CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

March 9, 2016

Attn: Frank Asuncion, Crew Leader
Los Osos Community Services District
PO Box 6064
Los Osos, CA 93412

System Number 4010016 – 2016 Sanitary Survey

Dear Mr. Asuncion,

Thank you for your cooperation during the Los Osos Community Services District (hereinafter LOCSD) water system inspection conducted on February 23, 2016. The inspection was conducted by Bill Liang, Water Resource Control Engineer, with the Division of Drinking Water (hereinafter DDW).

The routine inspection of the drinking water system was part of a Sanitary Survey and included examining the source, treatment, storage, and pump facilities. In addition to the water system inspection, this Sanitary Survey included a review of the distribution system, routine monitoring and reporting to the DDW, water system management and operations, and operator compliance with State requirements. The purpose of the Sanitary Survey is to identify any health concerns related to the water system and to assess the overall construction, operation, maintenance, and management of the water system.

Based on the recent field inspection and review of DDW files, a few items were identified that require attention by LOCSD to increase the reliability and safety of the water system and to meet all applicable regulations. These items are listed below, and are discussed at greater detail along with a broader analysis of the water system in the Sanitary Survey Report enclosed (Enclosure 1). Please complete the enclosed Sanitary Survey response form (Enclosure 2) and return it to our office by April 8, 2016.

Los Osos Community Services District Sanitary Survey Follow Up Items:

1. LOCSD's emergency connection to Golden Water Company – Los Osos is an unapproved potable water source. It is currently not connected to LOCSD's distribution system. LOCSD shall submit a permit amendment application and receive approval from DDW prior to using the emergency connection.

2. LOCSD shall seal the small cracks on the well slab and screen the air relief vent on the 8th Street Well by April 8, 2016.

3. LOCSD shall seal the crack on the well slab of the 3rd Street Well by April 8, 2016.

4. LOCSD is looking into whether ion exchange treatment is suitable to remove hexavalent chromium for the 3rd Street Well. A permit amendment will be required for the new 3rd Street treatment facility.

5. LOCSD shall screen the air relief vent on the 10th Street Well by April 8, 2016.

6. If LOCSD chooses to utilize the South Bay Upper Aquifer Well bypass line, LOCSD shall submit a blending plan to DDW and receive approval prior to using it.

7. LOCSD shall screen the air relief vent on the 8th Street Fe/Mn filtration vessel by April 8, 2016.

8. Only 76 of the 80 backflow prevention devices were reported to be tested in 2014. LOCSD shall ensure that all backflow prevention devices are adequately tested every year by a certified cross-connection specialist. The results shall be reported on the Annual Report.

9. During the inspection, the inner screens of the three storage reservoirs' air relief vents cannot be determined whether they were adequately screened. LOCSD shall submit pictures of the inner screens of the three storage reservoirs' air relief vents to DDW by April 8, 2016. LOCSD shall ensure that the screens are capable of preventing the entry of small animals and insects.

10. LOCSD shall screen the drains of the two 16th Street reservoirs and the overflow of the 16th Street reservoir (south) by April 8, 2016.

11. LOCSD shall submit pictures to DDW to ensure that Follow-Up Items # 2, 3, 5, 7, 9, and 10 are completed.

12. DDW determined that LOCSD's wells were not constructed in asbestos rock formation and waived asbestos source monitoring in 2003. However, DDW does not have any documentation on whether the wells were constructed in asbestos rock formation. LOCSD shall provide documentation to DDW for the determination of whether LOCSD's six groundwater wells are constructed in asbestos rock formation.

13. No bacteriological sampling results are available for the South Bay Upper Aquifer Well. DDW was informed that LOCSD has been operating the South Bay Upper Aquifer Well and have been taking bacteriological samples. LOCSD shall submit the 2015 quarterly bacteriological sampling results for the South Bay Upper Aquifer Well to DDW by April 8, 2016.

14. LOCSD is currently not reporting the iron and manganese results for the raw water of the South Bay Upper Aquifer Well on the monthly report or through EDT. LOCSD shall begin reporting iron and manganese results for the raw water of the South Bay Upper Aquifer Well on the monthly report. LOCSD shall also request its lab to submit previous iron and manganese data for the South Bay Upper Aquifer Well to DDW through EDT. The PS Code for the South Bay Upper Aquifer Well is provided below.

Source	PS Code
South Bay Upper Aquifer Well	4010016-016

15. No nitrate monitoring results are available for the treated effluent of the South Bay Upper Aquifer ion exchanger. LOCSD shall begin reporting the nitrate monitoring results for the treated effluent of the South Bay Upper Aquifer on the monthly report. LOCSD shall also request its lab to submit previous nitrate results for the South Bay Upper Aquifer Well to DDW through EDT. The PS Code for the South Bay Upper Aquifer ion exchange treated effluent is provided below.

Source	PS Code
South Bay Upper Aquifer IX TP	4010016-021

16. The classification of LOCSD's treatment facilities and distribution system are enclosed (see Enclosure 3). It is recommended that LOCSD allow its operator to operate and gain experience using the South Bay ion Exchanger if they choose to pursue a T3 certification.

17. DDW recommends submitting individual treatment reports to DDW on a monthly basis. A blank iron and manganese treatment (see Enclosure 4) and ion exchange treatment (see Enclosure 5) reporting forms are provided.

18. The aggressive index (AI) result from the November 3, 2014 sample date for the South Bay Upper Aquifer Well was 10.1 which require LOCSD to sample its distribution system for asbestos. LOCSD shall conduct asbestos sampling in its distribution system by April 8, 2016. The results shall be submitted to DDW.

19. The Bacteriological Sample Siting Plan (BSSP) must be updated every 10 years at a minimum or as needed. LOCSD's latest BSSP is dated April 5, 2006. LOCSD shall ensure that an updated BSSP is submitted to DDW by April 5, 2016.

20. LOCSD has an outdated Emergency Notification Plan dated July 31, 2012 on file with DDW. LOCSD shall submit an updated ENP (see Enclosure 6) to DDW by April 8, 2016.

21. It is recommended that LOCSD allows DDW to review a draft of the 2015 Consumer Confidence Report (CCR) before distributing it to LOCSD's customers.

If you have any questions regarding this letter, please contact Bill Liang, Water Resource Control Engineer, at (805) 566-1839 or bill.liang@waterboards.ca.gov.

Sincerely,

Jeff Densmore, P.E., District Engineer
Santa Barbara District
State Water Resources Control Board
Division of Drinking Water

Enclosure 1: Sanitary Survey Report
Enclosure 2: Sanitary Survey Response Form
Enclosure 3: Water System Classification Letter
Enclosure 4: Blank Iron and Manganese Filtration Treatment Reporting Form
Enclosure 5: Blank Ion Exchange Treatment Reporting Form
Enclosure 6: Blank Emergency Notification Plan

cc: San Luis Obispo County Environmental Health Services

Enclosure 1

Sanitary Survey Report

State Water Resources Control Board

Division of Drinking Water

Southern California Field Operations Branch

Sanitary Survey Report

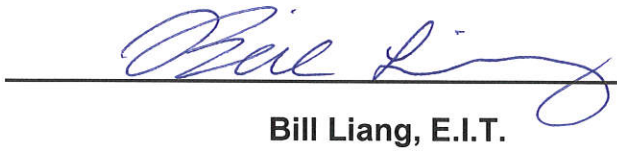
Los Osos Community Services District

4010016

San Luis Obispo County

March 9, 2016

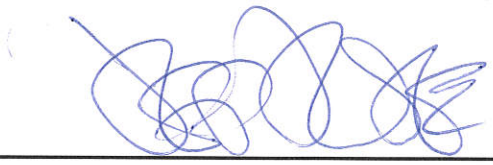
Prepared By:



Bill Liang, E.I.T.

Water Resource Control Engineer
Santa Barbara District

Reviewed and Approved By:



Jeff Densmore, P.E.

District Engineer
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March 9, 2016

Sanitary Survey Report
For
Los Osos Community Services District
San Luis Obispo County

State Water Resources Control Board
Division of Drinking Water
Southern California Field Operations Branch
Bill Liang, Water Resource Control Engineer

I. INTRODUCTION

1.1 PURPOSE OF REPORT

The purpose of this report is to document the findings of the recent Sanitary Survey conducted at Los Osos Community Services District (hereinafter LOCSD), located in the City of Los Osos in San Luis Obispo County. Sanitary Surveys are required every three years, at a minimum, and consist of a discussion and survey of eight elements (*Source, Treatment, Distribution System, Finished Water Storage, Pumps/Pump Facilities/Controls, Monitoring/Reporting/Data Verification, System Management and Operation, and Operator Compliance with State Requirements*). Each element is comprised of several components. The public water system is required to comply with all regulations pertaining to each element. If the Division of Drinking Water (hereinafter DDW) identifies a *significant deficiency* in any element category during a Sanitary Survey, the public water system will be required to correct the *significant deficiency* in a specified time frame.

1.2 BRIEF DESCRIPTION OF SYSTEM

LOCSD is classified as a community water system that serves the Baywood Park area of Los Osos. LOCSD provides potable water to a year-round population of approximately 7,086 people via 2,740 service connections. LOCSD's water system consists of six active groundwater wells, three finished water reservoirs, and two booster pump stations. LOCSD maintains an emergency connection to Golden State Water Company – Los Osos. The connection is not permitted by DDW and is currently not connected to LOCSD's distribution system. LOCSD's

distribution system consists of a gravity zone and a boosted zone. Three of its wells are provided with iron and manganese filtration treatment and one well is provided with ion exchange treatment for nitrate removal. LOCSD also provides corrosion control treatment to four of its wells using blended orthophosphate to comply with the Lead and Copper Rule. LOCSD operates under the authority of Permit No. 04-06-15P-003 that was issued by DDW on January 21, 2015. The previous Sanitary Survey was conducted in 2012.

1.3 SOURCES OF INFORMATION

All information included in this report was obtained from DDW files, LOCSD personnel Frank Asuncion, and a site visit on February 23, 2016.

1.4 WATER DEMAND DATA

Table 1: Water Demand Data for the Previous 10 Years

Year	Maximum Daily Water Demand (Gallons)	Maximum Monthly Water Demand (Gallons)	Annual Water Demand (Gallons)
2005	1,537,000	32,648,000	312,062,000
2006	1,251,000	38,234,875*	305,879,000
2007	1,268,000	31,215,000	307,321,000
2008	1,145,000	27,819,000	283,519,000
2009	1,152,000	27,750,000	288,019,000
2010	1,017,000	26,066,000	252,377,000
2011	1,393,800	26,868,300	248,417,100
2012	1,044,700	25,998,000	245,950,300
2013	997,600	29,562,187*	236,497,500
2014	889,500	20,979,300	206,614,100

*Estimated from annual or monthly demand data

Based on the previous ten years of available water use data, the maximum daily demand is estimated to be approximately 1,537,000 gallons or 1,067 gpm.

1.5 ENFORCEMENT HISTORY

DDW issued Citation No. 04_06_15C_036 to LOCSD on January 13, 2016 for failing the hexavalent chromium standard of 0.010 mg/L in water delivered from the 3rd Street (Bayside) Well. The average result from six consecutive samples collected between August 4, 2014 and December 7, 2015 was 0.011 mg/L.

II. INVESTIGATION AND FINDINGS

2.1 ELEMENT 1: SOURCES

2.1.1 GROUNDWATER SUPPLIES

LOCSD's source of water comes from six active groundwater wells. Each well is equipped with an air relief vent, sampling tap, and meter. LOCSD maintains a portable generator at the water yard that can provide auxiliary power to the wells or booster pump stations during a power failure. The specifications of each well are provided in Table 2.

LOCSD also maintains an emergency connection to Golden State Water Company - Los Osos that is unapproved and currently not connected to LOCSD's distribution system. **The emergency connection will need to be approved by DDW and a permit amendment will be required prior to connecting it to LOCSD's distribution system.**

Table 2: Active Groundwater Well Information

Source Name & PS Code	Year Drilled	Well Depth (ft.)	Annular Seal Depth (ft.)	Well Casing Type & Diameter	Perforation Depth (ft.)	Pump Type	Pump Capacity (gpm)	Pump Yield (gpm)	Well Protection
8th St. Well 02 (El Moro Well) 4010016-001	1986	290	135	Steel, 10-inch	230	Submersible	375	325	Housed
Palisades Well 01 4010016-005	1981	550	58	Steel, 12-inch	350	Submersible	660	325	Housed
South Bay Lower Aquifer Well 4010016-006	1991	390	200	Steel, 14-inch	220	Submersible	175	65	Fenced
10th St. Well 02 (Los Olivos) 4010016-008	1991	490	215	Steel, 14-inch	235	Submersible	375	325	Fenced
3rd St. (Bayside) Well 4010016-009	1951	84	56	Steel, 8-inch	56	Submersible	75	80	Fenced
South Bay Upper Aquifer Well 4010016-016	2008	240	64	Steel, 8-inch	170	Submersible	75	25	Fenced

The air relief vent on the 8th Street Well is not screened. There were also several small cracks on the well slab of the 8th Street Well. **LOCSD shall seal the small**

cracks on the well slab and screen the air relief vent on the 8th Street Well by April 8, 2016.

The 3rd Street Well had a crack on the well slab which needs to be sealed. **LOCSD shall seal the crack on the well slab of the 3rd Street Well by April 8, 2016.** LOCSD is currently not using the 3rd Street Well due to high hexavalent chromium levels. LOCSD is looking into different treatment options for the 3rd Street Well. LOCSD is conducting additional water quality sampling to determine whether ion exchange treatment is suitable for the 3rd Street Well. **A permit amendment will be required for the new 3rd Street treatment facility.**

The air relief vent on the 10th Street Well needs to be screened. **LOCSD shall screen the air relief vent on the 10th Street Well by April 8, 2016.**

2.1.2 DRINKING WATER SOURCE ASSESSMENT PROGRAM (DWSAP)

The source assessments for all of the active wells have been completed. Table 3 lists the activities that the sources are most vulnerable to that are not associated with any detected contaminants.

Table 3: Active Well Source Assessment

Source	Report Date	Possible Contaminating Activities
8th St. Well 02 (El Moro Well)	June 2001	Septic systems – high density (>1/acre)
Palisades Well 01	June 2002	Dry cleaners; Historic gas stations; Septic systems – high density (>1/acre)
South Bay Lower Aquifer Well	June 2002	Animal Feeding Operations
10th St. Well (Los Olivos)	June 2001	Automobile – Gas stations; Historic gas stations; Septic systems – high density (>1/acre)
3rd St. (Bayside) Well	June 2001	Septic systems – high density (>1/acre)
South Bay Upper Aquifer Well	August 2009	Recreation area – surface water source; Wells – Agricultural/Irrigation Septic systems – high density (>1/acre)

2.1.3 ADEQUACY OF SUPPLY

LOCSD is required to have enough source capacity at all times to meet its maximum daily demand, as determined from the past 10 years. The estimated maximum daily demand is 1,537,000 gallons or 1,067 gpm. LOCSD has six active groundwater wells that provide a total source capacity of 1,735 gpm and three finished water reservoirs that provide a total storage capacity of 1,305,000 gallons. Therefore, LOCSD is considered to have an adequate water supply.

2.2 ELEMENT 2: TREATMENT

2.2.1 DISINFECTION TREATMENT

LOCSD provides chlorination treatment to its groundwater supply. LOCSD disinfects the water obtained from Palisades Well, 10th Street Well, and 3rd Street Well by injecting a 12.5% sodium hypochlorite solution at the well discharge pipe prior to delivery to the distribution system. Sodium hypochlorite is provided prior to filtration treatment for 8th Street Well, South Bay Aquifer Upper Well, and South Bay Aquifer Lower Well. LOCSD stores a 500 gallon hypochlorite supply at the water yard. The chlorination facilities are housed and secured. All six wells are equipped with HACH-CL17 online chlorine analyzers. Chlorine residuals are measured and recorded daily for the 8th Street Well and the South Bay Wells before and after filtration.

2.2.2 ION EXCHANGE TREATMENT

Ion exchange treatment is provided for the raw water of the South Bay Upper Aquifer Well for nitrate removal. The ion exchange unit is housed. The ion exchange unit consists of two 36 inch by 60 inch vessels operated in parallel configuration. The two vessels are filled with an ADIX-NO3 strong-base anion exchange resin. The design flow rate through each vessel is 75 gpm. The maximum service loading rate is 4 gpm/ft^2. The resins can be regenerated based on elapsed time or gallons processed. The ion exchanger is equipped with an online nitrate analyzer which monitors the nitrate concentration of the treated effluent. When the effluent nitrate concentration reaches 10 mg/L as N, an alarm is sent to the SCADA system to shut the well off and begin regeneration. The regeneration process consists of a backwash, brine draw, slow rinse, and fast rinse. The resin is backwashed with distribution water, followed by regeneration using a 10% sodium chloride solution. The 10% sodium chloride solution is made on-site in a 200 gallon tank using 15 lbs. of salt/ft^3 of resin and distribution water. Each vessel has the option to be placed into standby mode for servicing. LOCSD alternates the regeneration of each ion exchange vessel, one at 9 am and the other at 4 pm, to allow adequate preparation of the sodium chloride solution for the next round of regeneration. The brine is stored in a 5,000 gallon HDPE storage tank. The brine is hauled off site for proper disposal approximately once every week. The vessels are equipped with pressure sensors to determine the differential pressure. If the differential pressure exceeds 10 psi, a backwash is triggered. Backwash water is supplied from the distribution system water. Chlorination occurs after the ion exchange treatment, prior to blending with chlorinated South Bay Lower Aquifer Well water.

A bypass line exists that allows untreated South Bay Upper Well water into the distribution system. However, LOCSD does not normally have the bypass line valve open. **If LOCSD chooses to utilize the bypass line in the future,**

LOCSD shall submit a blending plan to DDW and receive approval prior to using it.

2.2.3 IRON AND MANGANESE FILTRATION

LOCSD provides iron and manganese filtration treatment of its groundwater supply. LOCSD operates two treatment plant located at the 8th Street Well site and at the South Bay Aquifer Well site.

2.2.3.1 8th STREET IRON AND MANGANESE TREATMENT PLANT

The filtration treatment plant located at the 8th Street Well site consists of a sand separator and one horizontal in-line dual media filter. The iron and manganese in the raw water of the 8th Street Well is oxidized with the use of sodium hypochlorite before entering the sand separator, and then directed into the media filter. The filter media used are anthracite and sand. The filter vessel is 8 feet in diameter and is 14 feet long. The filter vessel has a surface area of 112 ft^2. The peak flow rate of 425 gpm produces a total filtration rate of 3.8 gpm/ft^2. The filter is backwashed using raw well water after 500 hours of production have elapsed. LOCSD also has the option of backwashing the filter when the system experiences a head loss of 8 to 10 psi. The backwash waste is directed to two storage tanks prior to discharge into a nearby pond through an air gap. **The air relief vent of the 8th Street iron and manganese filtration vessel needs to be screened. LOCSD shall screen the air relief vent of the filtration vessel by April 8, 2016.**

2.2.3.2 SOUTH BAY IRON AND MANGANESE TREATMENT PLANT

The filtration treatment plant located at the South Bay Aquifer Well site consists of four vertical in-line dual media filters. The four filtration vessels are housed. Each filter vessel is equipped with an air relief vent. The filter media used are anthracite and sand. Each filter vessel is 4 feet in diameter and is 5 feet tall. Each filter vessel has a surface area of 12.6 ft^2, giving a total surface area of approximately 50 ft^2. At the peak flow rate of 200 gpm, the total filtration rate is 4 gpm/ft^2. Chlorinated water from the South Bay Lower Aquifer Well and the ion exchange treated effluent from the South Bay Upper Aquifer Well are blended before being directed into the filters. The filters are backwashed with raw well water after 500 hours of production. LOCSD also has the option of backwashing the filters when the system experiences a head loss of 8 to 10 psi. The backwashed water is then discharged to a filter basin through an air gap.

2.2.4 CORROSION CONTROL TREATMENT

LOCSD has the ability to provide corrosion control treatment to four of its groundwater wells: 8th Street Well, Palisades Well, 10th Street Well, and 3rd Street Well. LOCSD uses a blended orthophosphate solution and keeps an adequate

supply at the well sites. Orthophosphate is injected at the well discharge pipe for the Palisades Well, 10th Street Well, and 3rd Street Well prior to delivery to the distribution system. Ortho-phosphate is injected after iron and manganese filtration treatment for the 8th Street Well. LOCSD personnel routinely monitor the wells for orthophosphate, chlorine residual, pH, and temperature.

2.3 ELEMENT 3: DISTRIBUTION SYSTEM

2.3.1 DISTRIBUTION LINES

LOCSD's distribution system is made up of two pressure zones. The distribution pipes are made of asbestos cement, PVC (C-900), and ductile iron. The pipes range from 4 to 16 inches in diameter, and are pressurized between 60 to 90 psi in the gravity zone and 45 to 75 psi in the boosted zone. The 20 dead ends and the 558 valves in the distribution system are flushed and exercised annually or as needed.

LOCSD's service area is served by septic systems for sewer disposals. However, LOCSD is in the process of adding a sewer collection system. If sewage lines are installed in the future, a minimum distance of 10 feet horizontal and 1 foot vertical shall be maintained from water mains.

2.3.2 CROSS CONNECTION PROGRAM

LOCSD maintains eighty backflow prevention devices that are used to protect the water system from potential cross-connections. LOCSD is required to ensure that all backflow prevention devices are tested annually. Jon Williams from San Luis Obispo County coordinates the cross-connection control program for LOCSD. The specifications of LOCSD's Cross Connection Control Program according to the 2012-2014 Annual Report are provided in Table 4.

Table 4: 2012-2014 Backflow Prevention Device Testing Results

Year	Number of Backflow Devices	Number Installed	Number Tested	Number Failed	Number Repaired / Replaced
2012	58	2	74	9	6
2013	62	2	70	8	8
2014	80	12	76	1	2

The 2014 Annual Report indicated that not all of its backflow prevention devices were tested. Only 76 of the 80 backflow prevention devices were adequately tested. **LOCSD shall ensure that all backflow prevention devices are tested annually by a certified cross-connection specialist. The results shall be reported on the Annual Report.**

2.4 ELEMENT 4: FINISHED WATER STORAGE

LOCSD operates and maintains three above ground reservoirs with a total storage capacity of 1,305,000 gallons. The three storage reservoirs are made of steel and internally coated with epoxy. The three storage reservoirs are equipped with air relief vents, drains, and overflows. The storage reservoirs are located in residential areas and fenced to prevent unwanted public access. The storage reservoirs were inspected and cleaned last year. The specifications of the three storage reservoirs are provided in Table 5.

Table 5: Finished Water Storage Reservoir Specifications

Name	Type	Year Built	Capacity (gal)	Inlet / Outlet	Receives Water From	Delivers Water To
10th Street Reservoir	Steel	1962	380,000	Separate	8th Street, Palisades, 10th Street, & 3rd Street Wells	Gravity Zone
16th Street Reservoir (North)	Steel	1967	400,000	Separate	South Bay Upper & Lower Wells	16th Street Booster Station
16th Street Reservoir (South)	Steel	1980	525,000	Separate	South Bay Upper & Lower Wells	16th Street Booster Station

During the inspection, it was not determined whether the inner screens on the three reservoirs' air relief vents were adequately screened. **LOCSD shall submit pictures of the inner screens of the three reservoirs' air relief vents to DDW by April 8, 2016. LOCSD shall ensure that the screens are capable of preventing the entry of small animals and insects.**

The drains on the two 16th Street reservoirs need to be screened. There is a hole on the overflow of the 16th Street reservoir (south) and requires a new screen. **LOCSD shall screen the drains of the two 16th Street reservoirs and the overflow of the 16th Street reservoir (south) by April 8, 2016. The screens shall be capable of preventing the entry of small animals and insects.**

2.5 ELEMENT 5: PUMPS, PUMP FACILITIES, AND CONTROLS

LOCSD operates two booster pump stations to maintain adequate pressure in its water system. Both booster stations are controlled by pressure transducers. The

booster stations are located in residential areas. The 10th Street Booster Station has the ability to be powered by a portable standby generator in the event of a power outage while the 16th Street Booster Station has an emergency generator located on-site. The specifications of the two booster pump stations are provided in Table 6.

The 10th Street booster pump station has one 15 hp pump. The pump acts as a "transfer pump" that transfers water from the 10th Street reservoir into the gravity zone to empty the tank and prevent water stagnation. The 10th Street booster pump operates from 9:30 am to 4 pm. After 4 pm, the 10th Street booster pump is turned off and the gravity zone is pressurized by the 10th Street reservoir. The 10th Street reservoir can only be filled after 4 pm when the booster pump is not running.

The 16th Street booster pump station has a total of 6 pumps. There are one 7.5 hp, three 20 hp, and two 100 hp pumps. Treated water from the South Bay Wells supplies the boosted zone.

Table 6: Booster Pump Station Info

Name	# of Pumps	Horsepower (hp)	Total Capacity (gpm)	Delivers Water From	Delivers Water To
10th Street Booster Station	1	15 hp	80	10th Street Reservoir	Gravity Zone
16th Street Booster Station	6	(1) 7.5 hp; (3) 20 hp; (2) 100 hp	19,350	16th Street Reservoir	Boosted Zone

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2.6 ELEMENT 6: MONITORING, REPORTING, AND DATA VERIFICATION

2.6.1 SOURCE MONITORING

LOCSD is required to routinely monitor its groundwater sources for general physical parameters, general minerals, inorganic chemicals, radiological chemicals, volatile organic compounds (VOC), synthetic organic compounds (SOC), total coliform bacteria, and fecal coliform bacteria (*E. coli*).

DDW determined that LOCSD's six groundwater wells were not constructed in asbestos rock formations and waived asbestos source monitoring in 2003. DDW does not have any documentation on whether the wells were constructed in asbestos rock formations. **LOCSD shall provide documentation to DDW for the determination of whether its six groundwater wells are constructed in asbestos rock formation.**

2.6.1.1 CHEMICAL MONITORING

The results of previous monitoring and the due dates for future monitoring are provided in Table 7.

Table 7: Chemical Monitoring Frequency of Wells

Source Name & PS Code		General Physical & Minerals	Inorganics	Nitrate	Radiological: Gross Alpha	VOCs	SOCs: Atrazine, Simazine
8th Street Well 02 4010016-001	Last Sample	2014[1]	2013[2]	2015	2013	2013	2010
	Frequency	3 Years	3 Years	1 Year	9 Years	3 Years	9 Years
	Next Sample	2017	2016	2016	2022	2016	2019
Palisades Well 01 4010016-005	Last Sample	2014[1]	2013[2 & 3]	2016	2013	2013	2010
	Frequency	3 Years	3 Years	1 Year	9 Years	3 Years	9 Years
	Next Sample	2016	2016	2017	2022	2016	2019
South Bay Lower Aquifer Well 4010016-006	Last Sample	2014[1]	2013[2 & 4]	Nov 2015	2013	2016	2010
	Frequency	3 Years	3 Years	Quarterly	9 Years	3 Years	9 Years
	Next Sample	2017	2016	Feb 2016	2022	2019	2019
10th Street Well 02 4010016-008	Last Sample	2014[1]	2013[2 & 3]	2015	2013	2013	2010
	Frequency	3 Years	3 Years	1 Year	9 Years	3 Years	9 Years
	Next Sample	2017	2016	2016	2022	2016	2019
3rd Street Well 4010016-011	Last Sample	2014[1]	2013[2 & 3]	Dec 2015	2013	2013	2010
	Frequency	3 Years	3 Years	Quarterly	9 Years	3 Years	9 Years
	Next Sample	2017	2016	Mar 2016	2022	2016	2019
South Bay Upper Aquifer Well 4010016-016	Last Sample	2014	2014[4]	2015	2015	2016	2009
	Frequency	3 Years	3 Years	Monthly	9 Years	3 Years	9 Years
	Next Sample	2017	2017	2016	2018	2019	2018

[1] Silver sampled in 2013, next sample due in 2016
[2] Fluoride sampled in 2014, next sample due in 2017
[3] Perchlorate sampled in 2014, next sample due in 2017
[4] Perchlorate sampled in 2015, next sample due in 2018

2.6.1.2 RAW WATER BACTERIOLOGICAL MONITORING

To monitor the bacteriological quality of its raw groundwater, LOCSD tests each well in use quarterly for total coliform bacteria and *E. coli*. For compliance with the Groundwater Rule, LOCSD is also required to test its groundwater sources for coliform when a routine distribution sample is positive for coliform bacteria. Table 8 summarizes how many samples were collected each month, how many were positive for total coliform bacteria, and how many were positive for *E. coli* for each well.

Historically, the 3rd Street Well periodically test positive for total coliform. In June 2012, DDW allowed LOCSD to continue using 3rd Street Well on the condition that the well be sampled on a weekly basis for total coliform and E.coli or fecal coliform, the well is continuously chlorinated with a residual of 1.5 mg/L, and the laboratory conducting the analyses immediately inform LOCSD of any positive results. In November 2014, DDW approved LOCSD's request to operate the well at a chlorine residual of 1.2 mg/L for one month, followed by a month of operating the well at a chlorine residual of 1.0 mg/L. If the results do not test positive for bacteria, LOCSD will continue to operate the well at a chlorine residual of 1.0 mg/L indefinitely and sample 3rd Street Well for bacteria on a monthly basis.

Table 8: 2015 Source Bacteriological Monitoring (Total Coliform & E. coli)

Source	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
8th Street Well 02	1-0-0	1-0-0	1-0-0	1-0-0
Palisades Well 01	0-0-0	1-0-0	1-0-0	**0**-0-0
South Bay Lower Aquifer Well	1-0-0	1-0-0	1-0-0	1-0-0
10th Street Well 02	1-0-0	1-0-0	1-0-0	1-0-0
3rd Street Well	6-0-0	3-0-0	2-0-0	1-0-0
South Bay Upper Aquifer Well	**0**-0-0	**0**-0-0	**0**-0-0	**0**-0-0

Key: # of samples collected - # of total coliform positive results - # of E. coli positive results

No bacteriological sampling results are available for the South Bay Upper Aquifer Well. DDW was informed that LOCSD has been operating the South Bay Upper Aquifer Well since January 2015 and have been taking bacteriological samples. **LOCSD shall submit the 2015 quarterly bacteriological sampling results for the South Bay Upper Aquifer Well to DDW by April 8, 2016.**

2.6.2 TREATMENT MONITORING

LOCSD provides iron and manganese filtration, ion exchange nitrate treatment, and corrosion control treatment for its groundwater wells.

2.6.2.1 8th STREET AND SOUTH BAY FE/MN FILTRATION TREATMENT

The 8th Street and South Bay iron and manganese filtration treatment plants are monitored continuously for chlorine residual and monthly for iron and manganese levels in the raw water and treated effluent. The 8th Street and South Bay iron and manganese filtration treatment monitoring results are provided in Table 9 and Table 10 respectively.

Table 9: 8th Street Fe/Mn Filtration Treatment Monitoring Results for 2015			
8th Street Well: Raw Water		Treated Effluent	
Iron (µg/L)	Manganese (µg/L)	Iron (µg/L)	Manganese (µg/L)
14 - 210	48 - 89	ND - 10	ND - 4.1

Table 10:South Bay Fe/Mn Filtration Treatment Monitoring Results for 2015					
South Bay Upper Well: Raw Water		South Bay Lower Well: Raw Water		Treated Effluent	
Iron (µg/L)	Manganese (µg/L)	Iron (µg/L)	Manganese (µg/L)	Iron (µg/L)	Manganese (µg/L)
No Results		ND - 65	ND – 2.8	ND – 8.2	ND – 2.2

LOCSD is currently not reporting iron and manganese results for the raw water of South Bay Upper Aquifer Well on the monthly report or through EDT. **LOCSD shall begin reporting iron and manganese results for the raw water of South Bay Upper Aquifer Well on the monthly report. LOCSD shall also request its lab to submit previous iron and manganese data for the South Bay Upper Aquifer Well to DDW through EDT.**

2.6.2.2 IX TREATMENT MONITORING FOR SOUTH BAY UPPER AQUIFERWELL

The ion exchange treatment plant is monitored continuously for nitrate levels in the treated effluent by an online analyzer, and monthly for nitrate levels in the raw water and weekly for nitrate levels in the treated effluent by a certified laboratory. No nitrate monitoring results of the treated effluent of the ion exchanger is reported in the monthly report or through EDT. **LOCSD shall begin reporting the nitrate monitoring results for the treated effluent of the South Bay Upper Aquifer Well on the monthly report. LOCSD shall also request its lab to submit previous nitrate results for the South Bay Upper Aquifer Well to DDW through EDT.**

Table 11: 2015 IX Treatment Monitoring Results for South Bay Upper Well	
Raw Water Nitrate (mg/L as N)	Treated Effluent Nitrate (mg/L as N)
7.3 – 14.1	**No Results**

2.6.2.3 CORROSION CONTROL TREATMENT MONITORING

LOCSD provides corrosion control treatment to four of its groundwater wells to comply with the Lead and Copper Rule. The corrosion control treatment monitoring results are provided in Table 12.

Table 12: 2015 Corrosion Control Treatment Monitoring Results		
PO4 Optimal Range	Average PO4 (mg/L) in Distribution System	Average pH in Distribution System
0.70 – 0.75	0.72 – 0.90	7.35 – 8.43

2.6.3 DISTRIBUTION SYSTEM MONITORING

LOCSD is required to routinely monitor its distribution system for total coliform bacteria, fecal coliform bacteria, lead and copper, chlorine residual, disinfection byproducts, and asbestos.

2.6.3.1 BACTERIOLOGICAL MONITORING

LOCSD is required to test at least three samples for bacteria every week from its distribution system. The 2012 to 2015 monthly bacteriological sampling results of the distribution system are provided in Table 13.

Table 13:Distribution System Bacteriological Monitoring (Total Coliform and E.coli)												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0
2013	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0
2014	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0
2015	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0	12-0-0		

Key: # of samples collected - # of total coliform positive results - # of E. coli positive results

2.6.3.2 LEAD AND COPPER MONITORING

For compliance with the Lead and Copper Rule, LOCSD tests at least twenty samples collected from its customers' taps triennially. Lead and copper monitoring will be due again during the summer months of 2016. Recent results are provided in Table 14.

Table 14: Lead and Copper Monitoring of Distribution System				
Sampling Date	Sample Set	# of Samples	90th Percentile Lead (mg/L)	90th Percentile Copper (mg/L)
9/6/2007	Triennial	20	<0.005	0.77
9/1/2010	Triennial	20	<0.005	0.86
8/14/2013	Triennial	20	<0.005	0.91

2.6.3.3 DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS MONITORING

LOCSD tests one distribution system location for total trihalomethanes (TTHM) and haloacetic acids (HAA5) annually to comply with the reduced monitoring requirements for disinfection byproducts. Disinfection byproduct monitoring will be due again during the summer months of 2016. Recent TTHM and HAA5 results are provided in Table 15.

Table 15: Disinfection Byproduct Monitoring of Distribution System		
Sampling Period	TTHM (µg/L)	HAA5 (µg/L)
3rd Quarter of 2013	5	0
3rd Quarter of 2014	7	1
3rd Quarter of 2015	8	1

For compliance with the maximum residual disinfectant level for chlorine of 4.0 mg/L, LOCSD monitors its distribution system for chlorine residual when it collects its routine bacteriological samples. The monthly average results are listed in Table 16.

Table 16: Chlorine Residuals Monitoring of Distribution System												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	0.74	0.80	0.80	0.76	0.74	0.80	0.70	0.73	0.76	0.83	0.78	0.78
2013	0.82	0.74	0.81	0.80	0.88	0.88	0.84	0.88	0.80	0.89	0.91	0.90
2014	0.86	0.82	0.74	0.74	0.79	0.82	0.86	0.85	0.82	1.14	0.82	0.89
2015	0.87	0.78	0.80	0.83	0.83	0.82	0.80	0.76	0.88	0.30		

2.6.3.4 ASBESTOS MONITORING IN THE DISTRIBUTION SYSTEM

LOCSD is required to monitor its distribution system for asbestos if the water entering the distribution system is considered corrosive based on an aggressive index (AI) evaluation under worst-case conditions (aggressive index < 11.5). The most recent aggressive index (AI) results for LOCSD's six wells are provided in Table 17.

Table 17: Aggressive Index Monitoring Results		
Source	Sample Date	AI Result
8th Street Well	5/5/2014	12.6
Palisades Well	5/5/2014	12.3
South Bay Lower Aquifer Well	5/5/2014	11.9
10th Street Well	5/5/2014	12.1
3rd Street Well	5/5/2014	11.5
South Bay Upper Aquifer Well	11/3/2014	**10.1**

The AI result from the November 3, 2014 sample date for the South Bay Upper Aquifer Well was 10.1 which require LOCSD to sample its distribution system for asbestos. **LOCSD shall conduct asbestos sampling in its distribution system by April 8, 2016. The results shall be submitted to DDW.**

2.7 ELEMENT 7: SYSTEM MANAGEMENT AND OPERATIONS

2.7.1 ORGANIZATION AND PERSONNEL

LOCSD serves potable water to the Baywood Park area of Los Osos. LOCSD charges its customers a flat base rate and a variable usage rate to cover the cost

of operation. Margaret Falkner serves as LOCSD's temporary general manager and Frank Asuncion serves as Utilities Crew Leader. The San Luis Obispo Environmental Health Department takes care of LOCSD's water quality sampling and analyses.

2.7.2 OPERATIONAL PLANS AND REPORTING

LOCSD has a Bacteriological Sample Siting Plan (BSSP) dated April 5, 2006 on file with DDW. A map of the sampling locations, service area, and distribution system is attached to the BSSP. The BSSP must be updated every 10 years at a minimum or as needed. **LOCSD shall ensure that an updated BSSP is submitted to DDW by April 5, 2016.**

LOCSD has an outdated Emergency Notification Plan dated July 31, 2012 on file with DDW. **LOCSD shall submit an updated ENP to DDW by April 8, 2016.**

LOCSD is required to submit a Consumer Confidence Report to its customers and DDW by July 1st every year. The 2014 CCR is on file with DDW. **It is recommended that LOCSD allows DDW to review a draft of the 2015 CCR before distributing it to LOCSD's customers.**

LOCSD is required to submit an Annual Report to DDW every year. The 2012-2014 Annual Reports are on file with DDW.

2.7.3 MONTHLY REPORTS

LOCSD is required to submit monthly reports to DDW by the 10th of the following month. The monthly reports include bacteriological (due monthly for distribution and due quarterly for sources), MRDL (due quarterly), DBP (due annually), iron and manganese filtration (due monthly for 8th Street and South Bay Wells), and ion exchange nitrate removal treatment (due monthly). The reports shall be signed by the Manager, Superintendent, or Chief Operator of the water system.

2.8 ELEMENT 8: OPERATOR COMPLIANCE WITH STATE REQUIREMENTS

LOCSD's treatment facilities and distribution system are classified as T2 and D2 facilities respectively. LOCSD employs seven operators as listed in Table 19. Francisco Asuncion serves as LOCSD's chief operator and is certified as a T2 and D3 operator. Therefore, LOCSD meets the standards for operator compliance with state requirements.

Table 18: Water System Facility Classification

Facility	Classification
Distribution System	D2
South Bay Ion Exchange Treatment	T2
8th Street Fe / Mn Filtration Treatment	T1

Table 18: Water System Facility Classification	
Facility	Classification
South Bay Fe / Mn Filtration Treatment	T1
Precautionary Chlorination	T1

Table 19: Water System Operator Certification Classifications		
Operator Name	Treatment Classification	Distribution Classification
Francisco P. Asuncion	T2	D3
Robert V. Diemel	T2	D3
Margaret L. Falkner	T1	D2
Rumel P. Florentino	T2	D3
Nate Pall	T2	D2
Jason Zatt	T2	D2
Clint Requa	T1	D1

Table 20: List of Sampling Locations		
Facility Name	Description	PS Code
8th Street Well	Raw Water Influent	4010016-001
Palisades Well	Raw Water Influent	4010016-005
South Bay Lower Aquifer Well	Raw Water Influent	4010016-006
10th Street Well	Raw Water Influent	4010016-008
3rd Street Well	Raw Water Influent	4010016-009
South Bay Upper Aquifer Well	Raw Water Influent	4010016-016
8th Street Well – Fe/Mn Treated	Iron and Manganese Treated Effluent	4010016-015
South Bay Fe/Mn Filtration	Iron and Manganese Treated Effluent	4010016-019
South Bay Upper Well – IX TP	Nitrate Treatment Effluent	4010016-021
Distribution System	Stg 2 – 1168 16th Street	4010016-020

III CONCLUSION

The review of LOCSD's water system indicates that the water system is designed, constructed, operated, and managed well. The groundwater wells, treatment facilities, finished water reservoirs, booster pump stations, and distribution system meet state requirements. A review of the routine water quality monitoring results indicates that after treatment, the water supplied by LOCSD meets all applicable maximum contaminant levels. Deficiencies include the small cracks and not having a screen on the air relief vents of 8th Street Well, 3rd Street Well, and 10th Street Well; not having an adequate screen on the air relief vent of the 8th Street iron and manganese filtration vessel; not having an adequate screen on the overflows and drains of the two 16th Street storage reservoirs. Other deficiencies include not having all the backflow prevention devices tested; not reporting the monthly iron and manganese and quarterly bacteriological

results of the South Bay Upper Aquifer Well; not reporting results of the nitrate treated effluent of South Bay Upper Aquifer Well ion exchanger; not testing the distribution system for asbestos; and not having an updated ENP on file with DDW.

Enclosure 2

Sanitary Survey Response Form

To: State Water Resources Control Board
Division of Drinking Water
1180 Eugenia Place, Suite 200
Carpinteria, CA 93013-2000

From: Los Osos Community Services District
PO Box 6064
Los Osos, CA 93412

Los Osos Community Services District's response and plan to correct the identified items:

1. LOCSD's emergency connection to Golden Water Company – Los Osos is an unapproved potable water source. It is currently not connected to LOCSD's distribution system. LOCSD shall submit a permit amendment application and receive approval from DDW prior to using the emergency connection.

   Response:_____

2. LOCSD shall seal the small cracks on the well slab and screen the air relief vent on the 8th Street Well by April 8, 2016.

   Response:_____

3. LOCSD shall seal the crack on the well slab of the 3rd Street Well by April 8, 2016.

   Response:_____

4. LOCSD is looking into whether ion exchange treatment is suitable to remove hexavalent chromium for the 3rd Street Well. A permit amendment will be required for the new 3rd Street treatment facility.

   Response:_____

5. LOCSD shall screen the air relief vent on the 10th Street Well by April 8, 2016.

   Response:_____

6. If LOCSD chooses to utilize the South Bay Upper Aquifer Well bypass line, LOCSD shall submit a blending plan to DDW and receive approval prior to using it.

   Response:

7. LOCSD shall screen the air relief vent on the 8th Street Fe/Mn filtration vessel by April 8, 2016.

   Response:

8. Only 76 of the 80 backflow prevention devices were reported to be tested in 2014. LOCSD shall ensure that all backflow prevention devices are adequately tested every year by a certified cross-connection specialist. The results shall be reported on the Annual Report.

   Response:

9. During the inspection, the inner screens of the three storage reservoirs' air relief vents cannot be determined whether they were adequately screened. LOCSD shall submit pictures of the inner screens of the three storage reservoirs' air relief vents to DDW by April 8, 2016. LOCSD shall ensure that the screens are capable of preventing the entry of small animals and insects.

   Response:

10. LOCSD shall screen the drains of the two 16th Street reservoirs and the overflow of the 16th Street reservoir (south) by April 8, 2016.

    Response:

11. LOCSD shall submit pictures to DDW to ensure that Follow-Up Items # 2, 3, 5, 7, 9, and 10 are completed.

Response:_____

12. DDW determined that LOCSD's wells were not constructed in asbestos rock formation and waived asbestos source monitoring in 2003. However, DDW does not have any documentation on whether the wells were constructed in asbestos rock formation. LOCSD shall provide documentation to DDW for the determination of whether LOCSD's six groundwater wells are constructed in asbestos rock formation.

Response:_____

13. No bacteriological sampling results are available for the South Bay Upper Aquifer Well. DDW was informed that LOCSD has been operating the South Bay Upper Aquifer Well and have been taking bacteriological samples. LOCSD shall submit the 2015 quarterly bacteriological sampling results for the South Bay Upper Aquifer Well to DDW by April 8, 2016.

Response:_____

14. LOCSD is currently not reporting the iron and manganese results for the raw water of the South Bay Upper Aquifer Well on the monthly report or through EDT. LOCSD shall begin reporting iron and manganese results for the raw water of the South Bay Upper Aquifer Well on the monthly report. LOCSD shall also request its lab to submit previous iron and manganese data for the South Bay Upper Aquifer Well to DDW through EDT. The PS Code for the South Bay Upper Aquifer Well is provided below.

Source	PS Code
South Bay Upper Aquifer Well	4010016-016

Response:_____

15. No nitrate monitoring results are available for the treated effluent of the South Bay Upper Aquifer ion exchanger. LOCSD shall begin reporting the nitrate monitoring results for the treated effluent of the South Bay Upper Aquifer on the monthly report. LOCSD shall also request its lab to submit previous nitrate results for the South Bay Upper Aquifer Well to DDW through EDT. The PS Code for the South Bay Upper Aquifer ion exchange treated effluent is provided below.

Source	PS Code
South Bay Upper Aquifer IX TP	4010016-021

Response:_____

16. The classification of LOCSD's treatment facilities and distribution system are enclosed (see Enclosure 3). It is recommended that LOCSD allow its operator to operate and gain experience using the South Bay ion Exchanger if they choose to pursue a T3 certification.

Response:_____

17. DDW recommends submitting individual treatment reports to DDW on a monthly basis. A blank iron and manganese treatment (see Enclosure 4) and ion exchange treatment (see Enclosure 5) reporting forms are provided.

Response:_____

18. The aggressive index (AI) result from the November 3, 2014 sample date for the South Bay Upper Aquifer Well was 10.1 which require LOCSD to sample its distribution system for asbestos. LOCSD shall conduct asbestos sampling in its distribution system by April 8, 2016. The results shall be submitted to DDW.

Response:_____

19. The Bacteriological Sample Siting Plan (BSSP) must be updated every 10 years at a minimum or as needed. LOCSD's latest BSSP is dated April 5, 2006. LOCSD shall ensure that an updated BSSP is submitted to DDW by April 5, 2016.

Response:_____

20. LOCSD has an outdated Emergency Notification Plan dated July 31, 2012 on file with DDW. LOCSD shall submit an updated ENP (see Enclosure 6) to DDW by April 8, 2016.

Response:_____

21. It is recommended that LOCSD allows DDW to review a draft of the 2015 Consumer Confidence Report (CCR) before distributing it to LOCSD's customers.

    Response:_____

Response Completed by:

Name:_____ Signature:_____

Title:_____ Date:_____

Enclosure 3

WATER SYSTEM CLASSIFICATION LETTER

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

DATE: March 9, 2016

TO: Los Osos Community Services District (WS # 4010016)

FROM: **State Water Resources Control Board**
Division of Drinking Water
Santa Barbara District

The Distribution System is classified as D2

The South Bay Ion Exchanger
is classified as T2

The South Bay Fe/Mn Filtration Treatment
is classified as T1

The 8th Street Fe/Mn Filtration Treatment
is classified as T1

The precautionary chlorination treatment
Is classified as Either T1 or D1

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB-DDW

Enclosure 4

BLANK IRON AND MANGANESE FILTRATION TREATMENT REPORTING FORM

SYSTEM NAME: Los Osos Community Services District

PWS No.: 4010016

South Bay Iron and Manganese Filtration Plant Monthly Operations Report

Month_____ Year_____

Date	Daily Chlorine Residual (mg/L)	Daily Filtration Rate (gpm/ft^2)	South Bay Lower Aquifer Well Monthly Raw Water Analysis (µg/L)		South Bay Upper Aquifer Well Monthly Raw Water Analysis (µg/L)		Effluent Analysis (µg/L)	
			Iron	Manganese	Iron	Manganese	Iron	Manganese
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								

1) Please provide a daily filtration rate and delivered water chlorine residual.
2) If the filtration rate is less than 8.0 gpm/ft^2, provide the results of at least one monthly iron and manganese sample from the raw water and effluent of the filters.
3) If the filtration rate is greater than 8.0 gpm/ft^2, provide the results of a monthly iron and manganese raw water sample and the results of weekly treated water iron and manganese samples.

Signed by:_____ Date:_____

Print name_____

SYSTEM NAME: Los Osos Community Services District
PWS No.: 4010016

8th Street Iron and Manganese Filtration Plant Monthly Operations Report

Month_____ Year_____

Date	Daily Chlorine Residual (mg/L)	Daily Filtration Rate (gpm/ft^2)	Monthly Raw Water Analysis (μg/L)		Effluent Analysis (μg/L)	
			Iron	Manganese	Iron	Manganese
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

1) Please provide a daily filtration rate and delivered water chlorine residual.
2) If the filtration rate is less than 8.0 gpm/ft^2, provide the results of at least one monthly iron and manganese sample from the raw water and effluent of the filters.
3) If the filtration rate is greater than 8.0 gpm/ft^2, provide the results of a monthly iron and manganese raw water sample and the results of weekly treated water iron and manganese samples.

Signed by:_____ Date:_____

Print name_____

Enclosure 5

BLANK ION EXCHANGE TREATMENT REPORTING FORM

SYSTEM NAME: Los Osos Community Services District

PWS No.: 4010016

South Bay Upper Aquifer Well: Ion Exchange Treatment Plant Monthly Operations Report

Month_____ Year_____

Date	Daily Maximum Nitrate Reading (mg/L as N) (Nitrate Analyzer)	Monthly Raw Water Nitrate Result (mg/L as N) (Certified lab)	Weekly Nitrate Treated Effluent Result (mg/L as N) (Certified lab)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
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30			
31			

Signed by:_____ Date:_____

Print name_____

Enclosure 6

BLANK EMERGENCY NOTIFICATION FORM

WATER QUALITY EMERGENCY NOTIFICATION PLAN

Name of Utility: _____

Physical Location/Address: _____

The following persons have been designated to implement the plan upon notification by the State Water Resources Control Board Division of Drinking Water that an imminent danger to the health of the water users exists:

Water Utility: Contact Name & Title	Email Address	Telephone Day	Evening	Cell
1.				
2.				
3.				

The implementation of the plan will be carried out with the following SWRCB DDW and County Health Department personnel:

SWRCB & County Health Departments: Contact Name & Title	Telephone Day	Evening
1. Jeff Densmore, Santa Barbara District Engineer SWRCB DDW	(805) 566-1326	(805) 570-7830
2. Curt Batson, Director San Luis Obispo County Environmental Health Department	(805) 781-5550	(805) 782-2281
3.		

4. **If the above personnel cannot be reached, contact:**

Office of Emergency Services Warning Center (24 hrs) (800) 852-7550 or (916) 845-8911
When reporting a water quality emergency to the Warning Center, please ask for the State Water Resources Control Board – Division of Drinking Water Duty Officer.

NOTIFICATION PLAN

Attach a written description of the method or combination of methods to be used (radio, television, door-to-door, sound truck, etc.) **to notify customers in an emergency.** For each section of your plan give an estimate of the time required, necessary personnel, estimated coverage, etc. Consideration must be given to special organizations (such as schools), non-English speaking groups, and outlying water users. Ensure that the notification procedures you describe are practical and that you will be able to actually implement them in the event of an emergency. Examples of notification plans are attached for large, medium and small communities.

Report prepared by:

_____ _____

Signature and Title Date

PLAN I (Medium Community)

During regular working hours our people will contact the news media at television station KXYZ to broadcast the necessary warning. The local radio stations will also be contacted. The television and radio personnel are available at all hours. As a follow-up measure, we will also contact the Daily Bee, a local newspaper that serves both Ourtown and Hometown.

The warnings will be issued in both English and Spanish to cover all members of the community. Outlying areas of the water service area (such as Isolated Canyon and Lonesome Mountain subdivisions) will also be notified by sound truck and/or handbill distributed to their respective areas. Both of these areas are very small and this can be done quite quickly.

A special telephone answering service can also be quickly set up at the utility headquarters (using the regular company numbers) to answer questions that will come in from consumers. Questions are anticipated, especially from the Hometown area, because that area is served by three different water companies. A map will be available to the telephone answering personnel to determine the water company serving the caller.

It is anticipated that the time for notification to the television and radio audiences will be very short. The areas served by handbill and sound truck will also be notified within an hour. For notification to be issued in other than normal hours, the same media will be contacted and an announcement will be scheduled for as long as is necessary. A sound truck(s) will be used in the early morning hours to quickly alert the people not listening to their radio or television.

PLAN II (Small Community)

Our community is very small and the most efficient means of notification will be both sound truck and handbill. It is estimated that the entire service area can be covered in less than three hours.

PLAN III (Large Community)

The same plan as implemented in Plan I should be used here with the exceptions noted. All the news media will be contacted in the entire metropolitan area. This includes all television and radio stations and all local and general area newspapers. Maps have been prepared to be distributed to the media to locate the boundaries of the water company. This system is large enough that it may only be necessary to notify some of the water users. This information will be transmitted to the media and an answering service at the water company will respond to consumers' calls. Unless the problems are limited to isolated areas it is unreasonable to assume that contact can be made through sound truck or handbill.