275495		2 STEEL DRUMS WITH DRAINS	\$275.75	
163083	12/8/2016	7646586900	RS HUGHES CO INC	ASTD PPE & SAFETY SUPPLIES	\$1,149.76	\$1,149.76
163125	12/15/2016	1087106	GRANITE CONSTRUCTION COMPANY	14.48 TONS 1/2 HMA64-10R15	\$1,046.47	\$1,046.47
163215	12/22/2016	NEG0873	IRON MOUNTAIN	OFF-SITE STORAGE AND SERVICE - NOV 2016	\$707.64	\$1,020.78
	12/22/2016	NDT6472		OFF-SITE STORAGE AND SERVICE - NOV 2016	\$313.14	
163105	12/15/2016	572254	A-PRO PEST CONTROL INC	NOV PEST CONTROL	\$1,005.00	\$1,005.00

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163173	12/22/2016	575799	A-PRO PEST CONTROL INC	DEC PEST CONTROL	\$1,005.00	\$1,005.00
163206	12/22/2016	1083848473	G&K SERVICES CO	ASTD DUST MOPS, WET MOPS & TERRY TOWELS	\$15.70	\$976.10
	12/22/2016	1083848471		UNIFORM LAUNDERING & RUGS	\$239.11	
	12/22/2016	1083850403		UNIFORM LAUNDERING SERVICE	\$234.24	
	12/22/2016	1083848472		UNIFORM LAUNDERING SERVICE	\$234.24	
	12/22/2016	1083850404		ASTD DUST MOPS, WET MOPS & TERRY TOWELS	\$15.70	
	12/22/2016	1083850402		UNIFORM LAUNDERING & RUGS	\$237.11	
163193	12/22/2016	20161128	COMMUNICATION & CONTROL INC	UTILITY FEE/ANTENNA RENTAL	\$975.20	\$975.20
163184	12/22/2016	3197	CAL SAN RISK MNGT AUTH	CLAIM: TRUJILLO DE LOYOLA FILE #1933421	\$969.90	\$969.90
163035	12/8/2016	8861408	AT&T	SERV: 10/13/16 - 11/12/16	\$66.38	\$958.61
	12/8/2016	8861409		SERV: 10/13/16 - 11/12/16	\$88.03	
	12/8/2016	8861405		SERV: 10/13/16 - 11/12/16	\$761.04	
	12/8/2016	8861407		SERV: 10/13/16 - 11/12/16	\$43.16	
163154	12/15/2016	8122768120116	SIERRA SPRING WATER COMPANY	BOTTLESS COOLERS RENTAL	\$239.00	\$952.52
	12/15/2016	4868173120116		WATER SERVICE 11/03/16 - 12/01/16	\$713.52	
163121	12/15/2016	1841077300	GOODYEAR COMM TIRE & SERV CTRS	3 TIRES	\$945.76	\$945.76

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163255	12/22/2016	8046942647	VWR INTERNATIONAL LLC	1 INHIBITOR NITRIFICATION 500G	\$175.60	\$944.68
	12/22/2016	8046934553		1 EDTA STANDARD SOLN REAG 1L	\$55.62	
	12/22/2016	8046942646		ASTD LAB & SAMPLING SUPPLIES	\$446.35	
	12/22/2016	8046946132		1 SOLUTION COD STAN 800MG/L 200M	\$33.07	
	12/22/2016	8046925059		2 HYDROCHLORIC ACID INST RE 2.5L	\$234.04	
163047	12/8/2016	54615725	CINTAS CORPORATION	2 JACKETS - TATAKAMOTONGA	\$92.69	\$938.63
	12/8/2016	54615724		6 HIGH VISIBILITY SWEATSHIRTS - CS	\$664.29	
	12/8/2016	54615726		1 WINTER JACKET - TATAKAMOTONGA	\$181.65	
163038	12/8/2016	1017224	BAY AREA NEWS GROUP EAST BAY	HEADWORKS KNIFE GATE VALVES REPLACEMENT	\$921.96	\$921.96
163182	12/22/2016	11280854	BROWN & CALDWELL CONSULTANTS	ALVARADO-NILES ROAD SS REHABILITATION	\$911.68	\$911.68
163235	12/22/2016	247030	PRESTIGE LENS LAB	SAFETY GLASSES - POWELL	\$158.78	\$862.88
	12/22/2016	247028		SAFETY GLASSES - FARSAI	\$272.66	
	12/22/2016	246996		SAFETY GLASSES - LEDESMA	\$215.72	
	12/22/2016	247062		SAFETY GLASSES - STRASBURG	\$215.72	
163024	12/8/2016	8571680	ABC IMAGING, INC.	HEADWORKS KNIFE GATE VALVES REPLACEMENT	\$815.16	\$815.16
163042	12/8/2016	16319	CALERO HOLDINGS INC	CALL ACCOUNTING SOFTWARE ANNUAL SUPPORT	\$784.58	\$784.58
163209	12/22/2016	1743431	HANSON AGGREGATES INC	10.27 TONS 1/2 MED TYPE A AC-R	\$772.92	\$772.92

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163152	12/15/2016	7646586902	RS HUGHES CO INC	24 PRS GLOVES GTEK 2XL	\$77.61	\$766.97
	12/15/2016	7643902501		4 MILLER 705H/YL TOOL BAG	\$429.92	
	12/15/2016	7646586901		5 LARGE CLASS 3 YELLOW JACKET WITH HOOD	\$259.44	
163232	12/22/2016	29594743	PAN PACIFIC SUPPLY COMPANY	3 CHESTERTON 221 ELASTOMER KIT FKM	\$766.47	\$766.47
163197	12/22/2016	272029	CURTIS & TOMPKINS, LTD	14 LAB SAMPLE ANALYSIS	\$260.00	\$765.00
	12/22/2016	272056		5 LAB SAMPLE ANALYSIS	\$505.00	
163162	12/15/2016	13362	WESTERN MACHINE & FAB INC	MFG 1 SPANNER WRENCH & MFG 1 EYEBOLT INSERT	\$759.00	\$759.00
163089	12/8/2016	16111403	TELOG INSTRUMENTS INC	ANNUAL SUPPORT 11/8/2016 - 11/7/2017	\$750.00	\$750.00
163098	12/8/2016	20161205	WASTEWATER TECHNOLOGY TRAINER	GR V OP CERT REV-LEE	\$750.00	\$750.00
163161	12/15/2016	8046862526	VWR INTERNATIONAL LLC	1 BUFFER PH7 32OZ	\$19.67	\$728.23
	12/15/2016	8046834954		3 PKS VIAL COD DIGESTION HR	\$604.36	
	12/15/2016	8046834953		2 BUFFER PH 10CC	\$37.36	
	12/15/2016	8046849281		2 BUFFER PH 6.86 1GAL	\$66.84	
163090	12/8/2016	6000222121	THYSSENKRUPP ELEVATOR CORP	GROUP III TESTING PRELIMINARY ORDER	\$714.00	\$714.00
163101	12/8/2016	20161205	WQI	GRADE IV/V REVIEW - HUGHES	\$700.00	\$700.00
163189	12/22/2016	7348.0	LEI CHEN	REFUND # 19501	\$200.00	\$700.00
	12/22/2016	7348.1		REFUND # 19500	\$500.00	
163204	12/22/2016	9909	FREMONT EXPRESS COURIER SVC	COURIER SERVICES: NOV 2016 DAILY MAIL/1 BOARDMEMBER DELIVEF	\$700.00	\$700.00
163240	12/22/2016	1304968	ROCHESTER MIDLAND CORPORATION	HOT WATER LOOP SERVICE	\$689.03	\$689.03

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163135	12/15/2016	966780	LIZARDTECH INC	GEOEXPRESS SUPPORT RENEWAL	\$680.00	\$680.00
163191	12/22/2016	38870	CLAREMONT BEHAVIORAL SERVICES	JAN 2017 EAP PREMIUM	\$644.00	\$644.00
163223	12/22/2016	1164853	MOBILE MODULAR MANAGEMENT CORFFMC	TRAILER RENTAL - NOV 2016	\$631.40	\$631.40
163210	12/22/2016	3K2973	HARRINGTON INDUSTRIAL PLASTICS	1 REGULATOR	\$528.23	\$605.05
	12/22/2016	3K2813		ASTD PARTS & MATERIALS	\$71.90	
	12/22/2016	3K2972		1 3"ADAPTER	\$4.92	
163071	12/8/2016	20161206	ARMANDO LOPEZ	EXP REIMB: AIRFARE & BAG FEE FOR WWLC EXEC ED PRGM MAR 201	\$591.20	\$591.20
163220	12/22/2016	161249	METROMOBILE COMMUNICATIONS INC	ANNUAL RADIO SERVICE - DEC 2016	\$582.75	\$582.75
163176	12/22/2016	1350	AUTOMATED NETWORK CONTROLS	MIGRATE MBE DRIVER TO IGS AND CLEANUP BAD TAGS	\$578.44	\$578.44
163165	12/22/2016	9941201004	AIRGAS NCN	CYLINDER RENTAL	\$577.45	\$577.45
163056	12/8/2016	1083844606	G&K SERVICES CO	UNIFORM LAUNDERING & RUGS	\$237.63	\$572.55
	12/8/2016	1083844608		ASTD DUST MOPS, WET MOPS & TERRY TOWELS	\$15.70	
	12/8/2016	1083844607		UNIFORM LAUNDERING SERVICE	\$319.22	
163027	12/8/2016	17231	ALLIED FLUID PRODUCTS CORP	ASTD FLANGE GASKETS	\$564.68	\$564.68
163060	12/8/2016	1228107	GROENIGER AND COMPANY	56 FT SEWER PIPE	\$253.32	\$560.81
	12/8/2016	1228900		28 FT SEWER PIPE	\$307.49	
163074	12/8/2016	20161130	NAPA AUTO PARTS	MONTHLY AUTO PARTS STMT - NOV 2016	\$516.21	\$516.21
163146	12/15/2016	20161212	PETTY CASH	PETTY CASH REPLENISHMENT	\$509.84	\$509.84

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163102	12/15/2016	66254	AIR & TOOL ENGINEERING COMPANY	REPAIR THOR BREAKER	\$85.00	\$509.53
	12/15/2016	66261		ASTD PARTS & MATERIALS	\$424.53	
163058	12/8/2016	20161207	GFOA-GOV FIN OFFICERS ASSOC	CAFR SUBMISSION FEE	\$505.00	\$505.00
163039	12/8/2016	11600610	BLAISDELL'S	ASTD OFFICE SUPPLIES	\$34.09	\$503.93
	12/8/2016	11601740		ASTD OFFICE SUPPLIES	\$198.22	
	12/8/2016	11596930		ASTD OFFICE SUPPLIES	\$68.53	
	12/8/2016	11600540		ASTD OFFICE SUPPLIES	\$203.09	
163112	12/15/2016	4020771541	CANON SOLUTIONS AMERICA INC	MTHLY MAINTENANCE BASED ON USE	\$501.09	\$501.09
163054	12/8/2016	8720	DRAIN DOCTOR	REFUND # 19463	\$500.00	\$500.00
163088	12/8/2016	8503	RAO TALSETTI	REFUND # 19462	\$500.00	\$500.00
163107	12/15/2016	8745	NETTIE BIBIANO	REFUND # 19487	\$500.00	\$500.00
163119	12/15/2016	8502	ANGEL GARCIA	REFUND # 19313	\$500.00	\$500.00
163133	12/15/2016	8484	KN INVESTMENT DEVELOPMENT LLC	REFUND # 19492	\$500.00	\$500.00
163178	12/22/2016	8755	BAY AREA TRENCHLESS	REFUND # 19494	\$500.00	\$500.00
163200	12/22/2016	8581	DLJ CONSTRUCTION INC	REFUND # 19496	\$500.00	\$500.00
163067	12/8/2016	201072765	IRON MOUNTAIN	DATA/MEDIA OFF-SITE STORAGE - SEPT 2016	\$245.51	\$495.73
	12/8/2016	201115293		DATA/MEDIA OFF-SITE STORAGE - OCT 2016	\$250.22	
163153	12/15/2016	20161209	JAMES SCHOFIELD	EXP REIMB: RETIREMENT (VASUT) & WORK GROUP RECOGNITION	\$491.11	\$491.11

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163118	12/15/2016	1083846524	G&K SERVICES CO	UNIFORM LAUNDERING SERVICE	\$234.24	\$484.37
	12/15/2016	1083846523		UNIFORM LAUNDERING & RUGS	\$234.43	
	12/15/2016	1083846525		ASTD DUST MOPS, WET MOPS & TERRY TOWELS	\$15.70	
163026	12/8/2016	537685	ALLIANT INSURANCE SERVICES INC	EQUIPMENT FLOATER: 2016 CHEVY SILVERADO & CARGO MATE VAN	\$469.00	\$469.00
163248	12/22/2016	855232400	TELEPACIFIC COMMUNICATIONS	WIRELESS INTERNET BACKUP - DECEMBER	\$463.49	\$463.49
163063	12/8/2016	1737761	HANSON AGGREGATES INC	6.08 TONS 1/2 MED TYPE A AC-R	\$460.93	\$460.93
163055	12/8/2016	160915	FLO-LINE TECHNOLOGY INC	2 HOT WATER PUMP SEAL	\$440.77	\$440.77
163086	12/8/2016	20161205.1	SWRCB - CERTIFICATIONS	GRADE V CERT EXAM FEE - LEE	\$440.00	\$440.00
163087	12/8/2016	20161205.2	SWRCB - CERTIFICATIONS	GRADE IV CERT EXAM FEE - HUGHES	\$440.00	\$440.00
163032	12/8/2016	7009217706	APPLIED INDUSTRIAL TECHNOLOGIE	2 SHEAVES & 2 BUSHINGS	\$1,828.74	\$421.17
	12/8/2016	7009124480		1 FALK 1050T	\$105.16	
	12/8/2016	9000186189		CREDIT ASTD PARTS & MATERIALS	-\$1,512.73	
163190	12/22/2016	57477	CITYLEAF INC	PLANT MAINTENANCE - DEC 2015	\$420.23	\$420.23
163099	12/8/2016	13310	WESTERN MACHINE & FAB INC	MACHINE 3" NPT THREADS PER ORDER	\$420.00	\$420.00
163104	12/15/2016	20161213	BRIAN ANDERSON	RETIREMENT RECOGNITION GIFT	\$420.00	\$420.00
163148	12/15/2016	2820	RED WING SHOE STORE	SAFETY SHOES - STRASBURG & LEE	\$414.95	\$414.95
163241	12/22/2016	7646586904	RS HUGHES CO INC	36 DRIVER GLOVE KEYSTONE THUMB 2XL	\$170.64	\$405.93
	12/22/2016	7646586903		30 BXS GLOVES NITRILE POWDER FREE BLUE TEXTURED	\$235.29	
163049	12/8/2016	20161208	RICHARD CZAPKAY	EXP REIMB: RETIREMENT RECOGNITION GIFT V. VASUT	\$403.05	\$403.05

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163202	12/22/2016	8776	EAST BAY MUNI UTILITY DISTRICT	8 LAB SAMPLE ANALYSIS	\$400.00	\$400.00
163242	12/22/2016	1758668001	SAN LEANDRO ELECTRIC SUPPLY	ASTD PARTS & MATERIALS	\$396.65	\$396.65
163037	12/8/2016	1305	AUTOMATED NETWORK CONTROLS	MIGRATE MBE DRIVER TO IGS AND CLEANUP BAD TAGS	\$380.00	\$380.00
163031	12/8/2016	14283678	APPLEONE EMPLOYMENT SVCS	TEMP LABOR-YOLLAND, L., WK END 11/12/16	\$349.43	\$349.43
163108	12/15/2016	11608760	BLAISDELL'S	ASTD OFFICE SUPPLIES	\$19.24	\$337.51
	12/15/2016	11606510		ASTD OFFICE SUPPLIES	\$229.30	
	12/15/2016	11616340		ASTD OFFICE SUPPLIES	\$63.68	
	12/15/2016	11608830		ASTD OFFICE SUPPLIES	\$25.29	
163053	12/8/2016	20161201	ART DIOSDADO	EXP REIMB: CWEA MEMBERSHIP & GRADE 1 EXAM	\$332.00	\$332.00
163120	12/15/2016	2771631908	GLACIER ICE COMPANY INC	90 7-LB BAGS OF ICE	\$127.80	\$315.24
	12/15/2016	2776628106		132 7-LB BAGS OF ICE	\$187.44	
163136	12/15/2016	20161212	DUNG LU	EXP REIMB: THERMAL TRAINING 11/28 - 12/2/16	\$310.06	\$310.06
163093	12/8/2016	18217861	TRI DIM FILTER CORPORATION	200 TRI-DEK 15/40 2 PLY PADS	\$305.20	\$305.20
163234	12/22/2016	124870	PREFERRED ALLIANCE INC	NOVEMBER 2016 SERVICE FEE	\$280.80	\$280.80
163085	12/8/2016	1750679006	SAN LEANDRO ELECTRIC SUPPLY	ASTD PARTS & MATERIALS	\$129.80	\$274.40
	12/8/2016	1750679007		3 CONDULET 3/4 INCH OCAL	\$144.60	
163030	12/8/2016	275626	ANALYSTS, INC.	200 OIL SAMPLE KITS	\$269.16	\$269.16

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163179	12/22/2016	11625611	BLAISDELL'S	1 DISINFECTANT WIPE	\$38.49	\$268.28
	12/22/2016	11625610		ASTD OFFICE SUPPLIES	\$24.06	
	12/22/2016	11631630		ASTD OFFICE SUPPLIES	\$5.82	
	12/22/2016	11625630		ASTD OFFICE SUPPLIES	\$79.00	
	12/22/2016	11606510C		1 CUSHION FOOTREST CREDIT	\$-131.65	
	12/22/2016	11619010		ASTD OFFICE SUPPLIES	\$4.86	
	12/22/2016	11631470		ASTD OFFICE SUPPLIES	\$37.38	
	12/22/2016	11635270		ASTD OFFICE SUPPLIES	\$15.94	
	12/22/2016	11637170		ASTD OFFICE SUPPLIES	\$34.90	
	12/22/2016	11628430		ASTD OFFICE SUPPLIES	\$159.48	
163158	12/15/2016	7605	TURNER RISK CONSULTING INC	TRAFFIC FLAGGER TRAINING - CLENNON	\$250.00	\$250.00
163117	12/15/2016	122440	FITGUARD, INC.	PREVENTATIVE MAINTENANCE - EXERCISE CLUB EQUIPMENT	\$249.00	\$249.00
163084	12/8/2016	85340220161121	SAN FRANCISCO WATER DEPT	SERVICE 10/21/16 TO 11/18/16	\$239.32	\$239.32
163122	12/15/2016	82166	GORILLA METALS	ASTD METAL, STEEL, STAINLESS & ALUMINUM	\$78.98	\$231.49
	12/15/2016	82190		ASTD METAL, STEEL, STAINLESS & ALUMINUM	\$83.02	
	12/15/2016	82188		ASTD METAL, STEEL, STAINLESS & ALUMINUM	\$69.49	
163245	12/22/2016	20161219	SWRCB - CERTIFICATIONS	GRADE II CERT RENEW - COOPER	\$230.00	\$230.00
163237	12/22/2016	758134.1	PUBLIC SURPLUS AUCTION	SURPLUS SALE FEE: 2 ELECTRIC CARTS	\$213.33	\$229.89
	12/22/2016	758134.2		SURPLUS SALE FEE: 2 SAMSUNG FLATSCREEN TVS	\$16.56	

**UNION SANITARY DISTRICT  
CHECK REGISTER  
12/03/2016-12/30/2016**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
163156	12/15/2016	20161201	SPOK INC	DECEMBER 2016 PAGER SERVICE	\$228.53	\$228.53
163050	12/8/2016	201611.10	DALE HARDWARE INC	11/16 - ASTD PARTS & MATERIALS	\$227.11	\$227.11
163079	12/8/2016	20161206	MICHELLE POWELL	EXP REIMB: CASA/CWEA SEMINAR PREP & PRESENTATION	\$226.36	\$226.36
163188	12/22/2016	20161215	RAYMOND CHAU	EXP REIMB: TEAM RECOGNITION LUNCH	\$224.83	\$224.83
163172	12/22/2016	14303354	APPLEONE EMPLOYMENT SVCS	TEMP LABOR-YOLLAND, L., WK END 12/03/16	\$199.75	\$199.75
163128	12/15/2016	3K2585	HARRINGTON INDUSTRIAL PLASTICS	ASTD PARTS & MATERIALS	\$141.49	\$197.83
	12/15/2016	3K2634		ASTD PARTS & MATERIALS	\$56.34	
163257	12/22/2016	13172	WESTERN MACHINE & FAB INC	FABRICATION MACHINING & REPAIR SERVICES	\$190.00	\$190.00
163207	12/22/2016	20161215	MICHAEL GILL	EXP REIMB: PARTS & TOOLS FOR FIBER MIGRATION	\$183.14	\$183.14
163180	12/22/2016	20161219	LAURIE BRENNER	EXP REIMB: EMPLOYEE RECOGNITION	\$159.58	\$159.58
163100	12/8/2016	2157179001	WHCI PLUMBING SUPPLY CO	20 T-CONE TEST PLUGS	\$150.64	\$150.64
163142	12/15/2016	20161212	MICHAEL MOSLEY	EXP REIMB: THERMAL TRAINING 11/28 - 12/2/16	\$149.36	\$149.36
163075	12/8/2016	15485	NIXON-EGLI EQUIP OF S. CAL	1 EA 8" ROOT SAW BLADES	\$139.90	\$139.90
163130	12/15/2016	944720161127	HOME DEPOT CREDIT SERVICES	MONTHLY HARDWARE STMT - NOV 2016	\$134.56	\$134.56
163164	12/22/2016	97962	ACE SEAL LLC	100 ARV SEALS	\$105.12	\$105.12
163226	12/22/2016	103649	MUNIQIP, LLC	ASTD HIDROSTAL OIL PLUGS	\$100.63	\$100.63
163073	12/8/2016	1640	MUNICIPAL POOLING AUTHORITY	ANNUAL NOR CAL CONSORTIUM FACILITY & FOOD EXPENSES 2016	\$100.57	\$100.57
163175	12/22/2016	635800120161130	AT&T	SERV: 11/01/16 - 11/30/16	\$88.85	\$88.85
163218	12/22/2016	77835106	MATHESON TRI-GAS INC	MONTHLY CYLINDER RENTAL - NOV 2016	\$82.94	\$82.94

**UNION SANITARY DISTRICT  
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12/03/2016-12/30/2016**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
163212	12/22/2016	5655945	HOSE & FITTINGS ETC	ASTD PARTS & MATERIALS	\$39.55	\$81.67
	12/22/2016	5654896		ASTD PARTS & MATERIALS	\$30.51	
	12/22/2016	5655738		ASTD PARTS & MATERIALS	\$11.61	
163113	12/15/2016	455847	CENTERVILLE SAW AND TOOL	ASTD PARTS & MATERIALS	\$76.21	\$76.21
163170	12/22/2016	1752824	ANALYSTS, INC.	3 LAB SAMPLE ANALYSIS	\$72.45	\$72.45
163174	12/22/2016	20161220	PAMELA ARENDS-KING	EXP REIMB: EMPLOYEE RECOGNITON EVENT	\$71.76	\$71.76
163072	12/8/2016	91452304	MCMASTER SUPPLY INC	1 WIRE FERRULE ASSORTMENT SINGLE WIRE	\$30.72	\$65.85
	12/8/2016	1007014		ASTD PARTS & MATERIALS	\$35.13	
163205	12/22/2016	116525934	FREMONT URGENT CARE CENTER	1 DOT PHYSICAL	\$61.00	\$61.00
163167	12/22/2016	4047286120161205	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 12/05/16 - PASEO PADRE	\$55.03	\$55.03
163251	12/22/2016	9853486.0	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 11/26/16	\$51.41	\$51.41
163199	12/22/2016	615320161218	DISH NETWORK	JAN 2017 - SERVICE FEE	\$50.92	\$50.92
163126	12/15/2016	1232210	GROENIGER AND COMPANY	1 GAL COAL TAR MASTIC CORR/FRZ PROT	\$49.50	\$49.50
163036	12/8/2016	87896581211252016	AT&T	SERV: 10/18/16 - 11/17/16	\$39.15	\$39.15
163253	12/22/2016	9776167838	VERIZON WIRELESS	WIRELESS SERV 11/02/16-12/01/16	\$26.62	\$26.62
163131	12/15/2016	5654358	HOSE & FITTINGS ETC	ASTD PARTS & MATERIALS	\$12.66	\$12.66
163177	12/22/2016	20161205	BAY AREA NEWS GROUP EAST BAY	SUBSCRIPTION	\$2.90	\$2.90

**UNION SANITARY DISTRICT  
CHECK REGISTER  
12/03/2016-12/30/2016**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
<b>Invoices:</b>				<b>Checks:</b>		
<b>Credit Memos :</b>		<b>8</b>	<b>-2,630.78</b>			
<b>\$0 - \$1,000 :</b>		<b>245</b>	<b>76,556.00</b>	<b>\$0 - \$1,000 :</b>	<b>117</b>	<b>50,999.20</b>
<b>\$1,000 - \$10,000 :</b>		<b>112</b>	<b>370,791.90</b>	<b>\$1,000 - \$10,000 :</b>	<b>92</b>	<b>311,771.24</b>
<b>\$10,000 - \$100,000 :</b>		<b>24</b>	<b>627,414.67</b>	<b>\$10,000 - \$100,000 :</b>	<b>25</b>	<b>709,361.35</b>
<b>Over \$100,000 :</b>		<b>2</b>	<b>900,817.41</b>	<b>Over \$100,000 :</b>	<b>2</b>	<b>900,817.41</b>
<b>Total:</b>		<b>391</b>	<b>1,972,949.20</b>	<b>Total:</b>	<b>236</b>	<b>1,972,949.20</b>



**Summary of the EBDA Commission Meeting  
Thursday, December 15, 2016, at 9:30 a.m.**

Prepared by: P. Eldredge

- Commissioners Becker, Peixoto, Johnson, Prola, and Toy were present.
- The Consent Calendar was approved unanimously and included the Commission Meeting Minutes, List of Disbursements, and Treasurer's Report.
- The Commission unanimously approved the reports from the Financial Management, Regulatory Affairs, Operations & Maintenance, Personnel, and Ad Hoc committees. The following items were discussed:
- **Guest Speaker** - General Manager Michael Connor introduced Dr. David Senn of the San Francisco Estuary Institute (SFEI). Dr. Senn discussed the components of the San Francisco Bay Nutrient Management Strategy (NMS):
  1. Nutrient sources, transport, transformations
  2. Understanding ecosystem response to nutrients
  3. What management actions will maintain nutrients at protective levels

Dr. Senn believes that current and future conditions of the San Francisco Bay need to be considered to ensure that the right decisions are made. The NMS Observation and Forecasting Program is a ship-based monitoring program in collaboration with the USGS. Dr. Senn answered a few questions from Commission and provided copies of the annual report for review. For more information, the report can be found at the NMS website (<http://sfbaynutrients.sfei.org/books/reports-and-work-products>).

- **General Managers Report** - The General Manager deferred comments to specific agenda items.
- **Managers Advisory Committee (MAC)** – met with the General Manager on December 14, 2016. Jackie Zipkin of EBMUD presented food waste partnerships to the MAC. The MAC discussed the Strategic Planning workshop and the enterococcus issue in the transport system.
- **Financial Management Committee** approved the November list of disbursements and Treasurer's Report at the meeting of December 13, 2016. The Committee reviewed the first quarter expenses for FY 2016/2017 that indicates that EBDA's spending in the first quarter is over budget by about 11%, which will require a mid-year budget adjustment in January 2017. There are three issues driving the overages: 1) outfall inspection spending carried over from the previous fiscal year; 2) an enterococcus issue in the transport system; and 3) an early start to the rainy season. The Committee reviewed the CalPERS annual valuation report for the Authority's retirement plan. The Authority's retirement plan

has a funded ratio of 84.7% with an unfunded accrued liability (UAL) of \$595,608. Employer required contributions for Fiscal Year 2017/2018 include an employer normal cost rate of 10.110% of reported payroll and \$21,947 for UAL.

- **Regulatory Affairs Committee** met on December 13, 2016 and discussed permit compliance. The General Manager updated the Committee on the status of the recurring enterococcus issue in the transport system. The Committee discussed BACWA's comment letter regarding the proposed Bay Area Air Quality Management District (BAAQMD) regulation to set limits on specific emissions.
- **Operations and Maintenance (O&M) Committee** met with the General Manager on December 12, 2016 and discussed the status of the EBDA facilities. The Superintendent of O&M reviewed EBDA's Asset Management Plan (AMP) mid-year recap for FY 2016/2017. The largest expenditure is \$1.5 million for the replacement of the HEPS motor control center (MCC). The MCC is also in the 90th percentile of the AMP risk profile for FY 2016/2017. Lastly, the Committee discussed the AMP 10-year funding forecast. Over the next 10 years, the projected funding is about \$8.4 million averaging about \$850K annually. Currently, the Renewal/Replacement Fund has a balance of \$4.7 million.
- **Personnel Committee** - The Personnel Committee met with the General Manager on December 12, 2016. The Committee discussed the Commissioner's compensation rate for calendar year 2017 and recommends leaving the rate at \$234 per meeting. The Committee was updated on the status of the O&M Manager recruitment. Staff anticipates that interviews will take place in February 2017.
- **Resolution in Appreciation for James C. Prola** - Commissioner Peixoto introduced the resolution of appreciation for Commissioner Prola. The motion was seconded by Commissioner Becker and was adopted by a vote of 4-0, with Commissioner Prola abstaining.
  - Ayes: Commissioners Becker, Peixoto, Toy, and Chair Johnson
  - Noes: None
  - Absent: None
  - Abstain: Commissioner Prola
- **Ad Hoc Committee** met with the General Manager on December 14, 2016. The Ad Hoc Committee discussed a proposed change order for Tamayo Group, Inc. The proposed additional cost of \$6,500 is for additional preparation for the Strategic Planning workshop taking place in January 2017. The Ad Hoc Committee recommended Commission approval of the Tamayo Group, Inc. change order.
- **Items from the Commission and Staff** - Commissioner Toy wished everyone a Happy Holiday. The Commission thanked Commissioner Prola for his service. Commissioner Prola thanked everyone and expressed his appreciation of staff.



# MANAGING WASTEWATER WITH REUSE IN MIND

By Sarah Fister Gale

Water scarcity issues, which now affect every continent in the world, are spurring utilities to think more strategically about the way they treat and manage [wastewater](#). While many facilities are making incremental improvements that focus on regulatory requirements, forward thinking utility leaders are looking for more innovative solutions that exceed standards while addressing broader water accessibility issues.

“It is time to start thinking about wastewater as a resource and how we can benefit from it, rather than just treating it,” said David Jassby, assistant professor of chemical and environmental engineering at the University of California - Riverside. The challenge is finding projects that meet the unique needs of the climate and the community. Jassby recently co-authored a report on how treatment facilities could tailor wastewater treatment for high-value crops, like citrus and wine, by balancing the saline, nitrogen and phosphorus. “With a little additional treatment we can engineer the water to suit agricultural needs,” he said. This may be an innovative solution to California’s water crisis, but it isn’t cutting-edge technology, Jassby said. “It’s about building the right treatment train to meet needs.”

As wastewater [reuse and recycling](#) becomes more mainstream, many utilities across the country are following this approach, seeking new ways to use existing technology to address local water issues. According to a 2016 report from Bluefield Research, the U.S. wastewater reuse sector now has an installed capacity of 18.5 million cubic meters per day, with another US\$12 billion worth of projects in the pipeline. According to Erin Bonney Casey, senior analyst for Bluefield Research, the company has seen the reuse project pipeline more than double in the last six months due in large part to “growing municipal utility concerns about long-term water supply risks.”<sup>1</sup>

## Treat It Yourself

Many of these projects involve the reuse of treated “gray water” for non-potable uses, like irrigation and cooling towers, as a way to reduce stress on local water sources. San

Francisco, for example, has launched several water recycling projects in the past five years, including construction of infrastructure to irrigate Sharp Park Golf Course in Pacifica with gray water in 2014, and the opening of a truck fill station that dispenses recycled water to contractors, street cleaners, landscapers and city departments. It is all part of a broader citywide plan to harness the benefits of wastewater reuse to reduce the use of potable water, said Paula Kehoe, director of water resources for the San Francisco Public Utilities Commission (SFPUC). “Our local water program starts with conservation, then we focus on recycling where we can.”



**The SFPUC headquarters at 525 Golden Gate consumes 60% less water than similarly sized buildings and is one of the first buildings in the nation with onsite treatment of gray and black water.**

Though recently city leaders have come to the conclusion that SFPUC can't do it all on their own, which is why they have launched the decentralized Non-Potable Water Program. The program allows private building owners and developers to build on-site infrastructure to capture, treat, and reuse alternate water sources, including stormwater, gray water, black water, and foundation drainage. Kehoe estimates buildings can reduce their potable water use by up to 65 percent by implementing these systems.

To ensure public safety and oversight, SFPUC, working with the local public health agency, received guidance from municipal leaders in Minnesota, New York City, Oregon and other regions that have already passed regulations supporting decentralized water treatment options. “It took two years to develop the regulatory framework to ensure the program could be safely implemented,” Kehoe noted. The final version was rolled out in

2013, and in 2015 the city made it mandatory for all new buildings larger than 250,000 square feet. There are already 20 systems online, and Kehoe expects more to come. “Decentralized water systems aren’t right for every community,” she said. “But in a dense, rapidly growing environment (like San Francisco) it works.”

## Upper Occoquan’s Hidden Gem

Some people might be surprised to hear that San Francisco is seeking water management guidance from cities in the Midwest and on the east coast where water is seemingly plentiful. But wastewater reuse programs are not limited to drought-stricken communities. In fact, one of the most ground-breaking projects was launched by the upper Occoquan Service Authority in Fairfax, Va., which has been treating wastewater to water quality standards for almost 40 years.



**HRSD’s highly treated water passes through BAC/GAC filtration columns as part of the carbon-based advanced water treatment process at the SWIFT pilot facility.**

The community, which is 40 miles west of Washington, D.C., was rural until the late 1960s when a new highway turned the agricultural community into a popular commuter destination. Within a few years, the eleven small and relatively inefficient wastewater treatment plants couldn’t handle the rapid growth, and water quality in the local reservoir started to suffer, explained Chuck Boepple, executive director of the Upper Occoquan Service Authority. Despite it being the 1970s - when water scarcity wasn’t even a thing - local leaders realized that they were going to need more, and better quality, water as the community grew. So the Virginia Water Control Board created the Upper Occoquan Service Authority (UOSA) to provide state-of-the-art treatment for all wastewater generated in the Occoquan Watershed, and established the Occoquan Watershed Monitoring Laboratory (OWML). They also adopted stringent discharge requirements

and put a plan in place to build a new high-tech regional water reclamation facility to replace the eleven existing treatment plants.

The new facility, which opened in 1978 and has gone through several expansions, features a multi-step treatment process that exceeds water quality requirements. It includes:

- Initial conventional treatment to remove roughly 90 percent of incoming pollutants
- A high lime treatment process to create a barrier against viruses and reduce phosphorus to below 0.10 mg/L
- Multimedia depth filtration using granular activated carbon to meet requirements for total suspended solids and chemical oxygen demand.
- A chlorination and dechlorination process to create a barrier for pathogens.



**HRSD's highly treated water passes through ultrafiltration columns as it's purified through the membrane-based advanced water treatment process at the SWIFT pilot facility.**

“All of these treatment steps are fairly common,” Boepple said, “but together they bring our effluent discharge to drinking water quality.” While the treated water doesn’t go to a direct potable reuse system, it is discharged directly upstream from the drinking water impoundment. A number of studies have been conducted since building and expanding the plant, and they all conclude the wastewater facility generates the highest quality water source entering the Occoquan reservoir. “The bigger the facility gets, the better our water quality gets,” he said.

## **A SWIFT Solution**

Upper Occoquan has become something of a legend, attracting visitors from all over the world, including Ted Henifin, general manager of the Sustainable Water Initiative for

Tomorrow (SWIFT) at the Hampton Roads Sanitation District (HRSD) in eastern Virginia. SWIFT is a water purification project designed to enhance the sustainability of the region's long-term groundwater supply, while supporting Chesapeake Bay restoration and addressing salt water intrusion in the water system.

The idea for SWIFT emerged when local planners were discussing their frustration with having to continually update their thirteen local wastewater facilities to meet new pollutant rules and what their long-term water management strategies should be. "Every five to ten years we invest millions of dollars to address new restrictions," Henifin said.

Rather than continuing to make incremental improvements, the team decided that with the next upgrade they wanted to bring their treated water to drinking quality standards, thus eliminating the need for future upgrades. Then to make the best use of the treated water, they would discharge it into the shrinking Potomac aquifer, which serves multiple states in the east coast region.



**Water purified by two different treatment technologies is waiting to be sampled.**

"The challenge was how to get it there," he said. They didn't want to pay to ship the treated water a long distance. Instead, they worked with engineering firm CH2M Hill to figure out if they could cost effectively put the water directly into the ground at the plant. "The model they built was more positive than we could have imagined," he said. Because the ground in that area is permeable, building injection wells would be relatively low cost, and the pressure differential and size of the aquifer meant the water could move quickly into the water table to benefit all of the communities it serves over time.

It was still a billion-dollar project, but HRSD already had a \$4.4 billion, 20-year capital improvement budget in place, half of which is driven by wet weather work. Henifin's team worked with EPA to adjust their investment strategy so they could use \$1 billion of it for the SWIFT project, and push some of the wet weather work beyond the 20-year window. "We had to have a capital plan in place to make this work," he said. "It would have been very difficult to sell it as a discretionary project."

HRSD is using the Upper Occoquan facility as a model for its own treatment strategy. The utility launched a pilot program at one of the treatment facilities in June, and on September 15, at a press event, Henifin drank the first glass of the treated water. "It tasted great!" he said. HRSD's plan is to eventually treat as much as 120 million gallons of wastewater to drinking-water standards per day, then inject it into the aquifer.



**HRSD General Manager Ted Henifin pumps the first taste of SWIFT purified water on September 15, 2016.**

Like Jassby, Henifin noted that this solution isn't right for every community. The lesson, he said, is that you have to look at all of your various water issues and opportunities to see if there might be one big solution. "I hope our project makes other people think about what is possible in water-rich communities like ours."

About the Author: Sarah Fister Gale is a Chicago-based correspondent for WaterWorld. Over the last 15 years, she has researched and written dozens of articles on water management trends, wastewater treatment systems and the impact of water scarcity on businesses and municipalities around the world.

## **References**

1. "Water Reuse Gains Momentum in U.S. Amid Drought, Water Scarcity," Bluefield Research, press release, April 4, 2016.

# California drought: Wealthy Hillsborough residents sue, saying water rates are too high

By Paul Rogers      December 1, 2016

In a case that could have statewide ramifications, a group of multimillionaire Hillsborough residents, including an early funder of Microsoft, has sued the town claiming that its drought rules and penalties intended to keep people from over-watering big lawns are illegal.

The nine residents who are taking the town to court say that by imposing tiered water rates, and a \$30 penalty for each unit of water used over the allotted amount, Hillsborough water officials violated Proposition 218, a state law that makes it illegal for government to charge more for a service than it costs to provide.

“This isn’t about whether our clients can pay more,” said Beau Burbidge, a San Francisco attorney representing the group. “It’s about bringing the town into compliance with the law. It’s about the principle. It’s not like the clients are becoming destitute from the water rates, but the town is running amok.”

The lawsuit, however, is raising eyebrows and some concerns in Hillsborough, one of America’s richest addresses — a community of 11,000 people in the San Mateo County hills where the median home value is \$4.3 million and property owners over the years have included William Randolph Hearst, Bing Crosby and New England Patriots quarterback Tom Brady.

“We’re in a drought,” said Paul Saffo, a Hillsborough resident, noted technology forecaster and engineer. “We have a short reprieve, but the fact is that this problem is only going to get worse, long term, and everybody has to pull together.”

Saffo said that if a court strikes down Hillsborough’s tiered water rates, people who use less will have to pay a greater share of the overall bill, essentially subsidizing the biggest users with the largest green lawns.

“People here have had no problem conserving,” Saffo said. “It was a civic duty. Good citizens cooperate. These are very rich, very self-entitled people who just don’t have any sense of community.”

Among the people who filed the class action lawsuit: Eldridge Gray, a former Goldman Sachs executive now working as managing director of Seven Post, a private investment firm in San Francisco; Arthur Stromberg, former chairman and CEO of URS Corp., a global engineering company; and oral surgeon Dr. Charles Syers, along with residents

John Lockton, Brad and Kathy Baruh, Charles Bolton and Paul Rochester. Several have large lots with expansive lawns.

Perhaps most high-profile is Dave Marquardt, 67, a well-known figure in technology who invested \$1 million in 1981 in Microsoft to gain 5 percent ownership of the company, and served on its board from 1981 to 2014, as well as on the boards of more than 25 companies, including Sun Microsystems and Seagate. He did not respond to requests for comment on the lawsuit. His three-story house sits on 1.6 landscaped acres.

“A lot of them are top-tier users,” said Burbidge of his clients. “They have quite a bit of acreage. They all let their lawns go brown. They put in drought-friendly plantings, and all they did was get penalized.”

Hillsborough was required last year to cut water use 36 percent from 2013 levels under Gov. Jerry Brown’s now-lifted mandatory water targets. The city cut by 42 percent, but as of June was still using 321 gallons per capita per day, triple the state average.

The case follows a key ruling last year in which a California appeals court found that tiered water rates in the Orange County city of San Juan Capistrano were unconstitutional. The ruling, which has been closely watched by water agencies statewide, did not say that all tiered water rates — where somebody pays a higher price per unit of water the more they use — were illegal. Rather the court ruled that water departments must clearly demonstrate a link between the higher rates and the cost of providing the water.

Like the Orange County case, the Hillsborough lawsuit focused on Proposition 218, a ballot measure approved in 1996 by state voters.

Hillsborough clearly violated the law, the lawsuit says, because the city buys all of its water from the San Francisco Public Utilities District’s Hetch Hetchy system, and pays \$1,633 per acre foot of water. That works out to be \$3.75 per 100 cubic feet, or unit. But Hillsborough charges its residents \$8.74 per unit for using up to 10 units a month, and gradually higher rates peaking at \$17.36 a unit for usage over 100 units a month. That’s far more than the city needs to pay its small water department staff and run the water system, Burbidge said.

“We are looking for them to make the attempt to tie their tiers to the cost of providing water,” said Burbidge. “They arbitrarily set the tiers. It is blatantly illegal.”

Each “unit,” a common measure in water bills statewide, is about 748 gallons. Two-thirds of water providers in California used tiered rates. Burbidge said he hopes the lawsuit “becomes a cautionary tale for other cities.”

The group also is suing over a \$30 per unit penalty that Hillsborough imposed in June 2015 — and dropped this June after drought conditions improved — for water use over a monthly amount that was budgeted for each property based on the number of residents and the size of lots. That penalty generated roughly \$600,000 for city coffers, the city says.

City officials say they are confident they will prevail. Kelly Salt, an attorney for the city, said that all the water rates comply with Proposition 218 because the city must provide more pipe and pumping capacity to maintain a high peak water demand when people are using large volumes.

“The rates are structured to recover the costs of providing more water to those who demand more water,” she said. “Do they incidentally encourage people to conserve? Yes. They send a price signal.”



## Drug disposal ordinance passed in California county

Legislation is tied into keeping medications out of the wastewater and solid waste streams.

December 20, 2016  
Solid Waste Report Staff

The Contra Costa County Board of Supervisors, based in Martinez, California, has passed a “Safe Drug Disposal Ordinance” requiring medication manufacturers to create a stewardship organization that will offer drop-off locations throughout unincorporated areas of the county for the disposal of unwanted, expired, and unused medications. The ordinance cites pharmacies and hospitals as examples of convenient locations.

This is the eighth safe drug disposal ordinance adopted in the San Francisco Bay Area and the 13th in the nation, according to the Central Contra Costa Sanitary District (Central San), which advocated for the ordinance. Wastewater agencies have been among those collaborating on safe drug disposal ordinances because clean water advocates say proper disposal of medications means cleaner waterways for fish and wildlife and protects the quality of drinking water.

“It’s our job to be strong stewards for the environment,” says Roger Bailey, general manager of Martinez-based Central San, which operates 13 customer-funded medication drop-off bins in Contra Costa County. “This ordinance helps better protect public health and the environment,” he adds.

Central San and six regional wastewater agencies all provided support for the ordinance. Suicide prevention and drug overdose prevention advocates also supported the ordinance, says the board. “The majority of those who abuse medications obtain them from friends and family and often right from their home medicine cabinets,” says April Rovero, executive director of the National Coalition

Against Prescription Drug Abuse. “The ordinance will require more medication disposal bins and increase community education, both important steps in reducing access to potentially dangerous and addictive medications in Contra Costa County.”

Among the key elements of the ordinance, according to Central San, are:

- the ordinance places responsibility on medication manufacturers to work toward a solution in helping reduce medications entering local waterways;

- the new drop-off bins will accept all medications, including over-the-counter drugs; and
- medication manufacturers are subject to penalties if they fail to comply with the ordinance.

Since 2012, outgoing Contra Costa County Supervisor Mary Piepho has led the charge for an ordinance for the county. Says Central San. “Thanks to the leadership of Supervisor Mary Piepho and all the members of the board, the pharmaceutical industry will provide county residents with safe and convenient disposal options in pharmacies and hospitals like they now do in six other Bay Area counties,” says Heidi Sanborn, executive director of the California Product Stewardship Council.

County supervisors adopted the ordinance at Supervisor Piepho’s final official meeting, in December 2016, just before incoming District III Supervisor Diane Burgis assumes the post.

# EAST BAY TIMES

## Alameda County Water District considers 25 percent rate hike

By Joseph Geha | [jgeha@bayareanewsgroup.com](mailto:jgeha@bayareanewsgroup.com)

PUBLISHED: December 22, 2016 at 3:22 am | UPDATED: December 22, 2016 at 11:19 am

The Alameda County Water District, which serves Fremont, Newark and Union City, is proposing a 25 percent rate and service charge increase.

The agency has raised customers' water costs every year from 1999 to 2015. The biggest service charge increases were 30 percent in May 2015 and 100 percent in February 2013.

Officials say 2016 was the first year since 1999 that rates didn't change, since the agency was working through a comprehensive review of its financials and wanted to hold off any increases.

But at a Feb. 9 public meeting, the district's five-member board of directors is scheduled to discuss a possible two-year rate hike. In the first year, starting March 1, 2017, the fixed bimonthly service charge for most residential customers as well as the price per unit of water would both increase 25 percent if the proposal is approved.

The following year, again beginning on March 1, both rates would climb an additional 5 percent each. One unit of water is about 748 gallons.

According to the district, the average residential customer would see the bimonthly service rate rise from \$41.54 to \$51.92 after March 1, 2017. And in the second year, that figure would increase to \$54.51. Every unit of water would increase from \$3.373 to \$4.216 in the first year, then to \$4.426 in the second year.

Robert Shaver, the water district's general manager, said although there have been steady rate increases over the years, what's happening here isn't unusual for water agencies across the state and the country.

"It's really because all water utilities are kind of facing the same situation, increasing costs and aging infrastructure, and dealing with that," Shaver said, noting that much of the district's 900 miles of water main infrastructure is between 50 to 70 years old.

Shaver also says the severe drought has in large part caused a \$60 million shortfall in the company's revenue stream, as water users have reduced their consumption by roughly 30 percent the past few years. He says while roughly 80 percent of the district's operating costs are fixed, about 70 to 80 percent of its revenue fluctuates with water demand.

“We take a pretty big hit in revenue when customers reduce their water use, but our costs don’t reduce anywhere near what the revenue hit was,” Shaver said, noting that meters still need to be read, treatment facilities still need to be staffed around the clock, and repairs still must be made to infrastructure.

Eric Tsai, a Fremont resident and vocal critic of the district’s steady dose of rate hikes, said he thinks it hasn’t done its part to share in the sacrifice made by water users who have conserved.

He cites a 2014 Alameda County Grand Jury report that evaluated employee benefits in 30 government agencies and districts in the region. The report noted that Alameda County Water District was one of only three agencies that provided cost-of-living increases every year during the height of the economic recession, amounting to a 20 percent raise for its employees between 2008 to 2012 — the highest in the county.

Tsai says based on his evaluations of the district’s own financials, a majority of the funds from these rate increases typically go toward employee salaries and benefits, and will into the future.

“They downplay the significance of labor costs,” he said of the district.

Shaver said the district’s board is concerned with overall salary and benefit costs and will be looking for ways to better control them going forward. He also said the district is planning a more aggressive schedule for paying down a roughly \$100 million unfunded pension and benefits liability, with the aim of bringing it completely under control in 20 years. However, he says adequate salaries and benefits are necessary to attract and retain highly qualified people.

“We’re a labor intensive organization,” Shaver said. “Obviously we want to be as efficient as we can. But I think we’ve seen other circumstances and other events where if the only thing that you’re focused on is cost, there could be problems as well. I mean, look at what happened in Flint, Michigan,” he said.

Tsai said the district, when proposing rate increases, needs to be more upfront with ratepayers about why they’re necessary.

“When they ask for this rate increase, they never mentioned labor costs as one of the reasons they’re raising them,” Tsai said.

On its website, the district says “The proposed rate increases will fund major capital projects necessary to ensure the reliable delivery of drinking water, address increased costs for securing and treating water supplies, and create a greater measure of long-term financial sustainability for ACWD.”

The Alameda County Water District board will consider the rate hike, as well as a potential program for assisting low-income ratepayers with their water bills, at a public meeting beginning 6 p.m. on Feb. 9, 2017, at 43885 S. Grimmer Blvd., in Fremont.

## 2016 in Review: California drought eased, but it's not over

By Paul Rogers | [progers@bayareanewsgroup.com](mailto:progers@bayareanewsgroup.com)

December 26, 2016

As 2016 wound down, California entered its sixth year of drought.

But every part of the state wasn't created equal. Northern California experienced significant drought relief during the year, while Southern California continued to be mired in historically arid conditions.

The reason? A much-anticipated El Niño brought substantial storms during the spring to the north, giving Bay Area cities and communities across Northern California their best rainfall totals in five years. San Francisco rainfall was 98 percent of the historic average. San Jose was a healthy 100 percent, and Oakland 80 percent.

But the storms largely missed the parched south.

The spring rains sent reservoirs rising, creeks rushing and hopes growing that the relentless drought might be winding down. They also boosted the ski season, growing the Sierra Nevada snowpack to nearly normal levels by April.

In a controversial move, Gov. Jerry Brown dropped statewide mandatory water restrictions in May. Responding to complaints from water agencies that they had lost millions from reduced water sales, the governor allowed cities to ease their water rationing plans. Although Californians are still using less water now than before the drought (those low-flush toilets and rock gardens don't uninstall themselves), conservation lagged during the summer and green lawns sprouted again. Brown and other state leaders were watching the weather carefully, and plan to decide by January whether to restore the mandatory rules, depending on how much rain falls during the first part of winter.

Wet wood doesn't burn. So the moderately good rain year was enough to limit catastrophic fires in 2016, and California's fire year came in at about average. But there were still several very large fires, including the Soberanes fire, which blackened 132,000 acres of rugged backcountry in Big Sur; the 41,000-acre Sand fire in the Angeles National Forest; and the Loma fire, which burned 4,474 acres in the Santa Cruz Mountains west of Morgan Hill, destroying 12 homes.

Will the drought end in 2017? If the winter rains are decent, the north will be in pretty good shape. But it will take several wet years for the south to recover, and significantly overdrawn groundwater basins in the Central Valley will take decades to come back.

“We remain in stubborn drought conditions statewide. Saving water is just the smart thing to do.”

— Felicia Marcus, chairwoman, State Water Resources Control Board

California rainfall 2015-16  
(July 1-June 30, percent of historic average)

Eureka — 120 percent  
Redding — 120 percent  
Modesto — 119 percent  
San Jose — 100 percent  
San Francisco — 98 percent  
Livermore — 98 percent  
Oakland — 80 percent  
Riverside — 75 percent  
Los Angeles — 65 percent  
Santa Barbara — 59 percent  
Palm Springs — 56 percent  
Irvine — 51 percent

Source: National Weather Service, Golden Gate Weather Services

## California officials say a new plan will make water conservation 'a way of life'

By [Darryl Fears](#)

December 31, 2016

SANTA MONICA, Calif. — Here in the land of beauty and make-believe, it's important to keep up appearances. Tracy Quinn sees it whenever she walks her dog: sprinklers irrigating pretty green lawns and wasted water bleeding across sidewalks during the state's driest spell in centuries.

"It drives me crazy," said Quinn, a water policy analyst for the Natural Resources Defense Council.

But now California is preparing for a dramatic change in how its residents use water. A water management plan that could be finalized in January is designed to make conservation "a way of life."

"I think it's a really great way to go," Quinn said.

California is entering its sixth year of extreme drought, and it has enacted water restriction plans before. In 2015, Gov. Jerry Brown (D) declared that watering grass every day was "going to be a thing of the past." He issued an executive order that forced the state's 410 water agencies to cut up to 36 percent of their water use, compared with 2013.

The new plan would instead give each water agency a budget for how much water its customers are allowed to use. Each agency's allowance would be based on estimates from state officials of its demographics — population, economy, outdoor temperature, tree canopy and even the rate of water evaporation — to determine its need.

Many agencies will be forced to purchase costly technology that detects even the smallest leaks in water lines and to hire data analysts to record and report water use. An association that represents California water agencies said it has yet to examine the overall cost but predicted it would easily surpass \$1 billion.

For the first time, farms in the state would be required to account for nearly every drop of water they pull from aquifers they are depleting, often to grow thirsty cash crops such as almonds and rice that require extensive irrigation in naturally dry conditions.

The proposal, "Making Water Conservation a Way of Life," must overcome a slew of public and legislative debates over the next three years before implementation, but it is being embraced by strange bedfellows: the Association of California Water Agencies and environmental groups such as California Coastkeeper Alliance that often battle the association over water.

"It's sweeping change that builds on the lessons learned during the drought," said Max Gomberg, the climate and conservation manager for the state Water Resources Control Board, which governs water agencies. "We are setting new water efficiency targets for suppliers that serve 34 million people."

“We’re not telling them how to meet their budgets. We’re just telling them they have to stay within their budgets,” he said. “If you stay under budget, kudos. If you go over budget, the state steps in.”

The penalty for going over budget is one of the many things that state water officials, lobbyists and lawmakers will have to negotiate. What’s important now, Gomberg said, is that there is a new path forward.

During the state’s emergency drought response two years ago, “we realized . . . we didn’t have a regulatory structure dealing with leaks” in cities, Gomberg said, and “we didn’t know how much water was being lost” in rural areas, where farmers were never required to report their groundwater use.

Scientists say there is no end in sight for California’s drought. The dry stretch that started in 2011 has killed more than 100 million trees, increased the chances of wildfires, wiped out dozens of farms, dried sections of rivers and threatened the state’s salmon fishery, killed unknown quantities of wildlife and left entire communities without running water.

San Diego County built the largest desalination plant in the nation, pulling salt water from the ocean. Santa Barbara is following suit, seeking to restart a mothballed desalination plant as a reservoir that serves the county, Lake Cachuma, goes almost dry. In East Porterville, near Fresno, residents couldn’t bathe or flush their toilets after their wells stopped pumping.

Setting water budgets will involve a lot of technical work in the nation’s most populous state — and, before the drought, one of the most irresponsible when it came to water management.

For example, until recently even major cities, including the capital, Sacramento, did not require homes and businesses to have water meters. Now California will require thousands of sophisticated meters and will combine satellite technology and aerial flight data to study the state’s topography to see which areas have the most pavement, grass and even the most shade to determine how much irrigation they need.

Foggy San Francisco’s water budget will be different from dry and highly populated Los Angeles’s, Gomberg said. Bakersfield, near the relatively wet Sierra Nevada, will have a budget that differs from Riverside, near dry desert mountains.

“I’m not going to say it’s perfect,” said Quinn of the Natural Resources Defense Council, “but the framework the governor put out is smart, and the potential implementation is smart for the way we manage water in California.”

The executive director of the Association of California Water Agencies, Tim Quinn (who is not related to Tracy Quinn), was equally positive. “We’re fully supportive of this effort,” he said.

Association members are not of one mind on the proposal, but “one reason a lot of our members like this budget-based approach is . . . we believe it allows agencies to adapt to their own circumstances” rather than facing a one-size-fits-all solution.

But some smaller agencies that lack money for pricey gadgets and new staffers are worried. In webinars held by the association, member agencies that serve few customers have wondered aloud whether the old order — reducing a percentage of water use — would allow them to sidestep the costs.

“No one is looking for a way out; we’re just having a discussion . . . about what’s the best way to do it,” Quinn said.

At the Moulton Niguel Water District in south Orange County near Laguna Beach, which already monitors nearly every drop of water, the cost of new meters, leak detection equipment, a consulting analyst and increased staff work hours amounted to \$78,000 yearly.

But the investment was worth it, said Joone Lopez, the district’s general manager. Leaking water is money down the drain. “It’s not only the water loss but also loss in revenue, so it makes sense to do water audits for a variety of reasons,” Lopez said.

That is why big agencies that fought the executive order to cut at least a quarter of their water use in many cases prefer the new approach. Cutting water use hurt revenue and profit margins, sometimes resulting in losses. A budget based on their needs and their ability to monitor and account for water puts destiny in their own hands.

Californians should expect a drier future, said Sara Aminzadeh, executive director of the California Coastkeeper Alliance, based in San Francisco. “We’re going to be experiencing more drought, and more severe drought with less rain and snow.”

Scientists at Stanford University predicted that the state’s temperatures will keep rising as precipitation falls, and scientists at NASA and Columbia University said that if the climate continues to warm without decreases in greenhouse-gas emissions, California and the Southwest will face a megadrought — extreme dry conditions that last 30 years.

The proposal, Aminzadeh said, “is a new ethic for our state, that water conservation is part of our way of life. We’re not just lurching from one drought to the next. We’re putting in place a long-term plan. It just feels like things are coming together.”