



BOARD MEETING AGENDA
Monday, February 12, 2018
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.

2. Pledge of Allegiance.

3. Roll Call.

- Motion 4. Approve Minutes of the Regular Meeting of January 22, 2018.

5. Written Communications.

6. Oral Communications.

The public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District office at least one working day prior to the meeting). This portion of the agenda is where a member of the public may address and ask questions of the Board relating to any matter within the Board's jurisdiction that is not on the agenda. If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. Oral comments are limited to three minutes per individuals, with a maximum of 30 minutes per subject. Speaker's cards will be available in the Boardroom and are to be completed prior to discussion.
- Motion 7. Consider Approving a Capacity Charge Refund for Property Located at 1550 Pacific Street, Near Central Avenue in the City of Union City *(to be reviewed by the Budget & Finance Committee)*.

- Motion 8. Authorize the General Manager to Execute Task Order No. 2 with Brown and Caldwell for the Standby Power Generation System Upgrade Project *(to be reviewed by the Engineering and Information Technology Committee)*.

- Direction 9. Review Centennial Open House Proposed Invitation and Provide Direction.

- Information 10. Board Expenses for the 2nd Quarter of Fiscal Year 2018 *(to be reviewed by the Budget & Finance Committee)*.

- Information 11. Report on the East Bay Dischargers Authority (EBDA) Meeting of January 18, 2018.

- Information 12. Check Register.

- Information 13. Committee Meeting Reports. *(No Board action is taken at Committee meetings):*
 - a. Engineering and Information Technology Committee – Thursday, February 8, 2018, at 9:15 a.m.
 - Director Toy and Director Kite
 - b. Budget & Finance Committee – Friday, February 9, 2018, at 11:00 a.m.

- Director Handley and Director Toy

- c. Legal/Community Affairs Committee – will not meet.
- d. Audit Committee – will not meet.
- e. Legislative Committee – will not meet.
- f. Personnel Committee – will not meet.

Information

-
- 14. General Manager’s Report. *(Information on recent issues of interest to the Board).*
-
- 15. Other Business:
 - a. Comments and questions. *Directors can share information relating to District business and are welcome to request information from staff.*
 - b. Scheduling matters for future consideration.
-
- 16. Adjournment – The Board will adjourn to the next Regular Meeting in the Boardroom on Monday, February 26, 2018, at 7:00 p.m.
-
- 17. Adjournment – The Board will then adjourn to a Special Meeting Closed Session in the Alvarado Conference Room on Tuesday, February 27, 2018, at 6:00 p.m.
-
- 18. Adjournment – The Board will then adjourn to a Special Meeting Mid-Year Budget Board Workshop in the Boardroom on Thursday, March 1, 2018, at 5:30 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



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

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

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

AGENDA
Thursday, February 8, 2018
9:15 A.M.

Karen W. Murphy
Attorney

Alvarado Conference Room
5072 Benson Road
Union City, CA 94587

**THIS MEETING WILL BE TELECONFERENCED WITH DIRECTOR KITE FROM THE EXTERIOR OF
35040 NEWARK BOULEVARD, NEWARK, CALIFORNIA.**

1. Call to Order

2. Roll Call

3. Public Comment

4. Items to be reviewed for the Regular Board meeting of February 12, 2018:
 - Authorize the General Manager to Execute Task Order No. 2 with Brown and Caldwell for the Standby Power Generation System Upgrade Project

5. Adjournment

Items reviewed at committee meetings will be included in the agenda packet for the upcoming Board meeting. No action will be taken at committee meetings. The Public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District at least one working day prior to the meeting). If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. If the subject is within the Board's jurisdiction but not on the agenda, the speaker will be heard at the time "Public Comment" is calendared. Oral comments are limited to three minutes per individual, with a maximum of 30 minutes per subject. Speaker's cards will be available and are to be completed prior to discussion of the agenda item.

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THE PUBLIC IS INVITED TO ATTEND



BUDGET & FINANCE COMMITTEE MEETING
Committee Members: Director Handley and Director Toy

Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

AGENDA
Friday, February 9, 2018
11:00 a.m.

Alvarado Conference Room
5072 Benson Road
Union City, CA 94587

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

Karen W. Murphy
Attorney

1. Call to Order

2. Roll Call

3. Public Comment

4. Items to be reviewed for the Regular Board meeting of February 12, 2018:
 - Consider Approving a Capacity Charge Refund for Property Located at 1550 Pacific Street, Near Central Avenue in the City of Union City
 - Board Expenses for the 2nd Quarter of Fiscal Year 2018_____
5. Adjournment

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

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

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

The facilities at the District Offices are wheelchair accessible. Any attendee requiring special accommodations at the meeting should contact the General Manager's office at (510) 477-7503 at least 24 hours in advance of the meeting.

THE PUBLIC IS INVITED TO ATTEND

**MINUTES OF THE MEETING OF THE
BOARD OF DIRECTORS OF
UNION SANITARY DISTRICT
January 22, 2018**

CALL TO ORDER

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

PLEDGE OF ALLEGIANCE

ROLL CALL

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

ABSENT: Manny Fernandez, Secretary

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

VISITORS: Alice Johnson, League of Women Voters
Roelle Balan, Tri-City Voice Newspaper
Gimena Peña Malcampo, Pier 2 Marketing Chief Executive Officer
Paul Hamel, Pier 2 Marketing Chief Operating Officer

APPROVAL OF THE MINUTES OF THE REGULAR MEETING OF JANUARY 8, 2018

It was moved by Director Handley, seconded by Vice President Lathi, to approve the Minutes of the Regular Meeting of January 8, 2018. Motion carried with the following vote:

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

DECEMBER 2017 MONTHLY OPERATIONS REPORT

This item was reviewed by the Legal/Community Affairs and Budget & Finance Committees. General Manager Eldredge stated the District received one odor complaint during December 2017. Business Services Coach Brenner provided an overview of the financial reports included in the Board meeting packet.

WRITTEN COMMUNICATIONS

There were no written communications.

ORAL COMMUNICATIONS

There were no oral communications.

CONSIDER A MOTION TO CANCEL THE MAY 28, 2018, BOARD OF DIRECTORS MEETING

Executive Assistant to the General Manager/Board Clerk McEvoy stated the May 28, 2018, Board of Directors meeting will fall on Memorial Day when District offices will be closed. Staff recommended the Board cancel the May 28, 2018, Board of Directors meeting and consider scheduling a special Board meeting for June 4, 2018.

It was moved by Director Handley, seconded by Director Toy, to Cancel the May 28, 2018, Board of Directors Meeting, and Schedule a Special Meeting for June 4, 2018. Motion carried with the following vote:

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

AUTHORIZE THE GENERAL MANAGER TO EXECUTE AMENDMENT NO. 2 TO TASK ORDER NO. 2 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 purpose of the Plant Master Plan is to review and assess the District's near and long-term projects, evaluate the need to retrofit or replace facilities, and create a road map for the Waste Water Treatment Plant for the next 20 - 40 years. Task Order No. 2 will evaluate the feasibility of alternatives for a number of projects. The purpose of Amendment No. 2 to Task Order No. 2 is to evaluate strategies for early adoption of nutrient removal process at the Plant and at the Hayward Marsh. Staff recommended the Board authorize the General Manager to execute Amendment No. 2 to Task Order No. 2 with RMC Water and Environment in the amount of \$74,518 for the Plant Master Plan.

It was moved by Vice President Lathi, seconded by Director Handley, to Authorize the General Manager to Execute Amendment No. 2 to Task Order No. 2 with RMC Water and Environment in the Amount of \$74,518. Motion carried with the following vote:

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

GENERAL DISTRICT ELECTION:

(A) CONSIDER A RESOLUTION ORDERING, CALLING, PROVIDING FOR, AND GIVING NOTICE OF A GENERAL ELECTION TO BE HELD IN UNION SANITARY DISTRICT, ALAMEDA COUNTY, CALIFORNIA, ON TUESDAY, JUNE 5, 2018, FOR THE PURPOSE OF ELECTING TWO DIRECTORS; AND

(B) CONSIDER A RESOLUTION ORDERING THE CONSOLIDATION OF THE UNION SANITARY DISTRICT GENERAL ELECTION ON JUNE 5, 2018, WITH THE STATEWIDE DIRECT PRIMARY ELECTION TO BE HELD ON JUNE 5, 2018, AND REQUESTING THE BOARD OF SUPERVISORS OF THE COUNTY OF ALAMEDA TO CONSOLIDATE THE GENERAL DISTRICT ELECTION WITH THE STATEWIDE DIRECT PRIMARY ELECTION TO BE HELD ON JUNE 5, 2018

This item was reviewed by the Personnel Committee. District Counsel Murphy stated Alameda County will conduct its statewide direct primary election on June 5, 2018, and it is customary to consolidate the District's general election with the primary election. The term of the following two seats will expire this year: Ward 3 (Fremont) and Ward 3 (Fremont). Following adoption of the proposed resolutions, a notice of consolidation must be filed with the Registrar of Voters. District Counsel Murphy noted Senate Bill 568 will take effect January 1, 2019, and will move the California Statewide Direct Primary Election to the first Tuesday after the first Monday in March in even-numbered years beginning in 2020. Staff will present an item to the Board at a future meeting to address how this change will impact future elections and Board policies. Staff recommended the Board adopt the proposed resolutions.

It was moved by Vice President Lathi, seconded by Director Handley, to Adopt Resolution No. 2824 Ordering, Calling, Providing for, and Giving Notice of a General Election to be Held in Union Sanitary District, Alameda County, California, on June 5, 2018, for the Purpose of Electing Two Directors. Motion carried with the following vote:

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

It was moved by Vice President Lathi, seconded by Director Toy, to Adopt Resolution No. 2825 Ordering the Consolidation of the Union Sanitary District General Election on

June 5, 2018, with the Statewide Direct Primary Election to be Held on June 5, 2018, and Requesting the Board of Supervisors of the County of Alameda to Consolidate the General District Election with the Statewide Direct Primary Election to be Held on June 5, 2018. Motion carried with the following vote:

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

RECEIVE USD BRANDING INITIATIVE UPDATE AND PROVIDE DIRECTION

This item was reviewed by the Legal/Community Affairs Committee. General Manager Eldredge stated the Board directed staff to pursue a Branding Initiative at its meeting of March 13, 2017. Staff developed a Request for Proposals for a District Branding Initiative, five bids were received, and the two firms that received the highest scores were interviewed. Following the interviews, staff agreed Pier 2 Marketing would be the best fit for the District. Communications and Intergovernmental Relations Coordinator Powell and Executive Assistant to the General Manager/Board Clerk provided an overview of the project timeline included in the Board meeting packet, and the Board provided feedback.

INFORMATION ITEMS:

CAL-Card Quarterly Activity Report

This item was reviewed by the Budget & Finance Committee. Business Services Coach Brenner stated the CAL-Card Merchant Spend Analysis for CAL-Card activity for the second quarter of FY 2018, included in the Board meeting packet, covers transactions from the billing period October 23, 2017 through December 22, 2017.

Update on the Subsurface Investigation at the Alvarado Wastewater Treatment Plant

This item was reviewed by the Engineering and Information Technology Committee. Technical Services Manager Ghossain stated Alameda County Water District is responsible for regulating the groundwater supply within Union Sanitary District's service area. The purpose of the Plant's groundwater monitoring program is to document groundwater conditions in areas of concern at ten monitoring wells. In October 2017, Brown and Caldwell sampled the groundwater from the wells, analyzed the test results, and prepared a report. Conclusions from the 2017 groundwater monitoring event were outlined in the Board meeting packet.

Solar and Cogeneration Facilities Operational Update

This item was reviewed by the Budget & Finance Committee. Technical Services Manager Ghossain stated the total benefit to date for the Alvarado Wastewater Treatment Plant Solar Carport, constructed in 2011, was \$540,795 for a 61.1% simple payback. The total benefit to date for the Irvington Pump Station Solar Facility, constructed in 2012, was \$2,346,314 for a 82.3% simple payback. The total benefit to date for the Cogeneration Facility, constructed

in 2014, was \$5,658,830 for a 46.4% simple payback. Staff will continue to provide the Board with an operational update of the solar and cogeneration facilities on a semi-annual basis.

Report on the East Bay Dischargers Authority (EBDA) Meeting of December 21, 2017

Director Toy provided an overview of the EBDA meeting minutes included in the Board meeting packet.

Check Register

All questions were answered to the Board's satisfaction.

COMMITTEE MEETING REPORTS:

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

GENERAL MANAGER'S REPORT:

General Manager Eldredge reported the following:

- General Manager Eldredge stated interviews for the EBDA General Manager position were recently completed, and an offer had been made to the top candidate.
- General Manager Eldredge will attend the California Association of Sanitation Agencies (CASA) conference January 24 – 26, 2018, and Collection Services Manager Schofield will be acting General Manager in his absence.

OTHER BUSINESS:

There was no other business.

ADJOURNMENT:

The meeting was adjourned at 8:02 p.m. to the next Board Meeting in the Boardroom on Monday, January 22, 2018, at 7:00 p.m.

SUBMITTED:

ATTEST:

REGINA McEVOY
BOARD CLERK

MANNY FERNANDEZ
SECRETARY

APPROVED:

PAT KITE
PRESIDENT

Adopted this 12th day of February 2018



Directors

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: January 25, 2018

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

SUBJECT: Agenda Item No. 7 - Meeting of February 12, 2018
Consider Approving a Capacity Charge Refund for Property located at 1550 Pacific Street, Near Central Avenue in the City of Union City

Recommendation

Consider approving a capacity charge refund in the amount of \$305,954.88 for the property located at 1550 Pacific Street (APNs 475-0100-3900, -0400, -04100, -4200), near Central Avenue in the City of Union City.

Background

The property at 1550 Pacific Street in Union City was formerly used as a printing plant and distribution center for the San Francisco Chronicle newspaper and went vacant in 2009. In 2014, the old building was demolished and plans to construct four new buildings were under review. The District approved sewer construction plans for the new development in October 2014 and sewer construction was completed in October 2015. At the time of plan review and approval, the buildings were constructed as 'spec' buildings, meaning there were no tenants identified and the buildings would be subject to custom tenant improvements once the tenants are identified. See attached location map.

Per the District's Capacity Charge Ordinance 35.22, under the Warehouse definition, "Whenever the use of a proposed building or part of a building is not clear or not determined prior to connecting to the sanitary sewer, the Commercial/Industrial/Office Use rate will be used to calculate the Capacity Charge. If, after the building is first occupied, it becomes

evident that it, or part of it, is being used exclusively for warehouse purposes, as described herein, a refund may be issued.” The buildings’ capacity fee was calculated at the Commercial/Industrial/Office (CIO) use rate at the time of plan approval. However, since completing construction, all four buildings are now occupied by tenants using the buildings for warehouse purposes and the property owner, Terreno Park Union City LLC, has requested a refund. Staff has inspected the new buildings recently and confirmed that they are being used for warehouse purposes.

The original capacity charge calculated for the new buildings included a credit for the former San Francisco Chronicle building that was demolished. The net capacity charges that were paid are:

Original Capacity Charge (CIO rate)	\$791,836.32
Capacity Credit (CIO rate)	<u>-\$485,881.44</u>
Actual Capacity Charge paid	\$305,954.88

The corrected capacity charge based on warehouse use, the capacity credit, and the corrected net capacity amount due would be as follows:

Corrected Capacity Charge (warehouse rate)	\$309,229.40
Capacity Credit (CIO rate)	<u>-\$485,881.44</u>
Corrected Net Capacity Charge	-\$176,652.04

The capacity credit exceeds the corrected capacity charge, thereby offsetting any new capacity charges. Since a refund of capacity credit is not allowed per Ordinance 35.22, the refund owed to the property owner would be the total capacity charge paid, which was \$305,954.88.

Staff recommends the Board approve a refund of \$305,954.88 to the current property owners, Terreno Park Union City LLC.

PRE/SEG/RA;dl

Attachment: Location Map

**1550 PACIFIC STREET, UNION CITY
(APNs 475-100-39,40,41,42)
Location Map**





Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

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

Karen W. Murphy
Attorney

DATE: February 5, 2018

MEMO TO: Board of Directors - Union Sanitary District

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

SUBJECT: Agenda Item No. 8 - Meeting of February 12, 2018
Authorize the General Manager to Execute Task Order No. 2 with Brown and Caldwell for the Standby Power Generation System Upgrade Project

Recommendation

Staff recommends the Board authorize the General Manager to execute Task Order No. 2 with Brown and Caldwell in the amount of \$1,975,808 for the Standby Power Generation System Upgrade Project.

Background

The District's existing Alvarado Wastewater Treatment Plant (WWTP) standby power system consists of six diesel standby engine-generators installed during the 1978, 1985, and 1993 Plant Expansion or Upgrade projects. Due to the construction or upgrade of various elements of the plant's electrical system, combined with the fact that the generators' individual control systems are from different eras, startup and synchronization problems have been encountered with the operation of the generators. Due to the age of the generators and the generator control and switchgear equipment, coupled with reliability concerns, a study was initiated to develop a long-term plan for the plant's standby power system.

Study

In April 2016, Beecher Engineering completed a study to evaluate the condition of the current standby generation system and recommend upgrades to the existing generator control systems.

Beecher concluded that the existing standby generator equipment, generator control systems, and electrical switchgear equipment are outdated, unreliable, and difficult to maintain due to the age and obsolescence of the equipment and systems. Beecher evaluated several alternatives for the replacement of the existing standby generator system and recommended an alternative with the following major elements:

- Replace the six existing standby generators with three new, larger units rated at two megawatts (MW) each.
- Install new standby switchgears to connect the new generators to the existing primary 12-kilovolt (kV) switchgear at the WWTP.
- Construct miscellaneous site and/or building improvements depending on where the new generators will be located.
- Replace the obsolete electrical distribution equipment located at the Odor Control Building and Substation No. 2 that control a number of processes such as the Centrifuge, Degritter, Headworks, and Gravity Belt Thickener Buildings.

Pre-design Services

On November 14, 2016, the Board authorized staff to execute an agreement and Task Order No. 1 in the amount of \$175,046 with Brown and Caldwell (BC) to provide pre-design services associated with the Project. The primary elements of the pre-design effort were to evaluate and select a site location for the new standby generator system, establish criteria for final design, and develop a preliminary construction sequencing plan. This work expanded on the recommendations from Beecher Engineering.

District staff and BC evaluated eleven alternatives that included different combinations of equipment and site considerations, and evaluated the construction sequence of the Project. A number of the alternatives require integrating the new standby generators into the existing generator control system during construction. One example is the option of installing one of the new generators into the existing building housing generators Nos. 7 and 8. These alternatives require the rental of expensive portable generators to take the place of existing standby generators as they are demolished and as the new generators are installed in their place. Due to the risk associated with altering the automatic start-up and synchronization of the existing standby generators during a PG&E power outage, staff and BC decided that it was important not to modify the existing standby generator control system and programming during construction of the project.

District staff and BC selected the alternative which includes three new 12-kV standby generators housed in a new pre-fabricated building located adjacent to the northern WWTP fence line west of the Veasy Street cul-de-sac (See Figure 1). This alternative also includes a new dual-feed

switchgear located at Substation No. 2 to replace the existing, old and unreliable switchgears at Substation No. 2 and the Odor Control Building. The existing equipment has reached the end of its useful life and is included in the CIP budget for replacement.

The advantages of the selected alternative include the following:

- Space in the new Standby Power Building for a fourth future standby generator to help support future nutrient removal facilities and other new processes.
- Space in the new Standby Power Building for future replacement of the existing primary 12kV switchgear, currently located in the Main Electrical Building.
- Space for future battery system.
- Ease of sequence of work during construction.
- No modification of the existing standby generator system until the new standby generator system is commissioned and operational.
- The new engines will include the latest emissions technology and will thus, be easier to permit.
- Operational and maintenance space will be provided around the new standby generators

The Task Order scope also includes exploring changes to the cogeneration system controls to allow the cogeneration system to operate in parallel with the new standby generators during a PG&E power outage. The existing cogeneration system was not considered as part of the standby power system due to technical complications. Currently, the cogeneration system will only synchronize to the WWTP's primary 12kV switchgear when PG&E power is available, per a PG&E requirement and per design. However, if the changes are implemented, during a PG&E power outage, staff will be able to manually start up the cogeneration system after the emergency generators are online. This will allow staff to shut down all but one new standby generator and utilize the cogeneration system to minimize the use of diesel fuel during a prolonged PG&E power outage. Another reason for not considering the cogeneration system as a standby generator is that cogeneration systems are extremely complex with respect to controls and ancillary equipment and are prone to unexpected shutdowns should any one of several abnormal system conditions suddenly occur.

Project Scope

Staff and BC identified the following major scope items to be included in the Project's final design:

- Three 12kV-rated, 2-MW standby generators, and necessary appurtenances located at the north end of the WWTP west of the Veasy Street cul-de-sac.

- A pre-fabricated metal building sized to house four 12kV-rated standby generators, standby power distribution and paralleling switchgear, sized to accommodate the future replacement of the WWTP’s primary 12kV switchgear, generator control panels, motor control center/power panels, programmable logic controllers (PLCs), and other appurtenances.
- Exterior pad-mounted equipment such as 12kV/480V transformers, diesel fuel aboveground storage tank, and generator load banks, and a location for a future battery system.
- A new double-ended switchgear located adjacent to the existing Substation No. 2 to replace the Substation No. 2 and Odor Control Building switchgears. At the Odor Control Building, the two existing motor control centers will be replaced with one new center.
- New 12kV electrical duct banks.
- Demolition of existing equipment and structures such as existing Generators 2 through 8, generator control panels and switchgears, and PLC panels.

Staff had originally budgeted the replacement of the switchgears at Substation No. 2 and the Odor Control Building and the two motor control centers at the Odor Control Building as separate projects within the next five years in the CIP budget. Combining the switchgear and motor control center replacements with the Project makes sense so that the District can take advantage of the economy of scale of a larger project and the design and construction efficiencies that come from the similarities in the scope of work, and to minimize disruption to the WWTP and operations.

Task Order No. 2 – Final Design Services

BC’s Task Order No. 2 fee for the final design phase of the Project is summarized below:

Task No.	Task Description	Fee
1	Project Management	\$82,914
2	Data Acquisition	\$275,020
3	Permitting	\$74,112
4	Equipment Pre-Selection	\$105,675
5	PG&E Coordination	\$29,188
6	Preparation of Design Documents	\$1,385,616
7	Bid Period Services	\$23,283
	Total Not-to-Exceed Fee	\$1,975,808

In addition to the preparation of the design documents, BC will perform the following subtasks:

1. Conduct a geotechnical investigation of the Project site, which will include a drilling contractor to collect soil samples.
2. Conduct an aerial topographic mapping survey, supplemental ground surveying, and potholing of existing underground utilities.
3. Conduct an acoustical evaluation to meet current City noise ordinances.
4. Conduct a hazardous materials field survey to ensure the proper demolition and disposal of materials on the Project.
5. Develop a plant power model and prepare a short circuit study to determine the rating of new equipment.
6. Assist the District in filing for a negative declaration under the California Environmental Quality Act requirements.
7. Prepare the application to the Bay Area Air Quality Management District for the air permits required to construct the Project and to operate the new equipment.
8. Prepare a Request for Proposal package for the pre-selection of the new standby generators and switchgears during the design phase, review and approve the shop drawing submittals of the selected equipment prior to bid.
9. Coordinate the standby generator system paralleling switchgear to operate the cogeneration system while the WWTP is operating on standby power during a prolonged PG&E power outage.
10. Coordinate with PG&E on the connection of the new standby generators to the WWTP's primary 12kV switchgear and adjust the design as necessary.

BC's initial proposal for design services was \$2,026,026. Staff was able to negotiate and reduce the design fee to \$1,975,808, or 8.7% of the preliminary construction cost estimate of \$22.6 million. The fee percentage is not unusual for projects that include extensive subtasks such as the PG&E utility coordination efforts, geotechnical investigation, environmental assessment, permitting, site surveying, and the equipment pre-selection process outlined above.

The total design fee for the Project is in line with recent or current projects with similar scope and fee. For example, the Cogeneration Project that was constructed in 2014 had a 12% design-to-construction estimate rate. The design fee on the Primary Digester No. 7 Project that is currently in design has a 11.4% design-to-construction estimate rate. Both projects required significant permitting, utility coordination, and field investigation efforts during the design phase. Due to the complexity of the Project and the extensive subtask scope outlined above, staff believes the design and total not-to-exceed fees to be reasonable.

The total fee for the Project's agreement with BC is summarized in the table below:

Description	Fee
Task Order No. 1 – Pre-design report and site selection	\$175,064
Task Order No. 2 – Final Design	\$1,975,808
Total for this Agreement	\$2,150,872

Staff anticipates BC will complete the design of the Project by December 2018. Staff anticipates the Project will be bid by February 2019 with construction to begin by spring 2019.

Staff recommends the Board authorize the General Manager to execute Task Order No. 2 with Brown and Caldwell in the amount of \$1,975,808 for the Standby Power Generation System Upgrade Project.

PRE/SEG/RC/KC;dl

Attachments: Figure 1 – Site Plan
Figures 2 through 17 -Existing Equipment
Figures 18 and 19 – Site of the New Standby Power Building
Task Order No. 2



Figure 1: Standby Power System Upgrade
Project Site Plan

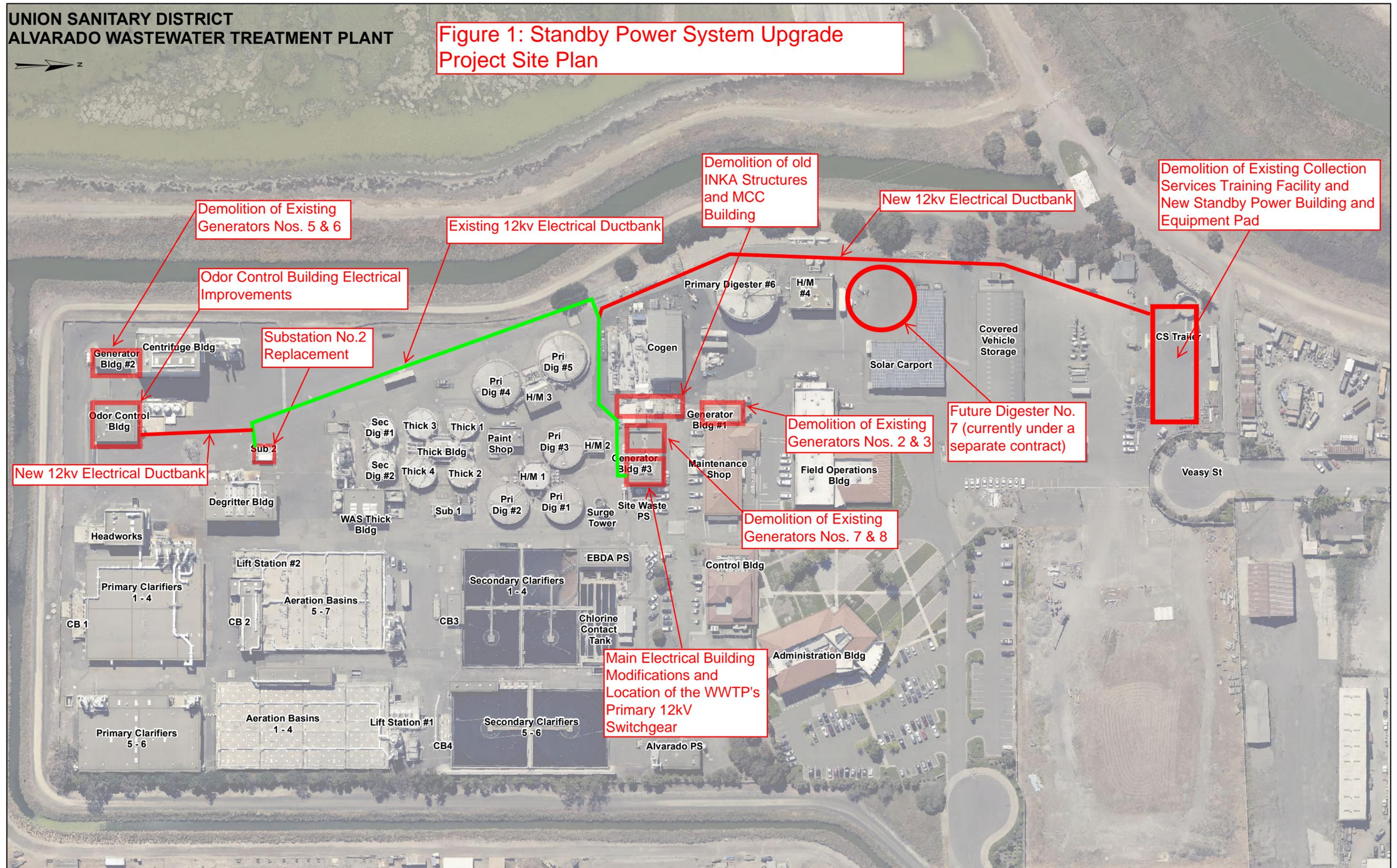




Figure 2: Generator No. 2



Figure 3: Generator No. 3



Figure 4: Generator Nos. 2 & 3 Control Panels



Figure 5: Generator No. 5



Figure 6: Generator No. 6



Figure 7: Generator Nos. 5 & 6 Control Panels



Generator No. 8

Generator No. 7

Figure 8: Generator Nos. 7 & 8

Figure 9: Generator Nos. 7 & 8 Control Panels





Figure 10: Substation No. 2



Figure 11: Substation No. 2 (Interior view of Switchboard)



SWBD602101

A

B

DANGER
480 VOLTS

DANGER
480 VOLTS

MAIN BEACH
"C" BUSS

MCC 15

DANGER
HIGH VOLTAGE

Figure 12: Odor Control Building Switchboard



Westinghouse
Power Corp.
MCC-19
Control
Center

MCC-19

A

MCC602101

B

C

DANGER
HIGH
VOLTAGE

WARNING

DANGER
480 VOLTS

Figure 13: MCC-19 at Odor Control Building



Figure 14: MCC-20 at Odor Control Building

12kv Primary Switch
(cannot be operated)

"Bowed" Overhead Electrical
Raceway (likely due to
differential soil settlement)

Transformer

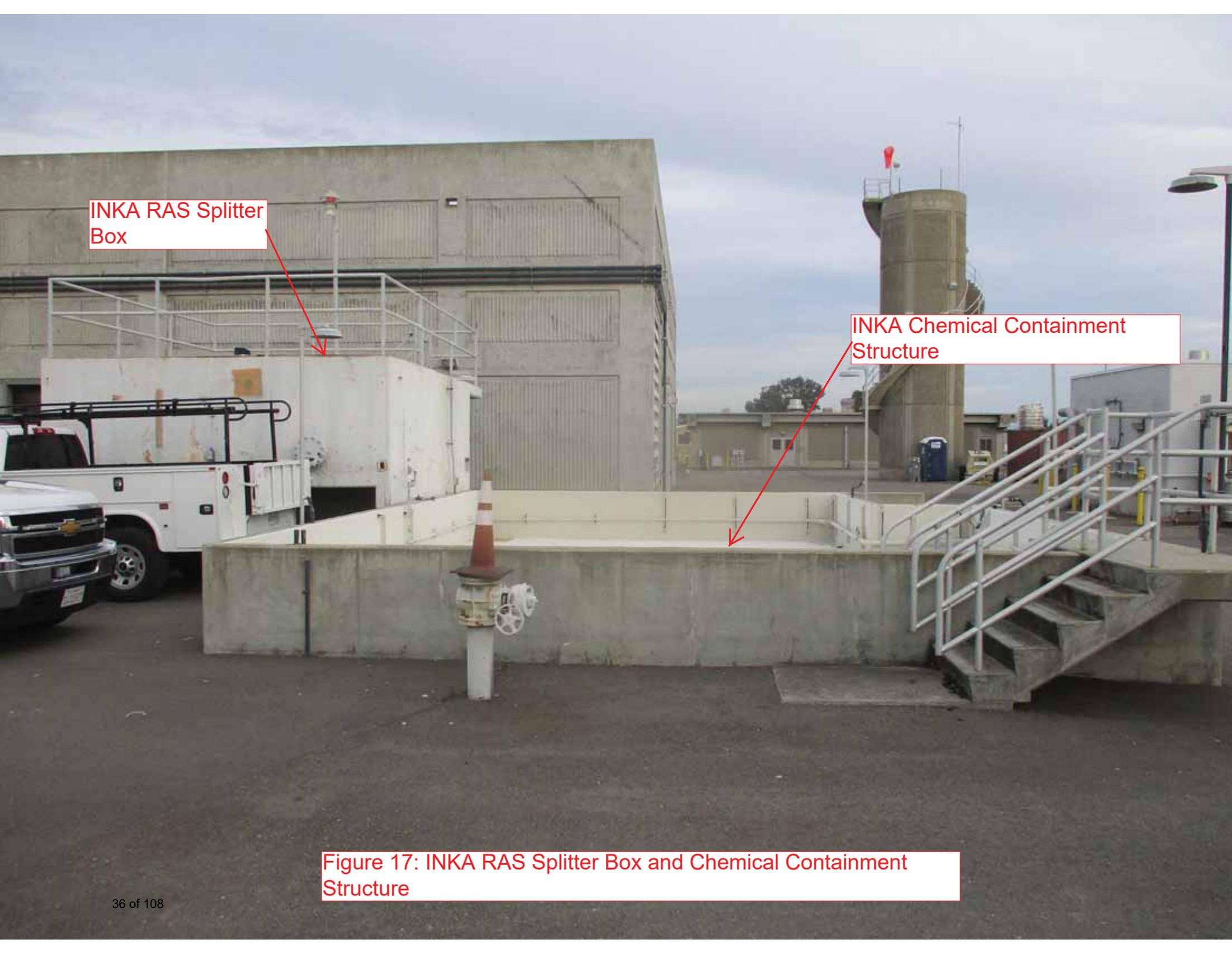
Figure 15: Transformer and 12kv Switch at
Odor Control Building





INKA MCC Building

Figure 16: INKA MCC Building



INKA RAS Splitter
Box

INKA Chemical Containment
Structure

Figure 17: INKA RAS Splitter Box and Chemical Containment Structure



Figure 18: Collection Services Training Facility Site



New Standby Power Building (Similar to Cogeneration Building)

New Diesel Tank on Equipment Pad

Figure 19: Concept Photo of New Standby Power Building at Collection Services Training Facility Site

Standby Power Generation System Upgrade Project

Task Order No. 2 to

Agreement between Union Sanitary District and Brown and Caldwell for Professional Services Dated November 15, 2016

Purpose

The purpose of Task Order No 2 is for the final design development of the Standby Power Generation System Upgrade Project including bid support services. The scope of services aligns with the cost proposal presented in Exhibit B and the final design schedule presented in Exhibit C. The major goal of this Final Design effort is to complete a set of final drawings and specifications for bidding purposes and to provide an updated construction cost estimate. 50, 90, and 100 percent drawings and specifications, including bid ready documents, will be submitted to Union Sanitary District (District).

Additionally, this task will include an equipment pre-selection process for the standby generators and paralleling switchgear. This work will build on and expand on the previous work completed as part of the December 2017 Final Standby Power Generation System Upgrade Predesign Report completed by Brown and Caldwell and Beecher Engineering. Additional subconsultants such as geotechnical, surveying, potholing, hazardous material (asbestos and lead), acoustics, survey, and environmental support are included as part of this effort.

Project Coordination

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

Scope of Services

The Engineer shall perform the design of the project elements based on Alternative 11 from the February 2018 Final Standby Power Generation System Upgrade Predesign Report completed by the Engineer. Design development will include preparation of biddable construction drawings and specifications, progress submittals, Engineer's in-house quality checking, construction cost estimates, and a preliminary construction schedule. The design development and bid documents shall follow the applicable standards from the District's "Capital Improvement Projects Design Standards" dated June 2013.

The key project elements are as follows:

- Three each 12kV rated 2 megawatt (MW) standby generators and necessary appurtenances located at the north end of the Plant west of the Veasy Street cul-de-sac.
- A pre-fabricated metal building sized to house four 12kv rated standby generators, standby power distribution and paralleling switchgear, location for the future replacement of the MVSA 12kV switchgear, generator control panels, motor control center (MCC)/power panels, programmable logic controllers (PLCs), and other appurtenances that need to be located insider the building.
- Exterior pad-mounted equipment such as 12kV/480V transformers, generator load banks, and future 1000kW/2000 kWh battery system.
- A new waste oil tank or provisions to connect to the existing underground waste oil tank west of the FMC Building.

- Aboveground diesel tank and appurtenances.
- A new double-ended switchgear located adjacent to the existing Substation No. 2 to replace the Substation No. 2 and Odor Control Building switchgears.
- Demolition of existing equipment and structures such as existing Generators 2 through 8, generator control panels and switchgears, PLC/RBC (PLCs 22, 23, 24, and 25 and RBCs 2, 3, and 24) panels, INKA MCC Building, INKA RAS/WAS Splitter Box, electrical manhole next to INKA MCC Building, chemical tank containment structure, Substation No. 2, Odor Control Building switchgear and MCCs, and Collection Services' training facilities.
- Replacement of existing RBCs 2,3 and 24 with a new PLC control panel with remote I/O and connection to the plant SCADA network. All other existing (non standby power system controls) control circuits will be accounted for in the final design.
- Existing circuits routed through electrical manhole next to INKA MCC Building will be rerouted.
- Installation of electrical and instrumentation equipment at the new Standby Power Generation Building for interfacing with existing electrical systems, controls, and PLC control panel connected to the plant SCADA network.
- Installation of a new power feeder to MCC No. 30 located in the Cogeneration Building from Switchboard No. 3 or another 480V power source (to be investigated during final design).

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

Task 1: Project Management

The Engineer shall manage the coordination and oversight of the Engineer's staff, sub consultants, and administration of the contract, including project management plan development, project resources oversight, quality, costs, deliverables and schedule, periodic status calls, monthly progress reporting, invoicing, and coordinating communications between the Engineer's staff and the District.

The Engineer shall provide quality assurance/quality control (QA/QC) in conformance with the approved Quality Plan contained in the Engineer's project management plan.

Assumption:

- The final design phase of the project will last thirteen months from Notice to Proceed (NTP), including bid period services.

Subtask 1.1: Kickoff Meeting and Controls Workshop

The Engineer shall conduct a project kickoff meeting within two weeks of the NTP. The Engineer shall develop and distribute an agenda and presentation before the start of the meeting. The presentation will provide an overview of the Pre-Design report. Engineer shall also provide a summary of the meeting results, decisions, and action items. Four members of the Engineer's project team shall attend the kickoff meeting located at the District's Office. The kickoff meeting will last two hours and then be followed by a one-hour workshop to discuss the District's desire for controls involving the new standby power system, utility power, and cogeneration power. The controls workshop is necessary to help build the criteria needed for the standby power system paralleling switchgear and coordination with Western Energy Systems (Cogeneration System Supplier).

Deliverables:

- Monthly Invoices
- Kickoff Meeting Agenda and Minutes
- Controls Workshop Agenda and Meeting Minutes

Task 2: Data Acquisition

This task requires field investigation, data gathering and analysis to help establish the design criteria for this project. The Engineer shall perform the following subtasks:

- Subtask 2.1 – Geotechnical Report
- Subtask 2.2 – Survey Data
- Subtask 2.3 – Acoustical Requirements
- Subtask 2.4 – Hazardous Materials Analysis
- Subtask 2.5 – Power System Studies
- Subtask 2.6 – Western Energy Coordination
- Subtask 2.7 – Site Investigations

Subtask 2.1: Geotechnical Report

The Engineer shall perform geotechnical investigation and report preparation for the site surrounding the area where the new Standby Power Building will be located. Site explorations, investigations, lab analyses, and report shall be in compliance with the 2016 California Building Code and ASCE 7-10. All necessary permits will be acquired by the Engineer prior to drilling activities.

Engineer shall complete geotechnical engineering analysis for the proposed building and equipment pad(s) foundations and associated improvements, including analysis of building/pad settlement, site liquefaction hazard, development of site seismic design parameters, groundwater dewatering, shoring design criteria, and backfill requirements.

In addition, the Engineer shall also perform environmental sampling of the project area by collecting three discrete grab samples for chemical analyses of the upper 5 feet of the boring. Chemical testing for total lead will be conducted by a State-certified laboratory. Laboratory testing of hydrocarbons will include TPH-g, TPH-d, TPH-mo, BTEX, pH, and ignitability. Testing shall include total threshold limit concentration (TTLC) and soluble threshold limit concentration (STLC) tests as necessary to classify soil for disposal purposes.

Deliverables:

- Draft report to the District for review and comment.
- Final report incorporating the District's review comments.

Assumptions:

- Three borings at a depth of 45 – 50 feet will be performed at the site location to confirm the required soil characteristics and seismic design parameters. Boring locations will be backfilled in accordance with the Alameda County Water District's (ACWD's) requirements.
- The Engineer shall be responsible for coordination with ACWD in advance of fieldwork to get any necessary approvals prior to drilling.
- A draft report will be provided to the Engineer for review with comments incorporated into the Final Report.

Subtask 2.2: Survey Data

The Engineer shall provide professional land surveyor services, including the preparation of detailed survey of work areas for the project. The survey results will be used to prepare site mapping drawings, using vertical datum and horizontal control coordinate systems that correspond to the most recent coordinate systems approved by the District, to support description of the project work in the contract drawings. The following tasks will be provided:

Task 2.2.1: Aerial Topographic Mapping

The Engineer shall develop aerial control panels which will be set at locations and frequency adequate to meet National Mapping Accuracy Standards of 1" = 20' horizontal scale mapping, with one-foot contour intervals. Aerial topography mapping will be prepared at the stated mapping scale and contour interval showing all visible surface features, contours, and spot elevations within the mapping limits. A color aerial photo background image, flown and provided by the Engineer will be prepared covering the project area. The imagery will be adjusted using ortho correction within the mapping limits, and simple rectification within the ground control limits. The aerial mapping planimetrics will depict information visible in the photography such as: curb and sidewalk lines, edge of pavement lines, adjacent building/structure outlines, utility valve boxes, utility vaults, manholes, overhead power poles, posts, existing access road striping, trees, vegetation, and landscaped areas. The project aerial mapping limits will be an area 500 feet by 1000 feet on the north side of the Plant in the vicinity of the new building.

Task 2.2.2: Design Support Ground Surveys

The Engineer shall conduct ground surveys to supplement the aerial topographic mapping prepared in the above task. Ground-based surveys will use conventional and/or GPS surveying techniques to establish located surface evidence of utilities and confirm elevations of critical facilities and features in support of this project. Pothole and geotechnical boring locations completed as part of this project will be surveyed in this task.

Task 2.2.3: Potholing

The Engineer shall conduct a total of 25 potholes which will be completed to identify the location and depth of existing utilities. An air/vacuum extraction method will be used. Permits to complete the potholing will be obtained by the Engineer. It is expected that no permits are needed; If any are needed, the cost of the permits will be paid by the District. The potholes will be backfilled with Class 2 AB and where required, asphalt will be resurfaced with cold mix asphalt. A PK nail with high visibility whiskers will be placed on the location of the utilities. Excavated material will be removed and disposed from the project site.

Deliverables:

- Utility locations identified during potholing will be incorporated into the site plan design drawings identifying approximate locations and elevations of underground utilities.
- A summary table showing location and/or size of the underground utilities observed during the potholing process.

Assumptions:

- Potholing includes removal and disposal of soil.
- Engineer's pothole contractor shall obtain water for pothole activities from a potable water hydrant located outside of the plant and shall acquire a hydrant meter from the Alameda County Water District.
- Provide traffic control including delineators, barricades with lights, caution tape, trench plates, and other means as necessary to direct plant traffic safely around the pothole locations.
- Backfill all pothole locations at the end of each day or provide trench plates to safely protect the open pothole locations to allow plant vehicular traffic to traverse the site.
- Engineer's pothole contractor shall follow all applicable District safety policies and procedures when working on site.
- District will provide an area for the Engineer's pothole contractor to park their equipment overnight. During a normal work day, the contractor's personnel must park their personal vehicles in the District's overflow parking lot located outside the plant.

-
- Utilities responding to Underground Service Alert tickets will only mark their utilities up to their meter(s) and backflow preventers. The underground utilities downstream of said meter(s) and backflow preventers are owned and managed by the District. The District offers no such guarantee on the accuracy of its utility markings within the plant.

Subtask 2.3: Acoustical Requirements

Engineer shall conduct an analysis to address two acoustical concerns: equipment noise transmission to the neighboring properties and from interior equipment areas to adjacent occupied rooms.

Engineer shall update the noise survey previously completed for the Cogeneration Project with short-term spot measurements at the same long-term measurement locations to confirm that current noise levels are similar. Engineer shall make one site visit to complete these measurements.

Engineer shall perform the following tasks:

- Analyze the ambient noise data and develop acoustical criteria for the project in accordance with the City Noise Ordinance.
- Review the acoustical performance data for noise-generating equipment (i.e., standby generators and other mechanical equipment associated with the project).
- Conduct preliminary calculations of expected equipment noise levels at the property line and nearest noise sensitive receptor.
- Develop recommendations to reduce equipment noise to meet the project criteria.
- Provide recommendations to reduce noise transfer within the building from the equipment area to occupied areas.

Deliverables:

- Draft and Final Technical Memoranda

Subtask 2.4: Hazardous Materials Analysis

The project design documents will require identification of existing locations of asbestos, lead paint, and Polychlorinated Biphenyls (PCBs) in the existing facilities that can impact the safe demolition and construction activities. This investigation and report will be prepared by the Engineer's subconsultant. The results of such investigations will be integrated into the contract documents for reference, along with specified procedures for managing the existence, safe removal, and/or disposal of such materials.

The asbestos bulk sampling will be performed by a Certified Asbestos Consultant or by a Certified Site Surveillance Technician under the direction of a Certified Asbestos Consultant. The Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA) bulk sampling protocol will be followed. Up to 30 bulk material samples of interior and exterior building materials will be collected per area. Wherever feasible, a minimum of two samples of each homogenous material will be collected.

A California-licensed lead professional will collect samples of suspect lead-containing materials, which may include painted materials. Up to 10 bulk samples of paint and/or painted materials of interior building materials. Lead testing is intended to provide information for worker protection during the demolition and construction activities. It is not intended to be a HUD-type, comprehensive inspection.

Light ballasts for PCBs and mercury switches will be identified. Transformer fluid samples for PCB analysis will be collected.

Asbestos bulk samples will be analyzed by polarized light microscopy (PLM) using EPA Method 600/R-93-116, Visual Area Estimation.

Lead samples will be analyzed for total lead by Flame Atomic Absorption Spectrometry (Flame AAS).

A detailed summary of findings will be provided. The final report will include:

1. Introduction and summary
2. Table of materials and analytical results
3. EPA category of identified or assumed Asbestos-Containing Materials (ACM)
4. Quantities of ACM
5. Summary of lead sampling results
6. Conclusions and recommendations
7. Laboratory analytical reports
8. Sample data sheets and chain-of-custody forms
9. Diagrams of sample locations

Deliverable:

- Draft and Final Technical Memoranda

Assumptions:

- Areas that may contain suspect materials but are inaccessible or unsafe to inspect will be noted in the report.
- Collecting bulk samples is destructive. Sample locations will not be patched or repaired.
- Work does not include the outside services of electricians for de-energizing equipment (lock out/tag out) to provide access for sampling transformer fluid. However, the party collecting the transformer oil sample(s) shall comply with the District's Treatment Plant & Pump Station Lockout/Tagout for Contractors to participate in the lockout and tagout process with District's staff and to verify the equipment is de-energized.

Subtask 2.5: Power System Studies

The Engineer shall conduct plant power modeling and short circuit studies (for various operating scenarios) to assist with determining rating of equipment. Once the new protection equipment is selected (under Task 4) the coordination and arc flash studies will be performed. The coordination study's recommended settings will be sent to Pacific Gas and Electric (PG&E) for review along with the PG&E DG-5 form.

Assumptions:

- SKM Power Tools software, licensed by Engineer, will be used for modeling and studies
- Updated plant wide power study (current equipment and settings) will be provided to the Engineer.
- Final report will be provided to the Contractor for implementation of breaker trip settings based on the coordination study provided in the report.

Subtask 2.6: Western Energy Coordination

The Engineer shall coordinate the requirement for parallel operation of the existing cogeneration units with the new standby power generation system and require the Engineer to coordinate with Western Energy Systems. It is expected that phone calls and meetings will take place to coordinate the integration of these two systems and the specification language needed for implementation during construction will be provided by the Engineer.

Assumption:

- The District will provide Western Energy Systems' contact information to the Engineer and cogeneration system submittal information regarding communications and control.

Subtask 2.7: Site Investigations

The Engineer shall conduct a field investigation to identify critical and non-critical loads for the standby power generation system and the feeds that need to be reconnected. Engineer shall also identify general demolition requirements as part of this subtask for large equipment only and not include associated components such as conduits, cables, and required modification work to existing equipment.

Assumptions:

- The District staff familiar with the existing electrical and standby power generation systems will accompany the Engineer and provide assistance during the field investigation.
- It is assumed that 10 days (travel time included) will be necessary for field investigation.

Task 3: Permitting

Subtask 3.1: Air Permitting

The Engineer shall collect necessary data and prepare the air permit application for an authority to construct/permit to operate in accordance with the Bay Area Air Quality Management District's (BAAQMD) rules and regulations. The Engineer shall develop emission estimates for use in permitting. The Engineer shall prepare a permit application package for submittal to the BAAQMD. The application will include the following information:

- Introduction
- Process Description
- Emission Estimates
- Best Available Control Technology (BACT) Analysis
- Regulatory Compliance
- BAAQMD Forms
- Manufacturer Equipment Specifications

The Engineer shall prepare a draft air permit application to the District for review. Following review, the application package will be finalized within two (2) weeks of receipt of all comments, District signatures obtained, and the package submitted by the Engineer to the BAAQMD. Following submittal of the final application, the Engineer shall support the application through discussions with the BAAQMD and submit additional information as requested.

Deliverables:

- Draft air permit application for review by the District
- Final application to BAAQMD

Assumptions:

- The District will be responsible for signing the application as the responsible official and for paying the permit fees directly.
- The District will be responsible for the cost of the source test firm that performs independent tests.
- The District will be responsible for the cost of offsets if required.
- No monitoring or sampling of any kind is included.
- No health risk assessment is included.
- No air dispersion modeling is included.
- A continuous emission monitoring system will not be required.
- No in-person meetings with the BAAQMD are planned.

-
- Application support after submittal is dependent upon BAAQMD actions. Therefore, this proposal budget limits support to 30 hours.

Subtask 3.2: Environmental Compliance

The Engineer shall complete an Initial Study/Negative Declaration (IS/ND) pursuant to the California Environmental Quality Act (CEQA). Tasks required will include review of existing documents and a site visit to verify project work location. Environmental assessment will include aesthetics, air quality, biology, cultural resources, geotechnical and noise. All information including District comments will be gathered and compiled into the IS for submission to the appropriate agency. Agency review comments will be received and incorporated into documentation as required by CEQA.

Assumptions:

- The Engineer shall provide local distribution of IS/ND report.
- The District will be responsible for meeting noticing requirements.
- Thirty copies of the IS/ND will be provided.
- The District will pay the required fees.

Task 4: Equipment Pre-Selection

The Engineer shall coordinate and package the 90 percent design drawings and specifications related to the standby power system (generators, paralleling switchgear, and controls) for delivery to up to three vendors who will then provide a quote and scope of work of their packaged system to the District for review. Upon District selection of the equipment vendor, the District will provide a purchase order to begin the submittal development process immediately. The pre-purchased submittal drawings, once approved, will be used for implementation into the final design package under Task 6. This task effort will also include review of the vendor's submittal information for review by the Engineer and the District with comments returned to the vendor for incorporation. The selected standby power system vendor will be assigned to the installing Contractor. The Contractor will be required to include the selected equipment vendor's package in his bid, not including the pre-purchased submittal documents.

Deliverable:

- 90 Percent Standby Power System Package Documentation

Assumptions:

- Number of Drawings expected in the pre-selection package is approximately thirty (30).
- Front end and technical specifications will be approximately sixteen (16) sections.
- Engineer shall provide QC and review of the pre-selection documentation.
- Engineer shall provide approved vendor submittal documents to PG&E along with other pertinent documents.
- Three vendors will be considered for selection
- Workshop not required for this task

Task 5: PG&E Coordination

This task will provide the effort required to obtain and gather the information required of PG&E for their review and comment of the new standby power generation system. Applicant forms required by PG&E will be completed and submitted along with 90 percent design documents. Time required for conference calls and meetings with PG&E including incorporation of PG&E review comments will be provided. The Engineer shall

provide one (1) electrical engineer with option of one (1) District representative to attend the PG&E meetings.

Deliverables:

- PG&E completed application forms and approved application from PG&E.
- PG&E required drawings and specifications package (included with application).

Assumptions:

- PG&E meetings are offsite.
- Application fees required by PG&E will be paid by the District.

Task 6: Preparation of Design Documents

Subtask 6.1: 50 Percent Design Documents

Engineer shall prepare and submit 50 percent design drawings, specifications, and cost estimate for District's review. Engineer shall incorporate District's review comments into the 90 percent design submittal. This level of design will progress from the predesign stage and include plan drawings, diagrams, standard details and draft specifications. Disciplines involved at this level will include electrical, instrumentation and control, mechanical, civil and structural. QC and cost estimating are also included at this design stage.

Refer to Exhibit A for a list of discipline design items included in the 50 percent design package.

Engineer shall update the opinion of probable cost estimate from the predesign report based on the 50 percent design submittal. A Class 3 per the Advancement of Cost Engineering International (ACE) criteria will be used for this cost estimate and be submitted to the District two weeks after submittal delivery.

Engineer shall provide internal review and cross coordination of the 50 percent drawings, specifications, and calculations. Review comments are made on the documents themselves then incorporated into the actual files prior to delivering the 50 percent submittal to the District.

Assumptions:

- Engineer shall consider the District's conceptual layout and future location of the new FMC Building when designing the layout and location of the new Standby Power Building and related equipment and facilities.
- Engineer shall consider the District's "Preliminary Study of the Effect of Sea Level Rise on District Infrastructure" prepared in 2013 in determining the elevation of the new Standby Power Building and associated equipment pad(s) and improvements.
- Engineer shall modify and incorporate District's Front-End Specifications (including General Conditions, Special Conditions, and applicable Division 1 specifications) with Engineer's Technical Specifications using Construction Specifications Institute Divisions 1-17 format and modified as necessary to suit project needs.
- A 50 percent design submittal workshop will be held at the District and will not exceed two hours. Three engineers including the project manager will attend the meeting. An agenda and meeting minutes will be provided
- District comments received on the submittal will be incorporated into the 90 percent submittal.
- It is assumed that one consolidated set of District comments will be provided on the submittal.

Subtask 6.2: 90 Percent Design Documents

Engineer shall prepare and submit 90 percent design drawings, specifications, and cost estimate for District's review. Engineer shall incorporate District's review comments into the 100 percent design

submittal. This level of design will progress from the 50 percent design level and include 50 percent design review comments. The 90 percent design will include plan drawings, diagrams, wiring schematics, standard details, control panel layouts, interconnection diagrams, schedules and completed specifications. At this stage of design, the single line diagrams and relay schematics will be ready for submission to PG&E for review. Disciplines involved at this level will include electrical, instrumentation and control, mechanical, civil, structural and architectural. QC and cost estimating are also included at this design stage including updates to the construction sequencing plan that was provided in the predesign report.

Refer to Exhibit A for a list of discipline design items included in the 90 percent design package.

Engineer shall update the opinion of probable cost estimate from the 50 percent design cost estimate based on the 90 percent design submittal. A Class 1 estimate per the AACE criteria will be used for this cost estimate and be submitted to the District two weeks after submittal delivery.

Engineer shall provide a preliminary construction sequencing diagram and preliminary construction schedule as part of the 90 percent design submittal to estimate overall construction duration and to identify the anticipated critical construction path(s).

Engineer shall review and cross coordinate the 90 percent drawings, specifications, and calculations. Review comments are made on the documents themselves then incorporated into the actual files prior to delivering the 90 percent submittal to the District.

Assumptions:

- A 90 percent design submittal workshop will be held at the District and will not exceed two hours. Three engineers including the project manager will attend the meeting. An agenda and meeting minutes will be provided.
- District comments received on the submittal will be incorporated into the 100 percent submittal.
- It is assumed that one consolidated set of District comments will be provided on the submittal.

Subtask 6.3: 100 percent Design

Engineer shall prepare and submit 100 percent design drawings, specifications, and cost estimate for District's review. This task provides the District with one more review of the complete drawing set and specifications before finalizing and preparing the documents for bidding purposes. The main purpose of this review is to verify that 90 percent review comments have been incorporated.

Assumptions:

- Workshop not included
- District review comments are limited to items regarding how Engineer addressed the District's 90 percent design review comments, formatting, text, and presentation. Changes to design or concepts are not expected.

Subtask 6.4: Bid Documents

District review comments from the 100 percent submittal to be incorporated. Documents to be formatted, sealed and signed for delivery to the District.

Assumption:

- The design development and bid documents shall follow the applicable standards from the District's "Capital Improvement Projects Design Standards" dated June 2013.

Task 7: Bid Period Services

Engineer shall provide assistance during the bidding period. This includes addendum items addressing questions by bidders, and all necessary information and materials necessary for the District to prepare addenda.

Subtask 7.1: Attend Pre-Bid Meeting

Engineer shall attend pre-bid meeting led by District staff. Engineer's role in the meeting will be to answer questions related to technical requirements of the contract where answers are known and present in the documents and accept any questions that may require further clarification through issuance of addenda.

Subtask 7.2: Prepare Addenda

Engineer shall prepare up to two addenda and respond formally to contractor's submitted questions.

Assumptions:

- Attendance at Pre-Bid Meeting includes one Engineer.
- Conformed documentation is not included in this task order and will be included in the Engineering Services during Construction task order.
- Written response to bidder questions will be provided through the District.
- Permitting (air and environmental), including PG&E, are completed prior to bid period.

Deliverables:

The Engineer shall submit all progress design submittals (50 percent, 90 percent, 100 percent) in PDF formats electronically and seven (7) spiral bound hard copy sets. Each submittal will include half-size drawings and specifications completed at each design stage, and each stage of the submittal will include progressively more information and details for the District to review and make written comments. In addition, the Engineer shall submit the following deliverables:

- Construction cost estimates at the 50, 90 and 100 percent submittal stages (2 weeks after each submittal delivery).
- Preliminary construction sequencing diagram with the 90 percent submittal.
- Preliminary construction schedule with the 90 percent submittal.
- One photo-ready set of electronically-signed Bid Documents (half-size drawings and specifications) for reproduction by the District.
- One electronic copy of electronically-signed Bid Documents (drawings in AutoCAD DWG format and specifications in MS WORD format). Design workshop agendas will be provided to the District at least one week prior to the workshop.
- Final meeting/workshop minutes including action items, agreements, and decisions will be provided in PDF format to the District one week after each meeting/workshop.

Digital Submittal Requirements

The Engineer shall submit one electronic copy of the final base map that shows the project area in accordance with the following:

Digital files submitted shall be based on accurate coordinate geometry calculations and the California State Plane Coordinate System, Zone III in feet, NAD83. The digital file submitted shall be in the District's current version of AutoCAD, ".dwg" or ".dxf" (digital exchange format) format and shall be in one (1) drawing file containing all layers, illustrating all existing and proposed improvements within the project area as well as any off-site work associated with the project. Descriptive information (i.e. text) may be included in the

appropriate layer or added as a separate layer. Submitted digital files shall be in accordance with these minimum requirements, or as otherwise approved by the District. Submit these digital files on a CD or via an FTP site.

Each submittal shall be labeled with the project name, project number, company name, address and phone number.

All drawings shall use the California State Plane Coordinate System – Zone 3 in units of feet. The horizontal datum shall be the North American Datum of 1983 (NAD83) in units of feet and the vertical datum shall be the North American Vertical Datum of 1988 (NAVD88) in units of feet, or other datum as authorized by the District.

All files shall be uncompressed. Compressed files are acceptable only when using the WinZip utility or if the appropriate software to uncompressed the data is provided.

All drawing files shall have a North orientation of vertical (i.e. toward the top of the page) unless a different North orientation is approved by the District.

Layer colors, line types and line weights shall be left to the discretion of the Engineer.

Submitted AutoCAD files shall NOT contain external reference or nested external reference files. All external references shall be bound into the drawing.

Equipment and Pipeline Schedules

The Engineer shall provide a schedule in the design plans that list the equipment to be demolished or replaced and new equipment to be installed in the Project. The schedule shall contain at a minimum the Hansen equipment number, equipment name, location, horsepower/size, and other pertinent information associated with the equipment.

The Engineer shall provide a schedule in the design plans that list the 6-inch minimum diameter underground pipelines to be demolished or replaced and new 6-inch minimum diameter underground pipelines to be installed in the Project. The schedule shall contain at a minimum the start and end points of the pipeline, diameter, length, material, schedule/thickness, coating, lining, type of joints, service, and test method/pressure.

Payment to the Engineer

Payment to the Engineer shall be as called for in Article 2 of the Agreement. The Multiplier for this work shall be 3.23, the profit shall be 13 percent, and the not-to-exceed amount shall be \$1,975,808. 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:

Task Order-/Amendment	Not-to-Exceed Amount	Board Authorization Required?	District Staff Approval
Task Order No. 1 – Preliminary Design Services	\$175,064	Yes	Paul Eldredge
Task Order No. 2 – Final Design Services	\$1,975,808	Yes	Paul Eldredge
Total	\$2,150,872		

Time of Completion

All work defined in this Task Order shall be complete in 401 calendar days after the execution of this Task Order and subject to the conditions of Article 3 of this Agreement. The final design phase schedule is included as Exhibit C. The anticipated milestone dates are as follows:

- Final-Design NTP – February 12, 2018
- Kickoff Meeting/Controls Workshop – Week of February 19, 2018
- Standby Power Distribution Pre-Selection Submittal – June 5, 2018
- 50 percent Design Submittal – April 24, 2018
- 50 percent Design Workshop – Week of May 8, 2018
- 90 percent Design Submittal – September 25, 2018
- Submit PG&E Review Package – October 11, 2018
- 90 percent Design Workshop – Week of October 8, 2018
- 100 percent Design Submittal – November 15, 2018
- Bid Documents – December 20, 2018
- Bidding Period – December 20 – February 13, 2019

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	Grace Chow
Project Manager	Donna Rammell
Project Engineer	Tim Banyai
Lead Electrical Engineer	Todd Beecher (Electrical Sub Consultant)
Electrical Engineer	Matthew Pagendarm
Instrument and Controls Engineer	Alex Aquino
Mechanical Engineer	David Greenfield
Structural Engineer	P.J. Bourdaniotis
Air Permitting	Don Trueblood

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 February ___, 2018 and therewith incorporate it as part of the Agreement.

District Engineer

Union Sanitary District

Brown and Caldwell

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

By: _____
Jeffrey R. Kivett
Vice President

Date: _____

Date: _____

Exhibit A

Subtask 6.1: 50 Percent Design

The following is a list of discipline design items to be included in the 50 percent design package:

Electrical Design

1. Standard Electrical details
2. Single line diagrams
3. Switchgear and Motor Control Center Elevations
4. Electrical site plan
5. Conceptual equipment layout.
6. Electrical demolition and modification plans
7. Power study
8. Draft specifications

Instrumentation and Control Design

1. SCADA Block Diagram
2. Network Communication Diagrams
3. Process and Instrumentation Diagrams
4. Standby Power System control narratives
5. Draft specifications

Mechanical Design

1. Standard mechanical, HVAC and plumbing details
2. Mechanical plan and major sections of generators and diesel fuel storage
3. Building HVAC and plumbing schematics
4. Mechanical demolition plans of existing generators and diesel fuel storage
5. Draft specifications
6. Calculations

Civil Design

1. Standard civil/site sheets and details
2. Site Plan
3. Construction staging location
4. Paving and grading plan
5. Storm water plans
6. Yard piping and duct routing (profiles will not be provided)
7. Draft specifications
8. Calculations

Structural Design

1. Structural General Notes, Special Inspections, and Typical Details.
2. Overall building layout and foundation layout for adjacent equipment.
3. Draft specifications.

Subtask 6.2: 90 Percent Design

The following is a list of discipline design items to be included in the 90 percent design package:

Electrical Design

1. 50 percent Review comments incorporated.
2. Standard Electrical details completed
3. Single line diagrams completed for submission to standby power system vendors and PG&E.
4. Switchgear and Motor Control Center elevations completed
5. Electrical site plan with duct bank routing and sections
6. Equipment plan layouts including power, grounding, control and lighting plans
7. Electrical demolition and modification plans updated
8. Motor control schematics
9. Protective relay and DC wiring schematics completed for submission to standby power system vendors and PG&E
10. Panelboard and lighting fixture schedules
11. Conduit and cable schedules
12. Completed specifications
13. Updated construction sequencing plan

Instrumentation and Control Design

1. 50 percent Review comments incorporated
2. SCADA Block Diagram completed
3. Communication Diagrams completed for submission to standby power system vendors
4. Process and Instrumentation Diagrams completed. Applicable diagrams will be submitted to standby power system vendors
5. Standby Power System control strategies completed for submission to standby power system vendors
6. I/O and Instrumentation lists
7. Standard instrumentation details completed
8. Completed specifications

Mechanical Design

1. 50 percent review comments incorporated
2. Standard mechanical details completed
3. Mechanical plan and sections of generators and diesel fuel storage
4. Fuel system schematic and piping layout
5. Mechanical details related to generators and diesel fuel storage including louvers, exhaust, silencer, etc.
6. Building HVAC and plumbing roof and floor plans and sections

-
7. Updated building HVAC and plumbing schematics
 8. Mechanical demolition plans and sections of existing generators and diesel fuel storage
 9. Detailed specifications, including completed standby power generator specifications completed for submission to vendors
 10. Final calculations

Civil Design

1. 50 percent review comments incorporated
2. Standard civil/site sheets and details completed
3. Site Plan including pothole information
4. Construction staging location
5. Paving and grading plan
6. Yard piping and duct routing plan and profiles
7. Civil/site specific details
8. Detailed specifications
9. Final calculations

Structural Design

1. 50 percent review comments incorporated
2. Structural General Notes, Special Inspections, and Typical Details – completed.
3. Building foundation plan and roof layout plan – completed.
4. Building sections and detailing – completed.
5. Equipment foundation plans – completed.
6. Completed specifications
7. Final calculations

Architectural Design

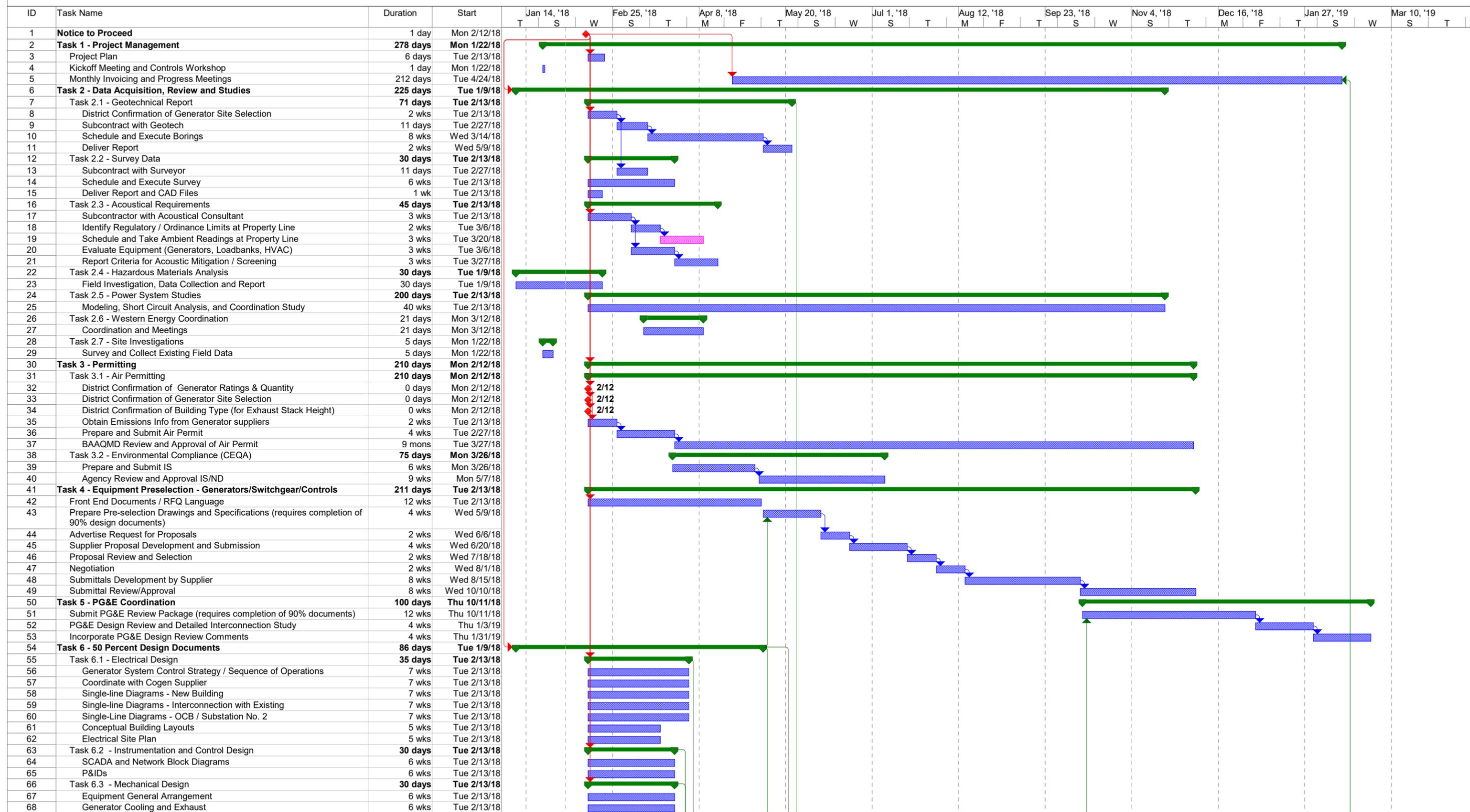
1. Architectural General Notes, Code Analysis, Schedules, and Typical Details – completed.
2. Architectural floor and roof plan – completed.
3. Architectural elevations – completed.
4. Architectural miscellaneous details – completed.
5. Completed specifications

**EXHIBIT B-COST PROPOSAL
STANDBY POWER GENERATION SYSTEM UPGRADE PROJECT**

Union Sanitary District (CA) -- Standby Power Gen Final Design																																					
Phase	Phase Description	Rammell, Donna L	Rouhani, Shouhreh	Banyal, Timothy R	Pagendam, Matthew R	Greenfield, David P	Edwards, LaSandra D	Bourdaniohis, Polhronis I	Crawford, David	Labba, Jay H	Trueblood, Donald C	Burke, Fred	Tanner, Deama L	Chow, Grace C	Merlo, Ron P	Green, Benjamin D	Lilly, Adam C	Aquino, Alexander V	Chief Engineer	Designer	Total Labor Hours	Total Labor Effort	APC	Cal Eng. & Geology	Paul Scheidegger	KSN	Subtronic Corp.	Forensic Analytical	Salter Associates	Beecher Engineering	Total Sub Cost	Total Expense Cost	Total Expense Effort	Total Effort			
		PM	PA	DM	EE	ME	EC	SE	ARCH	COST	AIR	CAD	WP	PO	MM	STAFF	CAD	STAFF	QC	CAD				Cost	Cost	Cost	Cost	Cost	Cost	Cost							
001	Project Management	\$269.14	\$108.78	\$286.21	\$225.32	\$176.23	\$168.05	\$195.01	\$248.07	\$167.54	\$241.42	\$172.71	\$112.27	\$317.14	\$288.63	\$93.24	\$117.57	\$186.47	\$262.62	\$107.78																	
		192	118	16	0	0	0	0	0	0	0	0	8	6	2	0	0	0	0	0	342	76,818	2,736	0	0	0	0	0	0	0	3,200	3,200	3,200	6,096	82,914		
002	Data Aquisition	10	0	22	16	0	12	4	2	0	0	12	0	0	0	0	0	0	0	0	78	19,036	624	52,000	0	40,000	35,000	50,000	15,000	51,200	243,200	243,200	255,984	275,020			
003	Permitting	2	0	8	4	0	0	0	0	0	132	0	16	0	0	0	0	0	0	0	162	39,636	1,296	0	30,000	0	0	0	0	1,600	31,600	31,600	34,476	74,112			
004	Equipment Pre-selection	16	0	24	62	70	0	4	0	0	0	80	28	0	0	28	16	16	76	0	420	87,615	3,360	0	0	0	0	0	0	14,000	14,000	14,000	18,060	105,675			
005	PG&E Coordination	4	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	3,052	96	0	0	0	0	0	0	24,800	24,800	24,800	26,136	29,188			
006	Preparation of Design Documents	168	0	188	932	668	350	252	90	214	0	1,238	100	16	5	668	330	164	230	212	5,825	1,101,717	1,210	0	0	0	0	0	0	226,000	226,000	226,000	283,900	1,385,616			
007	Bid Period Services	8	0	8	8	12	8	0	2	0	0	24	4	0	0	0	0	4	4	0	82	17,587	656	0	0	0	0	0	0	4,800	4,800	4,800	5,696	23,283			
GRAND TOTAL		400	118	266	1,030	750	370	260	94	214	132	1,354	156	22	7	696	346	184	310	212	6,921	1,345,460	9,978	52,000	30,000	40,000	35,000	50,000	15,000	325,600	547,600	547,600	630,348	1,975,808			

Hours and Dollars are rounded to nearest whole number. To display decimals, change the format of the cells.

Exhibit C Union Sanitary District Standby Power Generation System Upgrade Project





Directors

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: February 5, 2018

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Regina McEvoy, Executive Assistant to the General Manager/Board Clerk
Michelle Powell, Communications and Intergovernmental Relations Coordinator

SUBJECT: Agenda Item No. 9 - Meeting of February 12, 2018
Review Centennial Open House Proposed Invitation and Provide Direction

Recommendation

Staff recommends the Board review a proposed formal invitation to the District's Centennial Open House Event in May 2018 to be sent to elected and appointed officials and provide direction as necessary.

Background

The Board directed staff to plan an Open House in celebration of the District's centennial anniversary in 2018. Per direction received at the regular Board meeting held January 23, 2017, the event has been scheduled for 10:00 a.m. – 2:00 p.m. on Saturday, May 19, 2018. An internal Open House planning committee, comprised of representatives from each workgroup, has been meeting regularly to prepare for the event.

Proposed Invitation:

Staff is recommending a formal invitation to the Centennial Open House event be signed by USD's Board President and sent to elected and appointed officials. Staff recommend this formal invitation be sent to the following recipients:

- Mayors and City Councils in the District's service area

- Alameda County Water District Board
- County, State, and Federal Representatives
- EBDA Commission
- EBDA Agency Boards and Councils
- Tri-City School Boards and Junior College Boards

Staff is planning on inviting additional community organizations, stakeholders, consultants, vendors, and other individuals separately.

Attachment: Proposed Invitation



Directors

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

Elected Official Title and Name

City of XXX

Street

Suite ###

City, State, Zip Code

Dear XXXX,

You are cordially invited to join Union Sanitary District at our Centennial Open House event from 10:00 a.m. to 2:00 p.m. on Saturday, May 19, 2018, as we proudly celebrate 100 years of service to Fremont, Newark, and Union City.

The District's Open House will be open to the public. The event will feature plant tours, interactive displays and activities, demonstrations, and opportunities to chat with our highly-trained staff members about the award-winning work they do to protect public health and the environment.

This is a very special birthday for Union Sanitary District, and we would be honored to have you join us at our Centennial celebration.

Sincerely,

Pat Kite
Board President



Directors

Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers

Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: February 5, 2018

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Laurie Brenner, Business Services Coach

SUBJECT: Agenda Item No. 10 - Meeting of February 12, 2018
Information Item: **Board Expenses for the 2nd Quarter of Fiscal Year 2018**

Recommendation

Information only.

Background

Please see attached the Board of Directors Quarterly Travel and Training Expenditure Report for the 2nd quarter of Fiscal Year 2018.

BOARD OF DIRECTORS
QUARTERLY TRAVEL AND TRAINING EXPENDITURE REPORT
2ND QTR, FISCAL YEAR 2018

Board Members	Description	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Beginning Balance	Y-T-D Expense	Balance Available
FERNANDEZ, MANNY								
	TOTAL	0.00	0.00	0.00	0.00	5000.00	0.00	5000.00
HANDLEY, TOM								
	Registration Fee - Annual CASA Conference - San Diego, August 22-24, 2017	550.00						
	Airfare - Annual CASA Conference	149.96						
	Lodging - Annual CASA Conference	654.30						
	Mileage - Annual CASA Conference	21.03						
	Meals - Annual CASA Conference	29.18						
	Airport Parking - Annual CASA Conference	45.83						
	Rental Car - Annual CASA Conference	109.02						
	Union City State of the City Luncheon		30.00					
	TOTAL	1,559.32	30.00	0.00	0.00	5000.00	1,589.32	3410.68
HARRISON, JENNIFER								
	TOTAL	0.00	0.00	0.00	0.00	5000.00	0.00	5000.00
KITE, PAT								
	Lorman All Access Education Pass		537.01					
	TOTAL	0.00	537.01	0.00	0.00	5000.00	537.01	4462.99
LATHI, ANJALI								
	Union City Chamber of Commerce Spirit Awards Luncheon	45.00						
	Lorman All Access Education Pass		537.01					
	TOTAL	45.00	537.01	0.00	0.00	5000.00	582.01	4417.99
	GRAND TOTAL	1,604.32	1,104.02	0.00	0.00	25000.00	2,708.34	22291.66

The Board of Directors' Quarterly Expenditure Report is attached as part of the check register in accordance with Board Member Business Expense policy adopted September 5, 1991



**Summary of the EBDA Commission Meeting
Thursday, January 18, 2018, at 9:30 a.m.**

Prepared by: P. Eldredge

- Commissioners Johnson, Cutter, Toy, Becker, and Peixoto 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 Managers Advisory, Financial Management, Regulatory Affairs, Operations & Maintenance, and Personnel committees. The following items were discussed:
- **General Managers Report** - The General Manager introduced Gene Boucher, Union Sanitary District's Human Resources Manager. Mr. Boucher will proctor the General Manager interviews during closed session. The selected candidate will meet with the Personnel Committee on Monday, January 22 for labor negotiations.
- **Managers Advisory Committee (MAC)** – The MAC met with the General Manager on January 17, 2018, and discussed the first round interviews. The MAC reviewed the agenda items and support the three funding resolutions in the O&M staff report.
- **Financial Management Committee** met with the General Manager on January 16, 2018, and reviewed the December List of Disbursements and Treasurer's Report. The Committee recommended Commission approval of the resolution appointing alternate authorized signers to the EBDA checking account. Commissioners Becker and Johnson were selected to be alternate signers due to their availability and proximity to the EBDA office.
- **Regulatory Affairs Committee** met with the General Manager on January 16, 2018, and reviewed permit compliance. The Committee was updated on the status of the NPDES Watershed Permit.
- **Operations and Maintenance (O&M) Committee** met with met on January 17, 2018 and discussed the status of EBDA facilities. The ongoing facility projects discussed included AEPS No. 1 and No. 6 effluent pumps; Hayward MCC replacement project and No. 2 effluent pump; OLEPS fuel tank replacement and Pumps 1 and 4 discharge valve actuator replacement projects; and the MDF water champ.

The Committee recommends Commission adoption of the following funding resolutions: 1) Amendment No. 1 to the Carollo agreement in the amount of \$7,000; 2) a purchase order to Wonderware California for \$40,762; and 3) a purchase order to Calcon Systems, Inc. for \$39,920.

- **The Personnel Committee** met with the General Manager on January 16, 2018. The Personnel Committee recessed to closed session at 11:05 a.m. to discuss the interview process to take place on Thursday, January 18, 2018 for the General Manager recruitment. The Committee returned from Closed Session at 12:00 p.m. Committee Chair Pauline Cutter stated that there was no reportable action from the Closed Session.

- **Resolution Appointing Alternate Authorized Signer**

Commissioner Cutter moved to adopt the resolution appointing Commissioner Becker and Commissioner Johnson as alternate authorized signer on EBDA's checking account. The motion was seconded by Commissioner Toy and carried unanimously, 5-0.

- **Resolution Authorizing the General Manager to Issue Amendment No. 1 to the Contract With Carollo Engineers, Inc. Dated July 14, 2017, in the Amount of \$7,000 for a Total not to Exceed Amount of \$88,800 for the Additional Work Necessary to Complete an Update of the System Flow Master Plan Modeling**

Commissioner Becker introduced the resolution authorizing a change order to the agreement with Carollo Engineers, Inc. in the amount of \$7,000 for the additional work needed to complete the System Flow Master Plan Modeling. The motion was seconded by Commissioner Johnson and carried unanimously, 5-0.

- **Resolution Authorizing the General Manager to Issue a Purchase Order to Wonderware California in the Amount not to Exceed \$40,762 for the new Citect SCADA Software and Three Years of Licensing and Technical Support**

Commissioner Cutter introduced the resolution authorizing a purchase order to Wonderware California in the amount of \$7,000 for the Citect SCADA Software, three years licensing and technical support. The motion was seconded by Commissioner Becker and carried unanimously, 5-0.

- **Resolution Authorizing the General Manager to Issue a Purchase Order to Calcon Systems, Inc. in the Amount not to Exceed \$39,920 for the Professional Services Required to Implement the SCADA System Upgrade**

Commissioner Becker introduced the resolution authorizing a purchase order to Calcon Systems, Inc in the amount of \$39,920 for the professional services to implement the SCADA System Upgrade. The motion was seconded by Commissioner Johnson and carried unanimously, 5-0.

- **Closed Session**

The Commission recessed to closed session at 9:15 a.m. to hold interviews for the General Manager position. The Commission returned from closed session at 2:05 p.m. Commission Chair Peixoto stated there was no reportable action from the closed session.

**UNION SANITARY DISTRICT
CHECK REGISTER
01/13/2018-02/02/2018**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166658	1/25/2018	3084	EAST BAY DISCHARGERS AUTHORITY	O&M ASSESSMENT, JAN-MAR 2018	\$348,231.21	\$348,231.21
166639	1/25/2018	6215	CAL SAN RISK MNGT AUTH	POOLED LIABILITY INSURANCE - 12/31/2017 - 12/31/2018	\$158,342.00	\$158,342.00
166745	2/1/2018	930015	LMK TECHNOLOGIES LLC	TRAILER AND CIPP EQUIPMENT	\$9,361.68	\$131,023.67
	2/1/2018	929995		TRAILER AND CIPP EQUIPMENT	\$121,661.99	
166614	1/18/2018	30104733	SYNAGRO WEST LLC	NOVEMBER 2017 BIOSOLIDS DISPOSAL	\$80,918.32	\$80,918.32
166604	1/18/2018	170120180105	PACIFIC GAS AND ELECTRIC	SERV TO 12/21/17 PLANT	\$53,389.46	\$53,389.46
166652	1/25/2018	5	CRATUS INC	FORCE MAIN CORROSION REPAIRS - WEST	\$41,958.38	\$41,958.38
166615	1/18/2018	20180111	THERMO FISHER SCIENTIFIC	REFUND PARTIAL FY16, FY17 & FY18 SEWER SERVICE CHARGES	\$33,777.60	\$33,777.60
166741	2/1/2018	171201	JSP AUTOMATION	RAS CONTROL INTERIM IMPROVEMENTS	\$32,670.00	\$32,670.00
166606	1/18/2018	1199110	POLYDYNE INC	45,640 LBS CLARIFLOC C-6267	\$32,007.45	\$32,007.45
166729	2/1/2018	9142	DW NICHOLSON CORP	HEADWORKS KNIFE GATE VALVES REPLACEMENT	\$25,634.75	\$25,634.75
166619	1/18/2018	533620171222	US BANK CORP PAYMENT SYSTEM	MONTHLY CAL CARD STMT - DEC 2017	\$25,314.53	\$25,314.53
166579	1/18/2018	163438	CAROLLO ENGINEERS	DIGESTER NO. 3 INSP & REHAB	\$11.90	\$25,179.70
	1/18/2018	163439		DIGESTER NO. 3 INSP & REHAB	\$25,167.80	
166731	2/1/2018	903393983	EVOQUA WATER TECHNOLOGIES	4516 GALS HYDROGEN PEROXIDE	\$21,659.07	\$21,659.07
166725	2/1/2018	LGM1404	CDW GOVERNMENT LLC	ADDITIONAL RSA TOKENS	\$628.87	\$21,571.12
	2/1/2018	LKD5208		SIEM REFRESH	\$20,942.25	
166570	1/18/2018	17063	AQUADYNE ASSOCIATES	1 CBX/BB2 LIMIT SWITCH W BRACKET	\$19,968.92	\$19,968.92

**UNION SANITARY DISTRICT
CHECK REGISTER
01/13/2018-02/02/2018**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166755	2/1/2018	761520180124	PACIFIC GAS AND ELECTRIC	SERV TO 01/23/18 NEWARK PS	\$17,981.87	\$18,043.43
	2/1/2018	224720180122		SERV TO 01/21/18 CS TRAINING TRAILER	\$61.56	
166668	1/25/2018	10776397	HACH COMPANY	LAB/PLANT OPERATIONS DATA MANAGEMENT SYSTEM	\$16,646.45	\$16,646.45
166760	2/1/2018	25337	RMC WATER AND ENVIRONMENT	HEADWORKS SCREEN NO. 3	\$15,713.25	\$15,713.25
166684	1/25/2018	124501	MUNICIPAL MAINT EQUIPMENT INC	CHAIN FLAIL NOZZLE & BULLDOG	\$8,066.96	\$14,187.02
	1/25/2018	124146		1 CHAIN SCRAPER / 1 NOZZLE	\$1,781.84	
	1/25/2018	124147		ENZ NOZZLE - BULLDOG	\$4,232.07	
	1/25/2018	124510		SKID FOR 6" PIPE	\$106.15	
166640	1/25/2018	32381	CALIFORNIA WATER TECHNOLOGIES	42,400 LBS FERROUS CHLORIDE	\$4,417.73	\$13,613.40
	1/25/2018	32372		43,220 LBS FERROUS CHLORIDE	\$4,544.10	
	1/25/2018	32386		44,780 LBS FERROUS CHLORIDE	\$4,651.57	
166633	1/25/2018	7130584	ASPEN TECHNOLOGY INC	MTELL SCADA-HANSEN INTERFACE ANNUAL SUPPORT	\$13,487.97	\$13,487.97
166685	1/25/2018	127761	MUNITEMPS	TEMP LABOR-SADEGHIAN, B. WK END 10/20/2017 & 10/27/2017	\$8,280.00	\$12,880.00
	1/25/2018	127636		TEMP LABOR-SADEGHIAN, B. WK END 9/15/2017	\$4,600.00	
166724	2/1/2018	163644	CAROLLO ENGINEERS	NEWARK PS MOD VALVE & BOOST LINE MODS	\$630.84	\$12,401.08
	2/1/2018	163828		RAS CONTROL INTERIM IMPROVEMENTS	\$1,842.75	
	2/1/2018	163666		PLANT SOLIDS SYSTEM/CAPACITY ASSESSMENT	\$9,927.49	
166707	1/25/2018	40122	WECO INDUSTRIES LLC	120 GALS SANAFOAM VAPOROOTER II	\$8,262.46	\$8,262.46
166643	1/25/2018	2244	CASA	BAB2E COALITION MEMBERSHIP DUES JAN-JUN 2018	\$8,250.00	\$8,250.00

**UNION SANITARY DISTRICT
CHECK REGISTER
01/13/2018-02/02/2018**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166751	2/1/2018	5201	OJO TECHNOLOGY INC	CCTV CAMERAS PHASE 2	\$7,688.85	\$7,688.85
166618	1/18/2018	856325	UNIVAR USA INC	4848 GALS SODIUM HYPOCHLORITE	\$2,378.35	\$7,283.68
	1/18/2018	856361		4999 GALS SODIUM HYPOCHLORITE	\$2,452.41	
	1/18/2018	856362		5000 GALS SODIUM HYPOCHLORITE	\$2,452.92	
166770	2/1/2018	857948	UNIVAR USA INC	4799 GALS SODIUM HYPOCHLORITE	\$2,354.30	\$7,259.16
	2/1/2018	858555		4998 GALS SODIUM HYPOCHLORITE	\$2,451.94	
	2/1/2018	857947		5000 GALS SODIUM HYPOCHLORITE	\$2,452.92	
166605	1/18/2018	7903	PACIFIC GAS AND ELECTRIC	REFUND # 20650	\$7,000.00	\$7,000.00
166697	1/25/2018	217109	TANNER PACIFIC INC	PROJ: WILLIAM LYON HOMES - TWIN FORCE MAIN RELOCATION	\$6,960.13	\$6,960.13
166737	2/1/2018	10787353	HACH COMPANY	1 TSS SPARE TURBIDITY METER	\$6,754.24	\$6,754.24
166673	1/25/2018	21981	IEDA INC	LABOR RELATIONS CONSULTING 01/01/18 - 03/31/18	\$6,057.00	\$6,057.00
166571	1/18/2018	502436	ARCHER NORRIS	LEGAL SERVICES SEPT - NOV 2017	\$5,670.00	\$5,670.00
166687	1/25/2018	5172	OJO TECHNOLOGY INC	CCTV SYSTEM ANNUAL SUPPORT	\$4,995.50	\$4,995.50
166703	1/25/2018	857564	UNIVAR USA INC	4848 GALS SODIUM HYPOCHLORITE	\$2,378.35	\$4,854.82
	1/25/2018	857563		5048 GALS SODIUM HYPOCHLORITE	\$2,476.47	
166565	1/18/2018	4017275220180104	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 01/04/18 - FREMONT BLVD	\$144.38	\$4,794.20
	1/18/2018	4017420220180108		SERV TO: 01/04/18 - FREMONT BLVD	\$70.08	
	1/18/2018	4017274120180104		SERV TO: 01/04/18 - FREMONT BLVD	\$4,579.74	
166577	1/18/2018	32325	CALIFORNIA WATER TECHNOLOGIES	44,520 LBS FERROUS CHLORIDE	\$4,638.62	\$4,638.62

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166625	1/25/2018	170300	ADVANCED CHEMICAL TRANSPORT	HAZARDOUS MATERIAL MANAGEMENT	\$4,452.21	\$4,452.21
166723	2/1/2018	32391	CALIFORNIA WATER TECHNOLOGIES	42,660 LBS FERROUS CHLORIDE	\$4,444.81	\$4,444.81
166693	1/25/2018	20180122	STATE BOARD OF EQUALIZATION	SALES & USE TAX 10/17 - 12/17	\$4,345.00	\$4,345.00
166675	1/25/2018	23055	LANCE, SOLL & LUNGHARD LLP	2017 DISTRICT AUDIT - FINAL	\$4,335.00	\$4,335.00
166611	1/18/2018	9496	SMARTCOVER SYSTEMS	SMART COVER PARTS	\$4,111.24	\$4,111.24
166628	1/25/2018	1236.1	ALAMEDA COUNTY TREASURER	2017 PROFESSIONAL WRITING CLASS	\$3,968.00	\$3,968.00
166756	2/1/2018	1201741	POLYDYNE INC	41,240 LBS CLARIFLOC WE-539	\$3,892.44	\$3,892.44
166572	1/18/2018	10685700	AT&T	SERV: 11/20/17 - 12/19/17	\$20.25	\$3,814.46
	1/18/2018	10685702		SERV: 11/20/17 - 12/19/17	\$3,584.47	
	1/18/2018	10685724		SERV: 11/20/17 - 12/19/17	\$209.74	
166744	2/1/2018	7317	LATITUDE GEOGRAPHICS GROUP LTD	GEOCORTEX SWM RENEWAL	\$3,700.00	\$3,700.00
166704	1/25/2018	9257	UNIVERSAL MAINTENANCE	REFUND # 20663	\$3,300.00	\$3,300.00
166767	2/1/2018	8818	TASHCON CORP	REFUND # 20710	\$3,300.00	\$3,300.00
166769	2/1/2018	9333	TJ & YOUNG INC	REFUND # 20709	\$3,300.00	\$3,300.00

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166746	2/1/2018	54772898	MCMaster SUPPLY INC	ASTD PARTS & MATERIALS	\$1,250.22	\$3,180.79
	2/1/2018	53526067		20 COMPRESSION LUGS	\$216.55	
	2/1/2018	54864677		2 CONTINUOUS USE RECHARGE BATTERIES	\$59.40	
	2/1/2018	53504233		40 COMPRESSION LUGS	\$270.77	
	2/1/2018	54610039		4 LONG LIFE RECHARGE BATTERIES	\$200.31	
	2/1/2018	54698021		30 6-FT CABLES / 1 CANVAS LOCKOUT BAG	\$926.92	
	2/1/2018	54847612		2 SQUEEGEES / 4 PUSH BROOMS	\$220.87	
	2/1/2018	54698022		2 V-BELT	\$35.75	
166564	1/18/2018	171201641	AIRTECH MECHANICAL INC	DEC 2017: FILTER CHANGE BLDGS 54, 63, 81, 90	\$915.00	\$3,130.00
	1/18/2018	171201651		SERVICE CALL: HVAC UNIT IN BLDG# 82 AC# 4	\$2,215.00	
166676	1/25/2018	1453205	LIEBERT CASSIDY WHITMORE	LEGAL SERVICES - GENERAL	\$3,025.00	\$3,025.00
166766	2/1/2018	20180123	JAMES SCHOFIELD	COMPUTER NOTE	\$3,000.00	\$3,000.00
166613	1/18/2018	3364224946	STAPLES CONTRACT & COMMERCIAL	JANITORIAL SUPPLIES	\$35.66	\$2,993.66
	1/18/2018	3364224948		JANITORIAL/BREAKROOM SUPPLIES	\$897.89	
	1/18/2018	3364224950		JANITORIAL SUPPLIES	\$174.59	
	1/18/2018	3364224944		JANITORIAL/BREAKROOM/OFFICE SUPPLIES	\$1,885.52	
166590	1/18/2018	13001100011743	GE DIGITAL LLC	1 ADDL IFIX CLIENT RUNTIME LICENSE	\$2,990.48	\$2,990.48
166727	2/1/2018	84986	CONCRETE WALL SAWING CO INC	CORE DRILLING	\$2,750.00	\$2,750.00

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166593	1/18/2018	9643680615	GRAINGER INC	2 LOCKNUTS	\$210.59	\$2,722.99
	1/18/2018	9642121595		ASTD PARTS & MATERIALS	\$1,697.25	
	1/18/2018	9644592991		1 POLYCARBONATE LOCKOUT BOARD	\$131.91	
	1/18/2018	9633196675		1 CONDENSATE SEPARATOR	\$115.82	
	1/18/2018	9642786801		19 BX DISPOSABLE GLOVES	\$305.69	
	1/18/2018	9541314134		ASTD PARTS & MATERIALS	\$160.25	
	1/18/2018	9643503858		6-12 PKS D BATTERIES	\$101.48	
166569	1/18/2018	9465	ALLSTAR PLUMBING	REFUND # 20655	\$2,500.00	\$2,500.00
166698	1/25/2018	9469	THE EXPERT PLUMBER	REFUND # 20670	\$2,500.00	\$2,500.00
166772	2/1/2018	9800262940	VERIZON WIRELESS	WIRELESS SERV 12/21/17 - 01/20/18	\$2,415.66	\$2,415.66
166666	1/25/2018	70607001	GLENMOUNT GLOBAL SOLUTIONS INC	WIN911 CUSTOMIZATION WORK	\$2,400.00	\$2,400.00
166768	2/1/2018	20171030	THE BODINE GROUP	NEGOTIATIONS FACILITATION	\$2,400.00	\$2,400.00
166765	2/1/2018	1825003004	SAN LEANDRO ELECTRIC SUPPLY	ASTD ELECTRICAL SUPPLIES	\$29.99	\$2,376.29
	2/1/2018	1825003003		ASTD ELECTRICAL SUPPLIES	\$270.13	
	2/1/2018	1825003002		ASTD ELECTRICAL SUPPLIES	\$215.36	
	2/1/2018	1829569001		ASTD ELECTRICAL SUPPLIES	\$1,860.81	
166754	2/1/2018	XCTZ02E	PACHECO BROTHERS GARDENING INC	LANDSCAPE MAINTENANCE SERVICES JANUARY 2018	\$1,365.00	\$2,280.00
	2/1/2018	XCTZ02G		WEED ABATEMENT WORK JANUARY 2018	\$915.00	
166696	1/25/2018	20180119	RUFUS TAI	EXP REIMB: REG, AIRFARE - SHAREPOINT NO AMERICA CONF	\$2,259.96	\$2,259.96

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166711	1/25/2018	28152	WILEY PRICE & RADULOVICH LLP	LABOR & EMPLOYMENT LAW FEES	\$2,218.50	\$2,218.50
166716	2/1/2018	10759820	AT&T	SERV: 12/10/17 - 01/09/18	\$2,052.87	\$2,052.87
166562	1/18/2018	67445	3T EQUIPMENT COMPANY INC	ASTD PARTS & MATERIALS	\$2,039.05	\$2,039.05
166712	2/1/2018	49130	ABACUS PRODUCTS INC	2500 RULERS	\$1,965.81	\$1,965.81
166632	1/25/2018	20171210	AMAZON.COM LLC	12/17-ASTD OFFICE SUPPLIES	\$1,955.39	\$1,955.39
166710	1/25/2018	2033891	WEST YOST ASSOCIATES	HYPO TANKS AND PIPING REPLACEMENT	\$1,891.25	\$1,891.25
166735	2/1/2018	1841081904	GOODYEAR COMM TIRE & SERV CTRS	5 TIRES	\$1,291.33	\$1,805.94
	2/1/2018	1841081919		4 TIRES	\$514.61	
166598	1/18/2018	20180112	TODD JACOB	TRAVEL REIMB: AIRFARE/REG-SHAREPOINT NO AMERICA CONF	\$1,802.96	\$1,802.96
166749	2/1/2018	24026413	MOTION INDUSTRIES INC	ASTD PARTS & MATERIALS	\$176.05	\$1,716.99
	2/1/2018	24026474		3 BELTS	\$55.19	
	2/1/2018	24025898		ASTD PARTS & MATERIALS	\$462.09	
	2/1/2018	24025944		15 MINI LUBERS W/ FILTERS	\$1,023.66	
166586	1/18/2018	20171225	DALE HARDWARE INC	12/17-ASTD PARTS & MATERIALS	\$1,625.90	\$1,625.90
166679	1/25/2018	539025	MANCO	PH PROBES	\$1,592.49	\$1,592.49
166758	2/1/2018	1320	QUANTUM RESOLVE INC	HANSEN CRYSTAL REPORT SERVICES	\$1,500.00	\$1,500.00
166617	1/18/2018	20180116	KIM TRUONG	TRAVEL REIMB: AIRFARE/LODGING/PER DIEM/MILEAGE-CAPPO 2018	\$1,452.01	\$1,452.01
166774	2/1/2018	14684	WESTERN MACHINE & FAB INC	2 STEEL SPACERS	\$1,415.78	\$1,415.78

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166674	1/25/2018	PPH7688	IRON MOUNTAIN	OFF-SITE STORAGE AND SERVICE - DECEMBER 2017	\$337.88	\$1,380.22
	1/25/2018	PPR0012		OFF-SITE STORAGE AND SERVICE - DECEMBER 2017	\$773.05	
	1/25/2018	201503465		DATA/MEDIA OFF-SITE STORAGE - DECEMBER 2017	\$269.29	
166623	1/18/2018	3055021	ZEMARC CORPORATION	1 NPS HYD UNIT RESERVOIR FILLING PUMP	\$1,364.57	\$1,364.57
166594	1/18/2018	3L6861	HARRINGTON INDUSTRIAL PLASTICS	ASTD PVC PARTS & MATERIALS	\$209.34	\$1,315.80
	1/18/2018	3L6989		ASTD PVC PARTS & MATERIALS	\$484.06	
	1/18/2018	3L6797		5-1/2" VALVE BALL	\$207.31	
	1/18/2018	3L7080		ASTD PVC PARTS & MATERIALS	\$331.43	
	1/18/2018	3L7081		ASTD PVC PARTS & MATERIALS	\$83.66	
166631	1/25/2018	774386	ALLIANT INSURANCE SERVICES INC	EQUIPMENT FLOATER - 2ND QTR ENDORSEMENT	\$1,265.00	\$1,265.00
166601	1/18/2018	53022599	MCMASTER SUPPLY INC	ASTD PARTS & MATERIALS	\$450.60	\$1,242.92
	1/18/2018	53031445		ASTD PARTS & MATERIALS	\$542.78	
	1/18/2018	53821040		ASTD PARTS & MATERIALS	\$46.97	
	1/18/2018	53936752		ASTD PARTS & MATERIALS	\$142.23	
	1/18/2018	53967420		ASTD PARTS & MATERIALS	\$60.34	
166715	2/1/2018	10362	AMERICAN DISCOUNT SECURITY	12/01/17 - 12/29/17 GUARD AT DISTRICT GATE	\$1,242.00	\$1,242.00
166678	1/25/2018	15498	LOOKINGPOINT INC	ANNUAL SUPPORT FOR PHONE AND NETWORK	\$1,225.00	\$1,225.00
166718	2/1/2018	20180125	JEFFREY BARTON	COMPUTER NOTE	\$1,200.00	\$1,200.00
166747	2/1/2018	20180125	JOSEPH MENDOZA	COMPUTER NOTE	\$1,172.67	\$1,172.67

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166584	1/18/2018	54K102063	CINTAS CORPORATION NO. 2	UNIFORM LAUNDERING SERVICE	\$283.96	\$1,143.70
	1/18/2018	54K102065		ASTD DUST MOPS, WET MOPS & TERRY TOWEL	\$17.22	
	1/18/2018	54K101181		UNIFORM LAUNDERING & RUGS	\$280.84	
	1/18/2018	54K102064		UNIFORM LAUNDERING & RUGS	\$280.84	
	1/18/2018	54K100307		UNIFORM LAUNDERING & RUGS	\$280.84	
166575	1/18/2018	94979	BRUCE BARTON PUMP SERVICE INC	1 SUMP PUMP	\$1,114.51	\$1,114.51
166654	1/25/2018	20180116	CWEA	8 CERT & 2 MEMBERSHIP RENEWALS - CS 10 EMPLOYEES	\$1,090.00	\$1,090.00
166568	1/18/2018	22930	ALLIED FLUID PRODUCTS CORP	15 EA CAMLOCK HOSES	\$1,089.58	\$1,089.58
166574	1/18/2018	797784	BRENNTAG PACIFIC, INC.	1282 LBS SODIUM HYDROXIDE	\$347.95	\$1,040.68
	1/18/2018	797785		2564 LBS SODIUM HYDROXIDE	\$692.73	
166637	1/25/2018	799410	BRENNTAG PACIFIC, INC.	3846 LBS SODIUM HYDROXIDE	\$1,039.10	\$1,039.10
166742	2/1/2018	4083	K & M INSTALLATION INC	MODULAR WALL ASSEMBLY	\$1,000.00	\$1,000.00
166763	2/1/2018	9482	ROOTER HERO	REFUND # 20697	\$500.00	\$1,000.00
	2/1/2018	9488		REFUND # 20703	\$500.00	
166708	1/25/2018	20180122	WEF-WATER ENVIRONMENT FEDERATI	WEF 2018 ODORS & AIR POLLUTANTS REG - CHUN, K.	\$995.00	\$995.00

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166636	1/25/2018	12374670	BLAISDELL'S	2 WALL CALENDARS/ 1 DZ PENS	\$32.45	\$989.52
	1/25/2018	12373450		ASTD OFFICE SUPPLIES	\$78.00	
	1/25/2018	12272460		1 OFFICE CHAIR	\$695.45	
	1/25/2018	12372700		4 BINDERS/ 1 PK INDEX LTRS	\$11.91	
	1/25/2018	12370280		ASTD OFFICE SUPPLIES	\$171.71	
166585	1/18/2018	20171228	COMMUNICATION & CONTROL INC	UTILITY FEE/ANTENNA RENTAL	\$975.20	\$975.20
166722	2/1/2018	41554	CALCON SYSTEMS	PROGRAMMING SERVICES - DEGRITTER PUMPS 1 & 2	\$952.00	\$952.00
166688	1/25/2018	XCTZ02D	PACHECO BROTHERS GARDENING INC	WEED ABATEMENT WORK DECEMBER 2017	\$915.00	\$915.00
166706	1/25/2018	8080917978	VWR INTERNATIONAL LLC	LAB SUPPLIES	\$770.48	\$907.73
	1/25/2018	8080919136		LAB SUPPLIES	\$137.25	
166694	1/25/2018	12312017	STATE BOARD OF EQUALIZATION	STORAGE TANK MAINT FEE 2017	\$839.16	\$839.16
166750	2/1/2018	1996	NATION WIDE BIRD CONTROL	INSTALL BIRD NETTING AT FREMONT LIFT STATION	\$825.00	\$825.00
166686	1/25/2018	080036018380	NESTLE WATERS NO. AMERICA INC	WATER SERVICE 12/07/17 - 01/06/18	\$812.51	\$812.51
166626	1/25/2018	9950538896	AIRGAS NCN	CYLINDER RENTAL	\$660.20	\$807.66
	1/25/2018	9071326877		ASTD PARTS & MATERIALS	\$147.46	
166702	1/25/2018	20180101	CITY OF UNION CITY	ANNUAL FIRE OPERATIONAL PERMIT	\$801.00	\$801.00
166700	1/25/2018	181521717	TRENCH PLATE RENTAL COMPANY	TRENCHING/SHORING SAFETY TRAINING - 13 EMPLOYEES	\$780.00	\$780.00
166717	2/1/2018	2522077190	BANK OF NEW YORK	DEC 2017 SERVICE FEE	\$752.01	\$752.01
166659	1/25/2018	2018130	EAST BAY EDA	ANNUAL MEMBERSHIP JUL 2017 - JUN 2018	\$750.00	\$750.00

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166634	1/25/2018	2522069331	BANK OF NEW YORK	NOV 2017 SERVICE FEE	\$721.60	\$721.60
166732	2/1/2018	1332963	FERGUSON ENTERPRISES, INC.	ASTD PARTS & MATERIALS	\$701.34	\$701.34
166683	1/25/2018	1524360	MOBILE MODULAR MANAGEMENT CORFFMC	TRAILER RENTAL - JAN 2018	\$693.63	\$693.63
166621	1/18/2018	20180116	WEF-WATER ENVIRONMENT FEDERATI	WEF 2018 ODORS & AIR POLLUTANTS REG - PIPKIN, R.	\$690.00	\$690.00
166733	2/1/2018	116528145	FREMONT URGENT CARE CENTER	2 NEW HIRE PHYSICALS/ 1 DOT PHYSICAL	\$688.00	\$688.00
166762	2/1/2018	22510	ROCHESTER MIDLAND CORPORATION	HOT WATER LOOP SERVICE	\$687.46	\$687.46
166642	1/25/2018	20180122	DAVID CAMELLO	THIRD PARTY CLAIM	\$678.49	\$678.49
166662	1/25/2018	10098	FREMONT EXPRESS COURIER SVC	COURIER SVCS: DEC 2017 DAILY MAIL	\$665.00	\$665.00
166691	1/25/2018	25115	RMC WATER AND ENVIRONMENT	USD EFFLUENT MANAGEMENT STUDY	\$661.00	\$661.00
166648	1/25/2018	41564	CLAREMONT BEHAVIORAL SERVICES	FEB 2018 EAP PREMIUMS	\$630.20	\$630.20
166736	2/1/2018	9653506221	GRAINGER INC	ASTD PARTS & MATERIALS	\$526.53	\$625.07
	2/1/2018	9653504234		1 MOTOR MOUNTING BASE	\$98.54	
166740	2/1/2018	1055415	INDUSTRIAL SAFETY SUPPLY	ASTD PPE	\$607.98	\$607.98
166578	1/18/2018	4024622634	CANON SOLUTIONS AMERICA INC	MTHLY MAINTENANCE BASED ON USE	\$599.95	\$599.95
166682	1/25/2018	180155	METROMOBILE COMMUNICATIONS INC	ANNUAL RADIO SERVICE - JANUARY 2018	\$599.08	\$599.08
166646	1/25/2018	54K102907	CINTAS CORPORATION NO. 2	UNIFORM LAUNDERING & RUGS	\$280.84	\$582.02
	1/25/2018	54K102908		ASTD DUST MOPS, WET MOPS & TERRY TOWEL	\$17.22	
	1/25/2018	54K102906		UNIFORM LAUNDERING SERVICE	\$283.96	

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166726	2/1/2018	54K103752	CINTAS CORPORATION NO. 2	ASTD DUST MOPS, WET MOPS & TERRY TOWEL	\$17.22	\$582.02
	2/1/2018	54K103751		UNIFORM LAUNDERING & RUGS	\$280.84	
	2/1/2018	54K103750		UNIFORM LAUNDERING SERVICE	\$283.96	
166567	1/18/2018	5175826	ALL INDUSTRIAL ELECTRIC SUPPLY	ASTD PARTS & MATERIALS	\$412.26	\$578.64
	1/18/2018	5175403		ASTD PARTS & MATERIALS	\$166.38	
166651	1/25/2018	201303544	COVELLO GROUP INC	THICKENER CONROL BUILDING IMPROVEMENTS PHASE II	\$558.48	\$558.48
166603	1/18/2018	24025316	MOTION INDUSTRIES INC	ASTD PARTS & MATERIALS	\$166.25	\$550.01
	1/18/2018	24025530		ASTD PARTS & MATERIALS	\$351.18	
	1/18/2018	24024876		ASTD PARTS & MATERIALS	\$32.58	
166653	1/25/2018	45525260001	CRESCO EQUIP RENTALS & AFFIL	EQUIP RENTAL: 6/7 CAPACITY BRUSH CHIPPER	\$241.99	\$545.92
	1/25/2018	45524570001		EQUIP RENTAL: 16/18" CONCRETE SAW / 16" DIAMOND BLADE	\$303.93	
166592	1/18/2018	1841081836	GOODYEAR COMM TIRE & SERV CTRS	2 TIRE	\$520.47	\$520.47
166699	1/25/2018	990461350	TPX COMMUNICATIONS	WIRELESS INTERNET BACKUP - JANUARY	\$505.97	\$505.97
166738	2/1/2018	3L7420	HARRINGTON INDUSTRIAL PLASTICS	1 FLANGE / 1 90 ELBOW	\$144.17	\$503.48
	2/1/2018	3L7421		ASTD PVC PARTS & MATERIALS	\$116.98	
	2/1/2018	3L7435		ASTD PVC PARTS & MATERIALS	\$128.96	
	2/1/2018	3L7422		ASTD PVC PARTS & MATERIALS	\$113.37	
166587	1/18/2018	9430	DRAIN DOCTOR	REFUND # 20643	\$500.00	\$500.00
166588	1/18/2018	9326	E Z PLUMBING	REFUND # 20641	\$500.00	\$500.00

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166596	1/18/2018	7774	HORIZON CONSTRUCTION	REFUND # 20656	\$500.00	\$500.00
166599	1/18/2018	7698	LI XIN LI	REFUND # 20648	\$500.00	\$500.00
166602	1/18/2018	7635	JAIME MILLENA	REFUND # 20649	\$500.00	\$500.00
166608	1/18/2018	9433	ROOTER HERO	REFUND # 20653	\$500.00	\$500.00
166616	1/18/2018	9464	TRENCHFREE, INC	REFUND # 20654	\$500.00	\$500.00
166622	1/18/2018	9411	WESTERN CONTRACTORS	REFUND # 20642	\$500.00	\$500.00
166624	1/25/2018	9443	ABOVE ALL PLUMBING, INC.	REFUND # 20680	\$500.00	\$500.00
166638	1/25/2018	9058	KIRSTEN BRICE	REFUND # 19951	\$500.00	\$500.00
166657	1/25/2018	9474	E Z PLUMBING	REFUND # 20688	\$500.00	\$500.00
166664	1/25/2018	9489	GA & J PLUMBING	REFUND # 20665	\$500.00	\$500.00
166672	1/25/2018	8589	DAVID HUFFMAN	REFUND # 20271	\$500.00	\$500.00
166677	1/25/2018	9379	PAMELA LITZNER	REFUND # 20686	\$500.00	\$500.00
166695	1/25/2018	9391	STREAMLINE PLUMBING & DRAIN	REFUND # 20687	\$500.00	\$500.00
166743	2/1/2018	9447	ANIL KESWANI	REFUND # 20700	\$500.00	\$500.00
166753	2/1/2018	9429	P J PLUMBING INC	REFUND # 20717	\$500.00	\$500.00
166761	2/1/2018	9096	ROBSON HOMES LLC	REFUND # 20715	\$500.00	\$500.00
166730	2/1/2018	1088330	ENTHALPY ANALYTICAL LLC	30 LAB SAMPLE ANALYSIS	\$495.00	\$495.00
166690	1/25/2018	339438	RKI INSTRUMENTS INC	ASTD PARTS & MATERIALS	\$494.86	\$494.86
166600	1/18/2018	20180111	ARMANDO LOPEZ	EXP REIMB: T&D ANNUAL RECOGNITION GIFTS	\$494.69	\$494.69

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166597	1/18/2018	3025298265	IDEXX DISTRIBUTION INC	2-100/BX QUANTITRAYS 2000	\$481.60	\$481.60
166563	1/18/2018	9071183795	AIRGAS NCN	4 CYL ARGON	\$600.12	\$477.57
	1/18/2018	9600492835		CREDIT INV: 9069580896 - ASTD PARTS & MATERIALS	\$-122.55	
166647	1/25/2018	64646	CITYLEAF INC	PLANT MAINTENANCE - JAN 2018	\$431.86	\$431.86
166720	2/1/2018	12378980	BLAISDELL'S	2 CHAIRS	\$429.28	\$429.28
166773	2/1/2018	8080987059	VWR INTERNATIONAL LLC	LAB SUPPLIES	\$203.96	\$392.63
	2/1/2018	8080979469		1 PK TUBING	\$188.67	
166692	1/25/2018	3145924001	S & S SUPPLIES & SOLUTIONS	20 BX DISPOSABLE GLOVES - LRG	\$195.36	\$390.72
	1/25/2018	3145924002		20 BX DISPOSABLE GLOVES - MED	\$195.36	
166660	1/25/2018	903388010	EVOQUA WATER TECHNOLOGIES	DI WATER SYSTEM	\$345.00	\$345.00
166713	2/1/2018	4071037120180122	ALAMEDA COUNTY WATER DISTRICT	SERV TO: 01/19/18-BENSON ROAD	\$225.40	\$339.71
	2/1/2018	4071038120180122		SERV TO: 01/19/18-BENSON ROAD	\$114.31	
166580	1/18/2018	LGH3460	CDW GOVERNMENT LLC	1 DELL WYSE THIN CLIENT	\$334.74	\$334.74
166681	1/25/2018	52637393	MCMASTER SUPPLY INC	1 EA VIBRATION RESISTANT PRESSURE GAUGE	\$68.37	\$328.33
	1/25/2018	54442493		ASTD PARTS & MATERIALS	\$41.49	
	1/25/2018	54442494		ASTD PARTS & MATERIALS	\$135.75	
	1/25/2018	52778889		2 EA VIBRATION RESISTANT PRESSURE GAUGE	\$130.50	
	1/25/2018	54384711		CREDIT: INV 53821040 - ASTD PARTS & MATERIALS	\$-47.78	
166607	1/18/2018	25279	RMC WATER AND ENVIRONMENT	USD EFFLUENT MANAGEMENT STUDY	\$300.50	\$300.50

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166689	1/25/2018	20180122	PIPE USERS GROUP	SEMINAR REGISTRATION: BAILE - SHARING TECHNOLOGY	\$150.00	\$300.00
	1/25/2018	20180122.1		SEMINAR REGISTRATION: ELLIOTT - SHARING TECHNOLOGY	\$150.00	
166589	1/18/2018	17132	ENVIRONMENTAL BIOTECH INTL	1-6' DIPSTICK PRO WITHOUT 4' EXTENSION	\$299.95	\$299.95
166627	1/25/2018	171201652	AIRTECH MECHANICAL INC	HVAC CONTRACT - FMC BUILDINGS AND BOYCE	\$286.00	\$286.00
166764	2/1/2018	85340220180124	SAN FRANCISCO WATER DEPT	SERVICE 12/20/2017 TO 01/23/2018	\$280.79	\$280.79
166757	2/1/2018	138233	PREFERRED ALLIANCE INC	DECEMBER 2017 SERVICE FEE	\$277.20	\$277.20
166591	1/18/2018	20180118	MOHAMMAD GHOURY	TUITION REIMB - FALL 2017	\$267.29	\$267.29
166609	1/18/2018	7702639601	RS HUGHES CO INC	ASTD SAFETY SUPPLIES	\$259.19	\$259.19
166650	1/25/2018	20170919	SOL COOPER	TRAVEL PER DIEM - TRI STATE SEMINAR	\$252.00	\$252.00
166709	1/25/2018	6014138	WEST SAFETY SERVICES INC	E911 CLOUD SERVICE	\$250.00	\$250.00
166612	1/18/2018	20171231	SPOK INC	JANUARY 2018 PAGER SERVICE	\$243.35	\$243.35
166752	2/1/2018	8472849	OVIVO USA LLC	2 PHENOLIC WHEELS FOR CLARIFIER	\$233.26	\$233.26
166667	1/25/2018	9639933051	GRAINGER INC	ASTD PARTS & MATERIALS	\$61.41	\$206.82
	1/25/2018	9648316652		1 IMPACT DRIVER AND BIT SET	\$57.12	
	1/25/2018	9613044727		ASTD PARTS & MATERIALS	\$88.29	
166734	2/1/2018	9447	FRESH AIR MECHANICAL	REFUND # 20701	\$200.00	\$200.00
166719	2/1/2018	20893300	BECK'S SHOES	SAFETY SHOES: M TATAMOTONGA	\$195.00	\$195.00
166635	1/25/2018	20876300	BECK'S SHOES	SAFETY SHOES: J ARROYO	\$181.06	\$181.06
166630	1/25/2018	5176081	ALL INDUSTRIAL ELECTRIC SUPPLY	ASTD PARTS & MATERIALS	\$180.15	\$180.15

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166705	1/25/2018	20170515	AUDREY VILLANUEVA	EXP REIMB: REFRESHMENTS FOR CERTIFICATE OF MERIT EVENT	\$177.43	\$177.43
166610	1/18/2018	29779	SAFETYLINE INC	ORANGE ANSI TOWING JACKET - BULLIS	\$165.80	\$165.80
166583	1/18/2018	444548	CHEMETRICS INC	5 NITRITE TEST KITS	\$162.10	\$162.10
166573	1/18/2018	12363790	BLAISDELL'S	1 COMPRESSED GAS DUSTER	\$6.57	\$136.96
	1/18/2018	12361400		ASTD OFFICE SUPPLIES	\$15.88	
	1/18/2018	12362850		ASTD OFFICE SUPPLIES	\$75.39	
	1/18/2018	12362960		ASTD OFFICE SUPPLIES	\$39.12	
166701	1/25/2018	119065	TRI-SIGNAL INTEGRATION INC	FIRE PROTECTION SERVICE - MONTHLY CHARGE MONITORING AGREEMENT	\$133.33	\$133.33
166629	1/25/2018	5375552832018	ALAMEDA COUNTY TREASURER	PROPERTY TAXES 37159 HICKORY ST	\$109.62	\$109.62
166728	2/1/2018	20180126	RICHARD CZAPKAY	EXP REIMB: MILEAGE, PARKING-CWEA COLLECTION SYSTEM WORKSHEET	\$109.19	\$109.19
166620	1/18/2018	9798984919	VERIZON WIRELESS	WIRELESS SERV 12/02/17 - 01/01/2018	\$108.62	\$108.62
166582	1/18/2018	463335	CENTERVILLE SAW AND TOOL	ASTD PARTS & MATERIALS	\$105.85	\$105.85
166576	1/18/2018	17091508	CALIFORNIA REGIONAL CGA	STAKEHOLDER ANNUAL MEMBERSHIP 01/01/18-12/31/18	\$100.00	\$100.00
166649	1/25/2018	12693R4K8F4	COMMON GROUND ALLIANCE	MEMBERSHIP DUES: S. NESGIS	\$100.00	\$100.00
166655	1/25/2018	20180124	CWEA	CERTIFICATION RENEWAL - D JACKSON	\$100.00	\$100.00
166759	2/1/2018	92614	REMOTE SATELLITE SYSTEMS INT'L	IRIDIUM SVC FEE FEBRUARY 2018	\$97.90	\$97.90
166663	1/25/2018	20399	FREMONT RECYCLING & TRANSFER	.49 TON GREEN WASTE	\$96.00	\$96.00
166595	1/18/2018	602823794	HILLYARD/SAN FRANCISCO	1 CS PLATES	\$90.51	\$90.51
166671	1/25/2018	5742271	HOSE & FITTINGS ETC	ASTD PARTS & MATERIALS	\$79.54	\$79.54

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
166721	2/1/2018	20180126	STUART BULLIS	EXP REIMB: DMV CLASS A PERMIT FEE	\$76.00	\$76.00
166748	2/1/2018	1013235	MISSION COMMUNICATIONS LLC	MANHOLE MONITORING SERVICE - 1 MONTH	\$75.80	\$75.80
166661	1/25/2018	1118435	FASTENAL	25 S/S TRUBOLTS	\$68.20	\$68.20
166641	1/25/2018	278865	STATE OF CALIFORNIA	2 NEW HIRE FINGERPRINTS	\$64.00	\$64.00
166656	1/25/2018	615320180120	DISH NETWORK	FEB 2018 - SERVICE FEE	\$60.90	\$60.90
166714	2/1/2018	8011943	ALPHA ANALYTICAL LABORATORIES	1 LAB ANALYSIS	\$55.00	\$55.00
166566	1/18/2018	20180116	ALCO-EMA	MEMBERSHIP DUE: TERRAZAS, BRENNER	\$50.00	\$50.00
166645	1/25/2018	463407	CENTERVILLE SAW AND TOOL	ASTD PARTS & MATERIALS	\$47.19	\$47.19
166665	1/25/2018	2774727705	GLACIER ICE COMPANY INC	30 7-LB BAGS OF ICE	\$44.10	\$44.10
166739	2/1/2018	1122892	HAYWARD WATER SYSTEM	WATER SERV 11/08/17 - 01/05/18	\$41.19	\$41.19
166669	1/25/2018	268248	HANIGAN COMPANY INC	1 LOT BUSINESS CARDS: JACKSON, D	\$40.28	\$40.28
166771	2/1/2018	98XW53028	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 01/13/18	\$38.37	\$38.37
166644	1/25/2018	301543	CENTERVILLE LOCKSMITH	13 SCHLAGE DND KEY BLANK	\$27.82	\$27.82
166670	1/25/2018	20170801	BOBBY HENDERSON	EXP REIMB: LIVESCAN FEE PRE-EMPLOYMENT	\$19.00	\$19.00
166680	1/25/2018	145354	MCIVORS HARDWARE	ASTD PARTS & MATERIALS	\$5.65	\$9.56
	1/25/2018	145355		2 HOSE CLAMPS	\$3.91	
166581	1/18/2018	301458	CENTERVILLE LOCKSMITH	1 REKEY CYLINDER	\$7.50	\$7.50

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Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
Invoices:				Checks:		
Credit Memos :		2	-170.33			
\$0 - \$1,000 :		205	65,319.20	\$0 - \$1,000 :	119	49,523.91
\$1,000 - \$10,000 :		82	270,837.89	\$1,000 - \$10,000 :	71	223,317.34
\$10,000 - \$100,000 :		16	477,238.07	\$10,000 - \$100,000 :	20	531,021.90
Over \$100,000 :		3	628,235.20	Over \$100,000 :	3	637,596.88
Total:		308	1,441,460.03	Total:	213	1,441,460.03

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Broken Pipes, Broken System

Oakland has failed to report hundreds of thousands of gallons of toxic sewage spills that have sickened animals, damaged property, and polluted waterways, including Lake Temescal.

By *Gabrielle Canon*

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Illustration by Brian Breneman

In mid-November, Terry Tobey stood in the pouring rain, staring solemnly at a ravine spouting a stream of sewage water as it cascaded down a hill and onto her Oakland property. During storms, the city's broken sewer pipes overflow and the problem gets worse, she said.

"It's bad. It's really bad," she said, starting to cry. "My whole property is like a septic pit. It's been years and years and years of sewage draining here."

Tobey, a 60-year-old Oakland native who grew up on the small ranch in the hills in the city's Oakmore neighborhood where she now lives, inherited the property in the early 2000s from her parents when they died. Over the past decade, she has been fighting a one-woman battle against the city to save her home and protect her pets. One of her horses and one of her dogs experienced skin lesions and incontinence after sewage wastewater and toxic chemicals flowed onto her property last year.

Tobey's problems are also indicative of those that have plagued the city of Oakland's sewer system for years. In 2014, Oakland officials agreed to a settlement and specific requirements for rehabbing more than 900 miles of aging sewer lines after the city — along with five other municipalities and East Bay MUD — were sued by two environmental organizations and the U.S. Environmental Protection Agency.

Under the settlement, also called a "consent decree," Oakland was required to implement a \$300 million action plan over 22 years to

systematically repair its leaky sewer pipes, which regularly have caused overflows of raw sewage and chemicals into San Francisco Bay.

Along with alerting the public when there's a large spill or a situation that could affect someone's home or business, the city of Oakland is required under the consent decree to report sewage overflows and its progress in meeting the action plan to regulatory agencies and the parties in the lawsuit.

But thousands of pages of public documents and emails reviewed by the *Express*, along with interviews with city sewer department staff, regulatory agencies, and local residents, reveal that the Oakland Department of Public Works has failed to report hundreds of thousands of gallons of sewage overflows, and city supervisors have sometimes submitted documents to regulators that contain false information. The city also failed to properly alert residents and the required agencies in a timely manner after spills occurred. As a result, dangerous bacteria and toxic chemicals have flooded into streets, onto properties, and into storm drains — or directly into regional bodies of water like Lake Temescal, where people fish and swim — without public knowledge. In fact, there is evidence that the repeated closures of Lake Temescal in recent years were caused, at least in part, by nearby spills from city of Oakland sewer pipes.

In addition, over the past two years, top-level officials in public works and in city government have repeatedly been made aware of the ongoing problems by staffers and by residents like Tobey who experienced the issues firsthand. The *Express* has also learned that state regulators are investigating the city's sewage maintenance system for possible legal violations. And it turns out that sewage from the home of Oakland City Councilmember Annie Campbell Washington, whose property is located directly above that of Tobey, flows into one of the city's broken pipes.

Records and interviews also show that the city has continued to use a private contractor to repair sewer lines, despite the fact the contractor, Andes Construction, has a record of shoddy work that must later be fixed by city staffers, according to Oakland workers. In fact, last month, the city hired Andes to finally fix the broken sewer lines above Tobey's home, but the contractor failed to do the work properly, according to a city whistleblower.

Nonetheless, city officials maintain that Oakland is in compliance with the federal consent decree and federal and state environmental laws.

In fact, for years, city officials told Tobey that she was wrong about the sewage that she could see and smell in her yard — even as she watched her property slowly fall apart.

Tobey said problems at her property actually began in the 1980s, when a storm drain channel formed amid the towering eucalyptus trees that grow out of the hillside overlooking the barn where her three horses live. The channel developed after the land above her family's home was graded to create the Melvin Court residential community. Since then, the channel has eroded the slope, creating a cliff and causing a large section of once-flat land to sink away.

Dangerous bacteria and toxic chemicals have flooded into streets, onto properties, and into storm drains — or directly into regional bodies of water like Lake Temescal, where people fish and swim — without public knowledge.

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Along with that channel, two sewage pipes run through her property and a third lines the perimeter above the hillside. Over the years, the aging, overburdened, and compromised pipes released wastewater containing untreated sewage and dangerous tree root-clearing chemicals down the hill, where it runs alongside Tobey's barn and into her yard.

Beginning in 2009, when she pulled up a rotted fence post to reveal what she called a "cavern of sewage" flowing underneath her horse arena, she has made calls, written emails and letters, and shared photos and videos of green-tinged sludge and white puffs of noxious root foam on her land. But she struggled to get city officials to take her seriously and address the problems.

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Photo by Gabrielle Canon

Terry Tobey said she's not confident that her battle with the city is over, because the sewer line repairs appear to have not been done correctly.

Sean Maher, a spokesperson for Oakland Public Works responding on behalf of the department, wrote in a statement to the *Express* that they have been working with Tobey to address her "concerns with the publicly owned sewer system that flows through her property."

He added: "The city, with technical assistance from several contractors and in consultation with the regional water board, has reviewed the sewer and surrounding watershed extensively and ha[s] not identified any water quality issues related to the condition of the sewer. The city is also working with Ms. Tobey and her neighbors to ensure that necessary improvements are made to the privately owned portions of the sewer that may also be affecting the system. It is the homeowner's responsibility to address private sewer defects, as such, the city informed the property owner of their need to make repairs."

But public records show a test conducted by the city in January 2016 called for the main sewage line to be repaired, citing danger of imminent collapse. Crews couldn't get a camera to go into the pipe more than 52 feet due to the degree of blockage. The city didn't repair the pipe for close to two years. (In the East Bay, cities are responsible for maintaining the public sewer lines that ultimately feed into East Bay MUD's wastewater treatment plant in West Oakland.)

Public records also show a sewage overflow was officially documented at Tobey's property in the beginning of 2017. It was the second recorded by the California State Water Resources Control Board for the area.

And during several months last winter and spring, even after Tobey said she was told by city officials that the pipe had not been compromised, she discovered large quantities of toxic foam flowing down through the channel onto her land.

The foam is made from chemical cocktails that can include powerful herbicides like Metham Sodium, Dichlobenil, and Diquat Dibromide, and is applied to pipes to keep roots from growing into them. Manufacturers, including Sewer Sciences Inc. and an Australian company, Drainchem Pty Ltd, warn that protective gear should be worn while administering the chemicals and that medical attention should be sought immediately if any contact occurs.

But for weeks the foam streamed unabated across Tobey's property and pooled alongside the barn close to one of her horse's stalls. By April 2017, Scout, her rescued mustang, had developed lesions on his body and a peeling burn on his knee, and had rubbed out his own tail in an attempt to scratch his itchy skin. It still hasn't fully grown back.

Tobey's dog Sadie, a border collie/McNab mix whom she said may have rolled in the toxic foam, is in even worse shape. Most of her hair fell out, revealing large patches of scaled skin. She also has to wear a dog diaper because she's become incontinent.

Although the *Express* has not independently verified that the foam and sewage water were responsible for sickening Tobey's animals, she said she is certain that their health problems — which both animals developed around the time they were in contact with the wastewater — were caused by the contamination to her property.

"All I wanted to do was retire here and enjoy my horses. That's all I wanted," she said. "Instead, my time is spent repairing the property or investigating the city and writing letters. That's all I do."

Tobey has even tried to involve Campbell Washington — whose house overlooks hers on the hillside above and whose sewage feeds into one of the city's compromised pipes — and has repeatedly sent documents to City Auditor Brenda Roberts, City Administrator Sabrina Landreth, and even Mayor Libby Schaaf. Campbell Washington was the only one to follow up on the concerns and emailed her letter to city staff, but the problems continued.

"I am a tough person but — ya know" Tobey said, taking a long pause to steel herself, "it gets to me. If it wasn't my family home, I would have left a long time ago rather than subject myself and my animals to this. I am one person, but I am fighting an entire city."

**"So, what they did was give
her bogus reports. They**

claimed we did a smoke test for the sewer lines and everything came out the way it was supposed to — but they didn't do it. It was a damn lie."

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"I don't really have a comment on it," said Campbell Washington, referring to Tobey's battle with the city. "The role that I play in the district is making sure that when constituents and residents have issues, that they get to the right department who can help them. And that's really the role that I played there. Just making sure that her issue was seen and being addressed by the right staff members within public works."

Tobey said there has just been one city worker who has come to her defense: Loren Little, a senior supervisor for Oakland's Drainage Division. Last May, Little received the forwarded email from Campbell Washington about Tobey's situation and visited her property. He was appalled by what he saw.

"They didn't care about her horses. They didn't care about her dog. They didn't care about none of that," Little said in an interview. "They did not give a damn."

Little explained that the foam he observed was further proof of a broken sewer line. "When you administer the root foam to the sewer lines, it is not supposed to come above ground. It is supposed to stay in the pipe," he said. "But when you have a clay pipe like this that has cracks in it — wide open cracks — the foam is going to find its way up, if there's a block to the line."

Sewage spills in Oakland



Tobey originally believed she was a victim of negligence, but Little thinks it goes far beyond that.

"They think it is out of sight, out of mind," he said. "I mean, who is going to believe this woman? She don't know a damn thing about what we do. So, what they did was give her bogus reports. They claimed we did a smoke test for the sewer lines and everything came out the way it was supposed to — but they didn't do it. It was a damn lie."

Little keeps a copy of the *Vitrified Clay Pipe Engineering* handbook closely accessible in the desk drawer of his office at the city's drainage

division in the Oakland hills. On the desk is a small model of a vitrified clay pipe bell-and-spigot joint. The city's sewers have been the focus of his career and it shows.

"This is a smaller version of what's in the ground," he said, picking up the model. "And this is what's been in the ground on these easements for 100 years."

Little explained that the aging clay pipes that still comprise most of the city's sewer system are slowly being replaced but were originally thought to be made of the most long-lasting material. "That was until they introduced eucalyptus trees," he said. "They love water. So, you got a pipe that's got a bell and a spigot. Any type of crack, any type of break in the bell, that tree root is going to find its way through it."

After spending close to 30 years in the city's sewer department, working his way up from a sewer maintenance worker to a senior supervisor, Little possesses an encyclopedic knowledge of Oakland's 930-mile sanitary sewer system — and its problems.

He got his first sewer job in 1988 after being discharged from the Army and learned the system from the inside out: removing roots, conducting camera checks, and spot-repairing sewer lines.

After becoming a senior supervisor, Little kept detailed diaries each year, accounting for the actions taken by the city and the issues that arose in its sewer system. He also helped the city draft and adopt the Sanitary Sewer Overflow response plan approved by the EPA that is supposed to govern the protocol used to address sewage problems as they happen. And he helped write the consent decree, the 22-year, \$300 million agreement adopted by the city in 2014.

"I have always been a guy who has done things by the book," he said emphatically. "And I have been dealing with the issues since I started."

Little has been determined to blow the whistle on the problems in the Oakland Public Works Department ever since he was transferred out of the sewer department unexpectedly in April 2016 and into his current position overseeing drainage. He said he was transferred after he pushed back against department leaders for what he describes as fraudulent practices.

In November 2016, he met with Oakland City Auditor Brenda Roberts, who was elected by voters in 2014 to ensure that corruption is properly investigated and whistleblowers are protected. Instead, Roberts contacted an official at the public works department and informed the person of the meeting with Little, according to Robert McMenemy, who was the audit manager running the auditor's Fraud, Waste, and Abuse Prevention Program at the time. Roberts' alleged move appears to have been a direct violation of Oakland's Whistleblower Ordinance, which was established in 2008 and is designed to protect whistleblowers from exposure and retribution.

Roberts' office responded that they are unable to comment about ongoing investigations or whistleblower reports. But in an emailed statement, a spokesperson for Roberts denied that she exposed Little, writing that "the city auditor keeps confidential the identity of anyone reporting information."

But Little contends that after he went to Roberts, he was targeted by higher ups in the public works department, including current director Jason Mitchell. Mitchell declined to be interviewed for this report.

Andes Construction "didn't perform the job correctly, and the flow continued to happen," the city worker said. "We are now posting signs letting citizens know not to go into the creek, because it has been contaminated."

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Little's concerns include the alleged misuse of public funds — specifically, the taxpayer-subsidized sewer fund. Under the consent decree, the fund can only be used for "the construction, maintenance, and operation of the sanitary sewer system."

Every water bill charged and administered through East Bay Municipal Utility District in Oakland includes a sewer service fee, which has increased annually over the last five years. For Oakland households, which account for 70 percent of the revenues in the sewer fund, the minimum fee currently stands at \$75.14 and ranges up to \$168.60, paid bi-monthly. Other EBMUD customers, including businesses and apartment buildings, are billed by volume.

On notices provided to residents about fee increases, the city noted that the fee "pays for long-range maintenance and rehabilitation programs to eliminate overflows and meet regulatory requirements."

But the city's budget shows that millions of dollars from the fund go to expenses other than sewer maintenance. In the upcoming fiscal year, the budget shows that more than \$3 million of the sewer fund revenue will go to the Department of Transportation's Great Streets program, and roughly \$1.4 million is to be reserved to help the city settle or fight lawsuits. City officials contend that the funds will be indirectly used to bolster the sewer system.

"All Sewer Service Fees funds are allocated to maintain, or support maintenance of, the public sewer system," Maher wrote in an email. "Multiple work groups contribute to this work. Major examples include sewer inspectors and engineers, drainage work to maintain the stormwater sewer system and mitigate stormwater inflow and infiltration into the sanitary sewer system, and city crews assigned to assist when we are digging up roadways to rehabilitate or replace components of the system."

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Photo by Gabrielle Canon

Loren Little, senior supervisor for Oakland's Drainage Division, said city officials retaliated against him when he blew the whistle on Oakland's sewer line problems.

He added that the millions of dollars transferred into Oakland's general fund from the sewer fund is used to cover liability of costs when the system fails — a "standard risk management practice" — and is "earmarked specifically for the risk management of the public sewer system."

But Little said he discovered the fund had been used to purchase equipment for another department. Earlier this year, he found out that \$60,000 was missing from his own operating budget in the drainage division and had been used to purchase trucks for another division, he said. When he inquired about the issue, Mitchell congratulated him for keeping such a close eye on his budget and stated that the expense had been approved the previous year, according to an email reviewed by the *Express*.

"I think this is just the tip of the iceberg," Little said. "They took money out of my operating budget. I am the division head, and they can't take my money and not let me know what they are doing with it."

Beyond the money not being allocated correctly, Little said the Public Works Department has been negligent in overseeing and inspecting the work done by private contractors, and often the city has to pay city staffers to fix problems afterward.

One contractor, Andes Construction, often receives multimillion-dollar contracts despite a questionable work history, he said. The company, run by Danilo Mayorga, has been doing contracted work in the East Bay since 1986, in spite of numerous complaints.

In 2003, community newspaper *The MacArthur Metro* published a scathing article on Andes' work, titled "I Smell a Rat," which detailed how an Oakland household ended up with a sewage-filled basement after the contractor left a test plug and a shovel in a sewer pipe being worked on. A month later, in a follow-up story, *The Metro* noted that an Andes crew began digging at a site without a required "Underground Services Alert" (which ensures it's safe to dig without puncturing a gas line or aqueduct), performed work without the required permits, and leaked oil from its trucks into a creek but did not have spill-control materials to clean it up.

"The saga continues with Andes Construction's lack of understanding of its creek protection permit," wrote journalist Dennis Evanosky (who now publishes the *Alameda Sun*). "In the very same neighborhood where the company's crew dug without a USA, its crew chose to ignore creek permit directives."

Three city sewer workers interviewed for this report who asked not to be named for fear of retribution said it was well-known that Andes does substandard work and that they are often asked to clean up its messes.

In December, after sewer workers joined staffers in other agencies for a citywide, weeklong strike, they returned to their jobs to find Andes had done work while they were away — and much of it was not up to code, they said.

Scott Riley, a sewer maintenance worker who has worked for the division for nearly 11 years, spoke to the *Express* while he was working to fix an overflow that had poured into Temescal Creek during the strike. Andes "didn't perform the job correctly, and the flow continued to happen," he said. "We are now posting signs letting citizens know not to go into the creek, because it has been contaminated."

He said it isn't the first time. "We have had to come behind them and straighten out the work that they were supposed to do," he said of Andes.

Other city employees shared similar stories. "You have city crews that have to go in behind these people to re-do the work after they have been paid millions of dollars of taxpayers' money," Little added. "They do shoddy work and no city inspector is overseeing what they do."

Mayorga did not respond to requests for comment for this report.

The city also told the state that the spill ended on Feb. 8 at 10 p.m. and that a total of 36,000 gallons of sewage spilled — which is apparently only about one-third of the actual amount that leaked into the lake.

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Maher stated that inspections are required and performed and that private contractors must conduct their work in accordance with both the Oakland Municipal Code and the *2015 Greenbook Public Works Standards*. "City inspectors are a regular presence on-site throughout the construction phase of permitted work, and contractors must demonstrate their work is code-conforming to a city inspector before the city will sign off on the work's completion," he wrote in an email to the *Express*.

But Little said that for Andes, city officials allow the contractor to produce its own documentation rather than checking the work independently. "This contractor, Andes, polices their own work," he said. "The city of Oakland has no idea if the work was done right or not."

As a result, the city has not accurately reported to state and federal regulators the work and funding required in the consent decree to rehab Oakland's aging and failing sewer system. In addition, the *Express'* review of public documents and interviews with city employees show that while some sewage overflows haven't been reported, others appear to have been altered by city sewer supervisors in order to make the city look better.

"We have to produce annual reports that are public information," Little said. "These reports show the EPA how the sewer department is doing on what they were put to task to do.

"And it's full of lies."



Photo by Gabrielle Canon

There is evidence that the repeated closures of Lake Temescal in recent years were caused, at least in part, by nearby spills from city of Oakland sewer pipes.

On a cold, cloudy winter weekday in early January, Lake Temescal was abuzz with activity. Joggers passed by dog-walkers and stroller-pushers along a path that circles the small reservoir in North Oakland, while toddlers played in the small sand dunes on the man-made beach and waterfowl perched on floating buoys in the water. Anglers stood onshore hoping to catch rainbow trout, stocked there in the winter season.

Surrounded by redwoods and aquatic greenery, the lake has offered Oakland residents the chance to escape the hustle and bustle of the city since it opened to the public in 1936. Not even the hum of cars speeding by on Highway 24, which hovers overhead near the park, is enough to distract from the tranquil beauty of this urban oasis.

But in recent years, water quality issues have repeatedly forced the lake to close, making it inaccessible to the hundreds of thousands of families from throughout Oakland who visit the park annually. In late December, the East Bay Regional Park District, which operates the Temescal Regional Recreation Area that includes the lake, posted signs along a walkway near the lake instructing visitors not to enter the water or fish.

"I have been coming to this lake for several years," said local resident Jean Cassidy. She added that she used to bring her kids when they were young but now sees the water quality warnings much more often. "I don't remember the problem ever being as bad as it is now. They have summer programs for the kids here, and they can't even swim in the water. It's sad."

Although the signs indicate an issue with the water, there is no clarification about what's wrong with it and nothing specifically mentioning the ongoing sewage spills from broken city sewer lines nearby.

East Bay Regional Park officials say sewage spills regularly into the Lake Temescal watershed — but they aren't able document how much or how often. That's the city of Oakland's responsibility.

"It happens every year," said Hal MacLean, park district water management supervisor. He explained that they post closure signs for fishing and swimming every time there is a sewage spill and don't reopen until certain bacteria levels drop.

"A lot of times, somebody will find it, and you don't know how long it has been happening," he said of sewage spills, adding that they don't know the extent of the bacteria that people could be exposed to. "We are using indicator bacteria, which won't necessarily get you sick — but there could be other things in the water."

Park officials regularly check bacteria levels during the summer swim season but not during the winter months when people aren't expected to enter the water. Still, the lake is a popular fishing spot year-round. MacLean said after a known spill occurs, they monitor the water quality more closely.

"We sample after they stop the spill to see what damage is done," he explained. "We don't really clean up the lake — there is constantly water going into the lake and water going out of the lake. So, you have a lot of flushing and mixing, and when your bacteria numbers are within a range, then you've got the confidence that it has dissipated. If there's body contact and swimming, then the numbers are more stringent than if there's just fishing."

Most of the closures in recent years, however, were not blamed on sewage spills but on toxic algae blooms, which could be dangerous if ingested, especially for dogs. But it turns out there could be a connection: Algae thrives on sewage.

"Toxic algae is blue green algae or phytobacteria," MacLean explained. "It doesn't necessarily always have toxins. But one of the issues we have is there are a lot of nutrients in the lake. And there are some people who have been saying that ammonia can contribute to whether you have toxic algae blooms or not, too. These sewer spills will transport a lot of nutrients and ammonia into the lake."

Alexander Horne, an ecological engineer and professor emeritus at UC Berkeley who has spent years studying algae, agreed that sewage from the city's broken sewer lines could be behind a bigger bloom. He explained that the protein from sewage that breaks down into ammonia, nitrates, and phosphates provides algae with a hearty feast. "The algae love it," he said. "If you wanted to grow algae, you could grow it very nicely in sewage."

Horne said he doesn't believe the public health risk is high, but untreated sewage in any lake is a problem.

For Oakland, it's a problem that's been shielded from public knowledge. There have been numerous overflows into Lake Temescal, but records show the city has sometimes not properly reported the spills.

Emails obtained by the *Express* reveal that the park district alerted the Oakland Public Works Department of a spill early last year that the city didn't stop for weeks. On Feb. 8, MacLean sent an email to others in the department about the amount of sewage flooding into Lake Temescal.

"The city of Oakland is attempting to pump liquid sewage from the storm drain to a sewer line in the southern parking lot at Lake Temescal," he wrote. "The city has reported SSOs [sanitary sewer overflow] twice since the SSO was initially thought to have stopped last week with removal of roots that caused a blockage in the sewer line. Unfortunately, they haven't had success draining the overabundance of sewage. Hopefully, the system will catch up with the overload soon. I'll keep you posted."

The spill, which began on Jan. 31, would continue for weeks, unloading roughly 50 gallons of wastewater a minute into Lake Temescal. In all, more than 100,000 gallons of untreated sewage flowed into the lake — and the public never knew.

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The spill, which began on Jan. 31, would continue for weeks, unloading roughly 50 gallons of wastewater a minute into Lake Temescal. In all, more than 100,000 gallons of untreated sewage flowed into the lake — and the public never knew.

In the email thread about the incident obtained by the *Express*, which included both parks district and city public works supervisors, parks Environmental Services Manager Becky Tuden wrote that overflows into the lake happen regularly.

But records show the city failed to accurately report the details of last year's spill. In official documents filed to state regulators on Feb. 21, the city of Oakland reported that the spill began on Feb. 8 at 8:00 a.m., even though the email chain showed that the spill started on Jan. 31.

The city also told the state that the spill ended on Feb. 8 at 10 p.m. and that a total of 36,000 gallons of sewage spilled — which is apparently only about one-third of the actual amount that leaked into the lake.

It's also likely not the first time the city has reduced sewage spill numbers to make them look less serious, city workers say. They allege that Oakland city supervisors who submit official documents to regulatory agencies sometimes minimize the numbers reported in the field after overflows occur.

Hugo Velazquez, a sewer maintenance leader and special operator for the sewer main who has worked for the city for 12 years, said he discovered that at least two of his reports were changed after he submitted them. He said he noticed the changes when he happened to see his documents on a supervisor's desk.

Both overflows occurred the same day. Velazquez said he reported the first as 67,500 gallons and the second as 94,500. He recorded videos to back up his reporting.

But the documents that the city filed with state regulators show only 39,000 gallons for the first spill and 47,000 for the second, undercutting each by almost half. The second report still included Velazquez's initial higher estimate of 94,500 gallons in the "spill location description," contradicting the city's official number for the estimated spill volume.

Velazquez was alarmed by the discovery and now questions whether supervisors changed more of his reports without his knowledge. "I noticed there was red ink next to it," he said, adding that when he asked what had happened, the only response he got was that they had "made some adjustments" and not to worry about it.

"I said, 'Wait a minute. You guys sent us to all of these classes where we write up paperwork saying if we did this we could go to jail for this,'" he added. "But if I would have never seen it on top of the desk, I would have never known they changed the numbers. That really made me wonder."

When the city submits reports, department officials have to sign a certification statement under penalty of perjury. But Oakland has a history of failing to comply with regulatory standards and of underreporting sewage spills.

In 2011, San Francisco Bay Regional Water Quality Control Board fined Oakland \$114,000 after it found that the city falsified the start times of sewage overflows and underreported the volume of sewage released.

In 2013, an official inspection revealed that Oakland failed, 35 percent of the time, to alert agencies during the mandated 2-hour time frame when an overflow reached a drainage channel or surface water; did not follow protocol for testing water quality for fecal coliform, E. coli, and ammonia after spills discharged into creeks and lakes; and did not adequately notify the public during dangerous overflows — specifically when sewage spilled into Lake Temescal.

"The city did not post any signs warning the public of raw sewage," the report noted, adding that, even though the overflow didn't occur during swimming season, "Lake Temescal is used for various non-water contact activities such as hiking, fishing, picnicking and biking. The public must be warned that an SSO resulted in a discharge into the lake and of the potential health impacts of contact with lake waters."

According to Bill Johnson, division chief of the Wastewater and Enforcement Division of the San Francisco Bay Regional Water Quality Control Board, the agency conducted a follow-up inspection of Oakland in July 2017 but has not yet released the results. The agency has also continued to follow up on reported allegations of noncompliance. "We are aware of a number of issues that have been reported to us in the city of Oakland and the collection system," he said. "Our team is investigating those issues. We are taking it seriously."

Oakland Public Works Department officials contend that the agency is in compliance with the consent decree and that city records reflect a valid assessment of the work being done. "OPW maintains accurate documentation of overflows," wrote Maher. "There are several inter-departmental points of contact and oversight that help ensure intake,

dispatch, response, and reporting of overflows is accurate and meets regulatory compliance."

Parties to the 2014 consent decree, like the environmental group San Francisco Baykeeper, which has worked to protect Bay Area waters from pollution for nearly 30 years, rely on and trust the record-keeping of the city, because they do not have the capacity to check themselves. Erica Maharg, Baykeeper's managing attorney, also said that even if the numbers reported were accurate, there's too much sewage flowing into the bay. "The city has more than 900 miles of sewer pipes. So, typically, any one day if you go out and see one segment, you are not going to find anything," she said, adding, "but these reports are submitted under penalty of perjury. So, if there is something wrong, that is a pretty serious offense."

Dangerous bacteria and toxic chemicals have flooded into streets, onto properties, and into storm drains — or directly into regional bodies of water like Lake Temescal, where people fish and swim — without public knowledge.

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If officials are found to have fabricated reports, it could mean a hefty fine or even jail time.

Worse than that though, Maharg said, it would call into question the accuracy of the rest of the regulatory reporting from departments citywide.

"Understanding and having trust in how the city is reporting these sewage spills is the only way that our citizens know what impacts and what hazards there are," she added. "So, if that breaks down, how can we trust anything that the city is doing?"

On Dec. 1, 2017 — close to two years after the city acknowledged that the sewer main above Terry Tobey's property needed to be repaired — Andes Construction began fixing it. But during the work, the *Express* observed that no city inspector was on site. The work also took more time than scheduled after the initial attempt to put in the new section of pipe failed.

When the work was done, the manhole was not to code; it was slanted on uneven ground. "It is supposed to be straight — surface grade," Little said. "It is not supposed to be tilted at a damn angle. They have so much deplorable work here in this city it is ridiculous."

A city records request also revealed that there were no camera records for Andes' work to show whether it placed the underground pipe correctly and to city code or that the city had inspected it.

Tobey said that's one reason she isn't confident that her battle is over. There's still lots more work needed to repair and sustain the crumbling

hillside and protect her horses and her home. The stress of it all keeps her up at night. She's terrified now that it's the rainy season again.

"By the end of this winter, I don't even know what that hillside is going to be like," she said. "I don't even know if my barn is going to be standing."

She said she has no choice but to try to hold the city accountable for the damage already done.

"As far as what it's going to take to fix it?" she said. "We will not know that until the sewage quits flowing."

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San Francisco Chronicle

S.F. breaking ground on wastewater recycling plant

By Dominic Fracassa

January 16, 2018

The sprawling lawns of Golden Gate Park and two major San Francisco golf courses are very thirsty places, and in the coming years, recycled wastewater will satisfy that thirst, thanks to a new treatment plant being built by the city's water agency.

On Wednesday, the San Francisco Public Utilities Commission will begin construction on the plant that, when completed, will pump around 1.6 million gallons of treated wastewater each day to sprinklers dotting Golden Gate Park, Lincoln Park Golf Course and the Presidio Golf Course.

Those lush locales are now irrigated with drinking water — hundreds of millions of gallons each year that the city will soon be able to conserve, substantially adding to the store of drinkable water that can be tapped in the event of a natural disaster or other major emergency.

“What we're really trying to focus on is getting the right water for the right uses,” said Steven Ritchie, assistant general manager for the SFPUC's water division. “This is the first serious use of wastewater by San Franciscans for irrigation in decades,” he said.

Similar wastewater recycling projects have sprung up across the state as cities and intensive agricultural operations look to diversify their water sources.

“Recycling is really where the next big batch of water resilience and security is going to come from in urban parts of California,” said Felicia Marcus, chair of the State Water Resources Control Board. “It’s a very high priority,” she said, adding that the state has disbursed over \$1 billion in low-cost loans and grants “to take water recycling projects from the drawing boards and getting them going on the ground.”

The new plant, scheduled to be completed by 2021, will cost around \$214 million with \$186 million of that from a low-interest loan the city secured from the state, Ritchie said.

Golden Gate Park, the city’s largest park, will receive most of the reclaimed water. Phil Ginsburg, general manager of San Francisco’s Recreation and Park Department, said the 1,000-acre park uses about 400 million gallons of water each year, including on its nine-hole golf course.

“I think the last half-decade or so has taught us what a precious resource water is, and it’s our shared mission with the PUC to do all we can to conserve it,” Ginsburg said.

Ritchie said the SFPUC is still working out a contractual agreement with the Presidio Trust, which oversees the Presidio Golf Club, to arrange for the water’s delivery there.

The new facility will be built adjacent to the SFPUC’s Oceanside Treatment Plant on San Francisco’s west side, which processes an average of 17 million gallons of wastewater and storm water each day, or about 20 percent of the city’s total. San Francisco is unique among coastal cities in California in that it relies on a combined sewer system that captures and treats wastewater and storm water using the same set of pipes. The bulk of the city’s wastewater and storm runoff — about 80 percent — is treated at the Southeast Treatment Plant, located in the Bayview.



Photo: Santiago Mejia, The Chronicle

This land will be the site of a new wastewater recycling plant at the Oceanside Treatment Plant.

The new plant will capture some of the water treated at the Oceanside plant that would ordinarily be discharged into the Pacific Ocean. At the new plant, the recaptured water will first undergo intensive filtration and pressurized purification to eliminate bacteria, organic particles and unwanted chemicals. It will then be disinfected with ultraviolet light.

The SFPUC has already laid most of the roughly 8 miles of new pipeline, mostly along 34th and 36th avenues and through the center of Golden Gate Park, that will convey the recycled water to its destinations. The agency also plans to build an 840,000-gallon underground reservoir at the park, along with a pumping station that will push water north toward the golf courses.

Both the reservoir and pump station will be built in a maintenance yard inaccessible to the public, and the city anticipates no recreational space will be lost during or after construction.

The recycled wastewater will exceed the state's health regulations, according to the SFPUC, and the water will pose no danger to pets or wildlife.

"It's not going into water fountains or sinks," Ginsburg said, "but it's clean and safe and appropriate for park landscapes."

Dominic Fracassa is a San Francisco Chronicle staff writer. Email: dfracassa@sfgate.com Twitter: [@dominicfracassa](https://twitter.com/dominicfracassa)

Half Moon Bay Review

HMB approves sewer expenses

Council frustrated with plant management

By Carina Woudenberg *Jan 24, 2018*

The Jan. 16 Half Moon Bay City Council meeting took an especially sobering turn when the agenda turned to Sewer Authority Mid-Coastside mid-year adjustments.

The city is one of three Coastside agencies that form the joint powers authority that is dedicated to sewer management. City Council members were appalled at the nearly \$2 million in additional expenditures that they say could have been prevented with regular maintenance.

One such item was an authorization of \$234,605 for the city's share of a project to address the failure of an electrical component that stopped working in late November.

"Was this project identified in SAM's capital improvement plan as something that needed to be addressed and thought about previously?" Half Moon Bay Councilman Rick Kowalczyk asked. "The answer is, 'No.'... It was not identified as a capital improvement project, they were unaware."

Kowalczyk stated that simple maintenance such as paint could have prevented the rusting that ultimately led to the failure, and expressed frustration over the fact that the SAM plant had been operating on generator power for a week before notifying Half Moon Bay staff.

"My opinion of the management, of the sewer authority, the general manager is abysmal," Kowalczyk said. "We, the city, are going to pay this quarter of a million dollars because we have to, because we're responsible because they were irresponsible."

Half Moon Bay Councilwoman Debbie Ruddock, who sits on the SAM board of directors, piled on, noting that SAM's early January board meeting staff had admitted that there was no maintenance schedule.

"As it turns out, SAM staff does not have a regular maintenance schedule for much of its equipment," Ruddock said. "What we've been doing for the last several years is basically repairing and replacing things on a reactive basis. We're letting them fail or we're patching."

Ruddock stated that the issue falls partly on management, but she also blamed the way the joint powers authority is structured. Since there is not one overarching entity concerned with wastewater management, the three participating agencies that make up the JPA instead focus their efforts on regulatory compliance and keeping their costs as low as possible for the ratepayers.

“As a result, the individual agency mission is trumping the mission of the Sewer Authority Mid-Coastside,” Ruddock said.

Pursuant to the JPA agreement, the city is responsible for 52 percent of SAM’s costs. With one exception, the council unanimously agreed to approve the budgeting for all items requested including repairs to the Intertie Pipeline System, which was responsible for a 300,000 gallon raw sewage spill in March 2017.

The council voted against budgeting for legal fees associated with the spill.

Reached separately for comment after the meeting, SAM’s General Manager Beverli Marshall noted that nobody on the SAM staff is an electrician, so no one had gone near the failing part to know that there was an issue.

“Nothing had been made clear to my staff that anything needed to be done,” Marshall said.



NOAA investigating massive sewage spill into Monterey Bay

By [Jim Johnson](#), Monterey Herald

Posted: 01/25/18, 6:42 PM PST

Monterey >> A federal investigation is under way to assess the potential damage from the discharge of millions of gallons of raw sewage into the Monterey Bay National Marine Sanctuary.

On Thursday, National Oceanic and Atmospheric Administration special agent Don Tanner confirmed the investigation will be conducted into the incident involving the spill of up to 4.9 million gallons of untreated wastewater into the bay from the Monterey One Water treatment plant.

Tanner said the focus will be on determining the “potential impact on natural resources” in the marine sanctuary. He said there is a potential for fines and penalties, but that would be determined by legal counsel after the investigation is completed.

Monterey One Now Government Affairs Director Mike McCullough said Tanner met with agency representatives on Thursday to ask questions and was given an overview of the incident.

An investigation is already being conducted by the agency and a third party consulting firm, Pinnacle ART, and a draft report has already been submitted to the Central Coast regional water board, according to McCullough.

The draft report has recommended adding surveillance cameras to allow agency staff to monitor the treatment plant and infrastructure, which experienced the equipment malfunction allowing the sewage to flow into the ocean for more than eight hours between Friday night and Saturday morning last week.

The investigations are expected to take weeks to complete.

The spill and its aftermath comes with the agency in the midst of building a \$100 million advanced wastewater treatment plant designed to produce about 3,500 acre-feet of potable water to be pumped into the Seaside basin for later use by Monterey Peninsula residents as part of a replacement water supply to offset the state-ordered Carmel River pumping cutback. The plant is supposed to be ready to deliver water by next year.



After the worst sewage spill in local history, Monterey One Water builds in redundancies.

David Schmalz *February 1, 2018*

The recent sewage spill into Monterey Bay, which started Jan. 19 and ended the next morning, was the worst in Monterey One Water's history, and the only one to occur out of the agency's 29-year-old wastewater treatment plant in Marina. The good news, if it can be called that, is the estimated volume of the spill is continually being revised downward as engineers make assessments.

Initially, the agency estimated that as much as 4.9 million gallons of raw sewage flowed out of the treatment plant's outfall, which is two miles offshore of Marina. Within a day, the estimate was revised to 4.4 million gallons, and by Jan. 30, to 2.8 million gallons; the estimate is expected to go down further.

Nonetheless, Monterey One Water General Manager Paul Sciuto does not want to minimize the severity. "It's unacceptable," he says of the spill.

The agency is working with an outside firm to better understand what went wrong, how it went wrong and how it can be prevented in the future.

This is what is known: At 7:10pm on Jan. 19, a single component of a computer failed, leading to two problems. First was that a mechanical rake that clears debris from a screen covering the plant's intake stopped working; waters eventually rose to a spillway that leads to the outfall. That component also failed to send data to the alarm system that should have gone off in the plant's control room.

[There are about 192 trillion gallons of water in the bay.](#)

Why the component failed remains under investigation, but Monterey One Water has already put redundancies in place to ensure such an accident doesn't happen again. The agency has installed an infrared camera focused on the headworks – essentially, the plant's intake filter – and ultrasound sensors in the pipes leading into the headworks that will send a message via satellite if water levels rise to a certain height. And while the plant's control room is always staffed, a temporary employee has been hired to walk around the plant from 6pm to 6am to look for any problems.

The spill started about an hour after the equipment failure on Jan. 19, and was only discovered around 5am the next morning because a plant employee walked outside to open a gate for a contractor and noticed raw sewage discharging from a concrete structure on the property (in addition to what was flowing into the bay).

Had the problem not been discovered then, the spill could have been far worse as people started using bathrooms in the morning and volume into the plant increased.

While Sciuto expects the state will fine the agency for the incident, the spill's impact on the Bay's water quality is likely negligible, although the composition of the sewage – and whether it contained chemicals that are harmful to marine life – is still being analyzed.

Context is also important: Bridget Hoover, the water quality protection program director at NOAA's office in Monterey, estimates there are about 192 trillion gallons of water in Monterey Bay.

Additionally, the plant's outfall has a diffuser with 171 different ports that discharge the water over a larger area, lessening the impact in any one location.

Tests conducted by Monterey One Water in the days after the spill showed elevated bacteria levels at only one location – Wharf 2 in Monterey – but it is not believed to be related.