CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

April 4, 2016

Attn: David Shiel, Chief Engineer II
Atascadero State Hospital
PO Box 7001
Atascadero, CA 93423

System Number 4010832 – 2016 Sanitary Survey

Dear Mr. Shiel,

Thank you for your cooperation during the Atascadero State Hospital (hereinafter ASH) water system inspection conducted on February 29, 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 ASH 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 May 4, 2016.

Atascadero State Hospital Sanitary Survey Follow Up Items:

1. All four groundwater wells are housed. During the inspection, it was observed that there was bird feces located on top of the pump of Well 01. There were also small to mid-sized holes located on the housing facilities of the wells. ASH shall ensure that the housing facilities for the wells are adequate to prevent the entry of small animals.

2. ASH currently only meters the water entering the distribution system. ASH is required to install meters on each of its four wells and track the quantity of water flow from each source on a monthly basis. ASH shall install meters on all four of its wells by May 4, 2016 and begin tracking monthly production of each well in use.

3. ASH maintains a 6-inch inter-connection to Atascadero Mutual Water Company (hereinafter AMWC). The 6-inch connection is an unapproved source and requires an amendment to ASH's existing domestic water supply permit. ASH shall not use the 6-inch inter-connection to AMWC without first receiving approval from DDW.

4. ASH shall ensure that the sodium hypochlorite solution used to disinfect its groundwater supply is NSF approved.

5. The old chlorination system is currently not in used. ASH shall remove the old pipeline and either cap off or seal the air relief vent of the forebay reservoir by May 4, 2016.

6. ASH did not report whether the backflow devices were tested in 2014. ASH shall ensure that all backflow prevention devices are adequately tested every year and have the results reported on the Annual Report.

7. ASH shall remove the acorns stored inside each of the 8 individual air relief vents and screen the air relief vents of the 1 MG storage reservoir by May 4, 2016. The screens shall be adequate to prevent the entry of small animals and insects. DDW recommends using 8 grids per inch screen mesh size to screen the air relief vents.

8. ASH shall ensure that the two hatches of the 1 MG storage reservoir are locked at all times.

9. ASH shall remove the acorns stored inside the 4 air relief vents of the forebay reservoir and screen the air relief vents by May 4, 2016.

10. ASH shall document Follow-Up Items # 2, 5, 7, 9 with pictures and send them to DDW to ensure that the deficiencies are corrected.

11. DDW recommends that ASH routinely inspect the reservoirs to maintain adequate sanitary conditions.

12. Well 03 is overdue for pH monitoring. ASH shall sample Well 03 for pH by May 4, 2016. The sampling result shall be submitted to DDW through Electronic Data Transfer (EDT).

13. ASH's current Coliform and Groundwater Rule Sample Siting Plan is incomplete. The upstream and downstream locations of the two routine samples are listed incorrectly. Five additional repeat samples are required the following month after a routine sample is tested positive for total coliform and shall be taken at representative locations in its distribution system. ASH shall submit an updated Coliform and Groundwater Rule Sample Siting Plan (see Enclosure 3) to DDW by May 4, 2016.

14. DDW recommends ASH submit a draft of the 2015 Consumer Confidence Report (CCR) for DDW to review before distributing it to its 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
Division of Drinking Water
State Water Resources Control Board

Enclosure 1: Sanitary Survey Report
Enclosure 2: Sanitary Survey Response Form
Enclosure 3: Blank Coliform and Groundwater Rule Sample Siting Plan

cc: San Luis Obispo County Environmental Health Services

State Water Resources Control Board

Division of Drinking Water

Southern California Field Operations Branch

Sanitary Survey Report

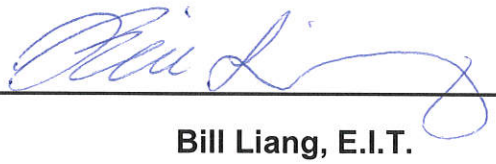
Atascadero State Hospital

4010832

San Luis Obispo County

April 4, 2016

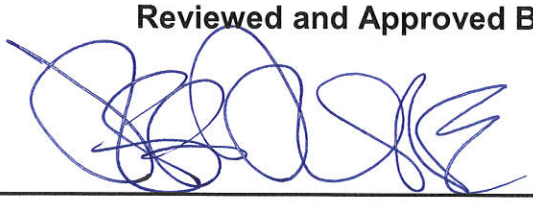
Prepared By:



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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State Water Resources Control Board
Division of Drinking Water

April 4, 2016

Sanitary Survey Report
For
Atascadero State Hospital
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 Atascadero State Hospital, located in the City of Atascadero 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

Atascadero State Hospital (hereinafter ASH) is classified as a community water system that provides potable water to a full time population of approximately 2,500 people via 875 service connections. ASH's domestic water system includes four active groundwater wells, two finished water storage reservoirs, one booster pump station, and an associated distribution system. The groundwater wells are shallow in depth and have no presence of clay layers above their perforations. The wells were evaluated and determined to be under the influence of surface water when the Salinas River flows within 150 feet of the wells. ASH

provides precautionary chlorination treatment to its groundwater supply. ASH's distribution system consists of one pressure zone that is pressurized between 55 to 60 psi. ASH operates under the authority of Permit No. 05-06-03P-013 that was issued by DDW on May 2, 2003. A permit amendment is currently pending to change Wells 01 and 02 from standby to active sources. The previous Sanitary Survey was conducted in 2012.

1.3 SOURCES OF INFORMATION

All information included in this report was obtained from DDW files, ASH personnel, David Shiel, and a site visit on February 29, 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	501,000	12,024,000	103,200,000
2006	785,000	12,649,000	111,100,000
2007	550,000	11,457,000	107,400,000
2008	643,000	10,700,000	98,020,000
2009	430,000	10,130,000	98,650,000
2010	401,000	10,100,000	60,950,000
2011	491,000	10,670,000	93,530,000
2012	357,000	10,100,000	91,370,000
2013	520,000	8,881,000	84,072,000
2014	614,000	7,938,000	70,047,000

*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 785,000 gallons or 545 gpm.

1.5 ENFORCEMENT HISTORY

DDW issued Citation No. 04_06_15C_031_4010832_23 to ASH on December 18, 2015 for failing to collect and report two routine distribution coliform samples for the month of October 2015.

DDW issued a Notice of Violation (NOV) letter to ASH on January 19, 2016 for failing to comply with the standby source requirements for Wells 01 and 02.

II. INVESTIGATION AND FINDINGS

2.1 ELEMENT 1: SOURCES

2.1.1 GROUNDWATER SUPPLIES

ASH's source of water comes from four active groundwater wells. The groundwater wells are shallow in depth and have no presence of clay layers above their perforations. The wells were evaluated and determined to be under the influence of surface water when the Salinas River flows within 150 feet of the wells. ASH is required to turn the wells off when surface water is within 150 feet of the wells or comply with the Surface Water Treatment Rule (SWTR). The specifications of each well are provided in Table 2.

Table 2: Active Groundwater Well Info

Source Name & PS Code	Year Drilled	Well Depth (ft.)	Annular Seal Depth (ft.)	Well Casing Type & Diameter	Perforation Depth Begins at (ft.)	Clay Layers (ft.)	Pump Type	Pump Capacity (gpm)
Well 01 4010832-001	1953	65	10	Steel, 14-inch	---	None	Deep Water Turbine	500
Well 02 4010832-002	1968	120	50	Steel, 14-inch	100	None	Deep Water Turbine	500
Well 03 4010832-003	1969	77	20	Steel, 14-inch	20	None	Deep Water Turbine	500
Well 04 4010832-007	2002	65	25	Steel, 14-inch	25	65-75	Deep Water Turbine	500

The pumps of Wells 01, 02, and 03 were recently replaced in 2015. Each well can individually produce approximately 500 gpm. During the inspection, it was observed that there was bird feces located on top of the pump of Well 01. All four wells are housed. There were also small to mid-sized holes located on the housing facilities of the wells. **ASH shall ensure that the housing facilities for the wells are adequate to prevent the entry of small animals.**

Wells 01, 02, 03, and 04 were determined to be under the influence of surface water due to their close proximity to the Salinas River. If the wells are within 150 feet from the river, ASH is required to test for turbidity and chlorine residual in addition to meeting the chlorine contact time requirement to comply with the Surface Water Treatment Rule. ASH currently does not operate the wells when the wells are within 150 feet from river water. A place marker is placed 150 feet from the closest well. When the Salinas River flows past the place marker, ASH turns off the wells that are within 150 feet of surface water.

A gravity-flow sewer main is located close to the well site, approximately 15 feet horizontally from Well 04 and is 10 feet below the surface. ASH has provided an

impermeable sleeve to contain and direct potential sewer spills away from the wells.

2.1.2 SOURCE METERS

ASH currently only has the water entering the distribution system metered. ASH is required to have meters on each of its active and/or standby sources and to track and record the quantity of water flow from each source on a monthly basis. **ASH shall install meters on all four of its groundwater wells and begin tracking the production of each well in use every month.**

2.1.3 INTER-CONNECTION TO ATASCADERO MUTUAL WATER COMPANY

ASH currently maintains a 6-inch inter-connection to Atascadero Mutual Water Company (hereinafter AMWC) located at the intersection of El Camino Real and San Rafael Road. The valve is currently closed. However, ASH has the ability to connect it to its distribution system at any time. It was reported that the inter-connection was never used in the past decade. The 6-inch inter-connection is an unapproved source and requires an amendment to ASH's existing domestic water supply permit. **ASH shall not use the 6-inch inter-connection to AMWC without first receiving approval from DDW.**

2.1.4 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: Well Source Assessment

Source	Possible Contaminating Activities
Well 01	Surface water – streams/lakes/rivers NPDES/WDR permitted discharges Grazing [>5 large animals or equivalent per acre]
Well 02	
Well 03	
Well 04	

2.1.5 ADEQUACY OF SUPPLY

ASH 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 785,000 gallons or 545 gpm. ASH has four active groundwater wells that provide a total source capacity of 2,000 gpm. ASH also maintains two finished water reservoirs that provide a total storage capacity of 1,032,000 gallons. In the event of an emergency, ASH's two finished water reservoirs have the capacity to provide enough water to meet its maximum daily demand. ASH also maintains a 6-inch inter-connection to AMWC. The capacity of the inter-connection is unknown. ASH has the ability to use the 6-inch inter-connection to

AMWC if no other sources are available. Therefore, ASH is considered to have an adequate water supply.

2.2 ELEMENT 2: TREATMENT

2.2.1 DISINFECTION TREATMENT

ASH provides precautionary chlorination treatment to its groundwater supply. The wells discharge into the 32,000 gallon forebay reservoir where a 12.5 percent sodium hypochlorite solution is injected into one of the four air relief vents. It was not determined whether the sodium hypochlorite solution is NSF approved. **ASH shall ensure that the sodium hypochlorite used to disinfect its groundwater supply is NSF approved**. The system uses a liquid chlorinator that has a 5 gpd capacity. ASH purchases a 200 gallon supply at a time and stores it in the chlorination facility. The chlorination facility is located in a corrugated metal shed next to the forebay reservoir and booster pump station.

It was observed during the inspection that the pipeline from the previous chlorination system is not in use. **ASH shall remove the pipeline from the old chlorination system and either cap off or seal the air relief vent of the forebay reservoir that the previous pipeline was connected to by May 4, 2016.**

ASH shall meet the CT requirements of the Surface Water Treatment Rule when it uses a well that is within 150 feet of surface water. ASH does not have a CT calculation on file with DDW. ASH is not allowed to run the wells that are within 150 feet of surface water until an approved surface water treatment plan has been submitted and approved by DDW. The plan shall also include turbidity monitoring.

2.3 ELEMENT 3: DISTRIBUTION SYSTEM

2.3.1 DISTRIBUTION LINES

ASH's distribution system is made up of one pressure zone. The distribution mains are made of cast iron and PVC pipes. 95 percent of ASH's distribution system pipelines are made of cast iron and 5 percent are made of PVC. The pipes are 6 inches in diameter, and are pressurized between 55 to 60 psi. The dead ends are flushed yearly or as needed.

ASH is required to maintain adequate separation between its water supply lines and any pipelines conveying non-potable fluids and/or any waste disposal sites or other potential sources of contamination, as described in the California Waterworks Standards. With the exception of a sewer main located near Well 4, as described in section 2.1.1, there are no sewer lines located within 10 feet horizontal and 1 foot vertical separation of ASH's water lines.

2.3.2 CROSS CONNECTION PROGRAM

ASH maintains fifty nine backflow prevention devices that are used to protect the water system from potential cross-connections. ASH is required to ensure that all backflow prevention devices are tested annually. The specifications of ASH's Cross Connection Control Program according to the 2012-2014 Annual Reports are provided in Table 4.

Table 4: Backflow Prevention Device Testing Results

Year	Number of Backflow Devices	Number Installed	Number Tested	Number Failed	Number Repaired / Replaced
2012	46	8	46	5	5
2013	59	0	59	5	5
2014	59	---	---	---	---

ASH did not report whether the backflow devices were tested in 2014. **ASH shall ensure that all backflow prevention devices are adequately tested every year and have the results reported on the Annual Report.**

2.4 ELEMENT 4: FINISHED WATER STORAGE

ASH operates and maintains two finished water storage reservoirs with a total storage capacity of 1,032,000 gallons. The two storage reservoirs are made of concrete. The specifications of the two 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
Forebay Tank	Concrete	1954	32,000	3 Inlets	Wells 01, 02, 03, and 04	Booster Station
Storage Reservoir	Concrete	1954	1,000,000	2 Inlet and 2 Outlet	Booster Station	Distribution System

The 1 MG storage reservoir is equipped with an internal wall that splits it into two 0.5 MG halves. Each half is equipped with its own separate inlet and outlet. Water is pumped from the booster station into each half's inlet simultaneously and water is gravity fed into ASH's distribution system. Each 0.5 MG half is equipped with 4 individual air relief vents and its own hatch. The overflow is underground and discharges onto the hillside. The overflow is adequately

screened. During the inspection, it was observed that there were acorns stored inside each of the 8 individual air relief vents of the 1 MG storage reservoir. The screens on the air relief vents were also in relatively poor condition. **ASH shall remove the acorns stored inside each of the 8 individual air relief vents and screen the air relief vents of the 1 MG storage reservoir by May 4, 2016. The screens shall be adequate to prevent the entry of small animals and insects. DDW recommends ASH use 8 grids per inch mesh size to screen the air relief vents. DDW also recommends that ASH routinely inspect the reservoirs to maintain adequate sanitary conditions.** One of the hatches was also left open and could not be locked. **ASH shall ensure that the two hatches of the 1 MG storage reservoir are closed tight and locked at all times.**

It was also observed that acorns were stored inside the 4 air relief vents of the forebay reservoir. The screens of the air relief vents were also in relatively poor condition. **ASH shall remove the acorns stored inside the 4 air relief vents of the forebay reservoir and screen the air relief vents by May 4, 2016.**

2.5 ELEMENT 5: PUMPS, PUMP FACILITIES, AND CONTROLS

ASH maintains one booster pump station to pump water from its forebay reservoir to the 1 MG storage reservoir. The booster station is located next to the forebay tank and chlorination facility. There are two pumps in the booster station. Each pump has a horsepower of 50 hp and a pump capacity of 1,000 gpm. ASH alternates the use of each pump every 2 weeks. The pumps operate automatically when the water level in the forebay reservoir is low. The booster station has the ability to be powered by a portable standby generator in the event of a power outage. The specifications of the booster pumps are provided in Table 6.

Table 6: Booster Pump Station Specifications

Name	# of Pumps	Horsepower (hp)	Total Capacity (gpm)	Delivers Water From	Delivers Water To
Booster Station	2	50	2,000	Forebay Tank	Storage Reservoir

2.6 ELEMENT 6: MONITORING, REPORTING, AND DATA VERIFICATION

2.6.1 SOURCE MONITORING

ASH 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*).

2.6.1.1 SOURCE CHEMICAL MONITORING

The results of previous monitoring and the next 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 & Nitrite	Nitrate	Asbestos	Radiological: Gross Alpha	VOCs	SOCs: Atrazine, Simazine
Well 01 4010832-001 **Active**	Last Sample	2016	2016	2016	2015	2011	2016	2008
	Frequency	3 Years	3 Years	1 Year	9 Years	6 Years	3 Years	9 Years
	Next Sample	2019	2019	2017	2024	2017	2019	2017
Well 02 4010832-002 **Active**	Last Sample	2016	2016	2016	2015	2011	2016	2008
	Frequency	3 Years	3 Years	1 Year	9 Years	6 Years	3 Years	9 Years
	Next Sample	2019	2019	2017	2024	2017	2019	2017
Well 03 4010832-003 **Active**	Last Sample	2015	2015	2015	2015	2014	2015	2008
	Frequency	3 Years	3 Years	1 Year	9 Years	6 Years	3 Years	9 Years
	Next Sample	2018	2018	2016	2024	2020	2018	2017
Well 04 4010832-007 **Active**	Last Sample	2015	2014	2015	2012	2014	2015	2012
	Frequency	3 Years	3 Years	1 Year	9 Years	6 Years	3 Years	9 Years
	Next Sample	2018	2017	2016	2021	2020	2018	2021

Well 03 is overdue for pH monitoring. **ASH shall sample Well 03 for pH by <u>May 4, 2016</u>. The sampling result shall be submitted to DDW through Electronic Data Transfer (EDT).**

2.6.1.2 RAW WATER BACTERIOLOGICAL MONITORING

To monitor the bacteriological quality of its raw groundwater, ASH monitors each well in use quarterly for total coliform bacteria and *E. coli*. For compliance with the Groundwater Rule, ASH 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.

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

Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	2-0-0	2-0-0	2-0-0	**0**-0-0
2013	2-0-0	2-0-0	4-0-0	2-0-0
2014	2-0-0	**0**-0-0	**0**-0-0	**0**-0-0
2015	2-0-0	1-0-0	1-0-0	4-0-0

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

No source bacteriological results were available for the 4th quarter of 2012 and 2nd to 4th quarter of 2014.

2.6.2 DISTRIBUTION SYSTEM MONITORING

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

2.6.2.1 BACTERIOLOGICAL MONITORING IN DISTRIBUTION SYSTEM

ASH is required to test at least two samples for bacteria every month from its distribution system. The 2012 to 2015 monthly bacteriological sampling results of the distribution system are provided in Table 9.

Table 9:Distribution System Bacteriological Monitoring (Total Coliform and E.coli)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0
2013	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0
2014	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0
2015	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	2-0-0	**0**-0-0	2-0-0	

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

2.6.2.2 LEAD AND COPPER MONITORING IN DISTRIBUTION SYSTEM

For compliance with the Lead and Copper Rule, ASH tests at least ten samples collected from its customers' taps triennially. Lead and copper monitoring will be due again during the summer months of 2018. The 2012 and 2015 monitoring results are provided in Table 10.

Table 10: Lead and Copper Monitoring of Distribution System

Sampling Date	Sample Set	# of Samples	90th Percentile Lead (mg/L)	90th Percentile Copper (mg/L)
7/12/2012	Triennial	10	0.0062	0.83
9/30/2015	Triennial	10	0.0009	0.53

2.6.2.3 DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS MONITORING

ASH tests one distribution system location for total trihalomethanes (TTHM) and haloacetic acids (HAA5) annually to comply with the 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 11.

Table 11: Disinfection Byproduct Monitoring of Distribution System			
Sample Location	Sample Date	TTHM (µg/L)	HAA5 (µg/L)
San Rafael Rd & Bane St. (Park)	8/22/2013	22	5
	8/28/2014	30	5
	9/23/2015	28	11

2.6.2.4 MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL)

For compliance with the maximum residual disinfectant level for chlorine of 4.0 mg/L, ASH monitors its distribution system for chlorine residual when it collects its routine bacteriological samples. The monthly average results are listed in Table 12.

Table 12: Chlorine Residuals Monitoring of Distribution System												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	1.25	1.25	1.25	1.00	1.50	1.50	1.13	1.50	1.38	1.25	0.50	0.63
2013	1.63	1.50	1.00	1.50	1.50	1.25	0.63	---	---	---	---	---
2014	1.10	0.84	0.79	0.89	0.88	0.90	0.69	0.71	0.61	0.69	0.90	0.95
2015	0.85	0.84	0.77	0.83	0.86	0.85	**0.00**	0.08	0.17			

2.7 ELEMENT 7: SYSTEM MANAGEMENT AND OPERATIONS

2.7.1 ORGANIZATION AND PERSONNEL

David Shiel serves as ASH's Chief Engineer. Fluid Resource Management (hereinafter FRM) is contracted by ASH to oversee the general operations and maintenance of its potable water system.

2.7.2 OPERATIONAL PLANS AND REPORTING

ASH has an incomplete Coliform and Groundwater Rule Sample Siting Plan dated October 27, 2015 on file with DDW. The upstream and downstream locations of the two routine samples are listed incorrectly. Five additional repeat samples are required the following month after a routine sample is tested positive for total coliform and shall be taken in its distribution system. **ASH shall submit an updated Coliform and Groundwater Rule Sample Siting Plan to DDW by May 4, 2016.**

ASH has an updated Emergency Notification Plan (ENP) dated October 23, 2015 on file with DDW.

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

ASH is required to submit a Consumer Confidence Report (CCR) to DDW and its customers by July 1st of every year. ASH's 2014 CCR contained several errors. The drinking water source assessments for its groundwater wells were listed as

non-vulnerable. DDW has determined that ASH's wells are vulnerable to surface water, NPDES/WDR permitted discharges, and animal grazing activities. The ranges of detections of the source constituents were also not reported. ASH also incorrectly reported the detection limit for reporting purposes (DLR) on the range of detections instead. The MCL and PHG for chloride were incorrectly listed as 45 mg/L. The correct MCL and PHG for chloride should be 500 mg/L. ASH shall also include the latest lead and copper, and disinfection byproduct monitoring results in its distribution in the 2015 CCR. ASH shall include the changes and ensure that the information provided in the 2015 CCR is correct. **DDW recommends ASH provide DDW with a draft copy of the 2015 CCR for review before distributing it to its customers.**

2.7.3 MONTHLY REPORTS

ASH is required to submit the following monthly reports to DDW by the 10th day of the following month as listed in Table 13.

Table 13: Monthly Reports

Report	Reporting Frequency
Operations Report	Monthly
GWUDI – Distance to Surface Water	Monthly
Maximum Residual Disinfectant Level (MRDL)	Quarterly
Distribution Bacteriological Monitoring Results	Monthly
Source Bacteriological Monitoring Results	Quarterly

2.8 ELEMENT 8: OPERATOR COMPLIANCE WITH STATE REQUIREMENTS

ASH's distribution system is classified as a D2 facility. ASH's precautionary chlorine treatment is classified as either a T1 or D1 facility. Operators employed by FRM hold valid T2 certifications and valid D1 to D3 certifications. Therefore, ASH meets the standards for operator compliance with state requirements. A list of FRM's operators is provided in Table 15.

Table 14: Water System Classification

Facility	Classification
Precautionary Chlorination Treatment	T1 or D1
Distribution System	D2

Table 15: Water System Operator Certification Classifications

Operator Name	Treatment Classification	Distribution Classification
Jack Bratcher	T2	D3
Mike White	T2	D2

Table 15: Water System Operator Certification Classifications		
Operator Name	Treatment Classification	Distribution Classification
Mike Wentzel	T2	D3
Donovan Grife	T2	D1
Nick Marcus Carra	T2	D2

Table 16: List of Sampling Locations		
Facility Name	Description	PS Code
Well 01	Well 01	4010832-001
Well 02	Well 02	4010832-002
Well 03	Well 03	4010832-003
Well 04	Well 04	4010832-007
Distribution System	Stage 2 - San Rafael Road and Bane St (Park)	4010832-009

III CONCLUSION

The review of ASH's water system indicates that the water system is designed, constructed, operated, and managed well. The groundwater wells, finished water storage reservoirs, booster station, and distribution system meet state requirements. A review of the routine water quality monitoring results indicates that after treatment, the water supplied by ASH meets all applicable maximum contaminant levels. Deficiencies include the holes in the well housing facilities, the groundwater wells are not metered, not having a permit amendment for the 6-inch connection to AMWC, not removing the old chlorination pipeline and capping or sealing the air relief vent of the forebay reservoir, not having adequate screens on the 1 MG storage reservoir and the forebay reservoir, not locking the hatch on the 1 MG reservoir, not having an updated Coliform and Groundwater Rule Sample Siting Plan, and having incorrect information on the 2014 CCR. Recommendations include inspecting the reservoirs on a routine basis to maintain adequate sanitary conditions, using 8 grids per inch screen size to screen the air relief vents of the 1 MG storage reservoir and forebay reservoir, and allow DDW to review the 2015 CCR before distributing it to its customers.

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

From: Atascadero State Hospital
PO Box 7001
Atascadero, CA 93423

Atascadero State Hospital's response and plan to correct the identified items:

1. All four groundwater wells are housed. During the inspection, it was observed that there was bird feces located on top of the pump of Well 01. There were also small to mid-sized holes located on the housing facilities of the wells. ASH shall ensure that the housing facilities for the wells are adequate to prevent the entry of small animals.

   Response:_____
   _____
   _____
   _____

2. ASH currently only meters the water entering the distribution system. ASH is required to install meters on each of its four wells and track the quantity of water flow from each source on a monthly basis. ASH shall install meters on all four of its wells by May 4, 2016 and begin tracking monthly production of each well in use.

   Response:_____
   _____
   _____
   _____

3. ASH maintains a 6-inch inter-connection to Atascadero Mutual Water Company (hereinafter AMWC). The 6-inch connection is an unapproved source and requires an amendment to ASH's existing domestic water supply permit. ASH shall not use the 6-inch inter-connection to AMWC without first receiving approval from DDW.

   Response:_____
   _____
   _____
   _____

4. ASH shall ensure that the sodium hypochlorite solution used to disinfect its groundwater supply is NSF approved.

   Response:_____
   _____
   _____
   _____

5. The old chlorination system is currently not in used. ASH shall remove the old pipeline and either cap off or seal the air relief vent of the forebay reservoir by May 4, 2016.

   Response:_____

6. ASH did not report whether the backflow devices were tested in 2014. ASH shall ensure that all backflow prevention devices are adequately tested every year and have the results reported on the Annual Report.

   Response:_____

7. ASH shall remove the acorns stored inside each of the 8 individual air relief vents and screen the air relief vents of the 1 MG storage reservoir by May 4, 2016. The screens shall be adequate to prevent the entry of small animals and insects. DDW recommends using 8 grids per inch screen mesh size to screen the air relief vents.

   Response:_____

8. ASH shall ensure that the two hatches of the 1 MG storage reservoir are locked at all times.

   Response:_____

9. ASH shall remove the acorns stored inside the 4 air relief vents of the forebay reservoir and screen the air relief vents by May 4, 2016.

   Response:_____

10. ASH shall document Follow-Up Items # 2, 5, 7, 9 with pictures and send them to DDW to ensure that the deficiencies are corrected.

    Response:_____

11. DDW recommends that ASH routinely inspect the reservoirs to maintain adequate sanitary conditions.

    Response:_____

12. Well 03 is overdue for pH monitoring. ASH shall sample Well 03 for pH by May 4, 2016. The sampling result shall be submitted to DDW through Electronic Data Transfer (EDT).

    Response:_____

13. ASH's current Coliform and Groundwater Rule Sample Siting Plan is incomplete. The upstream and downstream locations of the two routine samples are listed incorrectly. Five additional repeat samples are required the following month after a routine sample is tested positive for total coliform and shall be taken at representative locations in its distribution system. ASH shall submit an updated Coliform and Groundwater Rule Sample Siting Plan (see Enclosure 3) to DDW by May 4, 2016.

    Response:_____

14. DDW recommends that ASH submit a draft of the 2015 Consumer Confidence Report (CCR) to DDW for review before distributing it to its customers.

    Response: ASH submitted a draft of the 2015 CCR on March 11, 2016. DDW has reviewed and corrected information on the 2015 CCR and returned it to ASH on March 24, 2016.

Response Completed by:

Name:_____ Signature:_____

Title:_____ Date:_____

STATE OF CALIFORNIA – ENVIRONMENTAL PROTECTION AGENCY

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER
Santa Barbara District Office
1180 Eugenia Place, Suite 200
Carpinteria, CA 93013

COLIFORM AND GROUNDWATER RULE SAMPLE SITING PLAN

System Information:

Name of Facility: _____ System Number: _____
Street Address: _____ Phone Number: _____
Service Connections: _____ Population: _____
Req. # of Coliform Smpls: _____ Frequency : _____
(Distribution) *(Weekly, Monthly)*

Sample Collection:

Samples Collected By: _____ Phone Number: _____
Analyzing Laboratory: _____ Phone Number: _____
Laboratory Mailing Address: _____ State Code: _____
Laboratory Sent Plan on: _____

Map of the System:

A map of the distribution system showing the source, storage tanks, treatment facilities, distribution piping, routine sample locations, and follow-up (repeat) sample locations is required.

Copy on File with SWRCB? Yes ☐ No ☐

Raw Water Sampling:

Source Continuously Treated with Disinfectant? Yes ☐ No ☐ Collected Prior to Treatment? Yes ☐ No ☐

Source: _____ Monitoring Frequency: _____
Source: _____ Monitoring Frequency: _____
Source: _____ Monitoring Frequency: _____
Source: _____ Monitoring Frequency: _____

Sample Locations:

Routine Sample Location #1 _____ Repeat # 1 (Routine Location) _____
Months/Weeks Sampled: _____ Repeat # 2 (Upstream) _____
Description of Location: _____ Repeat # 3 (Downstream) _____
Influencing GW Sources: _____ Repeat # 4 (Other)* _____

If a routine sample tests positive for total coliforms, fecal coliforms or *E. coli*, five routine **distribution** coliform samples are required the following month. Please note below the locations where these samples will be taken.

1. _____
2. _____
3. _____
4. _____
5. _____

***Water Systems Collecting one monthly coliform sample may collect their fourth repeat at the source to receive credit for the Groundwater Rule.**

GW = Groundwater

Sample Locations:

Routine Sample Location #2 _____
Months/Weeks Sampled: _____
Description of Location: _____
Influencing GW Sources: _____

Repeat # 1 (Routine Location) _____
Repeat # 2 (Upstream) _____
Repeat # 3 (Downstream) _____
Repeat # 4 (Other)* _____

If a routine sample tests positive for total coliforms, fecal coliforms or *E. coli*, five routine **distribution** coliform samples are required the following month. Please note below the locations where these samples will be taken.

1. _____
2. _____
3. _____
4. _____
5. _____

***Water Systems Collecting one monthly coliform sample may collect their fourth repeat at the source to receive credit for the Groundwater Rule.**
GW = Groundwater

Sample Locations:

Routine Sample Location #3 _____
Months/Weeks Sampled: _____
Description of Location: _____
Influencing GW Sources: _____

Repeat # 1 (Routine Location) _____
Repeat # 2 (Upstream) _____
Repeat # 3 (Downstream) _____
Repeat # 4 (Other)* _____

If a routine sample tests positive for total coliforms, fecal coliforms or *E. coli*, five routine **distribution** coliform samples are required the following month. Please note below the locations where these samples will be taken.

1. _____
2. _____
3. _____
4. _____
5. _____

***Water Systems Collecting one monthly coliform sample may collect their fourth repeat at the source to receive credit for the Groundwater Rule.**
GW = Groundwater

Sample Locations:

Routine Sample Location#4 _____
Months/Weeks Sampled: _____
Description of Location: _____
Influencing GW Sources: _____

Repeat # 1 (Routine Location) _____
Repeat # 2 (Upstream) _____
Repeat # 3 (Downstream) _____
Repeat # 4 (Other)* _____

If a routine sample tests positive for total coliforms, fecal coliforms or *E. coli*, five routine **distribution** coliform samples are required the following month. Please note below the locations where these samples will be taken.

1. _____
2. _____
3. _____
4. _____
5. _____

***Water Systems Collecting one monthly coliform sample may collect their fourth repeat at the source to receive credit for the Groundwater Rule.**
GW = Groundwater

Sample Locations:

Routine Sample Location#5 _____
Months/Weeks Sampled: _____
Description of Location: _____
Influencing GW Sources: _____

Repeat # 1 (Routine Location) _____
Repeat # 2 (Upstream) _____
Repeat # 3 (Downstream) _____
Repeat # 4 (Other)* _____

If a routine sample tests positive for total coliforms, fecal coliforms or *E. coli*, five routine **distribution** coliform samples are required the following month. Please note below the locations where these samples will be taken.

1. _____
2. _____
3. _____
4. _____
5. _____

***Water Systems Collecting one monthly coliform sample may collect their fourth repeat at the source to receive credit for the Groundwater Rule.**
GW = Groundwater

Sample Locations:

Routine Sample Location#6 _____
Months/Weeks Sampled: _____
Description of Location: _____
Influencing GW Sources: _____

Repeat # 1 (Routine Location) _____
Repeat # 2 (Upstream) _____
Repeat # 3 (Downstream) _____
Repeat # 4 (Other)* _____

If a routine sample tests positive for total coliforms, fecal coliforms or *E. coli*, five routine **distribution** coliform samples are required the following month. Please note below the locations where these samples will be taken.

1. _____
2. _____
3. _____
4. _____
5. _____

***Water Systems Collecting one monthly coliform sample may collect their fourth repeat at the source to receive credit for the Groundwater Rule.**
GW = Groundwater

For Consecutive Systems:

Does your System Purchase Groundwater? Yes ☐ No ☐
If yes, contact the wholesaler with 24 hours of notification of a TC+ distribution sample.
Wholesaler: _____ **Contact Person and #** _____
Wholesaler: _____ **Contact Person and #** _____

For Wholesaler Systems:

Does your System Provide Groundwater to another Water System? Yes ☐ No ☐
If yes, collect source samples within 24 hours in response to any consecutive system's total coliform distribution TC+
If source sample(s) is fecal indicator positive, contact all consecutive systems within 24 hours*:
Consecutive: _____ **Contact Person and #** _____
Consecutive: _____ **Contact Person and #** _____
*A Tier 1 Notice is required for all fecal indicator positive source samples.

Plan Approval:

Completed By: _____ **Date:** _____
Signature: _____ **Title:** _____
SWRCB Approver: _____ **Date:** _____
Signature: _____ **Title** _____