

## Central Valley Regional Water Quality Control Board

12 December 2018

Drew Lessard, Area Manager  
U.S. Dept. of the Interior Bureau of Reclamation  
Mid Pacific Region, Central California Area Office  
7794 Folsom Dam Road  
Folsom, California 95814

**CERTIFIED MAIL**  
**7018 0040 0000 1911 9638**

**NOTICE OF APPLICABILITY (NOA); STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ-R5273; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION; NEW MELONES LAKE GLORY HOLE RECREATION AREA WASTEWATER TREATMENT SYSTEM; CALAVERAS COUNTY.**

On 12 January 2018, the United States Department of the Interior, Bureau of Reclamation (Discharger) submitted a Report of Waste Discharge (RWD) seeking coverage under State Water Resources Control Board (State Water Board) Water Quality Order 2014-0153-DWQ *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order) for the New Melones Lake Glory Hole Recreation Area Wastewater Treatment System (Facility). Based on the information provided, the system treats and disposes of less than 100,000 gallons per day (gpd), and is therefore eligible for coverage under the general and specific conditions of the General Order. This letter serves as formal notice that the General Order is applicable to your system and the wastewater discharge described below upon the rescission of Order R5-2002-0125. You are hereby assigned General Order **2014-0153-DWQ-R5273** for your system.

You should familiarize yourself with the entire General Order and its attachments enclosed with this letter, which describe mandatory discharge and monitoring requirements. Sampling, monitoring, and reporting requirements applicable to your treatment and disposal methods must be completed in accordance with the appropriate treatment system sections of the General Order and the attached Monitoring and Reporting Program (MRP) No. 2014-0153-DWQ-R5273. This MRP was developed after consideration of your waste characterization and site conditions described in the attached memorandum.

### DISCHARGE DESCRIPTION

The Facility is in Calaveras County. The evaporation ponds are approximately 4.7 miles north of the New Melones Dam at a point latitude and longitude of 38.017° north and 120.530° west. The Facility serves two campgrounds, four day-use areas, and one marina concessionaire. Contributing sources of wastewater from these areas include restrooms, shower/restrooms, one fish cleaning station, floating portable toilets, and one recreational vehicle (RV) dump station. There are a total of 144 campsites. Generally there is a holding tank at each restroom or shower/restroom. Eleven holding tanks fill and then overflow (like a septic tank) to the nearest

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

1685 E Street, Fresno, CA 93706 | [www.waterboards.ca.gov/centralvalley](http://www.waterboards.ca.gov/centralvalley)

lift station. There are a total of eight lift stations. Lift Stations 1, 2, 3 and 4 initially pump their flow to Lift Station 5. Lift Station 5 pumps to Lift Stations 6, 7, and 8, in series. The wastewater in Lift Station #8 is then pumped to the two evaporation ponds. The lined evaporation ponds operate in series. According to the RWD, an aerator was installed in Pond #1 during the 2003 upgrade. According to an onsite representative of the Facility, the aerator has not been working since 2011. The Facility is equipped with a 4.8-acre area for sprayfield irrigation for the effluent, but it has never been used since the Facility was installed in 2003. At present, the Discharger does not propose to harvest a crop on the sprayfield.

Average daily sewage flows in the system from 2015 to 2017 were 815 gallons per day (gpd), 1,646 gpd, and 2,432 gpd, respectively. The Facility is designed for a maximum average wastewater flow rate of 40,000 gpd. Residual solids have been accumulating on the liners since the construction of the liners and have not been removed since 2003. This Order requires the preparation of a Sludge Management Plan to describe how the Discharger will handle solids at the Facility.

### FACILITY SPECIFIC REQUIREMENTS

The Discharger will maintain exclusive control over the discharge and shall comply with the terms and conditions of this NOA, General Order 2014-0153-DWQ, with all attachments, and MRP No. 2014-0153-DWQ-R5273. A nitrogen effluent limit evaluation was conducted (see attached technical memorandum) and it was determined no nitrogen limit is necessary for the discharge at this time.

In accordance with Section B.1.a of the General Order, treated wastewater discharged to the Facility's evaporation ponds **shall not exceed 40,000 gpd as a monthly average.**

The General Order states in Section B.1.l that the Discharger shall comply with the setbacks as described in Table 3. This table summarizes different setback requirements for wastewater system equipment, activities, land application areas, and storage and/or treatment ponds from sensitive receptors and property lines where applicable. The Discharger shall comply with the applicable setback requirements, as summarized in the following table:

<b>Site Specific Applicable Setback Requirements</b>				
<b>Equipment or Activity</b>	<b>Domestic Well</b>	<b>Ephemeral Stream Drainage<sup>3</sup></b>	<b>Property Line</b>	<b>Lake or Reservoir<sup>1</sup></b>
Septic Tank and Collection System	150 ft <sup>2</sup>	50 ft	5 ft <sup>4</sup>	50 ft <sup>9</sup>
Land Application Area (undisinfected secondary recycled water) <sup>5</sup>	150 ft <sup>6</sup>	100 ft	100 ft <sup>7</sup>	200 ft

<b>Site Specific Applicable Setback Requirements</b>				
<b>Equipment or Activity</b>	<b>Domestic Well</b>	<b>Ephemeral Stream Drainage<sup>3</sup></b>	<b>Property Line</b>	<b>Lake or Reservoir<sup>1</sup></b>
Spray Irrigation (recycled water) <sup>8</sup>	No spray irrigation of any recycled water, other than disinfected tertiary recycled water, shall take place within 100 feet of a residence or a place where public exposure could be similar to that of a park, playground, or school yard.			
Impoundment (undisinfected secondary recycled water) <sup>5</sup>	150 ft <sup>6</sup>	150 ft	50 ft	200 ft

- 1 Lake or reservoir boundary measured from the high-water line.
- 2 Setback established by Onsite Wastewater Treatment System Policy, Section 7.5.6.
- 3 Ephemeral Stream Drainage denotes a surface water drainage feature that flows only after rain or snow-melt and does not have sufficient groundwater seepage (baseflow) to maintain a condition of flowing surface water. The drainage shall be measured from a line that defines the limit of the ordinary high water mark (established by fluctuations of water elevation and indicated by characteristics such as shelving, changes in soil character, vegetation types, presence of litter or debris, or other appropriate means).
- 4 Setback established by the California Plumbing Code, Table K-1.
- 5 Undisinfected secondary recycled water is defined in California Code of Regulations, title 22, section 60310.900.
- 6 Setback established in the California Code of Regulations, title 22, section 60310(d).
- 7 Setback established by California Code of Regulations, title 22, section 60310 (f)
- 8 Additional restrictions for spray irrigation of recycled water are contained in California Code of Regulations, title 22, section 60310 (f).
- 9 Setback established by the California Plumbing Code, Table K-1. Less stringent setback taken (compared to Onsite Wastewater Treatment System Policy) as spills from the holding tanks have not historically been a problem in over three decades of existence.

The “holding tanks” located at each restroom or restroom/shower location, where water collects in the tank and then overflows to a lift station, shall be considered “septic tanks” for the purposes of this Order. They must be managed as described in Section B.2.d. of the General Order.

The General Order states in Section B.2.d. that septic tanks shall be pumped when any of the following conditions exists:

1. The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment.
2. The scum layer is within 3 inches of the outlet device.
3. The sludge layer is within 8 inches of the outlet device.

The Discharger shall comply with the pond system requirements specified in Section B.5 of the General Order. Section B.5.a. states that sufficient freeboard shall be maintained at all times in the ponds to provide adequate storage capacity and prevent wastewater spills. Freeboard shall be measured vertically from the lowest elevation of the pond berm to the pond water surface. The Discharger shall immediately implement the Spill Prevention and Emergency Response Plan (Provision E.1.a.), as necessary, to maintain the required freeboard in the evaporation ponds.

Section B.5.d states that objectionable odors shall not create nuisance conditions beyond the limits of the wastewater treatment facility. A dissolved oxygen concentration of less than 1.0 mg/L in the upper one foot of any wastewater pond shall be evidence of the potential to generate objectionable odors.

Section B.7 of the General Order specifies requirements related to wastewater land application areas (LAA). The Discharger shall comply with these specifications when applying treated wastewater to the designated sprayfield area.

Section B.7.f of the General Order states if recycled water is applied, it shall comply with title 22 water recycling criteria, this General Order, the NOA, a title 22 Engineering Report, and any State Water resources Control Board Division of Drinking Water approval conditions. As of the date of this NOA, the Discharger has not submitted a title 22 Engineering Report for the Facility. Therefore, the Discharger is prohibited from reclaiming the Facility's treated effluent on recycled water use areas until a title 22 Engineering Report for the Facility has been approved by the Division of Drinking Water and the Executive Officer of the Central Valley Regional Water Quality Control Board (Central Valley Water Board).

The General Order states in Section D.1.a that the discharge shall not exceed the effluent limitations as described in Table 4. This table summarizes effluent limitations for wastewater ponds. The Discharger shall comply with the applicable effluent limitations, as summarized in the following table:

<b>Effluent Limitations for Wastewater Treatment Systems<sup>1</sup></b>		
<b>Constituent</b>	<b>Units</b>	<b>Limit (Monthly Average)</b>
BOD <sub>5</sub>	mg/L	90

<sup>1</sup> The limitation included in this table applies to treated effluent discharged to sprayfields.

Provision E.1 of the General Order requires dischargers enrolled under the General Order to prepare and implement the following reports within **90 days** of the issuance of the NOA (by **12 March 2019**):

- Spill Prevention and Emergency Response Plan (Provision E.1.a)
- Sampling Analysis Plan (Provision E.1.b)
- Sludge Management Plan (Provision E.1.c)

The General Order requires the Sludge Management Plan to be submitted to the Central Valley Water Board within **90 days** of issuance of this NOA.

Failure to comply with the requirements in this NOA, General Order 2014-0153-DWQ, with all attachments, and MRP No. 2014-0153-DWQ-R5273 could result in an enforcement action as authorized by provisions of the California Water Code. Discharge of wastes other than those described in this NOA is prohibited. If the method of waste disposal changes from that described in this NOA, you must submit a new Report of Waste Discharge describing the new operation. If wastewater flows to the Facility substantially increases and approach 40,000 gpd, the Central Valley Water Board Staff must be contacted to determine if further analysis is required.

The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. These programs, once effective, could change how the Central Valley Water Board permits discharges of salts and nitrate.

The required annual fee specified in the annual billing from the State Water Board shall be paid until this NOA is officially terminated. You must notify this office in writing if the discharge regulated by the General Order ceases, so that we may terminate coverage and avoid unnecessary billing.

The Central Valley Water Board has gone to a Paperless Office System. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MB should be emailed to: [centralvalleyfresno@waterboards.ca.gov](mailto:centralvalleyfresno@waterboards.ca.gov). Documents that are 50 MB or larger should be transferred to a disk and mailed to the Central Valley Water Board office at 1685 E Street, Fresno, CA 93706. To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office: Program: Non-15, WDID: 5B05NC00004, Facility Name: New Melones Lake Glory Hole Recreation Area Order: 2014-0153-DWQ-R5273.

To conserve paper and reduce mailing costs, a paper copy of the General Order has been sent only to the Discharger. Others are advised that the General Order is available on the State Water Board's web site at:

[http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2014/wqo2014\\_0153\\_dwq.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0153_dwq.pdf)

Please note that Order R5-2002-0125 is proposed to be rescinded at the 4/5 April 2019 meeting of the Central Valley Water Board. Upon rescission of your individual WDRs, coverage for your facility under the General Order shall become applicable subject to this Notice of Applicability.

If you have any questions regarding this matter, please contact Jeff Robins by phone at (559) 445-5976, by email at [jeff.robins@waterboards.ca.gov](mailto:jeff.robins@waterboards.ca.gov).

*ORIGINAL SIGNED BY CLAY L. RODGERS FOR*

PATRICK PULUPA  
Executive Officer

Attachments: Attachment A – Site Map  
Attachment B – Process Schematic  
Monitoring and Reporting Program No. 2014-0153-DWQ-R5273  
Review Memo of USDI Bureau of Reclamation, New Melones Lake Glory Hole  
Recreation Area - RWD  
State Water Resources Control Board Order WQ 2014-0153-DWQ (Discharger  
Only)

cc list next page

cc: Calaveras County Environmental Health Services, San Andreas, Ca.

Drew Lessard  
USDI, Bureau of Reclamation

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12 December 2018

Calaveras County Planning Department, San Andreas, Ca.  
Michael Biever (via email)

## Central Valley Regional Water Quality Control Board

**TO:** Scott J. Hatton  
Supervising Water Resource Control Engineer  
RCE 67889

**FROM:** Alexander S. Mushegan  
Senior Water Resource Control Engineer  
RCE 84208

Jeff Robins  
Water Resource Control Engineer

**DATE:** 12 December 2018

**SUBJECT: APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION; NEW MELONES LAKE GLORY HOLE RECREATION AREA WASTEWATER TREATMENT SYSTEM; CALAVERAS COUNTY**



On 12 January 2018, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Report of Waste Discharge (RWD) for the United States Department of the Interior, Bureau of Reclamation (Discharger) – New Melones Lake Glory Hole Recreation Area Wastewater Treatment Facility (Facility) in Calaveras County. The RWD includes a Form 200 and a Facility description. This memorandum provides a summary of Central Valley Water Board's review of the RWD and the applicability of this discharge to be covered under State Water Resources Control Board Order WQ 2014-0153-DWQ, General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems (General Order).

### BACKGROUND INFORMATION

The Facility was constructed to collect and treat wastewater generated at the New Melones Lake Glory Hole Recreation Area. The Facility is currently permitted under Waste Discharge Requirements Order R5-2002-0125, adopted on 7 June 2002. The Facility was constructed in 1984 and has a design flow of 40,000 gallons per day (gpd). The average influent flows for the last three years have been 815 gpd for calendar year 2015, 1,646 gpd for 2016, and 2,432 gpd for 2017. The Facility treats wastewater generated by visitors to two campgrounds (144 campsites in total), four day-use areas, and one marina concessionaire. Contributing sources of wastewater from these areas include restrooms, shower/restroom facilities, a fish cleaning station, floating portable toilets, and a Recreational Vehicle (RV) dump station. Generally, there is a holding tank at each restroom or shower/restroom. The eleven holding tanks fill and then



overflow (like a septic tank) to the nearest lift station. There are eight lift stations. Lift Stations 1, 2, 3 and 4 initially pump to Lift Station 5. Lift Station 5 pumps to Lift Stations 6, 7, 8, and the evaporation ponds, in series. There are no RV hook-ups for public use, but there is a total of four full RV hook-ups reserved for Camp Hosts. Central Valley Water Board staff conducted an inspection on 14 June 2018 to become more familiar with the site.

## **POTENTIAL THREAT TO WATER QUALITY**

The Facility's ponds have reportedly always functioned, in practice, as evaporation ponds. There is a spray irrigation system for the effluent that has reportedly never been used because the evaporation rates from the ponds exceeds the flow rates to the ponds.

Public contact with the wastewater is restricted. Public access to the evaporation ponds is restricted by a six-foot high chain-link fence, with barbed wire on top. A portion of the sprayfield has a barbed wire fence on the perimeter. There is a locked gate on the access road leading to the Facility and a second locked gate at the entrance to the Facility. The gates and the chain-link fencing have "No Trespassing" signs.

The wastewater treatment system consists of a collection system, two evaporation ponds, and a spray irrigation system. Wastewater flows from Evaporation Pond #1 to Evaporation Pond #2 by an interconnecting weir. The evaporation ponds are lined with an 80-mil high density polyethylene (HDPE) geomembrane installed in 2003. Wastewater disposal is principally accomplished by evaporation. Wastewater begins to flow into Evaporation Pond #2 when the freeboard in Evaporation Pond #1 is 1.8 feet or less. The Discharger has the ability to convey wastewater from Evaporation Pond #2 to a 4.8-acre sprayfield. Prior to discharging the wastewater at the sprayfield, the wastewater is disinfected with a hypochlorination injection system. However, as previously mentioned, wastewater has reportedly not been discharged to the sprayfield since the Facility has been constructed.

To help ensure that an overflow does not occur, the Discharger has a contingency plan if the water level encroaches on 2 feet of freeboard for Evaporation Pond #2. The contingency plan is described in a letter (date stamped 24 October 2002) from Peggi Brooks, Resource Manager for the Bureau of Reclamation. The contingency plan calls for hauling wastewater from the Facility to local wastewater treatment facilities for treatment and disposal via trucks.

To address concerns regarding the integrity of the pond liners and the Facility's potential impact on the underlying groundwater, a series of improvements were made at the wastewater treatment facility around 2003, which included the following items:

- a. Installation of groundwater monitoring wells.
- b. Modified piping from the last lift station to provide the ability to route the wastewater to either Evaporation Pond #1 or Evaporation Pond #2.
- c. Installation of a 15 HP aerator in Evaporation Pond #1, which is operated to maintain the dissolved oxygen level at a suitable concentration for aerobic biodegradation of organic material during high load scenarios (staff noted during the 14 June 2018 inspection that the aerator was not physically in the pond)
- d. Installation of a new liner system for each evaporation pond, consisting of an 80-mil HDPE geomembrane liner with reinforcing scrim.
- e. Installation of a Supervisory Control and Data Acquisition (SCADA) system at each of the eight lift stations to ensure that potential overflows or spills at the lift stations do not enter any surface water drainage.



- f. Construction of a 4.8-acre sprayfield area (not used since installation), and a liquid hypochlorination injection system to disinfect wastewater before being used for land application.

At this time, the Discharger does not propose to harvest a crop from the sprayfield.

Depth to groundwater in the monitoring wells near the evaporation ponds for April 2017 was approximately 7 feet to 112 feet below the bottom of the evaporation pond (approximate liner elevation is 1,425 feet). New Melones Lake's elevation was approximately 1,048 feet on 8 June 2018.

The groundwater monitoring data for electrical conductivity (EC) and total dissolved solids (TDS) in three groundwater monitoring wells are summarized in Tables 1 and 2 below. A noticeable increase in salinity appears to have occurred around 2007 in GH-MW1. The tables below compare the EC and TDS data from 2003 to 2006 to the data from 2008 to 2018.

Table 1. Groundwater EC Data

	SF- Background (µmhos/cm)		SF- MW3 (µmhos/cm)		GH- MW1 (µmhos/cm)	
	Upgradient		Upgradient		Downgradient	
	Pre-2007 <sup>1</sup>	Post-2007 <sup>2</sup>	Pre-2007 <sup>1</sup>	Post-2007 <sup>2</sup>	Pre-2007 <sup>1</sup>	Post-2007 <sup>2</sup>
mean	284	299	774	437	401	1,088
range	233-340	286-322	308-1,430	384-492	324 - 452	400 – 1,326
# of samples	12	30	12	30	11	16

<sup>1</sup> Analytical data reported from July 2003 to August 2006

<sup>2</sup> Analytical data reported from September 2008 to February 2018

Table 2. Groundwater TDS Data

	SF- Background (mg/L)		SF- MW3 (mg/L)		GH- MW1 (mg/L)	
	Upgradient		Upgradient		Downgradient	
	Pre-2007 <sup>1</sup>	Post-2007 <sup>2</sup>	Pre-2007 <sup>1</sup>	Post-2007 <sup>2</sup>	Pre-2007 <sup>1</sup>	Post-2007 <sup>2</sup>
mean	212	227	508	286	261	848
range	196-230	200-286	235-1,060	236-334	226 - 286	480 – 1,200
# of samples	12	31	11	28	12	17

<sup>1</sup> Analytical data reported from July 2003 to August 2006

<sup>2</sup> Analytical data reported from September 2008 to February 2018

No data was reported for EC or TDS for the influent, pond, or effluent in recent self-monitoring reports. The June 2018 Semiannual Groundwater Monitoring Report includes a review of a study completed by the Discharger from 2014 to 2015. The study analyzed a few constituents in the evaporation ponds and the groundwater and included the following conclusion, "...Initial wastewater samples from the ponds contained TDS concentrations high enough to impact groundwater quality and to account for concentrations detected in the monitoring wells..."

Given the several years of data showing consistently higher total dissolved solids concentrations and electrical conductivity levels above the Secondary Recommended Maximum Contaminant Levels in the downgradient well GH-MW1, and that the increase in the salinity concentration in the GH-MW1 occurred in a relatively short time period (around 2007), the Discharger should continue to conduct groundwater monitoring to evaluate the Facility's impact on underlying groundwater.

## **NITROGEN LIMIT EVALUATION**

The General Order requires that wastewater systems with a flow rate greater than 20,000 gpd be evaluated to determine if nitrogen effluent limits are required as described in Attachment 1 of the General Order. To determine if a nitrogen effluent limit is necessary, Attachment 1 of the General Order includes site-specific considerations that should be considered when evaluating a discharge and the need for nitrogen control. These site-specific considerations include groundwater depth, percolation rate, wastewater strength, and if nitrogen is a constituent of concern for the area. Since the Facility's permitted monthly flow rate exceeds 20,000 gpd, a nitrogen effluent limit evaluation needs to be conducted for the Facility (see below).

The two evaporation ponds are each lined with an 80-mil HDPE geomembrane liner. In addition, a network of groundwater monitoring wells exists around the evaporation ponds and the sprayfield. Historically there has not been a discharge of treated wastewater to the sprayfield. As of April 2017, the groundwater elevation was between 7 to 112 feet beneath the liner. According to Order R5-2002-0125, the soils of the sprayfield are Auburn Series loamy soil with a depth of 15-30 inches. The Discharger's 2017 Semi-Annual Groundwater Monitoring Report indicates, from geologic logs of the drill holes in which the monitoring wells were installed, that soils present at the monitoring wells are 1 to 8.5 feet deep and they are underlain by fractured and foliated rock.

Influent and/or evaporation pond nitrogen monitoring was not required by Monitoring and Reporting Program R5-2002-0125 and no effluent data was reported for the duration of Order R5-2002-0125 (all wastewater evaporated or was hauled offsite). An evaporation pond influent sample from 15 April 2001, cited in Order R5-2002-0125, listed the total nitrogen concentration at 79 mg/L and BOD<sub>5</sub> at 46 mg/L. Lacking any current nitrogen data, available influent BOD<sub>5</sub> data can be used to characterize the strength of the wastewater. Based on 10 monthly BOD<sub>5</sub> influent results reported in 2017, the untreated domestic wastewater is of typical domestic strength (average BOD<sub>5</sub> concentration of 280 mg/L and a range of non-detect to 810 mg/L).

Application of treated wastewater to the sprayfield will result in additional nutrient removal in the soil by plants and other biota. Some nitrogen removal will also occur due to the biological activity in the evaporation ponds

Groundwater monitoring data is available for all wells dating back to 2003. Since 2005 there has been only one nitrate as nitrogen reading that equaled or exceeded a nitrate as nitrogen concentration of 10 mg/L in any well (10 mg/L in SF-MW1 on 7 January 2008). Therefore, the reported groundwater monitoring data does not indicate that the Facility's discharge has significantly impacted the underlying groundwater in regards to nitrogen.

Since (1) the evaporation ponds are lined, (2) the Discharger has a sprayfield for disposal (if needed), and (3) available groundwater data indicates that the Facility's discharge, in terms of nitrogen, has not significantly impacted the underlying groundwater, nitrogen limits are not necessary at this time.

**MONITORING REQUIREMENTS**

Monitoring requirements included in the following sections from Attachment C of the General Order are appropriate for this discharge:

- Septic Tank Monitoring,
- Pond System Monitoring,
- Recreational Vehicle Discharge Monitoring,
- Land Application Area Monitoring,
- Solids Disposal Monitoring, and
- Groundwater Monitoring.

**CV-SALTS**

The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. These programs, once effective, could change how the Central Valley Water Board permits discharges of salt and nitrate.

ATTACHMENT A – SITE MAP  
 NEW MELONES LAKE GLORY HOLE RECREATION AREA  
 2014-0153-DWQ-R5273

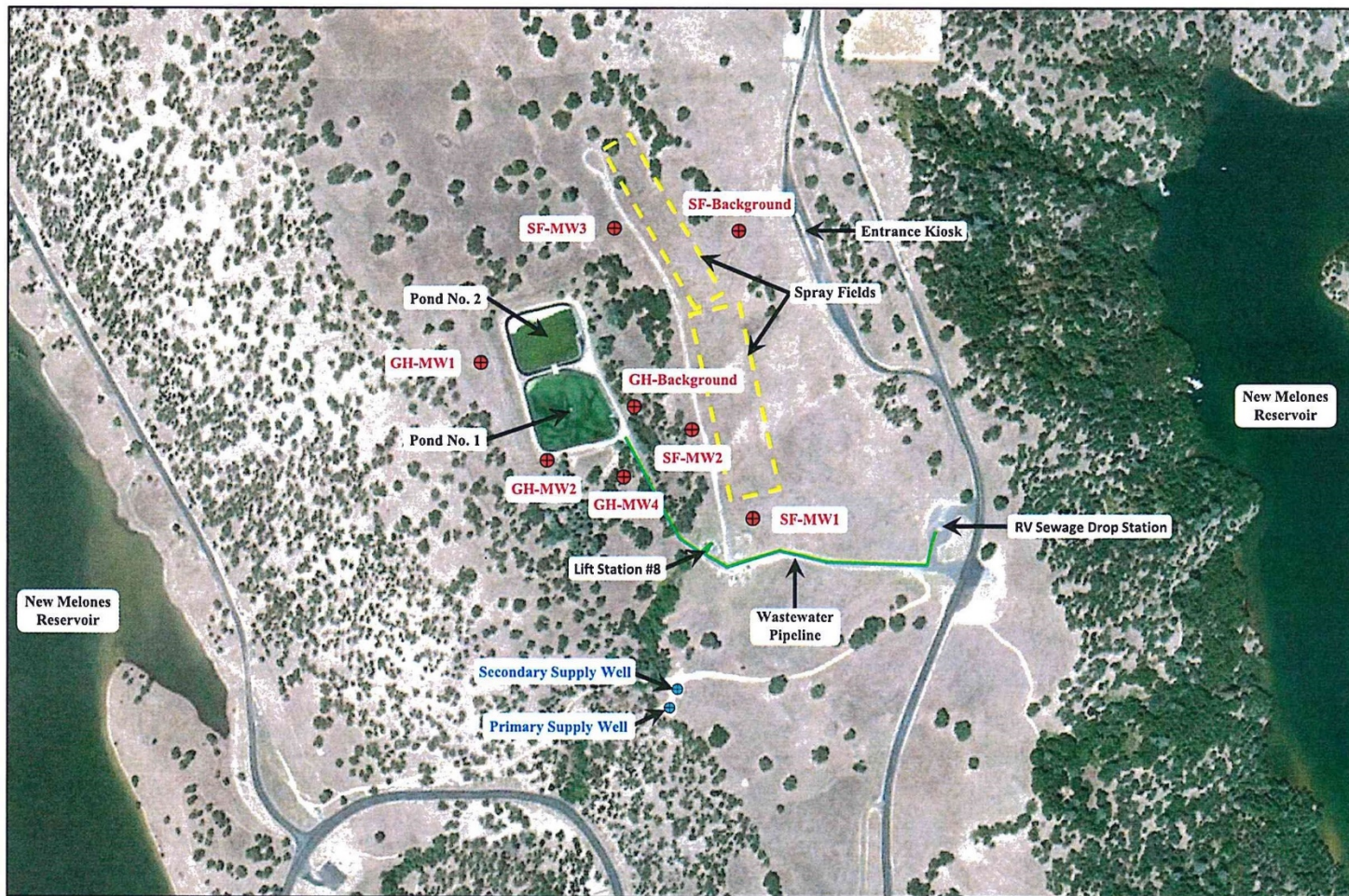


Image courtesy of Google Earth. Imagery date: July 24, 2011

⊕ SF-MW1 Groundwater Monitoring Well

0 250 500 1,000 feet

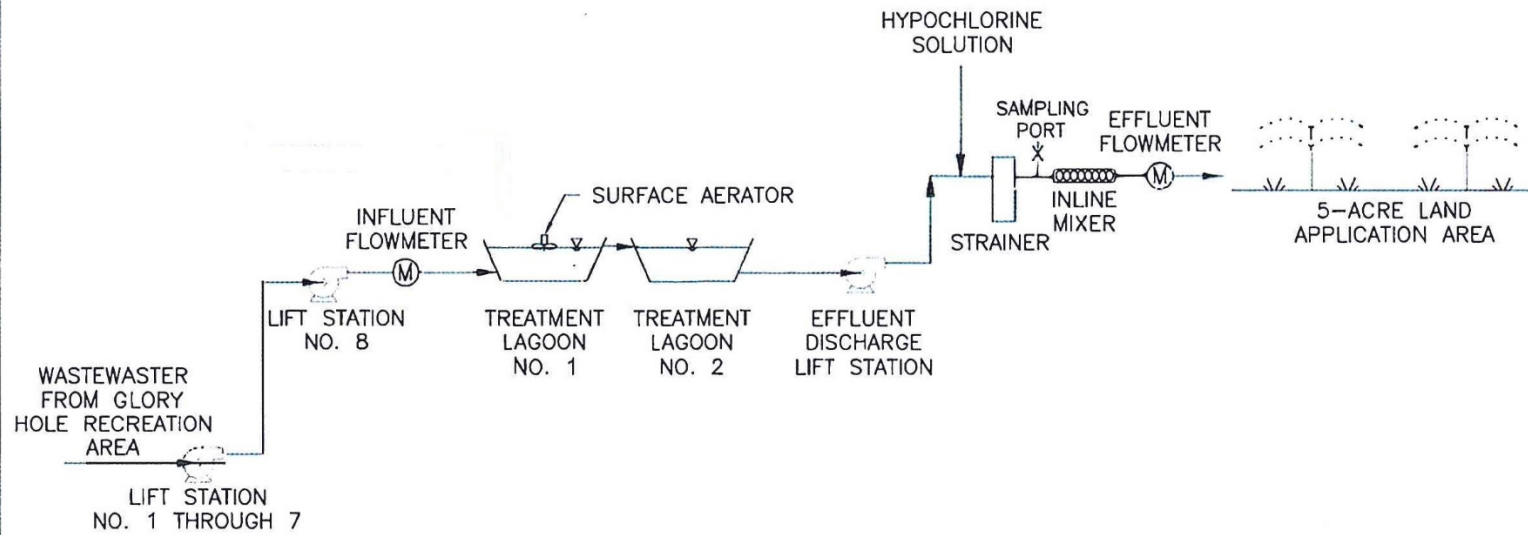


Drawing Reference  
 Report of Waste Discharge  
 12 January 2018

**Attachment A – Site Map**  
 New Melones Lake Glory Hole Recreation  
 Area Wastewater Treatment Facility



ATTACHMENT B – PROCESS SCHEMATIC  
 NEW MELONES LAKE GLORY HOLE RECREATION AREA  
 2014-0153-DWQ-R5273



ML-03.DWG

 <b>ACCORD ENGINEERING, INC.</b> 2472 Chambers, Suite 250 • Tustin • California 92780 Phone (714) 730-7688 • Fax (714) 730-7689	
DRAWING TITLE	
PROCESS FLOW SCHEMATIC	
GLORY HOLE WASTEWATER TREATMENT FACILITY SONORA, CALIFORNIA	
PROJECT	DATE
BUREAU OF RECLAMATION	10/1/02
SCALE	SHEET NO.
NOT TO SCALE	1-3

Drawing Reference  
 Report of Waste Discharge  
 12 January 2018

**Attachment B – Process Schematic**  
 New Melones Lake Glory Hole Recreation  
 Area Wastewater Treatment Facility

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5273

FOR  
UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION  
NEW MELONES LAKE GLORY HOLE RECREATION AREA  
CALAVERAS COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater treatment system. This MRP is issued pursuant to Water Code section 13267. The United States Department of the Interior, Bureau of Reclamation (Discharger) shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) or Executive Officer.

Water Code section 13267 states, in part:

“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

Water Code section 13268 states, in part:

“(a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with article 2.5 (commencing with section 13323) of chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.”

The Discharger owns and operates the New Melones Lake Glory Hole Recreation Area Wastewater Treatment System (Facility) that is subject to the Notice of Applicability (NOA) of Water Quality Order 2014-0153-DWQ-R5273. The reports are necessary to ensure that the Discharger complies with the NOA and General Order. Pursuant to Water Code section 13267, the Discharger shall implement this MRP and shall submit the monitoring reports described herein.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including date, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Central Valley Water Board staff.

Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that they are used by a State Water Resources Control Board, Environmental Laboratory Accreditation Program certified laboratory, or:

1. The user is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are maintained and available for at least three years.

### **SEPTIC TANK MONITORING**

The “holding tanks” located at each restroom or restroom/shower location, where water collects in the tank and then overflows to a lift station, shall be considered “septic tanks” for the purposes of this Monitoring and Reporting Program.

Septic tanks shall be inspected and/or pumped at least as frequently as described below. Inspections of sludge and scum depth are not required if the tanks are pumped at least annually.

<b><u>Parameter</u></b>	<b><u>Units</u></b>	<b><u>Measurement Type</u></b>	<b><u>Inspection/Reporting Frequency</u></b>
Sludge depth and scum thickness in each compartment of each tank	Feet	Staff Gauge	Annually
Distance between bottom of scum layer and bottom of outlet device	Inches	Staff Gauge	Annually
Distance between top of sludge layer and bottom of outlet device	Inches	Staff Gauge	Annually
Effluent filter condition (if equipped, clean as needed)	NA	NA	Annually

NA denotes not applicable.

Septic tanks shall be pumped when any one of the following conditions exists:

1. The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment.
2. The scum layer is within 3 inches of the outlet device.
3. The sludge layer is within 8 inches of the outlet device.

If a septic tank is pumped during the year, the pumping report shall be submitted with the annual report. All pumping reports shall be submitted with the next regularly scheduled monitoring report. At a minimum, the record shall include the date, nature of service, service company name, and service company license number.



## POND SYSTEM MONITORING

### Influent Monitoring

<u>Constituent</u>	<u>Units<sup>b</sup></u>	<u>Sample Type</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Flow Rate <sup>a</sup>	gpd	Meter	Continuous	Annually
BOD <sub>5</sub>	mg/L	Grab	Annually	Annually
Total Nitrogen	mg/L	Grab	Annually	Annually
Electrical Conductivity	µmhos/cm	Grab	Annually	Annually

<sup>a</sup> At a minimum, the total flow shall be measured monthly to calculate the average daily flow for the month.

<sup>b</sup> gpd denotes gallons per day; mg/L denotes milligrams per liter; µmhos/cm denotes micromhos per centimeter.

### Pond Monitoring

All wastewater and treated wastewater storage ponds shall be monitored as specified below.

<u>Constituent</u>	<u>Units<sup>a</sup></u>	<u>Sample Type</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Dissolved Oxygen	mg/L	Grab	Monthly	Quarterly
Freeboard	0.1 feet	Measurement	Monthly	Quarterly
Electrical Conductivity	µmhos/cm	Grab	Monthly	Quarterly
Odors	--	Observation	Monthly	Quarterly
Berm Condition	--	Observation	Monthly	Quarterly
Liner Condition		Observation	Monthly	Quarterly

<sup>a</sup> mg/L denotes milligrams per liter; µmhos/cm denotes micromhos per centimeter.

### Effluent Monitoring

When wastewater is discharged from the ponds to the sprayfield area, the pond effluent shall be monitored as specified below.

<u>Constituent</u>	<u>Units<sup>a</sup></u>	<u>Sample Type</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Electrical Conductivity	µmhos/cm	Grab	Monthly	Quarterly
pH	Std. Units	Grab	Monthly	Quarterly
BOD <sub>5</sub>	mg/L	Grab	Monthly	Quarterly
Total Suspended Solids	mg/L	Grab	Monthly	Quarterly
Total Nitrogen	mg/L	Grab	Monthly	Quarterly

<sup>a</sup> µmhos/cm denotes micromhos per centimeter; Std. Units denotes standard pH units; mg/L denotes milligrams per liter.

## RECREATIONAL VEHICLE DISCHARGE MONITORING

If the wastewater system has accepted recreational vehicle, portable toilet, or similar waste in the previous 12 months, the Discharger shall perform the following additional monitoring. Samples shall be collected to characterize effluent that is stored in wastewater ponds or that will be applied to the sprayfield. Wastewater shall be monitored as specified below:

<u>Constituent</u>	<u>Units<sup>a</sup></u>	<u>Sample type</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Zinc	mg/L	Grab	Quarterly	Quarterly
Phenol	mg/L	Grab	Quarterly	Quarterly
Formaldehyde	mg/L	Grab	Quarterly	Quarterly

<sup>a</sup> mg/L denotes milligrams per liter.

### LAND APPLICATION AREA MONITORING

The Discharger shall monitor the sprayfield when wastewater is applied. If wastewater is not applied during a reporting period, the monitoring report shall state so. Sprayfield monitoring shall include the following:

<u>Constituent</u>	<u>Units<sup>e</sup></u>	<u>Sample Type</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Wastewater Flow <sup>a</sup>	gpd	Meter <sup>a</sup>	Monthly	Quarterly
Local Rainfall	inches	Weather Station <sup>b</sup>	Monthly	Quarterly
Acreage Applied <sup>c</sup>	acres	Calculated	Monthly	Quarterly
Application Rate <sup>d</sup>	gal/acre/mo	Calculated	Monthly	Quarterly
Soil Erosion Evidence	--	Observation	Monthly	Quarterly
Containment Berm Condition	--	Observation	Monthly	Quarterly
Soil Saturation/Ponding	--	Observation	Monthly	Quarterly
Nuisance Odors/Vectors	--	Observation	Monthly	Quarterly
Discharge Off-Site	--	Observation	Monthly	Quarterly

<sup>a</sup> Meter requires meter reading, a pump run time meter, or other approved method.

<sup>b</sup> Weather station may be site-specific station or nearby governmental weather reporting station.

<sup>c</sup> Acreage applied denotes the acreage to which wastewater is applied.

<sup>d</sup> Application rate may also be reported as inch/acre/month.

<sup>e</sup> gpd denotes gallons per day; gal/acre/mo denotes gallons per acre per month.

### SOLIDS DISPOSAL MONITORING

The Discharger shall report the handling and disposal of all solids (e.g., screenings, grit, sludge, biosolids, etc.) generated at the wastewater system. Records shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed from the wastewater system, the disposal facility name and address, and copies of analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

### GROUNDWATER MONITORING

The Discharger shall monitor groundwater quality and comply with the groundwater monitoring requirements specified below. The data from routine groundwater monitoring events shall be submitted semi-annually. Analysis of the data and groundwater flow directions shall be performed at least annually and shall be performed under the supervision of a California licensed professional. The Discharger may request a reduced monitoring and reporting schedule once adequate data has been collected to characterize the site.

The Discharger shall monitor each of the groundwater monitoring wells identified in Attachment A of the NOA and any future monitoring wells added to the network. Prior to sampling, groundwater elevations shall be measured and the wells shall be purged of at least three well volumes and until pH

and electrical conductivity have stabilized. No-purge, low-flow, or other sampling techniques are acceptable if they are described in an approved Sampling and Analysis Plan. Depth to groundwater shall be measured to the nearest 0.01 feet. Groundwater elevations shall be calculated. Samples shall be collected using approved USEPA methods. Groundwater monitoring shall include, at a minimum, the following:

<u>Constituent</u>	<u>Units<sup>d</sup></u>	<u>Sample Type</u>	<u>Sampling/Reporting Frequency<sup>b,c</sup></u>
Groundwater Elevation <sup>a</sup>	0.01 Feet	Calculated	Semiannually
Depth to Groundwater	0.01 Feet	Measurement	Semiannually
Gradient	Feet/Feet	Calculated	Semiannually
Gradient Direction	degrees	Calculated	Semiannually
pH	Std. Units	Grab	Semiannually
Electrical Conductivity	µmhos/cm	Grab	Semiannually
Total Dissolved Solids	mg/L	Grab	Semiannually
Nitrate as Nitrogen	mg/L	Grab	Semiannually
Total Kjeldahl Nitrogen	mg/L	Grab	Semiannually
Total Nitrogen	mg/L	Grab	Semiannually
Sodium	mg/L	Grab	Semiannually
Chloride	mg/L	Grab	Semiannually
Total Coliform Organisms	MPN/100 mL	Grab	Semiannually
Zinc <sup>b</sup>	mg/L	Grab	Semiannually
Phenol <sup>b</sup>	mg/L	Grab	Semiannually
Formaldehyde <sup>b</sup>	mg/L	Grab	Semiannually

- <sup>a</sup> Groundwater elevation shall be based on depth to water using a surveyed measuring point elevation on the well and a surveyed reference elevation.
- <sup>b</sup> Monitoring of the constituents zinc, phenol, and formaldehyde are required only when recreational vehicles were allowed to discharge to the wastewater system in the previous 12 months.
- <sup>c</sup> Analysis of data by a California licensed professional is required at least annually.
- <sup>d</sup> µmhos/cm denotes micromhos per centimeter; Std. Units denotes standard pH units; mg/L denotes milligrams per liter; MPN/100 mL denotes most probable number of total coliform organisms per 100 milliliters; degrees denotes a compass bearing.

## REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, solids, etc.), and reported analytical or visual inspection results are readily discernible. The data shall be summarized to clearly illustrate compliance with the General Order and NOA as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

The Central Valley Water Board has gone to a Paperless Office System. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MB should be emailed to: [centralvalleysacramento@waterboards.ca.gov](mailto:centralvalleysacramento@waterboards.ca.gov). Documents that are 50 MB or larger should be transferred to a disk and mailed to the appropriate Regional Water Board office, in this case 1685 E Street, Fresno, CA 93706. To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office: Program: Non-15, WDID: 5B05NC00004, Facility Name: New Melones Lake Glory Hole Recreation Area, Order: 2014-0153-DWQ-R5273.

### **A. Quarterly Monitoring Reports**

Quarterly reports shall be submitted to the Central Valley Water Board on the **first day of the second month after the quarter ends** (e.g., the January-March Quarterly Report is due by May 1<sup>st</sup>). The reports shall bear the certification and signature of the Discharger's authorized representative. At a minimum, the quarterly reports shall include:

1. Results of all required monitoring.
2. A comparison of monitoring data to the discharge specifications, biochemical oxygen demand effluent limit, disclosure of any violations of the NOA and/or General Order, and an explanation of any violation of those requirements. (Data shall be presented in tabular format.)
3. If requested by staff, copies of laboratory analytical report(s) and chain of custody form(s).

### **B. Annual Report**

Annual Reports shall be submitted to the Central Valley Water Board by **March 1<sup>st</sup> following the monitoring year**. The Annual Report shall include the following:

1. Tabular and graphical summaries of all monitoring data collected during the year.
2. An evaluation of the performance of the wastewater treatment system, including discussion of capacity issues, nuisance conditions, system problems, and a forecast of the flows anticipated in the next year. A flow rate evaluation, as described in the General Order (Provision E.2.c), shall also be submitted.
3. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order.
4. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
5. The name and contact information for the wastewater operator responsible for operation, maintenance, and system monitoring.
6. For groundwater monitoring data, concentration versus time graphs for each monitored constituent using all historic groundwater monitoring data. Each graph shall show the background groundwater concentration range and the groundwater limitation as horizontal lines at the applicable concentration.
7. For groundwater monitoring data, an evaluation of the groundwater quality beneath the site, a determination of whether any groundwater limitations were exceeded in any well at any time during the calendar year, an assessment of why groundwater limitations were exceeded, and recommendations for further testing and corrective action to address the exceedances.

A letter transmitting the monitoring reports shall accompany each report. The letter shall report violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Discharger or the Discharger's authorized agent:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

The Discharger shall implement the above monitoring program on the first day of the month following the rescission of Order R5-2002-0125

Ordered by:

*ORIGINAL SIGNED BY CLAY L. RODGERS FOR*

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PATRICK PULUPA, Executive Officer

12 December 2018

DATE