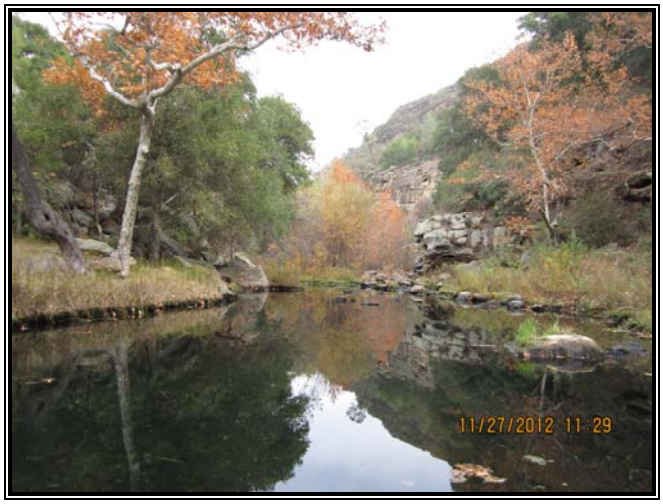
# SALINAS RESERVOIR
# WATER QUALITY MONITORING REPORT
# WATER YEAR 2013 (OCTOBER 2012 – SEPTEMBER 2013)

SAN LUIS OBISPO COUNTY
FLOOD CONTROL AND
WATER CONSERVATION DISTRICT



Prepared by:
San Luis Obispo County
Department of Public Works
Water Quality Laboratory

Prepared for:
United States Army Corp of Engineers
Los Angeles District

# COUNTY OF SAN LUIS OBISPO
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## KEY ABBREVIATIONS

| | |
|---|---|
| $2^o$ MCL | Secondary Maximum Contaminant Level |
| Ag | Silver |
| AF | Acre Foot |
| Al | Aluminum |
| As | Arsenic |
| Ba | Barium |
| Be | Beryllium |
| C | Centigrade |
| Cd | Cadmium |
| Cr | Chromium |
| Cu | Copper |
| CDPH | California Department of Public Health |
| DLR | Detection Limit for the purposes of Reporting |
| DSOD | Division of Safety of Dams |
| EPA | United States Environmental Protection Agency |
| Fe | Iron |
| Ft | Foot |
| Hg | Mercury |
| In | Inch |
| MCL | Maximum Contaminant Level |
| MGD | Million Gallons per Day |
| mg/L | milligrams per liter |
| Mn | Manganese |
| MPN | Most Probable Number |

| | |
|---|---|
| MTBE | methyl tertiary-butyl ether |
| Ni | Nickel |
| No/mL | Number of Organisms per milliliter |
| NTU | Nephelometric Turbidity Unit |
| Pb | Lead |
| Sb | Antimony |
| Se | Selenium |
| SLO | San Luis Obispo |
| SLOCWQL | San Luis Obispo County Water Quality Lab |
| SOCs | Synthetic Organic Compounds |
| Tl | Thallium |
| TON | Threshold Odor Number |
| µg/L | micrograms per liter |
| µmhos/cm | micromhos per centimeter |
| URS | URS Corporation |
| VOCs | Volatile Organic Compounds |
| WTP | Water Treatment Plant |
| WY | Water Year |
| Zn | Zinc |

## SECTION 1 - SUMMARY

This report has been prepared for the U.S. Army Corps of Engineers, Los Angeles District, to summarize water quality monitoring and operations of the Salinas Reservoir by the County of San Luis Obispo. The report is for Water Year 2013 (WY 2013), which spanned from October 1, 2012 through September 30, 2013.

The report includes a background of the reservoir's construction, a description of the reservoir and its uses, the San Luis Obispo County's water quality management objectives and monitoring program, raw data of water quality parameters and data evaluation.

For WY 2013, the County's management objectives remained the same as previous years. Analytical results were consistent with historical data.

In October 2012, the City of San Luis Obispo completed their Salinas Reservoir Expansion Study. The study was conducted in order to access the viability of installing spillway gates on the dam in order to increase reservoir storage capacity. As part of the expansion, dam ownership and oversight would be transferred from the federal government to state jurisdiction. A report from the URS Corporation (URS) concluded, based on analysis completed to date, Salinas Dam is unlikely to meet the more stringent Division of Safety of Dams (DSOD) seismic requirements if the dam were to transfer from federal to state jurisdiction. The conclusion of the URS report does not equate to a current dam safety evaluation, nor does it suggest a situation of imminent dam failure. Based on their findings, the City does not desire to pursue the dam expansion or ownership transfer.

The discovery of freshwater quagga and zebra mussels in California waterways has prompted the County to implement preventative measures to reduce the possibility of the introduction of invasive mussels into the Salinas Reservoir. The program includes public education, boat inspections, boat owner interviews, identification of the boat's point of origin, quarantine procedures and decontamination procedures. Only clean and dry boats are allowed to launch. Wet and/or dirty boats are denied lake access. Boats that have been in waters known to be infected are quarantined and/or decontaminated with pressurized $140^{o}$ F water that is applied to the hull, trailer tow vehicle rear end, and any other areas as required. Boats leaving the reservoir can have a "clear tag" and cable installed that attaches the boat to the trailer. Returning boats that have intact clear tags and cables are not subject to the inspection and decontamination.

A program has also been established for invasive mussel monitoring at the reservoir. Monitoring sites are inspected monthly by trained field inspectors. If suspicious organisms are discovered, the inspector has been instructed to notify the County's Water Quality Laboratory. Lab staff will then analyze the sample to confirm the presence of invasive mussels. If confirmed, actions are taken to protect the dam's infrastructure and prevent the further spread of mussels to other water bodies in the area.

The monitoring program is a work in progress as County staff and California Department of Fish and Wildlife continue to assess the County Prevention Plan. This plan includes a Vulnerability Assessment, public education, reservoir monitoring, and risk management.

## SECTION 2 – BACKGROUND and RESERVOIR DESCRIPTION

### 2.1 BACKGROUND

The Constructing Quartermaster of the United States Army built Salinas Dam in 1941 as a water conservation project to supply water to Camp San Luis Obispo and the City of San Luis Obispo. The construction of the dam formed the Salinas Reservoir. The reservoir is located approximately nine miles southeast of the community of Santa Margarita in San Luis Obispo County, California, on the southern end of the Salinas River. The dam and appurtenances were declared surplus by the War Department on April 14, 1947. Both the Salinas Dam and delivery system were transferred from the Army to the U.S. Army Corps of Engineers. On July 11, 1947, the Corps entered into an agreement with the San Luis Obispo County Flood Control and Water Conservation District for operation and maintenance of the dam, its reservoir, and related facilities.

In 1988, the County of San Luis Obispo entered into a supplemental agreement to their operational lease with the Corps of Engineers Southern Pacific Los Angeles District. The Lease No. DACW09-173-56 supplemental agreement reads:

> *"The lessee shall evaluate existing water quality conditions within the project and identify any water quality problems. The lessee shall establish an appropriate monitoring program, to be approved by the Corps of Engineers, to include chemical, limnological, and bacteriological parameters. The lessee shall maintain contact with the Environmental Protection Agency and the California Regional Water Quality Control Board as to the short and long-term water quality objectives established for the river basin. The lessee shall work closely with all concerned entities in order to optimize reservoir operation to attain these objectives. The lessee shall keep abreast of any activity in the watershed which may cause water quality problems, such as urban development."*

The County established a monitoring program using the guidelines published by the Regional Water Quality Control Board in the Water Quality Control Plan, Central Coast Basin.

## 2.2 DESCRIPTION

The Salinas Reservoir, also known as Santa Margarita Lake, was constructed in 1941. The reservoir is formed by a 135-foot-high concrete arched dam. Immediately following its construction, the reservoir had an estimated storage capacity of 26,000 acre-feet, a surface area of 793 acres, and a drainage area of 112 square miles. Due to naturally occurring siltation, the reservoir capacity has been reduced. The storage capacity is currently estimated to be 23,843 acre-feet with a surface area of 790 acres. The dam structure consists of two intakes with 15' adjustable snorkels and a fixed intake for downstream discharge. The reservoir is used as a water supply for the City of San Luis Obispo Water Treatment Plant.

The reservoir captures water from a 112 square mile watershed and is fed by the Salinas River and three tributaries (Alamo Creek, Salsipuedes Creek, and Toro Creek). The Santa Margarita Recreation Area is located on the south shore of the reservoir and provides a local spot for camping, fishing, hiking, and boating. Cattle grazing occurs within the Salinas Reservoir watershed and in many instances grazing animals have direct access to the tributaries to the reservoir. Cattle grazing is not permitted within the Santa Margarita Lake Park and Recreational area. The County of San Luis Obispo has terminated grazing permits for grazing area adjacent to the reservoir. Equestrian access is allowed on the Santa Margarita Lake Regional Park trails. As a result, horse manure is a potential source of bacteriological contamination in the tributaries. Body contact recreation is not permitted at the Salinas Reservoir. A portion of the reservoir and shoreline extending approximately one-half mile upstream of the Salinas Dam intake structure is completely restricted from use by the public.

Water is conveyed from the Salinas Reservoir through 48,700 feet (9.2 miles) of 24-inch diameter reinforced concrete pipe to a 3 million gallon reservoir at the Santa Margarita booster pumping station. The booster pumping station is located near the northerly base of Cuesta Grade adjacent to Highway 101. When the lake elevation is above 1,267 feet, the water is gravity fed from the reservoir to the booster station reservoir. When the reservoir surface elevation falls below 1,267 feet, a booster pump at the base of the dam is utilized to pump water to the booster station. This booster pump is comprised of two horizontal centrifugal pumps capable of maintaining a rated flow of 12.4 cubic feet per second when the water surface elevation falls below 1,267 feet. From the Santa Margarita booster pumping station, three electrically driven horizontal centrifugal pumps are used to pump water through 6,810 feet of reinforced concrete pipe to the entrance of the Cuesta Tunnel portal. The Cuesta Tunnel runs 5,327 feet through the mountains near the Cuesta Grade. From the outlet portal of the tunnel, water is conveyed 5,153 feet to the SLO City's turnout point and an additional 4,180 feet to the Stenner Creek hydroelectric plant. The remaining 5,930 feet of pipeline delivers water to the SLO City WTP by gravity feed.

## SECTION 3 - WATER QUALITY MANAGEMENT OBJECTIVE

Salinas Reservoir (Santa Margarita Lake) is operated primarily as a water conservation project to supply water to the City of San Luis Obispo's Water Treatment Plant. Under an agreement with the Corps of Engineers Southern Pacific Los Angeles District office, the County of San Luis Obispo operates and maintains the dam and reservoir to ensure compliance with all Federal and State requirements. The County's overall objective is to maintain the best quality of water in the reservoir, while storing the water for domestic use. The water quality is monitored by San Luis Obispo County Water Quality Laboratory (SLOCWQL) personnel and County Water Treatment Operators. Water analyses are performed by the SLOCWQL or subcontracted to other certified laboratories. The SLOCWQL is certified by the California Department of Public Health as an environmental testing laboratory for bacteriological and chemical analyses of water. The water is monitored to identify potential treatment requirements that may be needed to ensure compliance with applicable Federal and State water quality standards for drinking water. Present and potential uses of Salinas Reservoir include:

- ground water recharge
- municipal and domestic water supply
- agricultural supply
- industrial service supply
- water recreation
- wildlife habitat
- cold and warm freshwater habitat
- spawning, reproduction, and/or early development of fish
- habitat for rare, threatened, or endangered species
- freshwater replenishment
- boat use
- hydropower generation
- sport fishing

Water quality objectives for each of the approved beneficial uses above, can be found in the Regional Water Quality Control Board's Water Quality Control Plan, Central Coast Basin and the California Administrative Code, Title 22.

## SECTION 4 - MONITORING PROGRAM

Sample collection from locations at the reservoir, its tributaries, and reservoir releases are based on the use of Salinas Reservoir as a municipal water supply for the City of San Luis Obispo. The County of San Luis Obispo has established a routine sampling schedule for organic, inorganic, general mineral, lake nutrients, bacteriological, and physical analyses at key locations. Sample locations include the public restricted area near the intake structure, three public accessible sites on the reservoir (Eagle, Shoemaker, and Point), four inflows to the reservoir (Salinas River, Toro Creek, Alamo Creek, and Salsipuedes Creek), and the two reservoir release sites (V-notch and the Valve to City of San Luis Obispo). The V-notch sample site is representative of the water that is released to the downstream Salinas River. The Valve to City of San Luis Obispo sample site is representative of the water delivered to the City's Water Treatment Plant. Since the inflows are seasonal, analytical data for the tributaries may not be available for all sampling events.

To assess the reservoir's water quality, the County, in consultation with the City of San Luis Obispo, has established a sampling and analysis program. Limnological monitoring was conducted monthly at the reservoir intake structure. Iron and manganese levels were also monitored monthly. The monthly monitoring provided information on lake turnover and seasonal fluctuations.

The intake in use at the reservoir was monitored monthly for algae, odor, turbidity, temperature, dissolved oxygen, pH, and visibility. Additional sampling and profiling was conducted from May through September. The surface water temperature can be above 20$^{o}$C during this period and there was an increased potential for nuisance algae to be present in the water. Samples were collected at ten foot (10') intervals near the dam intake structure and at the three surface sites located near the dam. These samples were analyzed for temperature, dissolved oxygen, lake visibility, pH, algae enumeration and identification, turbidity, and odor. The data was used to construct profiles of the water quality. The profile data was evaluated to identify the intake level with the optimal water quality.

Monthly field inspections of artificial substrates deployed by County staff were performed to monitor for the presence of invasive mussels.

Quarterly samples were collected from the raw water intake, reservoir releases, and any actively flowing tributaries. The samples were analyzed for coliform bacteria, general minerals, and nutrients (nitrate, nitrite, total Kjeldahl nitrogen, and phosphate). During quarterly sampling events, the tributaries and reservoir releases were visually inspected by County staff for water flow, clarity, wildlife, bank erosion, and development.

In WY 2013, annual samples were collected in May for the analysis of trace metals and cyanide. These samples were collected from the raw water intake and a location roughly in the middle of the reservoir. Given the many years of "not detected" results for most trace metals in the tributaries a single representative reservoir site was selected for annual analysis. Aluminum was monitored more frequently and at additional watershed locations

due to the detection of aluminum in past years. Aluminum in the reservoir is most likely the result of erosion of natural deposits.

Every three years, raw water is analyzed for volatile organic compounds (VOCs). MTBE had been monitored on a three year cycle at the boat marina and the valve to the City of San Luis Obispo, but because MTBE is no longer used as a gasoline additive in California, monitoring for this compound has been reduced to the raw water analyzed for VOCs. That sample was last collected in August 2012. No VOCs were detected.

Based on historical analytical and use data, the California Department of Public Health has waived monitoring for SOCs in this region.

EPA has determined that perchlorate meets the State Drinking Water Act's criteria for regulating a contaminant. Perchlorate is analyzed annually.

A summary of the water quality monitoring schedule for the Salinas Reservoir is shown in Table 1 on page 7.

Maps of the sampling locations can be seen in Figures 1 and 2 (on pages 8 and 9).

# Table 1 – Summary of Water Quality Monitoring WY 2013

## SALINAS RESERVOIR

| Constituent | Raw Water Intakes | Intake in Use | Reservoir Releases: Valve to City of SLO and V-Notch | Tributaries: Salinas River, Alamo Creek, Salsipuedes Creek, Toro Creek |
|---|---|---|---|---|
| **Temperature** | M | M | Q | Q |
| **Dissolved Oxygen** | M | M | | |
| **Visibility** | M | M | | |
| **pH** | SM | M | Q | Q |
| **Algae** | SM | M | | |
| **Turbidity** | SM | M | | |
| **Odor** | SM | M | | |
| **Iron** | | M | Q | Q |
| **Manganese** | | M | Q | Q |
| **Nitrate, Nitrite** | | Q | Q | Q |
| **Nitrogen Compounds and Total Phosphate** | | Q | Q | Q |
| **Bacteriological** | | Q | Q | Q |
| **General Minerals** | | Q | Q | Q |
| **Trace Metals and Cyanide** | | A | A | A |
| **Perchlorate** | | A | | |
| **Volatile Organic Compounds (VOCs)** | | 3Y | | |
| **Synthetic Organic Compounds (SOCs)** | | Waived by CDPH | | |

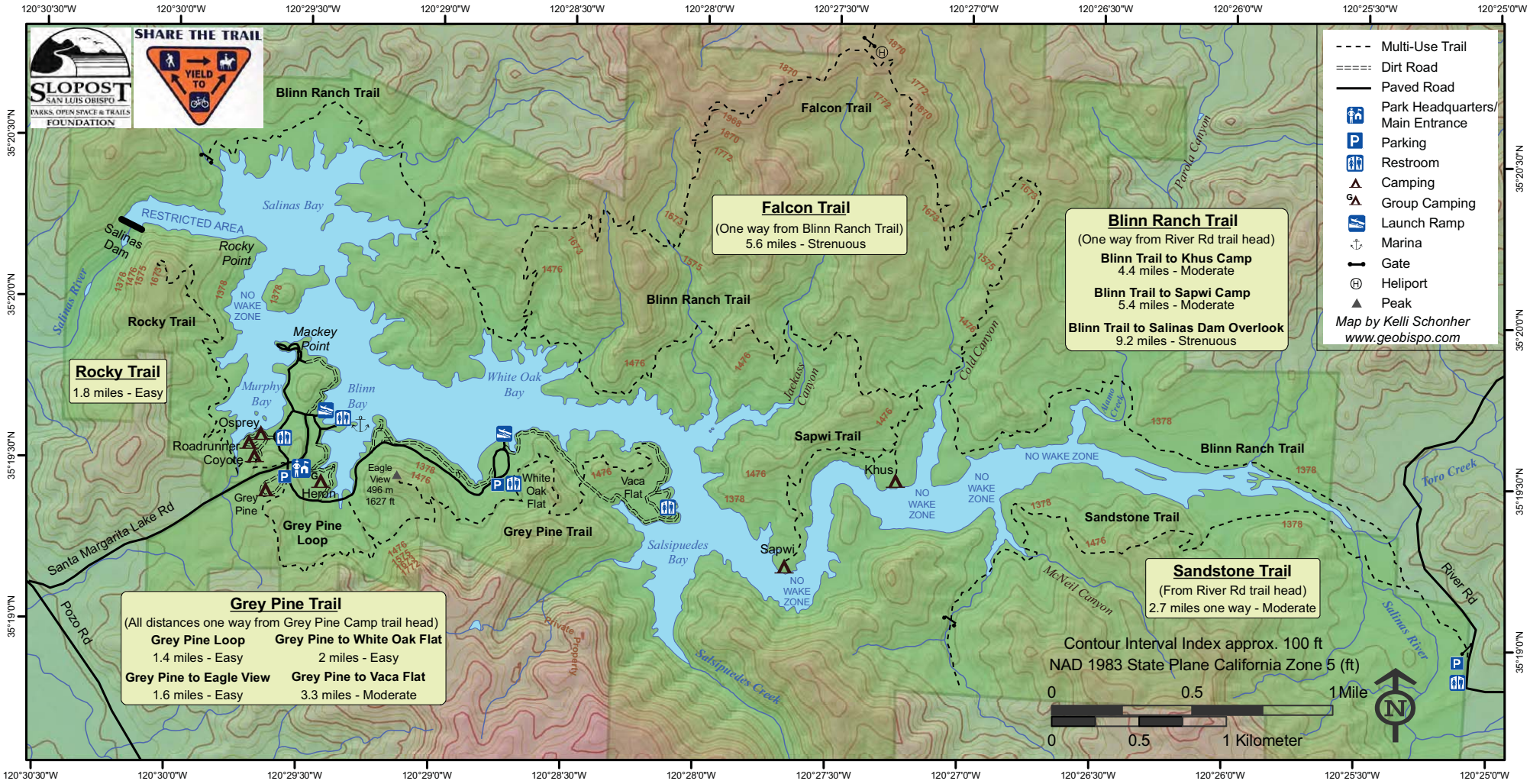
Monitoring Frequency Key:

| | |
|---|---|
| M | Monthly |
| SM | Seasonal Monthly |
| Q | Quarterly |
| A | Annually |
| 3Y | Every three years (next due 2015) |

Figure 1: Salinas Reservoir Tributaries

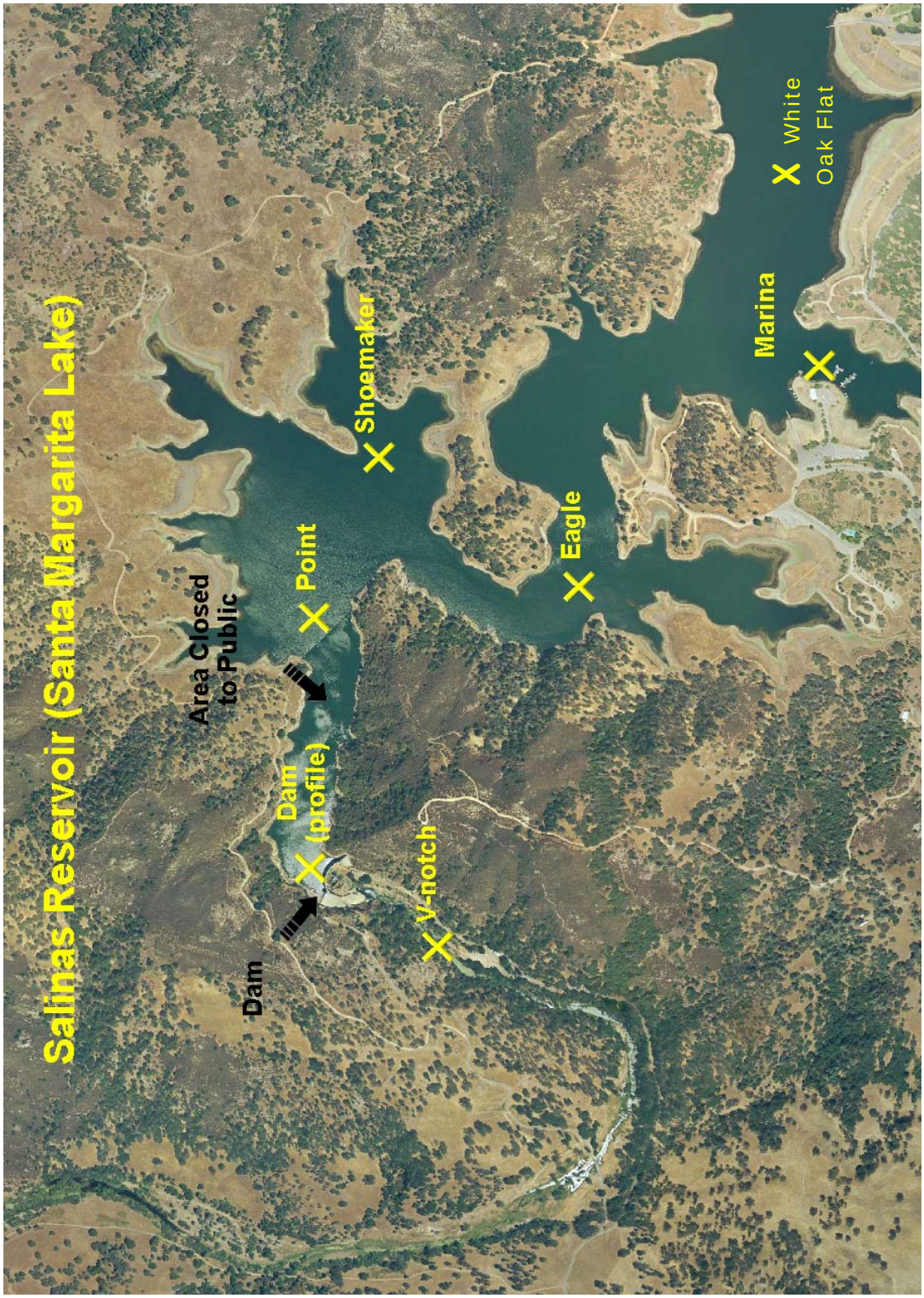


# Santa Margarita Lake Regional Park




*Funding for this map provided by San Luis Obispo Parks Open Space & Trails Foundation (www.SLOPOST.org), a charitable non-profit organization encouraging parks, open space & trails in San Luis Obispo County. 2009*

**Figure 2: Salinas Reservoir Detail Map**



## SECTION 5 - WATER QUALITY DATA

### 5.1 LIMNOLOGICAL

Limnology is the study of the chemical, physical, atmospheric, and biological conditions in freshwater. The County of San Luis Obispo uses limnological data as a monitoring tool to determine the seasonal variability of water quality and to determine the cause of objectionable odors or particulate matter. This data also aids in the evaluation of the possible need for algaecide treatment and the optimum treatment dosage to be used, as well as to select the intake at the Salinas Reservoir that will provide the best quality water. Desirable water quality is typified by sufficient dissolved oxygen levels, pH in the range of 6.5 to 8.5, low algal growth, low odor and turbidity, low bacterial growth, low iron and manganese levels, and water free of other contaminants.

Historical data shows that temperature profiles during the cooler months of November through April are relatively uniform throughout the reservoir intake depths. Limnological data has been collected with varying frequency over the years. Lake profile monitoring frequency has varied from weekly throughout the year, to once per month during the warmer months of May through October. In WY 2013, collection of limnological data was scheduled monthly to see if the temperature profiles are indeed uniform throughout the intakes in the cooler months. Monthly sampling events also provide County staff with the opportunity to inspect the dam intake area on a routine basis. Monthly monitoring has been scheduled through Water Year 2014.

Thermal stratification develops in the reservoir when the surface waters warm and decrease in density during the spring and summer months. During stratification, the water separates into a warmer oxygen-rich layer, the epilimnion, found at the top of the reservoir, and a colder oxygen-deficient layer, the hypolimnion, found at the lower depths of the reservoir. The layer of water that separates these two zones is called the thermocline. The thermocline at Salinas Reservoir was between 10 and 40 feet below the surface in WY 2013. The thermocline shows a rapid to moderate decrease in temperature, dissolved oxygen, and pH.

The County delivers water to the City of San Luis Obispo WTP from the epilimnion. In WY 2013, the water was delivered from a depth of 4 to 8 feet below the surface, as this was considered the best quality water. Due to the placement of valves, water released to the Salinas River is from the hypolimnion. This water tends to be low in dissolved oxygen but is naturally aerated as it is released into the river and continues to flow down the rocky streambed.

Water clarity or visibility is a commonly used measure of lake health. Visibility can be affected by algae, sediment, turbidity and/or water color. A Secchi disk is used to measure visibility at Salinas Reservoir. In WY 2013, visibility ranged from 4 to 19 feet. Temperature, dissolved oxygen, pH, and visibility data can be found in Appendices A-1 through A-5.

## 5.2 NITROGEN AND TOTAL PHOSPHATE NUTRIENTS

Anthropogenic activities in watersheds may result in excessive plant nutrients (phosphorus and nitrogen compounds) entering a water body. Potential sources of these plant nutrients include runoff from fertilizer application and decaying organic matter. Nutrients can also be sorbed on sediments that are transported into the water body.

Phosphorus and nitrogen compounds are monitored in water bodies to assess nutrient loading. In an effort to maintain a healthy water system and to minimize algal growth, the United States Environmental Protection Agency (USEPA) recommends that phosphate levels be below 100 ug/L and nitrate levels below 10,000 ug/L. For WY 2013, Salinas Reservoir total phosphate levels ranged from not detected to 67 ug/L and total nitrogen levels ranged from not detected to 1300 ug/L. Samples collected from the V-notch site immediately downstream from the dam had higher levels, ranging from 14 to 570 ug/L for total phosphates and 480 to 3810 ug/L for total nitrogen.

Summaries of nitrogen and total phosphate data are found in Appendix B (Nutrient Data Summary).

## 5.3 ALGAE

Excessive nitrogen or phosphorus compounds in surface waters can cause algae to grow at an accelerated rate and increase the turbidity of the water and decrease the lake visibility. When the algae die off and are decomposed by bacteria, they deplete the oxygen dissolved in the water and threaten aquatic life. This process of eutrophication can result in fish kills, and clogged filters and pipelines. It can also result in complaints from consumers of poor taste and odor. A sudden large increase in algal growth is referred to as an algal bloom. The duration and amount of population growth of an individual algal bloom depends upon various environmental factors including nutrient conditions, temperature, and sunlight. Algal blooms may consist of one to several types of algae and may last a few days to several weeks or months.

The County's Water Quality Lab provides algal counts on four different algae groups, Blue-green algae, Diatoms, Flagellates, and Green algae. Individual species are identified for each group to try and understand the effects they have on the reservoir's water quality.

Algae counts in WY 2013 were typical for the Salinas Reservoir with the exception of September, 2013. Algae counts vary from year to year and most often have a spike in the warmer summer/fall months. In September, there was a bloom of blue-green algae and various green algae that reached counts in the tens of thousands. Total algae counts collected from the intake in use ranged from 14 to 14,000 cells per milliliter (cells/mL) throughout the water year. When certain blue-green algae (cyanobacteria) are present in concentrations of 500 to 1000 cells/mL, people sensitive to odors may begin to detect a "musty" odor in the water. Counts above 2000 cells/mL can lead to odor complaints if the water is not treated. Blue-green algae and green algae were most prominent in this

September bloom. Blue-green algae consisted of *Anabaena, Anabaenaopsis,* and *Oscillatoria.* There were many different green algae present, including *Ankistrodesmus, Chlamydomonas, Chlorella, Cryptochrisis, Dispora, Mougeotia, Scenedesmus, and Spirogyra.*

*Oscillatoria* is historically the predominant alga in the hypolimnion. *Oscillatoria* is a blue-green alga (Cyanobacteria) that prefers the oxygen poor waters of the hypolimnion. In addition to causing taste and odor issues, its presence can lead to clogged filters in treatment facilities. According to the World Health Organization, blue-green algae in large numbers (greater than 20,000 cells/mL) can cause deterioration in water quality and pose a threat to public health. Destruction of blue-green algae cells may release toxins into the surrounding waters, so care must be taken when treating with chemicals for blue-green algae blooms. In WY 2013 blue-green algae were detected at the intake in use with counts between 0 and 980 cells/mL, well below any health alert levels. During WY 2013, there was no treatment of the lake to control algal growth in the reservoir.

See Appendix C-1 thru C-4 for algae data (Algae Counts from Intake in Use, Algae Counts from Intakes, Algae Counts from Surface Sites, and Historical Algae Data from Intake in Use). Also included in Appendix C are graphs of historical data of the various groups of algae collected from the Intake in Use (C-5 and C-6).

## 5.4 ODOR AND TURBIDITY

Objectionable tastes and odors in domestic water supplies are often related to the occurrence of algal blooms. In WY2013, odors at the intake in use ranged from 2.0 TON in January to 30 TON in June. Odors in the intake water were described as Fishy and/or Grassy throughout the year. Hydrogen sulfide typically can be noted in the hypolimnion from July through September. Hypolimnion odors typically range from 30 to 100 TON. Turbidity ranged from 0.80 to 5.2 NTU in the intake in use.

Odor and turbidity data can be found in Appendices D-1 through D-5.

## 5.5 HYDROGEN SULFIDE

Hydrogen sulfide odor can be detected during the late summer and fall in the hypolimnion where conditions are anaerobic. During WY 2013, hydrogen sulfide levels were not problematic for operating personnel and did not cause any known deterioration of the dam's concrete and metal work. Since the water delivered to the San Luis Obispo City WTP is obtained from the epilimnion, potential problems associated with hydrogen sulfide are avoided.

## 5.6 COLIFORMS

Coliform (and in particular, *Escherichia coli*) bacteria levels are routinely monitored as they are an indicator for potential pathogens in the watershed. Samples were collected quarterly for coliform bacteria from the intake in use, tributaries, and reservoir releases. In WY2013, reservoir total coliforms ranged from 11 to 870 MPN/100mL. *Escherichia coli* (*E. coli*) MPN ranged from not detected to 4 MPN/100mL. A single high bacteria level was found in the Salinas River in May, 2013 with both *E. coli* and total coliform counts greater than 24,000 MPN/100mL. This location was resampled in June and total coliform bacteria were found to be 1000 MPN/100mL and *E. coli* 86 MPN/100mL. Excluding this one high sampling event, the tributaries ranged from 160 to 2500 MPN/100mL and *E. coli* ranged from 16 to 690 MPN/100mL. Coliform concentrations are naturally higher in the tributaries than they are in the reservoir and reservoir releases. The high coliform bacteria are most likely due to low flows, runoff within the watershed, and/or bird and other animal contamination in the upper tributaries.

The water released to the downstream via the V-notch had total coliform counts ranging from 290 to 1600 MPN/100mL and *E. coli* MPN ranging from <1 to 5.

Drinking water systems with surface water sources must comply with the Long-Term 2 Enhanced Surface Water Treatment Rule. The rule was established to reduce the risk of disease caused by *Cryptosporidium* and other microorganisms by identifying the systems at the greatest risk for source water contamination. The rule requires that samples be collected for *E. coli* or *Cryptosporidium*. As a permitted community water system treating Salinas Reservoir water, the City of San Luis Obispo is responsible for complying with this rule. The County of San Luis Obispo on the other hand, includes bacteriological analyses in its monitoring program to evaluate general water quality. The County has collected 61 *E. coli* samples since 1997. There was one high *E. coli* result in February, 1998 (300 MPN/100mL). Excluding this one high data point, results range from <1 to 13 MPN/100mL with an average value of 1 MPN/100mL.

Coliform data can be found in Appendix E-1 thru E-4 (Raw Water Coliform Data and All Sites Monitored in WY 2013).

## 5.7 IRON AND MANGANESE

To track seasonal fluctuations during WY 2013, reservoir samples were analyzed for iron and manganese monthly from the intake in use. Manganese levels ranged 11 to 550 ug/L, averaging 86 ug/L with a median of 44 ug/L. Manganese exceeded the drinking water secondary MCL of 50 ug/L November through January. All iron samples were determined to be below drinking water secondary MCL of 300 ug/L. Both iron and manganese are easily oxidized and not likely to present an issue for water treatment at the levels detected at the intake.

Iron and manganese were monitored from the Salinas Reservoir tributaries and reservoir releases quarterly. The V-Notch sample site is representative of water being released to the Salinas River. Typically this water is released from the hypolimnion which has higher levels of iron and manganese. In WY 2013, iron from the V-notch ranged from 3.9 to 150 ug/L and manganese ranged from 450 to 1300 ug/L.

Due to lack of flow, watershed tributaries were sampled only the quarters there was measurable flow into the reservoir. Alamo Creek had no measurable flow into the reservoir in WY2013. Salsipuedes Creek had flow in February, 2013 only. Iron and manganese were found to be at levels below the required detection limit in this sample. Both the Salinas River and Toro Creek exceeded secondary MCLs for both iron and manganese during sampling events.

Analytical results for iron and manganese can be found in Appendix F.

## 5.8 GENERAL MINERAL

General mineral data for WY 2013 was comparable to previous year's data.

General mineral data is summarized in Appendices G-1 and G-2.

## 5.9 TRACE METALS AND CYANIDE

During WY 2013, the Intake and the White Oak Flat sites were sampled once for cyanide and the "trace metals" Ag, Al, As, Ba, Be, Cd, Cr, Hg, Ni, Pb, Sb, Se, and Tl. The White Oak site was selected as a single point in the reservoir that could be used to assess the trace metals contribution from the major creeks associated with the reservoir.

Because Al, Cu, Fe, and Mn have been detected in the past, these metals were sampled quarterly at the Intake, White Oak Flat, V-Notch, Salinas River, Toro Creek, Alamo Creek, and Salsipuedes Creek sites.

Cyanide was not detected (<25 ug/L). With the exception of aluminum, all of the "trace metals" were not detected above required detection limits. Aluminum was detected in the month of November at the Salinas River (52 ug/L), Salsipuedes Creek (140 ug/L), Toro Creek (240 ug/L), and V-notch (120 ug/L). Only Toro Creek exceeds the secondary MCL of 200 ug/L. No samples exceeded the primary MCL of 1000 ug/L. Aluminum is commonly found in reservoirs and tributaries due to the erosion of natural deposits.

Iron and manganese results are discussed in section 5.7.

Current plans are to continue the monitoring frequency outlined in Table 1. The Salinas Reservoir monitoring schedule is reviewed annually and updated as needed.

Metals and cyanide results are listed in Appendix F-3.

## 5.10 VOLATILE ORGANIC COMPOUNDS and SYNTHETIC ORGANIC COMPOUNDS

Samples were collected for Volatile Organic Compounds (VOCs) in August of 2012. No VOCs were detected. Based on agricultural use data and historical results, the California Department of Public Health has waived monitoring for Synthetic Organic Compounds (SOCs) for drinking water systems in this region. The waiver includes atrazine and simazine. In recognition of this vulnerability assessment, monitoring for SOCs in the Salinas Reservoir was discontinued. If the reservoir's vulnerability changes, the need for SOC monitoring will be re-evaluated. VOC monitoring remains on a 3-year sampling schedule.

VOC, SOC, and perchlorate data from 2007, 2009 and 2012 is summarized in Appendix G-3. (VOCs, SOCs and Perchlorate).

## 5.11 PERCHLORATE

California's perchlorate regulation for drinking water systems took effect in 2007 and established a maximum contaminant level of 0.006 mg/L (6 ug/L). EPA has determined that perchlorate meets the SDWA's criteria for regulating a contaminant. These include the possibility of adverse health effects from perchlorate, the detection of perchlorate in 4% of public water systems, and the possibility to reduce the health risk in drinking water. Two samples were collected from the Intake in WY 2008 and two samples in WY 2009. Starting in WQ 2010, the Intake has been sampled annually for perchlorate. All perchlorate test results were <4.0 ug/L.

See Appendix G-3 (VOCs, SOCs, and Perchlorate).

## SECTION 6 – SALINAS RESERVOIR EXPANSION STUDY

(From the San Luis Obispo City Council Agenda Report, 05/07/2013)

### 6.1 DISCUSSION

Beginning in the 1980s, the City pursued options to increase available water supplies to meet community water needs. The Salinas Reservoir Expansion Project was one of two water supply projects under consideration (the Nacimiento Pipeline Project was on a parallel track). As proposed, the Salinas Reservoir Expansion Project involved the installation of spillway gates on the dam in order to increase reservoir storage capacity. As a condition of installing spillway gates, it was understood that dam ownership would be transferred from the federal government to a local agency, thereby transferring dam oversight from federal to state jurisdiction. The California Department of Water Resources, Division of Safety of Dams (DSOD) has regulatory oversight of non-federal dams in California.

During the course of evaluating the feasibility of installing the spillway gates, and in response to the potential transfer of the dam from federal to state jurisdiction, the City hired Woodward-Clyde Consultants to conduct an inundation study for the existing (without spillway gates) and proposed (with spillway gates) dam configuration. This analysis was completed in May 1993. The City also commissioned URS in 1999 to perform a seismic analysis of the dam structure. On June 28, 2000, URS issued the Salinas Reservoir Expansion Project – Dam Safety Evaluation Volume I – Report which concluded:

*The dam with the existing maximum reservoir level satisfies modern seismic performance evaluation criteria such as those currently used by DSOD.*

In June 2004 the City executed the Nacimiento Water Supply Agreement through which the City would receive up to 3,380 acre feet of water per year from the Nacimiento Water Supply Project. Although this project would serve the water supply needs of the community, coordination with DSOD and the Army Corps related to Salinas Dam continued, including discussions on the potential for transfer of ownership of the dam to a local agency.

In early 2005, a meeting with DSOD, City, and Army Corps staff was held to further discuss the impacts of ownership transfer from the federal government to a local agency. It was concluded that considering new analytical criteria published in 2003, an analysis beyond that which was performed in 2000 was required to determine if Salinas Dam would meet DSOD standards were it to be transferred to state jurisdiction. The City contracted with URS in 2006 to perform a “non-linear” seismic analysis of Salinas Dam, which was a more complex methodology for dam evaluation. As stated in the January 17, 2006 Council Agenda Report:
The potential transfer of ownership of the dam is the primary reason for pursuing the additional seismic analysis recommended in this report. The transfer of ownership of the dam from the federal government to a local agency will require that the dam meet the design standard of the DSOD.

The URS contract was amended in 2007 to complete additional analysis with some modifications to the seismic computer model based on DSOD recommendations.

## 6.2 STUDY FINDINGS

Due to a number of factors, including a highly complex analysis and extensive coordination and review time required among the City, DSOD, and Army Corps, the final seismic report was completed in October 2012. The URS report concluded, based on analysis completed to date, Salinas Dam is unlikely to meet the more stringent DSOD seismic requirements if the dam were to transfer from federal to state jurisdiction. The conclusion of the October 2012 report does not equate to a current dam safety evaluation, nor does it suggest a situation of imminent dam failure.

On November 26, 2012, City staff discussed the October 2012 report conclusions with the Army Corps Los Angeles District Office. The City confirmed it does not wish to pursue installing the spillway gates or ownership transfer. The Army Corps reaffirmed that Salinas Dam is a federal asset under federal jurisdiction. As the federal agency that retains ownership of the dam, the Army Corps is responsible for dam safety.

In 2009, as a result of the Army Corps' screening for Portfolio Risk Analysis, the Army Corps assigned a Dam Safety Action Classification (DSAC) IV to Salinas Dam. Although dams with a DSAC IV classification have some deficiencies that should be resolved, DSAC IV dams are considered to be low risk. This DSAC IV classification is the highest (best) for the 18 Federal dams in the Army Corps' Los Angeles District inventory.

The Seismic Analysis of Salinas Dam, San Luis Obispo, CA, dated October 2012 contains information on a federal facility that may expose vulnerabilities, and the Army Corps has directed that it be treated as For Official Use Only (FOUO), which precludes its release in an uncontrolled manner. Thus, only the conclusion of the report, rather than publication of the detail is included in this report.

The Salinas Reservoir Expansion Study is now concluded. The City will continue to coordinate with the District regarding Salinas Reservoir as a City water supply and its impact related to county-wide water resource management.

## SECTION 7 - CREEK/WATERSHED INSPECTIONS

During quarterly sampling events, the tributaries and reservoir releases were visually inspected by County of San Luis Obispo staff for water flow, clarity, wildlife, bank erosion, and development. An inspection checklist was completed for each location and photos were taken to help document observations. In WY 2013, the inspections did not note any negative findings. Bald eagles were sighted as well as other birds and water fowl, deer, bear tracks, and various insects. The creeks had low, steady flows and remained free of garbage and showed little visual evidence of adverse human and/or domestic animal activity.

The area surrounding the reservoir intake structure is off limits to fishing, hiking, boating, equestrian activity, animal grazing, and other human activities

See Appendix H for a sample copy of the Creek/Watershed Inspection checklist.

## SECTION 8 – QUAGGA AND ZEBRA MUSSEL MONITORING

### 8.1 BOAT INSPECTIONS

The discovery of freshwater quagga mussels (*Dreissena bugenisis*) and zebra mussels (*Dreissena polymorpha*) in California waterways has prompted San Luis Obispo County to establish a monitoring and prevention program for freshwater mussels. The presence of these mussels would present an economic and water quality threat to the beneficial uses established for the Salinas Reservoir.

San Luis Obispo County Ordinance 3192 authorizes County Parks personnel and/or peace officers to inspect vessels to ensure compliance with Chapter 11.04 (Lopez and Santa Margarita Lakes) of San Luis Obispo County Code, and any local, state, and federal rules, laws, and regulations, including those pertaining to the health and safety of the visiting public, and the health, safety, and sanitation of the lake.

Since March 2006, all boats entering Santa Margarita Lake are inspected for the potential transport of invasive mussels. County staff follows standard procedures for the inspection and decontamination of vessels and provides a summary of the inspection record in a monthly invasive species monitoring report. There currently are no decontamination facilities at Santa Margarita Lake. Vessels requiring decontamination (mostly ballast type boats) would be sent to Lopez Lake in San Luis Obispo's South County, for decontamination. The inspection procedures are summarized as follows:

- Clear tag: Boats that have been previously inspected and determined to be free from invasive mussels are fitted with a tamper resistant, wire clear tag that is attached to both the boat and trailer. Returning boats with an attached clear tag have not been launched in other locations and are clear to enter without an inspection. The County coordinates clear tags between Lopez and Santa Margarita Lakes and Cachuma Lake, in Santa Barbara County.
- 30-day history: Boat owners are interviewed regarding recent use of the vessel. All boats that have been launched in invasive mussel contaminated waters in the last 30 days are rejected and asked to voluntarily quarantine there vessels for 30 days from last contact with contaminated waters before entering any waters of the County.
- Inspection: Boats without clear tags are inspected by County Parks staff. A boat will be rejected and not allowed to launch if it has any of the following:
    - Water in bilge, hull or any compartment
    - Water in live well or bait tank
    - Any non-drained internal ballast system,
    - Any small amounts of remaining water in an internal ballast system is required to be treated with bleach (see below)
    - Debris or foreign matter on the hull, motor, or trailer
    - Boat owner refuses inspection.

- Decontamination: Boat registration is checked to determine address of origin. Boats originating from Southern California or out-of-state are considered higher risk and are decontaminated after inspection at the Lopez Lake facility. Decontamination is done using a dilute chlorine solution.
- Internal ballast systems: The internal ballast system common on late model wakeboard boats are not accessible and cannot be completely drained, allowing for longer survival of invasive mussel veligers. The inspection procedure automatically rejects any boat with an internal ballast system that has not been decontaminated. Owners of boats with internal ballast systems may make an appointment with County Parks staff at Lopez Lake to complete a decontamination process with chlorine bleach. After decontamination the boat is issued a clear tag and allowed to access the lakes.

## 8.2 EARLY DETECTION MONITORING

Three lake monitoring sites (intake log boom, park ranger's dock, and White Oak Flat boat launch dock) have been established at the Salinas Reservoir to detect mussels. Artificial substrates for the mussels are deployed at these monitoring locations. The substrates and other infrastructure are inspected once per month for mussels. If there appear to be mussels, a sample is collected for examination at the San Luis Obispo County Water Quality Lab. If the presence of mussels is suspected by the lab staff, the California Department of Fish and Game are contacted for further investigation. Mussels have not been detected in the Salinas Reservoir. An Infestation Response Plan has been developed, reviewed, and approved for use by City and County staff as needed.

A copy of the Salinas Reservoir Invasive Mussel Inspection Forms used in WY 2013 can be found in Appendix I.

## SECTION 9 – OPERATIONS

The primary purpose of the Salinas Reservoir Project is to provide water to the City of San Luis Obispo Water Treatment Plant. The remainder of this report concerns the policies regarding water storage and release.

If there is a visible surface flow in the Salinas River between the dam and the confluence with the Nacimiento River, water is stored in the reservoir, except when spillway flow occurs. For the majority of the year there is no visible surface flow, requiring the total inflow to Salinas Reservoir to be released to the downstream area. The total inflow is calculated daily from the change in reservoir surface elevation, precipitation on the reservoir surface, evaporation form the reservoir, diversion to the City of San Luis Obispo, and downstream release amount.

The City of San Luis Obispo determines the amount of water delivered to the City. In WY 2013, approximately 2,750 acre-feet or 896 million gallons of water were delivered. The volume delivered can be found in Appendix J – Operational Data, in the columns labeled pipeline diversion.

The best quality water typically can be found above the thermocline and it is this water that is released to the City of San Luis Obispo for treatment. Because of the placement of the valves, the water released downstream (to the Salinas River) is usually from below the thermocline and is low in dissolved oxygen. As the downstream release water is discharged, it is naturally oxygenated through aeration. Further aeration occurs as the water flows down the rocky streambed. In WY 2013, 1,724.1 acre-feet of water were released into the Salinas River. No water was discharged over the spillway during WY 2013.

Overall, the quality of Salinas Reservoir water remains good and suitable for the identified beneficial uses of the lake. The monitoring program provides adequate data for selecting the optimal intake depth for water delivery to the San Luis Obispo City Water Treatment Plant and for confirming the water quality necessary for the reservoir's other beneficial uses. We anticipate the monitoring program will remain the same in WY 2014.

See Appendix J for Salinas Reservoir Operational Data for WY 2013.

REFERENCES

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California Department of Public Health, 2009

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City of San Luis Obispo Utilities Department. December 6, 2005

Conclusion of Salinas Reservoir Expansion Study
City Of San Luis Obispo Council Agenda Report, May 7, 2013

Environmental Protection Agency Long Term 2 Enhanced Surface Water Treatment Rule, 71 FR 654, January 5, 2006, Volume 71, No. 3

Invasive Mussel Early Detection Monitoring and Infestation Prevention Plan for San Luis Obispo County Flood Control and Water Conservation District Water Storage Reservoirs DRAFT document, County of San Luis Obispo Department of Public Works

Nitrate and phosphate levels positively affect the growth of algae species found in Perry Pond, Fried, Mackie, Nothwehr, Grinnell College, 2003, Tillers, 4, 21-24

Salinas Reservoir Water Quality Monitoring Report, Water Year 2011
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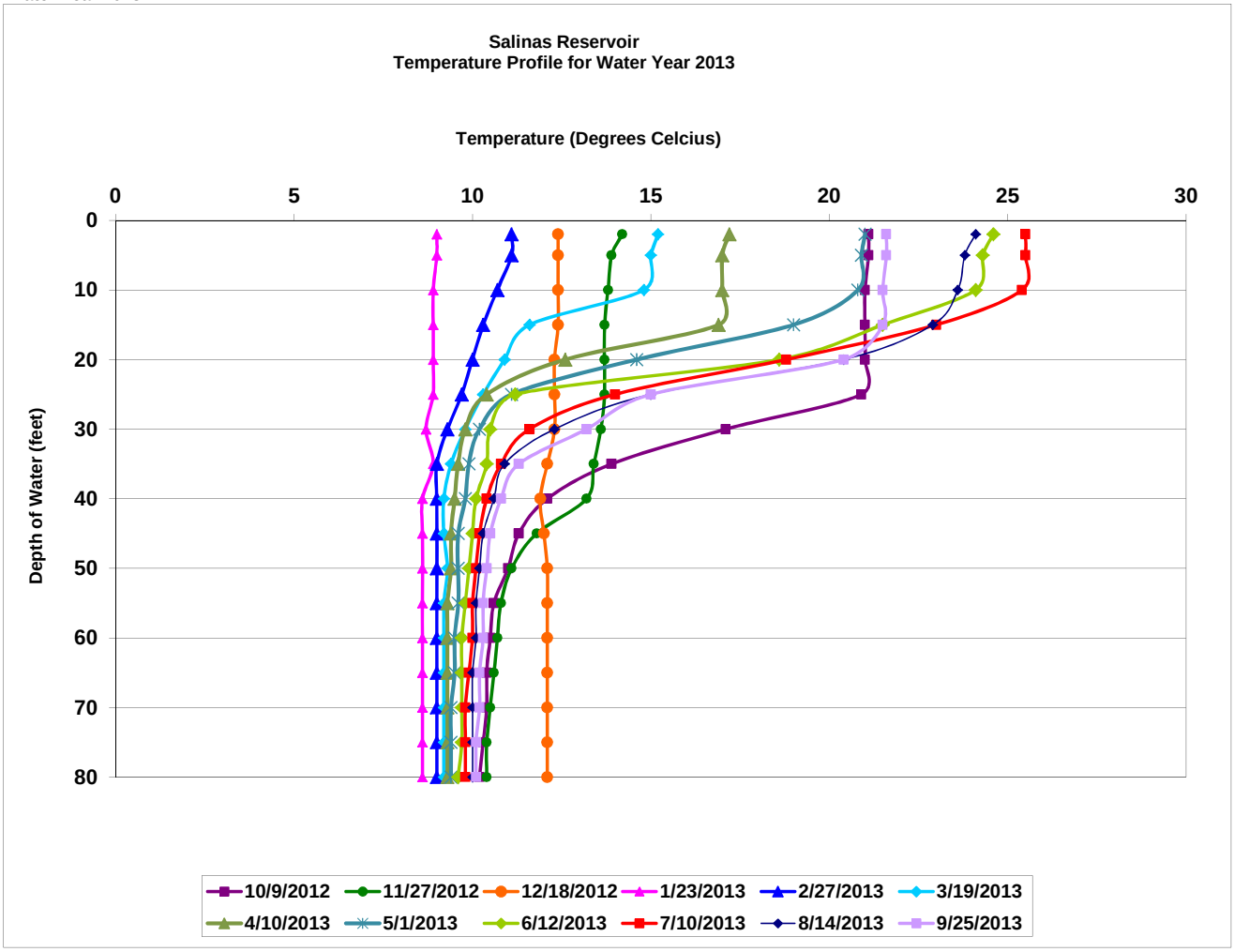
Shaw, Byron, C. Mechenich, and L. Klessig. 1996. Understanding Lake Data.
UW-Stevens Point. University of Wis. Extension.

Understanding Lake Data
Shaw, Byron, C. Mechenich, and L. Klessig. UW-Stevens Point,
University of Wisconsin, Extension. 1996

Water Quality Control Plan, Central Basin
Regional Water Quality Control Board. June, 2011

## Appendix A - 1 Temperature Profile

**Water Year 2013**



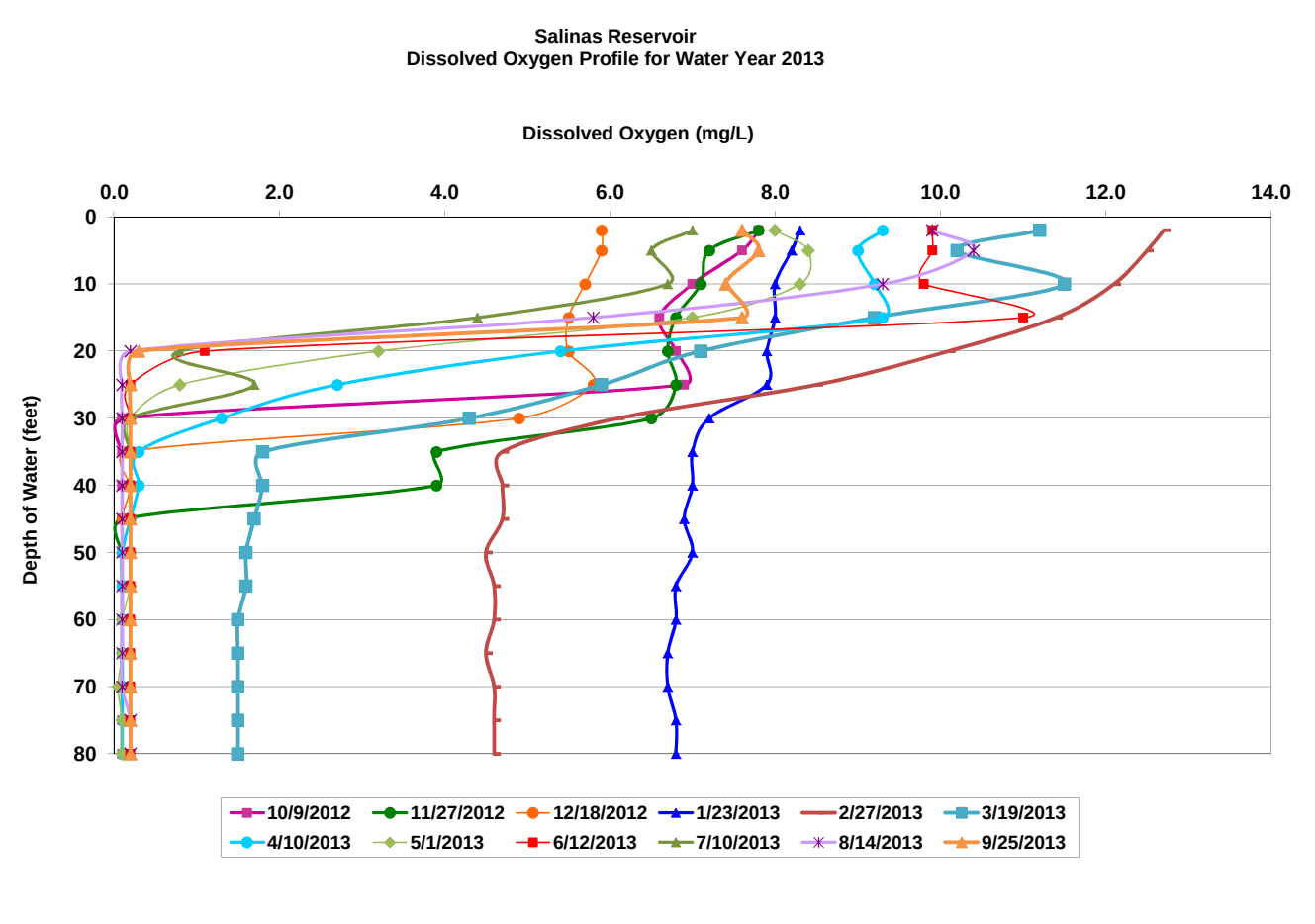

**SALINAS RESERVOIR TEMPERATURE PROFILE DATA** **WATER YEAR 2013**

**For October 2012 through September 2013**

**TEMPERATURE (Degrees C)**

| Depth (feet) | 10/9/2012 | 11/27/2012 | 12/18/2012 | 1/23/2013 | 2/27/2013 | 3/19/2013 | 4/10/2013 | 5/1/2013 | 6/12/2013 | 7/10/2013 | 8/14/2013 | 9/25/2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 21.1 | 14.2 | 12.4 | 9.0 | 11.1 | 15.2 | 17.2 | 21.0 | 24.6 | 25.5 | 24.1 | 21.6 |
| 5 | 21.1 | 13.9 | 12.4 | 9.0 | 11.1 | 15 | 17.0 | 20.9 | 24.3 | 25.5 | 23.8 | 21.6 |
| 10 | 21.0 | 13.8 | 12.4 | 8.9 | 10.7 | 14.8 | 17.0 | 20.8 | 24.1 | 25.4 | 23.6 | 21.5 |
| 15 | 21.0 | 13.7 | 12.4 | 8.9 | 10.3 | 11.6 | 16.9 | 19.0 | 21.5 | 23 | 22.9 | 21.5 |
| 20 | 21.0 | 13.7 | 12.3 | 8.9 | 10.0 | 10.9 | 12.6 | 14.6 | 18.6 | 18.8 | 20.4 | 20.4 |
| 25 | 20.9 | 13.7 | 12.3 | 8.9 | 9.7 | 10.3 | 10.4 | 11.1 | 11.2 | 14.0 | 15.0 | 15.0 |
| 30 | 17.1 | 13.6 | 12.3 | 8.7 | 9.3 | 9.8 | 9.8 | 10.2 | 10.5 | 11.6 | 12.3 | 13.2 |
| 35 | 13.9 | 13.4 | 12.1 | 8.9 | 9.0 | 9.4 | 9.6 | 9.9 | 10.4 | 10.8 | 10.9 | 11.3 |
| 40 | 12.1 | 13.2 | 11.9 | 8.6 | 9.0 | 9.2 | 9.5 | 9.8 | 10.1 | 10.4 | 10.6 | 10.8 |
| 45 | 11.3 | 11.8 | 12.0 | 8.6 | 9.0 | 9.2 | 9.4 | 9.6 | 10.0 | 10.2 | 10.3 | 10.5 |
| 50 | 11 | 11.1 | 12.1 | 8.6 | 9.0 | 9.3 | 9.4 | 9.6 | 9.9 | 10.1 | 10.2 | 10.4 |
| 55 | 10.6 | 10.8 | 12.1 | 8.6 | 9.0 | 9.2 | 9.3 | 9.6 | 9.8 | 10.0 | 10.1 | 10.3 |
| 60 | 10.5 | 10.7 | 12.1 | 8.6 | 9.0 | 9.2 | 9.3 | 9.5 | 9.7 | 10.0 | 10.1 | 10.3 |
| 65 | 10.4 | 10.6 | 12.1 | 8.6 | 9.0 | 9.2 | 9.3 | 9.5 | 9.7 | 9.9 | 10.0 | 10.2 |
| 70 | 10.4 | 10.5 | 12.1 | 8.6 | 9.0 | 9.2 | 9.3 | 9.4 | 9.7 | 9.8 | 10.0 | 10.2 |
| 75 | 10.3 | 10.4 | 12.1 | 8.6 | 9.0 | 9.2 | 9.3 | 9.4 | 9.7 | 9.8 | 10.0 | 10.1 |
| 80 | 10.2 | 10.4 | 12.1 | 8.6 | 9.0 | 9.2 | 9.3 | 9.4 | 9.6 | 9.8 | 10.0 | 10.1 |

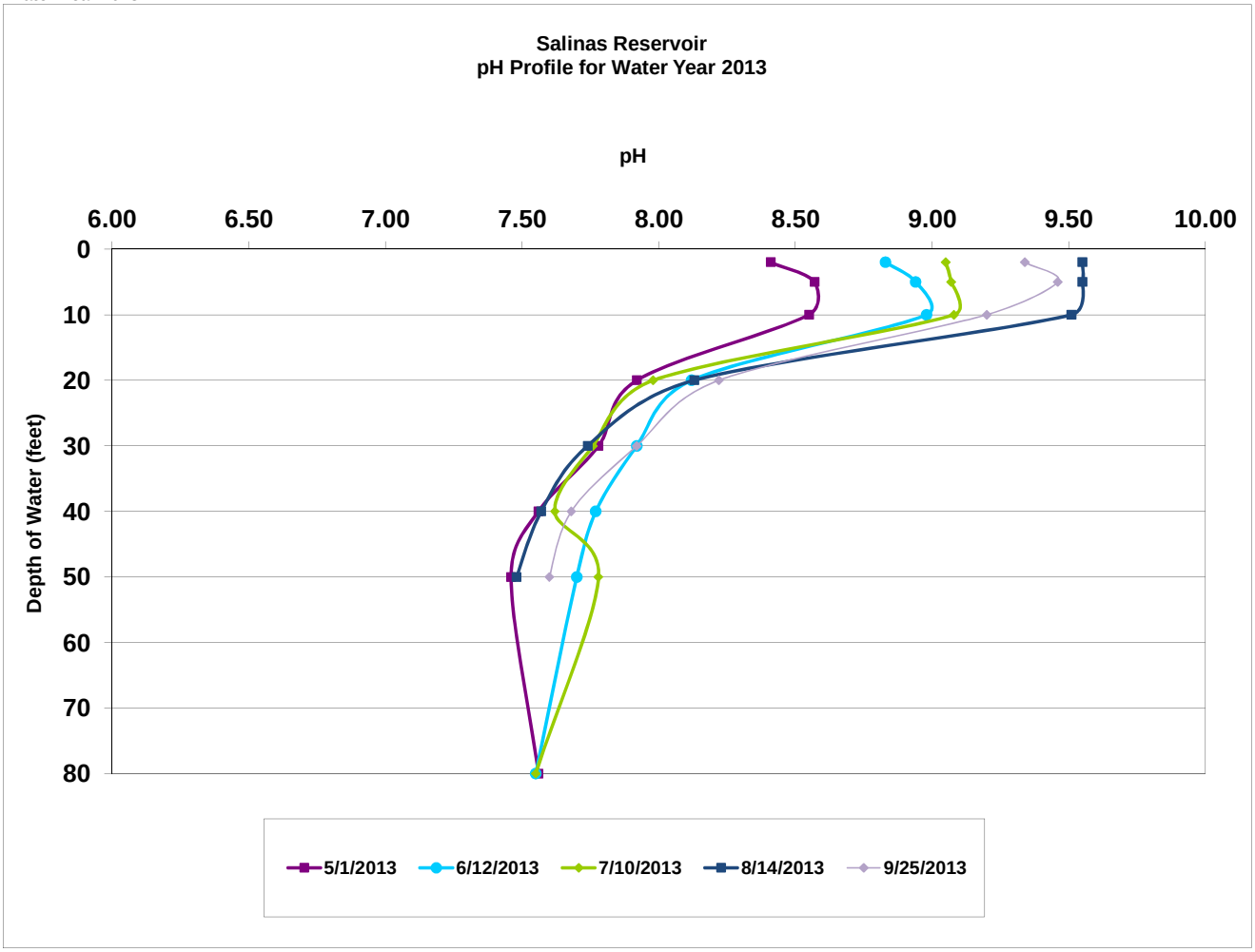
**Appendix A - 2 Dissolved Oxygen Profile**
**Water Year 2013**




**SALINAS RESERVOIR DISSOLVED OXYGEN PROFILE DATA WATER YEAR 2013**
**For October 2012 through September 2013**

| | Dissolved Oxygen (mg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth (feet) | 10/9/2012 | 11/27/2012 | 12/18/2012 | 1/23/2013 | 2/27/2013 | 3/19/2013 | 4/10/2013 | 5/1/2013 | 6/12/2013 | 7/10/2013 | 8/14/2013 | 9/25/2013 |
| 2 | 7.8 | 7.8 | 5.9 | 8.3 | 12.7 | 11.2 | 9.3 | 8.0 | 9.9 | 7.0 | 9.9 | 7.6 |
| 5 | 7.6 | 7.2 | 5.9 | 8.2 | 12.5 | 10.2 | 9.0 | 8.4 | 9.9 | 6.5 | 10.4 | 7.8 |
| 10 | 7.0 | 7.1 | 5.7 | 8.0 | 12.1 | 11.5 | 9.2 | 8.3 | 9.8 | 6.7 | 9.3 | 7.4 |
| 15 | 6.6 | 6.8 | 5.5 | 8.0 | 11.4 | 9.2 | 9.3 | 7.0 | 11.0 | 4.4 | 5.8 | 7.6 |
| 20 | 6.8 | 6.7 | 5.5 | 7.9 | 10.1 | 7.1 | 5.4 | 3.2 | 1.1 | 0.8 | 0.2 | 0.3 |
| 25 | 6.9 | 6.8 | 5.8 | 7.9 | 8.5 | 5.9 | 2.7 | 0.8 | 0.2 | 1.7 | 0.1 | 0.2 |
| 30 | 0.1 | 6.5 | 4.9 | 7.2 | 6.1 | 4.3 | 1.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 |
| 35 | 0.1 | 3.9 | 0.2 | 7.0 | 4.7 | 1.8 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 |
| 40 | 0.1 | 3.9 | 0.2 | 7.0 | 4.7 | 1.8 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 |
| 45 | 0.1 | 0.1 | 0.1 | 6.9 | 4.7 | 1.7 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 |
| 50 | 0.1 | 0.1 | 0.1 | 7.0 | 4.5 | 1.6 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 |
| 55 | 0.1 | 0.1 | 0.1 | 6.8 | 4.6 | 1.6 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 |
| 60 | 0.1 | 0.1 | 0.1 | 6.8 | 4.6 | 1.5 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 |
| 65 | 0.1 | 0.1 | 0.1 | 6.7 | 4.5 | 1.5 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 |
| 70 | 0.1 | 0.1 | 0.1 | 6.7 | 4.6 | 1.5 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 |
| 75 | 0.1 | 0.1 | 0.1 | 6.8 | 4.6 | 1.5 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 |
| 80 | 0.1 | 0.1 | 0.1 | 6.8 | 4.6 | 1.5 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 |

**Appendix A - 3 pH Profile**
**Water Year 2013**




**SALINAS RESERVOIR pH PROFILE DATA**

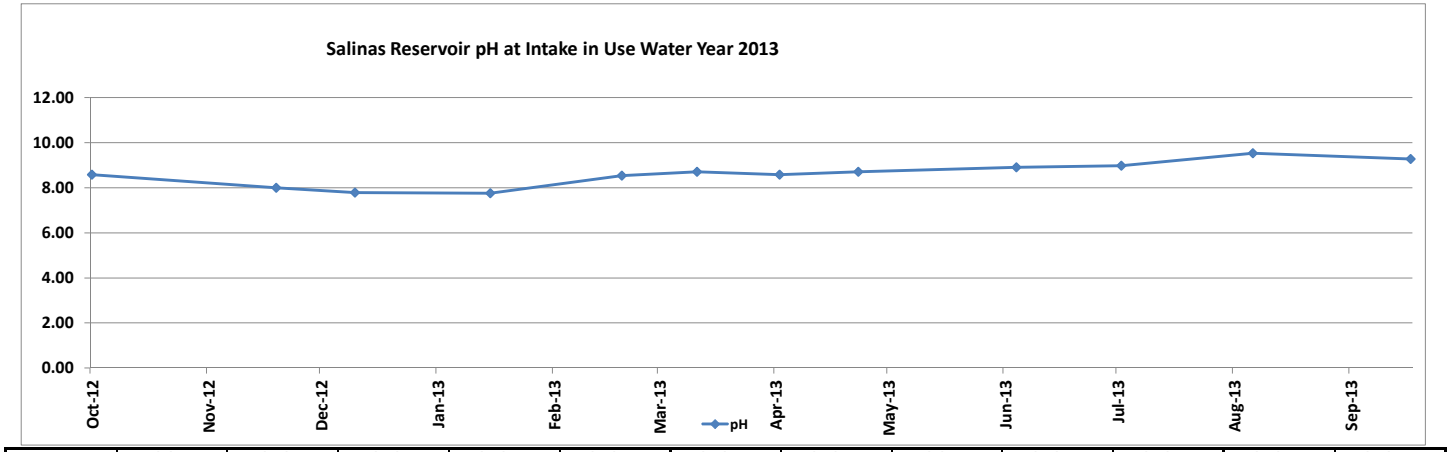
**For Water Year 2013**

| Depth (feet) | 5/1/2013 | 6/12/2013 | 7/10/2013 | 8/14/2013 | 9/25/2013 |
|---|---|---|---|---|---|
| 2 | 8.41 | 8.83 | 9.05 | 9.55 | 9.34 |
| 5 | 8.57 | 8.94 | 9.07 | 9.55 | 9.46 |
| 10 | 8.55 | 8.98 | 9.08 | 9.51 | 9.20 |
| 20 | 7.92 | 8.12 | 7.98 | 8.13 | 8.22 |
| 30 | 7.78 | 7.92 | 7.76 | 7.74 | 7.92 |
| 40 | 7.56 | 7.77 | 7.62 | 7.57 | 7.68 |
| 50 | 7.46 | 7.70 | 7.78 | 7.48 | 7.60 |
| 80 | 7.56 | 7.55 | 7.55 | | |

**Appendix A - 4 Intake pH**

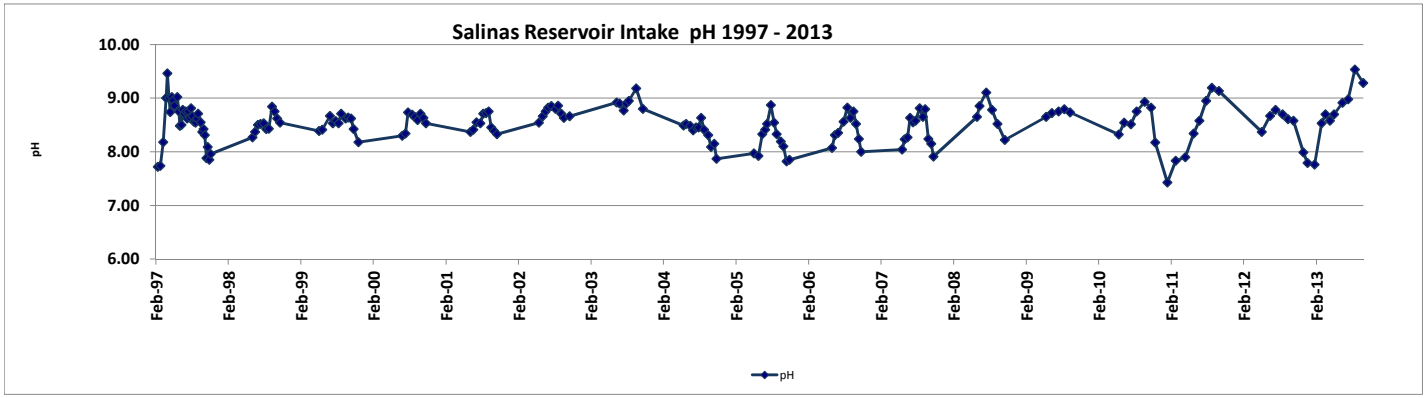
**Water Year 2013**

**SALINAS RESERVOIR pH for WY 2013 at Intake in Use**



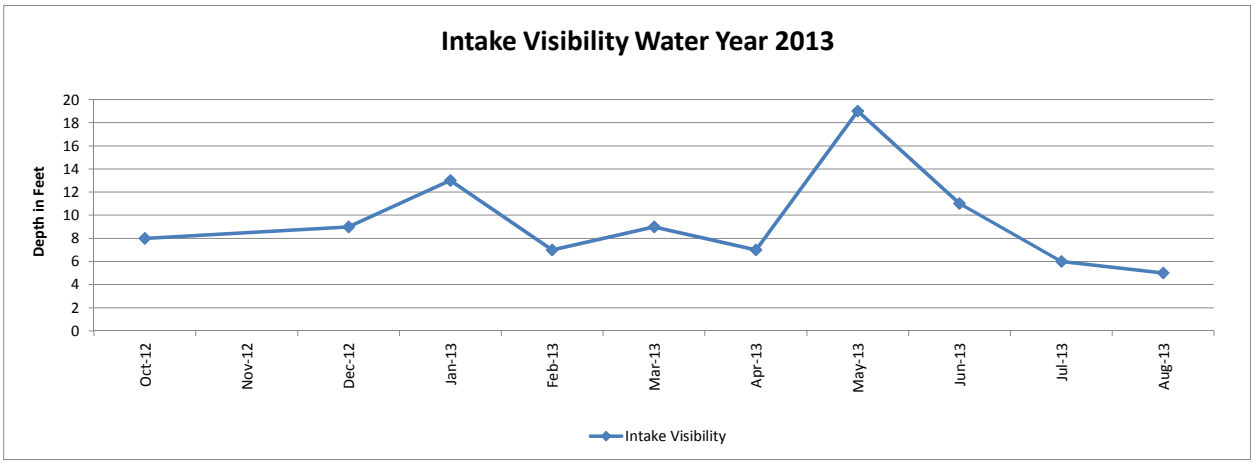

| Date | 10/9/2012 | 11/27/2012 | 12/18/2012 | 1/23/2013 | 2/27/2013 | 3/19/2013 | 4/10/2013 | 5/1/2013 | 6/12/2013 | 7/10/2013 | 8/14/2013 | 9/25/2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 8.58 | 7.99 | 7.79 | 7.76 | 8.53 | 8.70 | 8.58 | 8.70 | 8.91 | 8.98 | 9.53 | 9.28 |

**Historical Data 1997 - 2013**



**Appendix A - 5 Visibility**

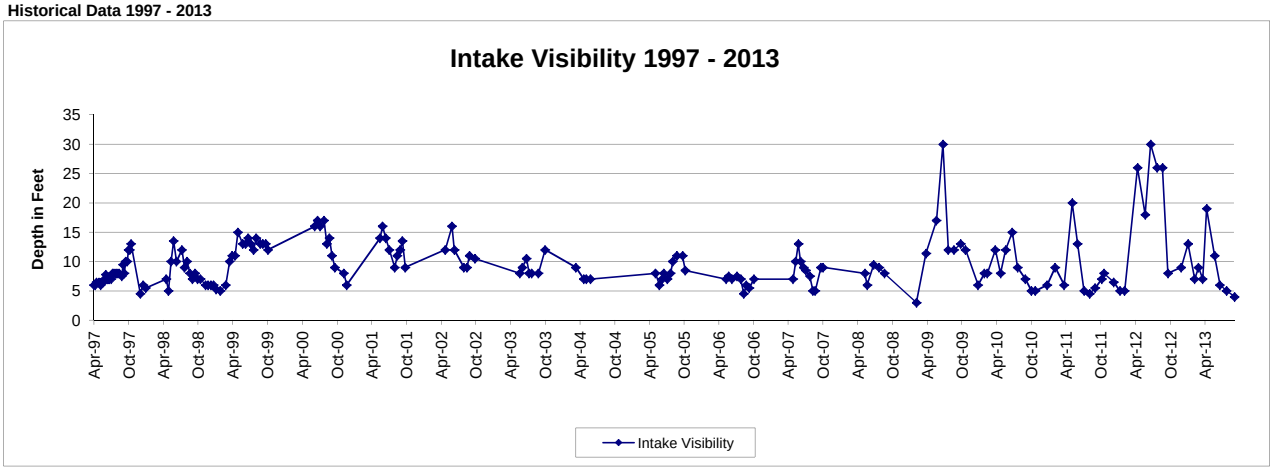
**Water Year 2013**




**SALINAS RESERVOIR Visibility (Feet) for Water Year 2013**

| Date | 10/9/2012 | 12/18/2012 | 1/23/2013 | 2/27/2013 | 3/19/2013 | 4/10/2013 | 5/1/2013 | 6/12/2013 | 7/10/2013 | 8/14/2013 | 9/25/2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Visibility (feet) | 8 | 9 | 13 | 7 | 9 | 7 | 19 | 11 | 6 | 5 | 4 |

**Historical Data 1997 - 2013**



# Appendix B  Nutrient Data Summary

## SALINAS RESERVOIR NUTRIENT SUMMARY for all Sites Monitored Water Years 2007 to 2013

***MCL = Maximum Contaminant Level for Drinking Water**

****Sub-contracted Lab DLR**

Mean values were calculated by treating "less than" values as equal to zero "0" (in accordance with the 2012 CCR Update)

| Sample Site | Collected Date | Nitrate as N, ug/L | Nitrite as N, ug/L | Total Kjeldahl Nitrogen, ug/L | Total Nitrogen, ug/L | Total Phosphate as P, ug/L |
|---|---|---|---|---|---|---|
| | | DLR = 100 | DLR = 100 | DLR = 200 | DLR = 400 | DLR = 50 |
| | | *MCL = 10000 | *MCL = 1000 | | | |
| INTAKE/RAW WATER | 11/27/2007 | 100 | <100 | 540 | 640 | <50 |
| | 3/6/2008 | 730 | <100 | 580 | 1300 | <50 |
| | 5/29/2008 | <100 | <100 | 660 | 660 | <50 |
| | 8/28/2008 | <100 | 110 | 730 | 840 | <50 |
| | 11/24/2008 | <100 | <100 | 800 | 800 | <50 |
| | 2/24/2009 | <100 | <100 | 730 | 730 | <50 |
| | 5/12/2009 | <100 | <100 | 560 | 560 | <50 |
| | 8/11/2009 | <100 | <100 | 660 | 660 | <50 |
| | 11/19/2009 | <100 | <100 | 760 | 760 | 67 |
| | 2/17/2010 | 328 | <100 | 750 | 1100 | <50 |
| | 5/13/2010 | <100 | <100 | 600 | 600 | <50 |
| | 8/10/2010 | <100 | <100 | 410 | 410 | <50 |
| | 11/12/2010 | <100 | <100 | 500 | 500 | <50 |
| | 2/14/2011 | 205 | <100 | 600 | 810 | <50 |
| | 5/25/2011 | <100 | <100 | 330 | <400 | 61 |
| | 8/17/2011 | <100 | <100 | 400 | 400 | 65 |
| | 11/8/2011 | <100 | <100 | 500 | 500 | 51 |
| | 2/23/2012 | <100 | <100 | 600 | 600 | <50 |
| | 5/2/2012 | <100 | <100 | 330 | <400 | <50 |
| | 8/14/2012 | 111 | <100 | 400 | 511 | <50 |
| | 11/27/2012 | <100 | <100 | 500 | 500 | 51 |
| | 2/27/2013 | 105 | <100 | 600 | 600 | <50 |
| | 5/2/2013 | <100 | <100 | 330 | <400 | <50 |
| | 8/14/2013 | <100 | <100 | 400 | 511 | <50 |
| | Minimum | <100 | <100 | 330 | <400 | <50 |
| | Maximum | 730 | 110 | 800 | 1300 | 67 |
| | Mean | <100 | <100 | 660 | 700 | <50 |
| | Number of Samples | 24 | 24 | 24 | 24 | 24 |

# Appendix B  Nutrient Data Summary

## SALINAS RESERVOIR NUTRIENT SUMMARY for all Sites Monitored Water Years 2007 to 2013

***MCL = Maximum Contaminant Level for Drinking Water**

****Sub-contracted Lab DLR**

Mean values were calculated by treating "less than" values as equal to zero "0" (in accordance with the 2012 CCR Update)

| Sample Site | Collected Date | Nitrate as N, ug/L | Nitrite as N, ug/L | Total Kjeldahl Nitrogen, ug/L | Total Nitrogen, ug/L | Total Phosphate as P, ug/L |
|---|---|---|---|---|---|---|
| | | DLR = 100 | DLR = 100 | DLR = 200 | DLR = 400 | DLR = 50 |
| | | *MCL = 10000 | *MCL = 1000 | | | |
| **ALAMO CREEK** | 3/6/2008 | 270 | <100 | 770 | 1000 | 60 |
| | 5/29/2008 | <100 | <100 | 1400 | 1400 | 280 |
| | 2/10/2009 | 228 | <100 | <200 | 230 | <50 |
| | 3/4/2010 | 104 | <100 | 410 | 510 | 100 |
| | 5/13/2010 | 102 | <100 | 290 | 390 | ***** |
| | 2/14/2011 | 108 | <100 | 240 | 350 | ***** |
| | 5/31/2011 | 114 | <100 | 240 | 350 | ***** |
| | Minimum | <100 | <100 | <200 | <400 | <50 |
| | Maximum | 270 | <100 | 1400 | 1400 | 280 |
| | Mean | 130 | <100 | 480 | 600 | 63 |
| | Number of Samples | 7 | 7 | 7 | 7 | 4 |
| **SALINAS RIVER** | 11/27/2007 | <100 | <100 | <200 | <400 | <50 |
| | 2/21/2008 | 580 | <100 | <200 | 580 | <50 |
| | 5/29/2008 | <100 | <100 | 200 | <400 | <50 |
| | 11/24/2008 | <100 | <100 | <200 | <400 | <50 |
| | 2/10/2009 | <100 | <100 | <200 | <400 | <50 |
| | 5/12/2009 | <100 | <100 | 260 | <400 | <50 |
| | 11/19/2009 | <100 | <100 | <200 | <400 | <50 |
| | 2/17/2010 | 290 | <100 | <200 | <400 | <50 |
| | 5/13/2010 | <100 | <100 | <200 | <400 | <50 |
| | 8/10/2010 | <100 | <100 | <200 | <400 | <50 |
| | 11/12/2010 | <100 | <100 | <200 | <400 | <50 |
| | 2/14/2011 | <100 | <100 | <200 | <400 | <50 |
| | 5/25/2011 | <100 | <100 | <200 | <400 | <50 |
| | 8/17/2011 | <100 | <100 | 440 | 440 | 120 |
| | 11/8/2011 | 115 | <100 | <200 | <400 | <50 |
| | 2/23/2012 | <100 | <100 | <200 | <400 | <50 |
| | 5/2/2013 | <100 | <100 | <200 | <400 | <50 |
| | 11/27/2012 | 103 | <100 | <200 | <400 | <50 |
| | 2/13/2013 | <100 | <100 | <200 | <400 | <50 |
| | 5/20/2013 | <100 | <100 | <200 | <400 | <50 |
| | Minimum | <100 | <100 | <200 | <400 | <50 |
| | Maximum | 580 | <100 | 440 | 580 | 120 |
| | Mean | <100 | <100 | <200 | <400 | <50 |
| | Number of Samples | 20 | 20 | 20 | 20 | 20 |

## Appendix B Nutrient Data Summary

### SALINAS RESERVOIR NUTRIENT SUMMARY for all Sites Monitored Water Years 2007 to 2013

***MCL = Maximum Contaminant Level for Drinking Water**

****Sub-contracted Lab DLR**

Mean values were calculated by treating "less than" values as equal to zero "0" (in accordance with the 2012 CCR Update)

| Sample Site | Collected Date | Nitrate as N, ug/L | Nitrite as N, ug/L | Total Kjeldahl Nitrogen, ug/L | Total Nitrogen, ug/L | Total Phosphate as P, ug/L |
|---|---|---|---|---|---|---|
| | | DLR = 100 | DLR = 100 | DLR = 200 | DLR = 400 | DLR = 50 |
| | | *MCL = 10000 | *MCL = 1000 | | | |
| **SALSIPUEDES CREEK** | 3/6/2008 | 320 | <100 | 1600 | 1900 | <50 |
| | 2/24/2009 | <100 | <100 | 620 | 620 | <50 |
| | 11/19/2009 | <100 | <100 | 490 | 490 | 67 |
| | 3/4/2010 | 106 | <100 | 360 | 470 | ***** |
| | 5/13/2010 | <100 | <100 | 280 | 280 | <50 |
| | 8/10/2010 | 105 | <100 | 300 | 410 | <50 |
| | 2/24/2011 | 145 | <100 | 270 | 420 | <50 |
| | 5/25/2011 | <100 | <100 | 310 | <400 | <50 |
| | 11/8/2011 | 197 | <100 | <200 | <400 | 87 |
| | 2/23/2012 | 110 | <100 | <200 | <400 | 72 |
| | 5/2/2012 | 140 | <100 | 480 | 620 | 79 |
| | 8/22/2012 | 170 | <100 | 220 | <400 | 96 |
| | 2/27/2013 | <100 | <100 | <200 | <400 | <50 |
| | Minimum | <100 | <100 | <200 | <400 | <50 |
| | Maximum | 320 | <100 | 1600 | 1900 | 96 |
| | Mean | <100 | <100 | 380 | 400 | <50 |
| | Number of Samples | 13 | 13 | 13 | 13 | 12 |
| | | | | | | |
| **TORO CREEK** | 11/27/2007 | 100 | <100 | <200 | <400 | 70 |
| | 2/21/2008 | <100 | <100 | 270 | <400 | 70 |
| | 5/29/2008 | <100 | <100 | 290 | <400 | 100 |
| | 8/28/2008 | 120 | 110 | 440 | 680 | 130 |
| | 11/24/2008 | 151 | <100 | <200 | <400 | 60 |
| | 2/10/2009 | 137 | <100 | 660 | 800 | 60 |
| | 5/12/2009 | 161 | <100 | 720 | 880 | 120 |
| | 8/11/2009 | 105 | <100 | 980 | 1100 | 170 |
| | 11/19/2009 | 138 | <100 | 220 | <400 | 43 |
| | 2/17/2010 | 100 | <100 | 340 | 440 | 81 |
| | 5/13/2010 | 108 | <100 | 1000 | 1100 | 100 |
| | 8/10/2010 | <100 | <100 | 420 | 420 | 73 |
| | 11/12/2010 | 110 | <100 | <200 | <400 | 52 |
| | 2/14/2011 | 139 | <100 | 260 | <400 | 62 |
| | 5/25/2011 | 133 | <100 | 260 | <400 | 58 |
| | 8/17/2011 | <200 | <100 | 300 | <500 | 150 |
| | 11/8/2011 | 197 | <100 | <200 | <400 | 87 |
| | 2/23/2012 | 110 | <100 | <200 | <400 | 72 |
| | 5/2/2012 | 140 | <100 | 480 | 620 | 79 |
| | 8/22/2012 | 170 | <100 | 220 | <400 | 96 |
| | 11/27/2012 | 135 | <100 | 200 | <400 | 80 |
| | 2/13/2013 | 114 | <100 | <200 | <400 | 49 |
| | 5/20/2013 | 139 | <100 | 210 | <400 | 100 |
| | 8/28/2013 | 160 | <100 | <200 | <400 | 103 |
| | Minimum | <100 | <100 | <200 | <400 | 43 |
| | Maximum | 197 | <100 | 1000 | 1100 | 170 |
| | Mean | 111 | <100 | 360 | 300 | 86 |
| | Number of Samples | 24 | 24 | 24 | 24 | 24 |
| | | | | | | |

## Appendix B  Nutrient Data Summary

### SALINAS RESERVOIR NUTRIENT SUMMARY for all Sites Monitored Water Years 2007 to 2013

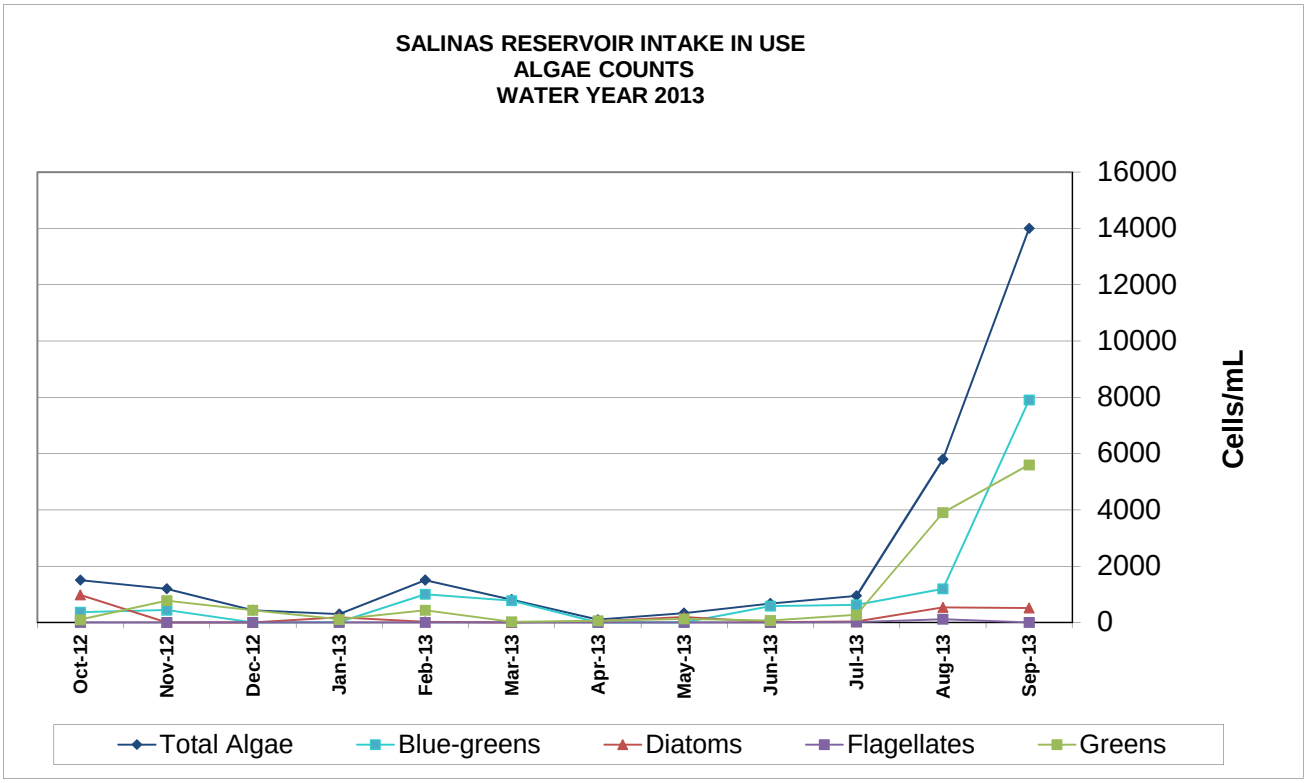
***MCL = Maximum Contaminant Level for Drinking Water**

****Sub-contracted Lab DLR**

Mean values were calculated by treating "less than" values as equal to zero "0" (in accordance with the 2012 CCR Update)

| Sample Site | Collected Date | Nitrate as N, ug/L | Nitrite as N, ug/L | Total Kjeldahl Nitrogen, ug/L | Total Nitrogen, ug/L | Total Phosphate as P, ug/L |
|---|---|---|---|---|---|---|
| | | DLR = 100 | DLR = 100 | DLR = 200 | DLR = 400 | DLR = 50 |
| | | *MCL = 10000 | *MCL = 1000 | | | |
| V-NOTCH | 11/27/2007 | 1300 | <100 | 1000 | 2300 | 400 |
| | 2/21/2008 | 3000 | <100 | 810 | 3810 | 60 |
| | 5/29/2008 | 2300 | <100 | 530 | 2830 | 50 |
| | 8/28/2008 | 840 | 110 | 910 | 1860 | 200 |
| | 11/24/2008 | 1450 | <100 | 1000 | 2450 | 260 |
| | 2/10/2009 | 810 | <100 | 660 | 1470 | 60 |
| | 5/12/2009 | 630 | <100 | 610 | 1240 | 110 |
| | 8/11/2009 | 260 | <100 | 890 | 1150 | 230 |
| | 11/19/2009 | 210 | <100 | 1800 | 2010 | 570 |
| | 5/13/2010 | 930 | <100 | 930 | 1860 | 60 |
| | 8/10/2010 | 740 | <100 | 790 | 1530 | 200 |
| | 11/12/2010 | 2900 | <100 | 860 | 3760 | 330 |
| | 2/14/2011 | 590 | <100 | 740 | 1330 | 49 |
| | 5/25/2011 | 680 | <100 | 600 | 1280 | 60 |
| | 8/17/2011 | | | 580 | | 65 |
| | 11/8/2011 | 1140 | <100 | 780 | 1920 | 61 |
| | 2/23/2012 | 1020 | <100 | 430 | 1450 | <20 |
| | 5/2/2012 | <100 | <100 | 1400 | 1400 | 36 |
| | 8/22/2012 | 1300 | <100 | 880 | 2180 | 32 |
| | 11/27/2012 | 836 | <100 | 760 | 1600 | 52 |
| | 2/13/2013 | <100 | <100 | 480 | 480 | 23 |
| | 5/20/2013 | 350 | <100 | 520 | 870 | 14 |
| | 8/14/2013 | 332 | <100 | 820 | 1150 | 30 |
| | Minimum | <440 | <100 | 430 | 480 | 14 |
| | Maximum | 3000 | <100 | 1800 | 3810 | 570 |
| | Mean | 980 | <100 | 820 | 1800 | 130 |
| | Number of Samples | 22 | 22 | 23 | 22 | 22 |

**Appendix C - 1 Algae Counts from Intake in Use**
**Water Year 2013**

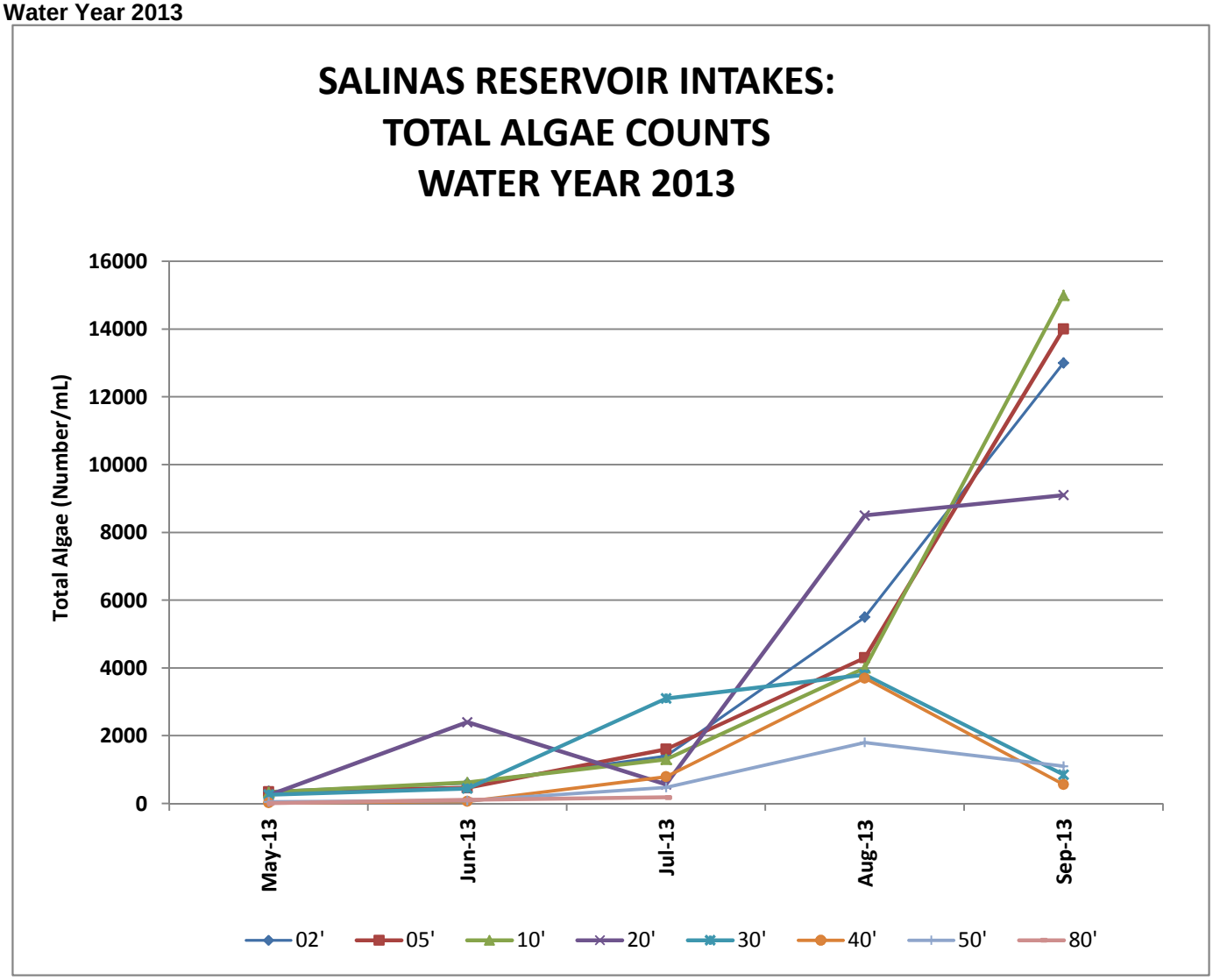



**SALINAS RESERVOIR INTAKE IN USE: ALGAE COUNTS DATA (Cells/mL)**
**Water Year 2013**

| Collected Date | Total Algae | Blue-greens | Diatoms | Flagellates | Greens | Depth from Surface (feet) |
|---|---|---|---|---|---|---|
| 10/9/2012 | 1500 | 370 | 980 | 0 | 100 | 8 |
| 11/27/2012 | 1200 | 440 | 0 | 0 | 780 | 5 |
| 12/18/2012 | 430 | 0 | 0 | 0 | 430 | 2 |
| 1/23/2013 | 300 | 11 | 180 | 0 | 110 | 5 |
| 2/27/2013 | 1500 | 1000 | 22 | 0 | 430 | 5 |
| 3/19/2013 | 810 | 780 | 0 | 0 | 29 | 5 |
| 4/10/2013 | 100 | 0 | 44 | 0 | 59 | 5 |
| 5/1/2013 | 330 | 4 | 200 | 0 | 130 | 4 |
| 6/12/2013 | 670 | 580 | 15 | 0 | 70 | 7 |
| 7/10/2013 | 950 | 630 | 37 | 15 | 270 | 2 |
| 8/14/2013 | 5800 | 1200 | 540 | 120 | 3900 | 5 |
| 9/25/2013 | 14000 | 7900 | 510 | 0 | 5600 | 7 |
| Minimum | 100 | 0 | 0 | 0 | 29 | 2 |
| Maximum | 14000 | 7900 | 980 | 120 | 5600 | 8 |
| Average | 2300 | 1100 | 200 | 11 | 1000 | 5 |
| Number of Samples | 12 | 12 | 12 | 12 | 12 | 12 |

## Appendix C - 2 Algae Counts from Intakes

**Water Year 2013**

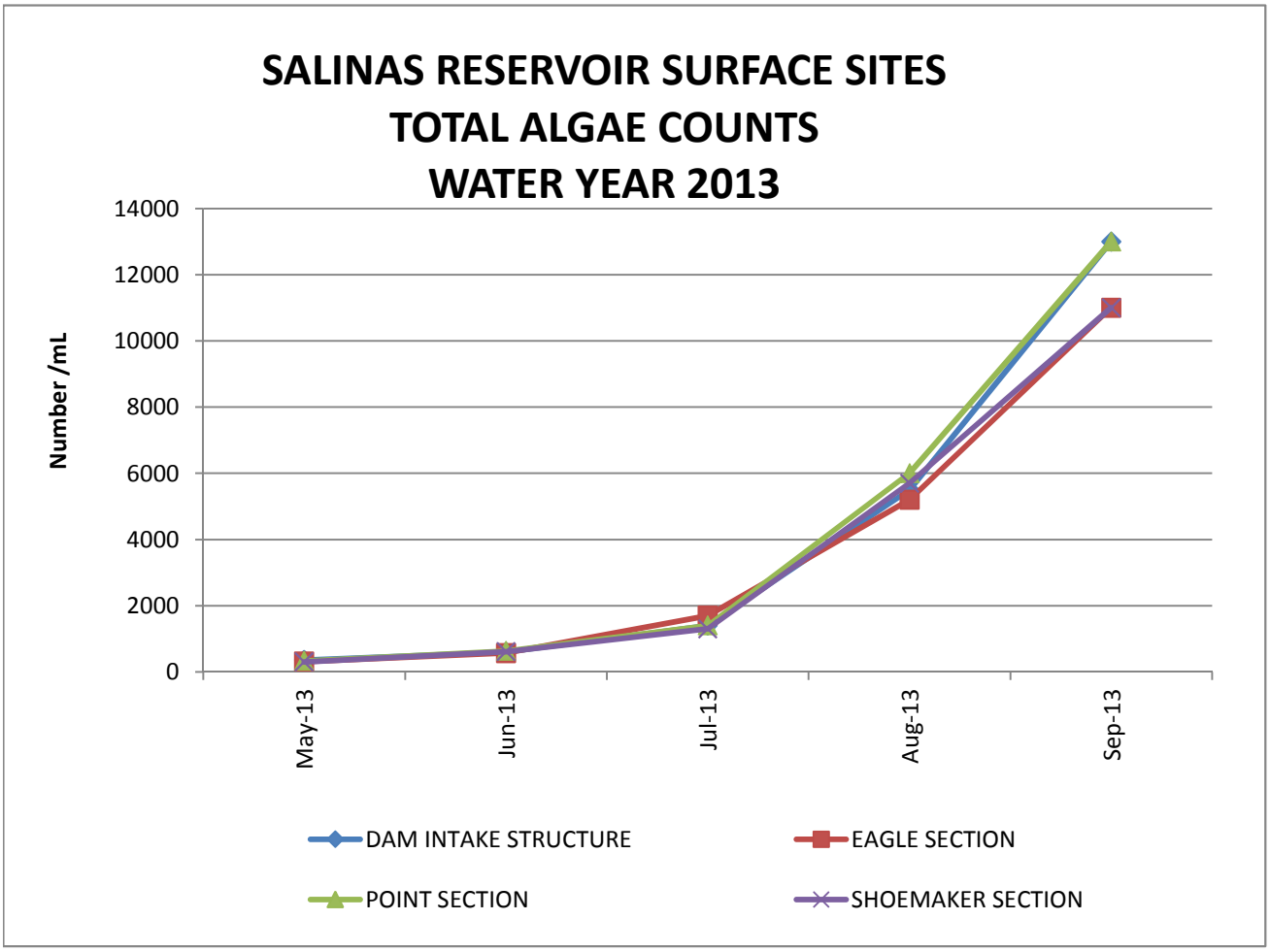



**SALINAS RESERVOIR INTAKES - ALGAE COUNTS (Cells/mL)**

| Collected Date | 02' | 05' | 10' | 20' | 30' | 40' | 50' | 80' |
|---|---|---|---|---|---|---|---|---|
| 5/1/2013 | 360 | 340 | 330 | 240 | 260 | 18 | 47 | 7 |
| 6/12/2013 | 600 | 460 | 620 | 2400 | 440 | 59 | 80 | 110 |
| 7/10/2013 | 1400 | 1600 | 1300 | 560 | 3100 | 790 | 470 | 180 |
| 8/14/2013 | 5500 | 4300 | 4000 | 8500 | 3800 | 3700 | 1800 | |
| 9/25/2013 | 13000 | 14000 | 15000 | 9100 | 850 | 560 | 1100 | |
| Minimum | 360 | 340 | 330 | 240 | 260 | 18 | 47 | 7 |
| Maximum | 13000 | 14000 | 15000 | 9100 | 3800 | 3700 | 1800 | 180 |
| Mean | 4200 | 4100 | 4300 | 4200 | 1700 | 1000 | 700 | 100 |
| Median | 1400 | 1600 | 1300 | 2400 | 850 | 560 | 470 | 110 |
| Number of Samples | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 |

## Appendix C - 3 Algae Counts from Surface Sites

**Water Year 2013**




**SALINAS RESERVOIR SURFACE SITES: TOTAL ALGAE COUNTS (Cells/mL)**

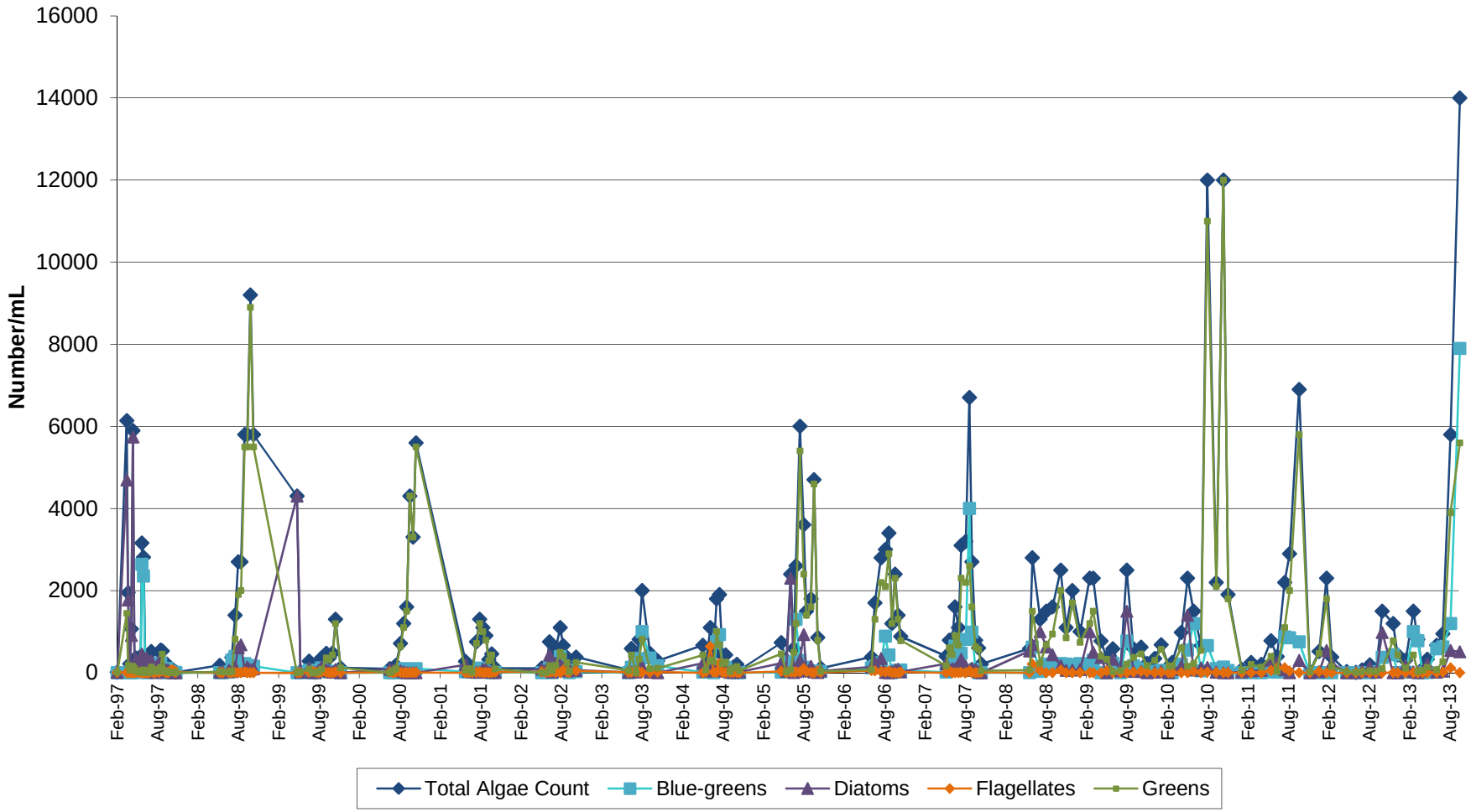
| Collected Date | DAM INTAKE STRUCTURE | EAGLE SECTION | POINT SECTION | SHOEMAKER SECTION |
|---|---|---|---|---|
| 5/1/2013 | 360 | 310 | 330 | 300 |
| 6/12/2013 | 600 | 570 | 630 | 610 |
| 7/10/2013 | 1400 | 1700 | 1400 | 1300 |
| 8/14/2013 | 5500 | 5200 | 6000 | 5700 |
| 9/25/2013 | 13000 | 11000 | 13000 | 11000 |
| Minimum | 360 | 310 | 330 | 300 |
| Maximum | 13000 | 11000 | 13000 | 11000 |
| Mean | 4200 | 3800 | 4300 | 3800 |
| Median | 1400 | 1700 | 1400 | 1300 |
| Number of Samples | 5 | 5 | 5 | 5 |

# SALINAS RESERVOIR INTAKE HISTORICAL ALGAE DATA (1997 - 2013)

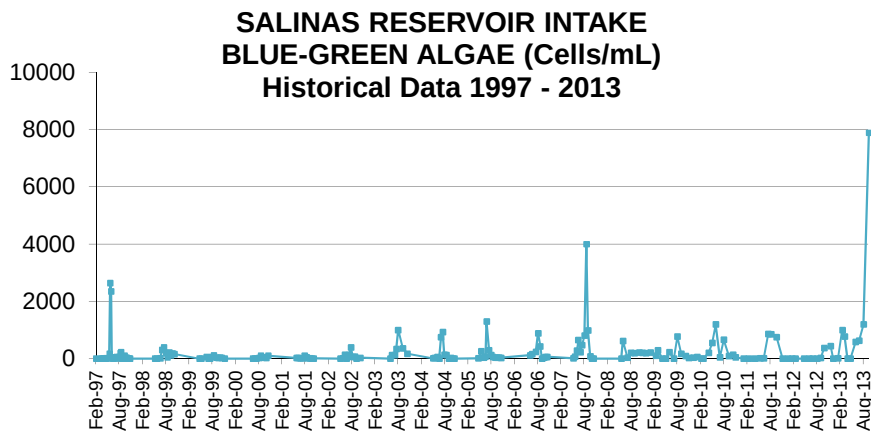
| Collected Date | Total Algae Count | Blue-greens | Diatoms | Flagellates | Greens |
|---|---|---|---|---|---|
| 2/10/1997 | 12 | 0 | 4 | 4 | 4 |
| 3/25/1997 | 6138 | 0 | 4693 | 0 | 1445 |
| 3/31/1997 | 1949 | 0 | 1771 | 0 | 178 |
| 4/8/1997 | 217 | 0 | 146 | 7 | 64 |
| 4/15/1997 | 1067 | 0 | 910 | 0 | 157 |
| 4/22/1997 | 5900 | 0 | 5742 | 0 | 158 |
| 4/29/1997 | 222 | 18 | 68 | 25 | 111 |
| 5/5/1997 | 358 | 11 | 311 | 0 | 36 |
| 5/19/1997 | 140 | 14 | 104 | 4 | 18 |
| 5/27/1997 | 407 | 175 | 228 | 0 | 4 |
| 6/2/1997 | 3156 | 2645 | 457 | 0 | 54 |
| 6/9/1997 | 2813 | 2356 | 386 | 0 | 71 |
| 6/16/1997 | 321 | 46 | 275 | 0 | 0 |
| 6/23/1997 | 382 | 0 | 364 | 4 | 14 |
| 6/30/1997 | 190 | 32 | 129 | 0 | 29 |
| 7/8/1997 | 54 | 11 | 25 | 11 | 7 |
| 7/14/1997 | 514 | 25 | 296 | 54 | 139 |
| 7/21/1997 | 172 | 57 | 29 | 11 | 75 |
| 7/28/1997 | 64 | 14 | 18 | 0 | 32 |
| 8/4/1997 | 143 | 50 | 7 | 18 | 68 |
| 8/11/1997 | 182 | 57 | 18 | 39 | 68 |
| 8/19/1997 | 501 | 193 | 275 | 4 | 29 |
| 8/26/1997 | 550 | 228 | 129 | 68 | 125 |
| 9/2/1997 | 528 | 7 | 25 | 46 | 450 |
| 9/15/1997 | 178 | 64 | 75 | 14 | 25 |
| 9/22/1997 | 207 | 104 | 64 | 0 | 39 |
| 9/29/1997 | 82 | 0 | 68 | 0 | 14 |
| 10/6/1997 | 94 | 36 | 18 | 36 | 4 |
| 10/14/1997 | 93 | 0 | 14 | 68 | 11 |
| 10/20/1997 | 64 | 7 | 0 | 57 | 0 |
| 10/27/1997 | 26 | 4 | 0 | 11 | 11 |
| 11/3/1997 | 11 | 0 | 0 | 11 | 0 |
| 5/19/1998 | 180 | 0 | 16 | 0 | 25 |
| 6/2/1998 | 39 | 0 | 21 | 0 | 18 |
| 6/30/1998 | 79 | 11 | 57 | 0 | 11 |
| 7/13/1998 | 370 | 310 | 32 | 0 | 25 |
| 7/28/1998 | 1400 | 390 | 140 | 4 | 820 |
| 8/11/1998 | 2700 | 190 | 610 | 0 | 1900 |
| 8/24/1998 | 2700 | 50 | 680 | 0 | 2000 |
| 9/9/1998 | 5800 | 220 | 59 | 20 | 5500 |
| 9/21/1998 | 5800 | 120 | 140 | 0 | 5500 |
| 10/5/1998 | 9200 | 180 | 79 | 0 | 8900 |
| 10/19/1998 | 5800 | 160 | 99 | 0 | 5500 |
| 5/4/1999 | 4300 | 0 | 4300 | 0 | 0 |
| 5/19/1999 | 25 | 0 | 14 | 0 | 11 |
| 6/28/1999 | 280 | 61 | 110 | 11 | 93 |
| 7/12/1999 | 36 | 0 | 4 | 32 | 0 |
| 7/26/1999 | 15 | 0 | 4 | 11 | 0 |
| 8/9/1999 | 150 | 57 | 61 | 0 | 29 |
| 8/23/1999 | 360 | 120 | 140 | 18 | 86 |
| 9/14/1999 | 470 | 32 | 71 | 4 | 360 |
| 9/27/1999 | 360 | 22 | 32 | 0 | 306 |
| 10/12/1999 | 480 | 36 | 11 | 0 | 430 |
| 10/25/1999 | 1300 | 21 | 79 | 21 | 1200 |
| 11/17/1999 | 120 | 0 | 0 | 0 | 120 |
| 6/26/2000 | 97 | 0 | 86 | 11 | 0 |
| 7/11/2000 | 110 | 0 | 64 | 0 | 43 |
| 7/24/2000 | 180 | 0 | 71 | 14 | 100 |
| 8/14/2000 | 710 | 25 | 43 | 4 | 640 |
| 8/28/2000 | 1200 | 100 | 18 | 0 | 1100 |
| 9/11/2000 | 1600 | 50 | 0 | 0 | 1500 |
| 9/25/2000 | 4300 | 43 | 0 | 0 | 4300 |
| 10/10/2000 | 3300 | 25 | 0 | 0 | 3300 |
| 10/23/2000 | 5600 | 100 | 0 | 4 | 5500 |
| 6/4/2001 | 278 | 21 | 196 | 0 | 61 |
| 6/18/2001 | 163 | 21 | 46 | 0 | 96 |
| 7/4/2001 | 47 | 11 | 29 | 0 | 7 |
| 7/23/2001 | 750 | 18 | 14 | 4 | 710 |
| 8/7/2001 | 1300 | 110 | 14 | 21 | 1200 |
| 8/21/2001 | 1100 | 54 | 82 | 0 | 1000 |
| 9/4/2001 | 900 | 18 | 86 | 7 | 790 |
| 9/17/2001 | 320 | 18 | 11 | 0 | 290 |
| 10/1/2001 | 460 | 0 | 29 | 0 | 430 |
| 10/16/2001 | 110 | 7 | 4 | 14 | 89 |
| 5/14/2002 | 110 | 0 | 89 | 18 | 0 |
| 6/3/2002 | 97 | 14 | 72 | 4 | 7 |
| 6/18/2002 | 750 | 140 | 430 | 14 | 170 |
| 7/1/2002 | 86 | 0 | 18 | 25 | 43 |
| 7/16/2002 | 540 | 130 | 230 | 4 | 180 |
| 8/6/2002 | 1100 | 390 | 210 | 0 | 500 |
| 8/20/2002 | 660 | 64 | 130 | 64 | 400 |
| 9/5/2002 | 370 | 68 | 43 | 21 | 240 |
| 9/17/2002 | 130 | 0 | 100 | 7 | 25 |
| 10/17/2002 | 380 | 25 | 61 | 43 | 250 |
| 6/10/2003 | 72 | 0 | 11 | 7 | 54 |
| 6/24/2003 | 590 | 130 | 14 | 14 | 430 |
| 7/15/2003 | 170 | 130 | 21 | 18 | 0 |
| 7/29/2003 | 810 | 340 | 120 | 21 | 330 |
| 8/11/2003 | 2000 | 1000 | 150 | 7 | 820 |
| 9/16/2003 | 470 | 360 | 14 | 4 | 96 |
| 10/21/2003 | 290 | 170 | 0 | 14 | 110 |
| 5/12/2004 | 670 | 11 | 230 | 0 | 430 |
| 5/25/2004 | 150 | 25 | 39 | 18 | 64 |
| 6/15/2004 | 1100 | 57 | 93 | 640 | 300 |
| 6/30/2004 | 500 | 0 | 220 | 14 | 270 |
| 7/13/2004 | 1800 | 750 | 50 | 7 | 1000 |
| 7/26/2004 | 1900 | 930 | 110 | 220 | 680 |
| 8/9/2004 | 420 | 140 | 43 | 14 | 220 |
| 8/23/2004 | 430 | 130 | 43 | 0 | 260 |
| 9/13/2004 | 51 | 4 | 11 | 7 | 29 |

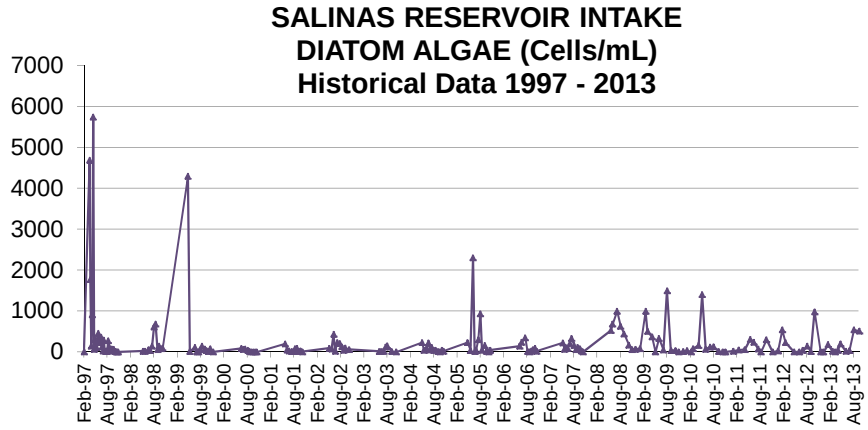
| Collected Date | Total Algae Count | Blue-greens | Diatoms | Flagellates | Greens |
|---|---|---|---|---|---|
| 9/27/2004 | 140 | 21 | 4 | 4 | 110 |
| 10/13/2004 | 200 | 0 | 39 | 7 | 150 |
| 10/25/2004 | 60 | 0 | 18 | 0 | 46 |
| 5/2/2005 | 730 | 11 | 230 | 32 | 460 |
| 5/24/2005 | 300 | 260 | 32 | 0 | 11 |
| 6/13/2005 | 2400 | 36 | 2300 | 14 | 71 |
| 6/27/2005 | 590 | 71 | 7 | 11 | 500 |
| 7/7/2005 | 2600 | 1300 | 36 | 18 | 1200 |
| 7/25/2005 | 6000 | 300 | 300 | 21 | 5400 |
| 8/11/2005 | 3600 | 130 | 930 | 100 | 2400 |
| 8/23/2005 | 1500 | 61 | 43 | 25 | 1400 |
| 9/13/2005 | 1800 | 39 | 160 | 4 | 1600 |
| 9/27/2005 | 4700 | 36 | 21 | 0 | 4600 |
| 10/13/2005 | 860 | 32 | 4 | 39 | 790 |
| 10/27/2005 | 110 | 25 | 43 | 7 | 36 |
| 6/13/2006 | 380 | 120 | 140 | 50 | 71 |
| 6/29/2006 | 1700 | 160 | 240 | 43 | 1300 |
| 7/27/2006 | 2800 | 240 | 350 | 29 | 2200 |
| 8/15/2006 | 3000 | 890 | 7 | 18 | 2100 |
| 8/31/2006 | 3400 | 430 | 0 | 36 | 2900 |
| 9/14/2006 | 1200 | 0 | 29 | 0 | 1200 |
| 9/28/2006 | 2400 | 32 | 61 | 0 | 2300 |
| 10/12/2006 | 1400 | 57 | 86 | 0 | 1300 |
| 10/24/2006 | 880 | 64 | 21 | 14 | 780 |
| 5/17/2007 | 400 | 11 | 220 | 0 | 170 |
| 5/31/2007 | 790 | 71 | 64 | 43 | 610 |
| 6/14/2007 | 820 | 280 | 100 | 0 | 440 |
| 6/26/2007 | 1600 | 650 | 89 | 0 | 900 |
| 7/12/2007 | 1100 | 230 | 210 | 0 | 670 |
| 7/24/2007 | 3100 | 470 | 330 | 4 | 2300 |
| 8/14/2007 | 3200 | 810 | 160 | 0 | 2200 |
| 8/30/2007 | 6700 | 4000 | 59 | 40 | 2600 |
| 9/11/2007 | 2700 | 990 | 110 | 0 | 1600 |
| 9/27/2007 | 790 | 82 | 79 | 0 | 630 |
| 10/11/2007 | 600 | 0 | 29 | 0 | 570 |
| 10/23/2007 | 210 | 0 | 0 | 13 | 46 |
| 5/29/2008 | 590 | 0 | 530 | 0 | 64 |
| 6/10/2008 | 2800 | 620 | 680 | 210 | 1500 |
| 7/15/2008 | 1300 | 36 | 1000 | 57 | 230 |
| 8/12/2008 | 1500 | 210 | 630 | 0 | 680 |
| 9/9/2008 | 1600 | 190 | 440 | 0 | 940 |
| 10/16/2008 | 2500 | 220 | 170 | 68 | 2000 |
| 11/10/2008 | 1100 | 210 | 61 | 0 | 850 |
| 12/8/2008 | 2000 | 190 | 64 | 0 | 1700 |
| 1/12/2009 | 1000 | 220 | 79 | 0 | 740 |
| 2/24/2009 | 2300 | 100 | 1000 | 0 | 1200 |
| 3/12/2009 | 2300 | 300 | 500 | 0 | 1500 |
| 4/16/2009 | 770 | 0 | 370 | 0 | 400 |
| 5/12/2009 | 370 | 0 | 0 | 43 | 330 |
| 6/9/2009 | 580 | 230 | 330 | 0 | 21 |
| 7/14/2009 | 100 | 0 | 46 | 0 | 54 |
| 8/11/2009 | 2500 | 770 | 1500 | 0 | 210 |
| 9/10/2009 | 580 | 170 | 32 | 11 | 370 |
| 10/15/2009 | 620 | 96 | 32 | 36 | 460 |
| 11/10/2009 | 220 | 29 | 0 | 18 | 170 |
| 12/15/2009 | 350 | 36 | 11 | 0 | 300 |
| 1/14/2010 | 680 | 61 | 36 | 14 | 570 |
| 2/17/2010 | 160 | 0 | 0 | 0 | 160 |
| 3/4/2010 | 250 | 0 | 79 | 0 | 170 |
| 4/15/2010 | 980 | 210 | 160 | 0 | 610 |
| 5/13/2010 | 2300 | 550 | 1400 | 0 | 160 |
| 6/9/2010 | 1500 | 1200 | 64 | 36 | 220 |
| 7/13/2010 | 660 | 46 | 120 | 0 | 540 |
| 8/10/2010 | 12000 | 660 | 130 | 11 | 11000 |
| 9/20/2010 | 2200 | 96 | 14 | 7 | 2100 |
| 10/22/2010 | 12000 | 140 | 0 | 0 | 12000 |
| 11/12/2010 | 1900 | 50 | 0 | 0 | 1800 |
| 1/13/2011 | 78 | 0 | 21 | 0 | 57 |
| 2/24/2011 | 250 | 0 | 46 | 0 | 200 |
| 4/12/2011 | 200 | 0 | 61 | 0 | 140 |
| 5/25/2011 | 780 | 18 | 310 | 54 | 400 |
| 6/22/2011 | 390 | 14 | 240 | 110 | 29 |
| 7/26/2011 | 2200 | 870 | 71 | 120 | 1100 |
| 8/17/2011 | 2900 | 850 | 0 | 40 | 2000 |
| 9/29/2011 | 6900 | 750 | 300 | 0 | 5800 |
| 11/17/2011 | 21 | 0 | 0 | 0 | 21 |
| 12/29/2011 | 520 | 0 | 25 | 25 | 470 |
| 1/31/2012 | 2300 | 0 | 540 | 0 | 1800 |
| 2/24/2012 | 380 | 0 | 230 | 0 | 150 |
| 5/2/2012 | 25 | 0 | 0 | 0 | 25 |
| 6/12/2012 | 7 | 0 | 0 | 0 | 7 |
| 7/10/2012 | 68 | 0 | 39 | 0 | 29 |
| 8/14/2012 | 190 | 0 | 140 | 0 | 48 |
| 9/11/2012 | 66 | 26 | 11 | 0 | 29 |
| 10/9/2012 | 1500 | 370 | 980 | 0 | 100 |
| 11/27/2012 | 1200 | 440 | 0 | 0 | 780 |
| 12/18/2012 | 430 | 0 | 0 | 0 | 430 |
| 1/23/2013 | 300 | 11 | 180 | 0 | 110 |
| 2/27/2013 | 1500 | 1000 | 22 | 0 | 430 |
| 3/19/2013 | 810 | 780 | 0 | 0 | 29 |
| 4/10/2013 | 100 | 0 | 44 | 0 | 59 |
| 5/1/2013 | 330 | 4 | 200 | 0 | 130 |
| 6/12/2013 | 670 | 580 | 15 | 0 | 70 |
| 7/10/2013 | 950 | 630 | 37 | 15 | 270 |
| 8/14/2013 | 5800 | 1200 | 540 | 120 | 3900 |
| 9/25/2013 | 14000 | 7900 | 510 | 0 | 5600 |
| Low | 7 | 0 | 0 | 0 | 0 |
| High | 14000 | 7900 | 5742 | 640 | 12000 |
| Average | 1400 | 200 | 200 | 0 | 900 |
| Number of Samples | 196 | 196 | 196 | 196 | 196 |

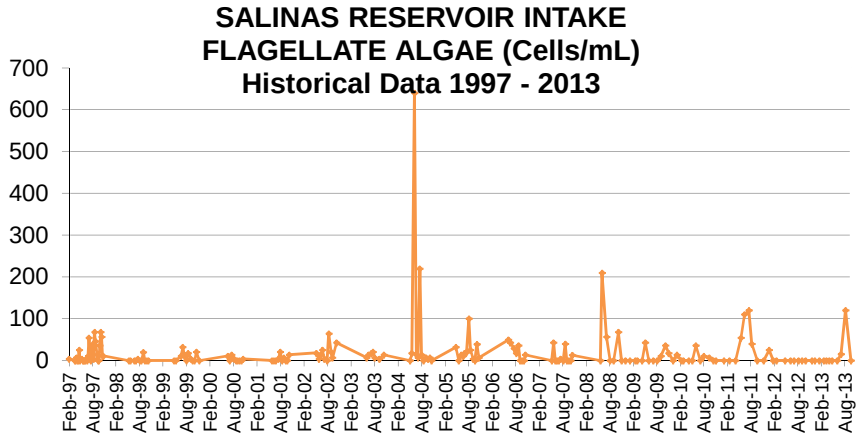
**Appendix C - 5**
**SALINAS RESERVOIR INTAKE**
**ALGAE TREND (Cells/mL)**
**Historical Data 1997 - 2012**

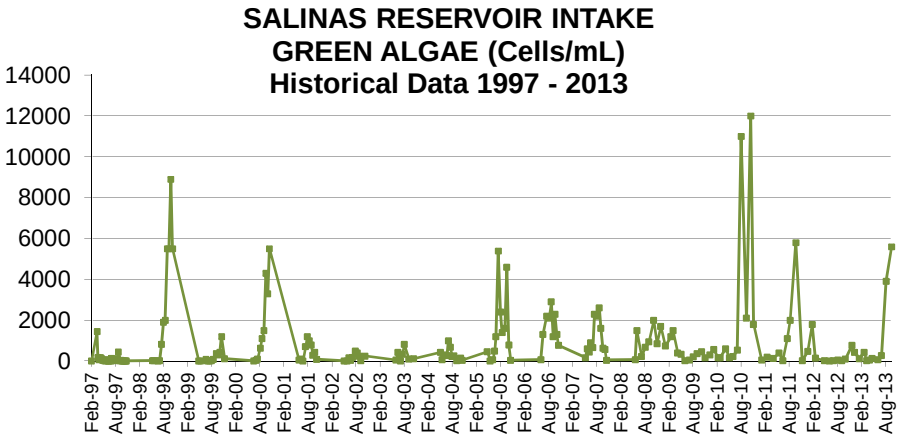


# Appendix C - 6 Salinas Reservoir Algal Groups Historical Data

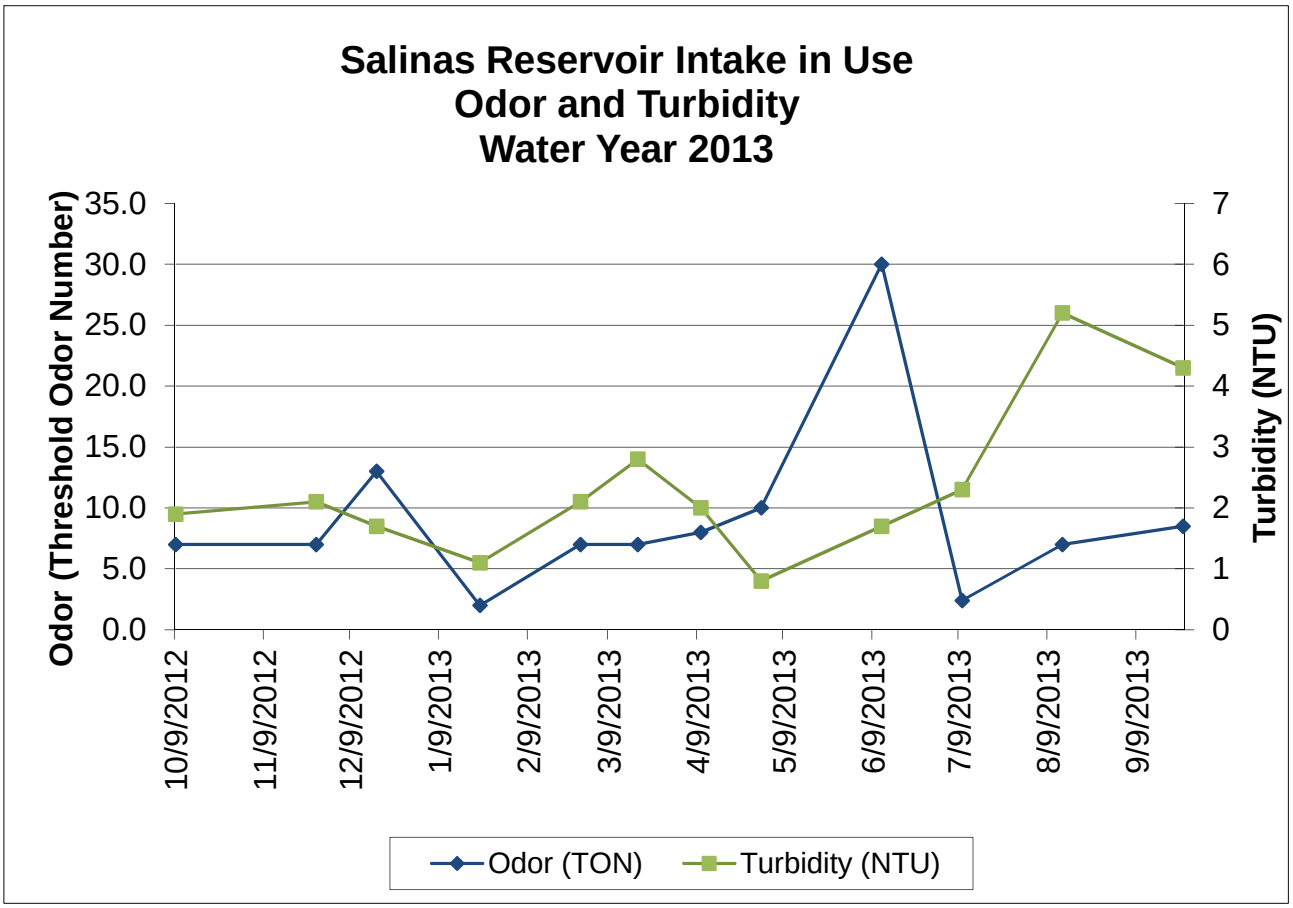


**Appendix D-1 Odor and Turbidity from Intake in Use**
**SALINAS RESERVOIR THRESHOLD ODOR and TURBIDITY from the INTAKE IN USE**
**Data from Water Year 2013**




| Collected Date | Odor (TON) | Odor Description | Turbidity (NTU) |
|---|---|---|---|
| 10/9/2012 | 7.0 | Fishy | 1.9 |
| 11/27/2012 | 7.0 | Fishy | 2.1 |
| 12/18/2012 | 13 | Fishy | 1.7 |
| 1/23/2013 | 2.0 | Grassy | 1.1 |
| 2/27/2013 | 7.0 | Fishy/Other | 2.1 |
| 3/19/2013 | 7.0 | Fishy/Grassy | 2.8 |
| 4/10/2013 | 8.0 | Grassy | 2.0 |
| 5/1/2013 | 10 | Fishy | 0.8 |
| 6/12/2013 | 30 | Fishy/Musty | 1.7 |
| 7/10/2013 | 2.4 | Grassy/Other | 2.3 |
| 8/14/2013 | 7.0 | Fishy | 5.2 |
| 9/25/2013 | 8.5 | Fishy/Other | 4.3 |
| Minimum | 2.0 | | 0.80 |
| Maximum | 30 | | 5.2 |
| Average | 9.1 | | 2.3 |

## SALINAS RESERVOIR INTAKES: ODOR and TURBIDITY SUMMARY for WATER YEAR 2013

### ODOR (TON)

| | INTAKE - 02' | | INTAKE - 05' | | INTAKE - 10' | | INTAKE - 20' | | INTAKE - 30' | | INTAKE - 40' | | INTAKE - 50' | | INTAKE - 80' | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Collected Date | Odor | Type | Odor | Type | Odor | Type | Odor | Type | Odor | Type | Odor | Type | Odor | Type | Odor | Type |
| 5/1/2013 | 12 | Fishy | 10 | Fishy | 8.5 | Grassy | 15 | Fishy | 12 | Fishy | 6.5 | Grassy | 3.5 | Grassy | 4 | Grassy |
| 6/12/2013 | 38 | Grassy | 28 | Fishy | 20 | Fishy/Grassy | 22 | Grassy | 20 | Fishy/Musty | 10 | Fishy/Musty | 10 | Grassy/Musty | 100 | H2S |
| 7/10/2013 | 3.0 | Grassy/Other | 3.0 | Other | 2.4 | Grassy/Other | 3.0 | Grassy | 3.5 | Grassy/Other | 5.5 | Grassy/Other | 4 | Grassy/Other | 40 | Musty/Other |
| 8/14/2013 | 10 | Fishy | 15 | Fishy | 11 | Fishy | 4.0 | Fishy | 20 | Fishy | 4.0 | Septic | 67 | Septic | | |
| 9/25/2013 | 7.0 | Fishy/Grassy | 8.5 | Fishy/Grassy | 15 | Fishy | 67 | H2S | 100 | H2S | 100 | H2S | 100 | H2S | | |
| Minimum | 3.0 | | 3.0 | | 2.4 | | 3.0 | | 3.5 | | 4.0 | | 3.5 | | 4.0 | |
| Maximum | 38 | | 28 | | 20 | | 67 | | 100 | | 100 | | 100 | | 100 | |
| Average | 14 | | 13 | | 11 | | 22 | | 31 | | 25 | | 37 | | 48 | |
| Number of Samples | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 3 | |

National Secondary Drinking Water Standard for Odor = 3 TON

### TURBIDITY (NTU)

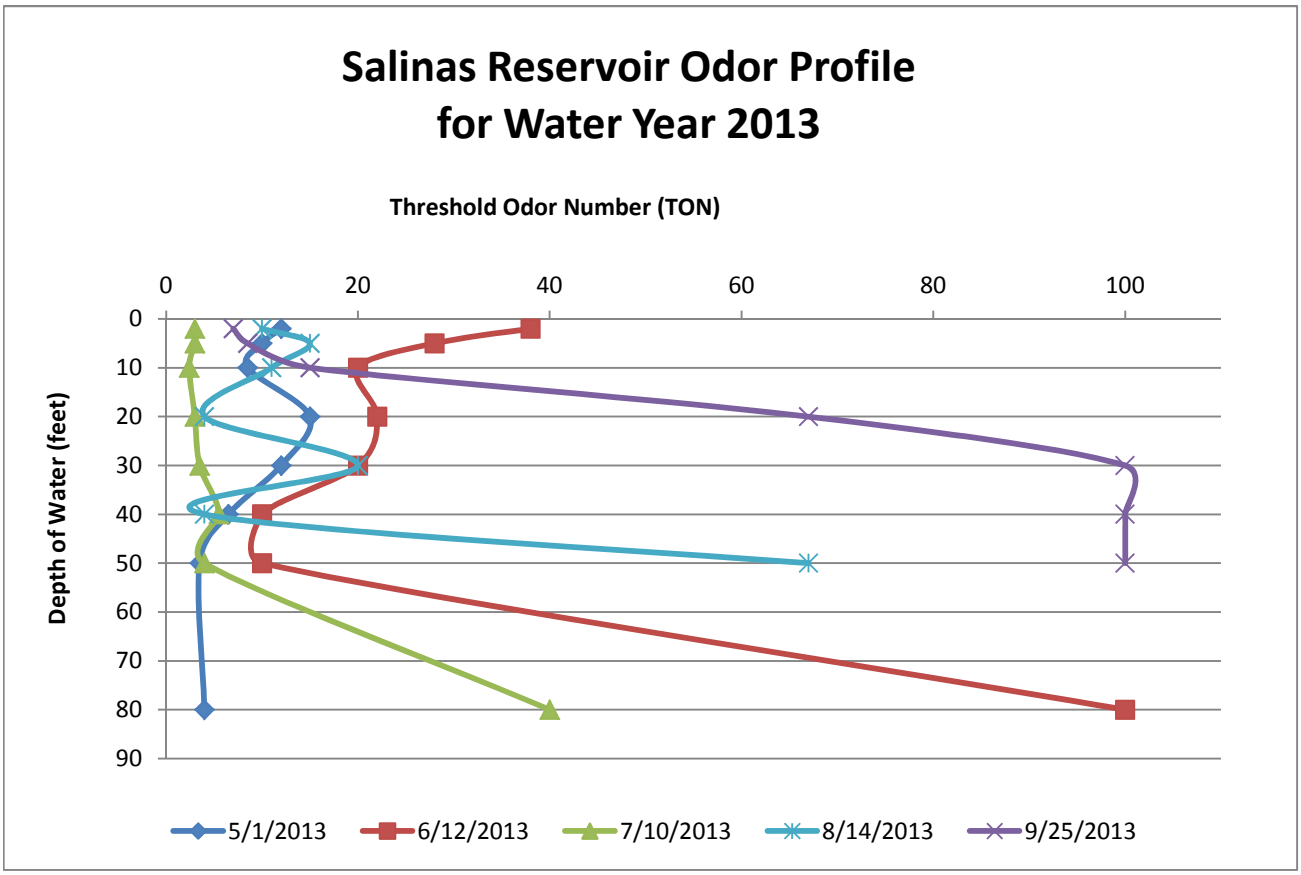
| | INTAKE - 02' | INTAKE - 05' | INTAKE - 10' | INTAKE - 20' | INTAKE - 30' | INTAKE - 40' | INTAKE - 50' | INTAKE - 80' |
|---|---|---|---|---|---|---|---|---|
| Collected Date | Turbidity (NTU) | Turbidity (NTU) | Turbidity (NTU) | Turbidity (NTU) | Turbidity (NTU) | Turbidity (NTU) | Turbidity (NTU) | Turbidity (NTU) |
| 5/1/2013 | 1.0 | 1.2 | 0.82 | 1.2 | 1.2 | 0.87 | 1.2 | 0.83 |
| 6/12/2013 | 1.8 | 1.9 | 2.0 | 3.5 | 2.2 | 1.0 | 0.91 | 5.6 |
| 7/10/2013 | 2.3 | 2.2 | 2.4 | 1.6 | 5.2 | 5.5 | 5.3 | 15 |
| 8/14/2013 | 6.1 | 5.0 | 6.0 | 6.9 | 6.4 | 11 | 26 | |
| 9/25/2013 | 4.3 | 4.2 | 4.6 | 13 | 24 | 32 | 46 | |
| Minimum | 1.0 | 1.2 | 0.82 | 1.2 | 1.2 | 0.87 | 0.91 | 0.83 |
| Maximum | 6.1 | 5.0 | 6.0 | 13 | 24 | 32 | 46 | 15 |
| Average | 3.1 | 2.9 | 3.2 | 5.2 | 7.8 | 10 | 16 | 7.1 |
| Number of Samples | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 |

## Appendix D - 3 Turbidity from Surface Sites

**SALINAS RESERVOIR SURFACE SITES TURBIDITY**
**Water Year 2013**

| Sample Site | Collected Date | Turbidity (NTU) |
|---|---|---|
| **EAGLE SECTION** | 05/01/13 | 1.1 |
| | 06/12/13 | 1.9 |
| | 07/10/13 | 1.7 |
| | 08/14/13 | 4.6 |
| | 09/25/13 | 3.3 |
| | Minimum | 1.1 |
| | Maximum | 4.6 |
| | Mean | 2.5 |
| | Number of Samples | 5 |
| | | |
| **POINT SECTION** | 05/01/13 | 1.0 |
| | 06/12/13 | 1.8 |
| | 07/10/13 | 1.7 |
| | 08/14/13 | 4.1 |
| | 09/25/13 | 3.7 |
| | Minimum | 1.0 |
| | Maximum | 4.1 |
| | Mean | 2.5 |
| | Number of Samples | 5 |
| | | |
| **SHOEMAKER SECTION** | 05/01/13 | 1.0 |
| | 06/12/13 | 1.4 |
| | 07/10/13 | 1.7 |
| | 08/14/13 | 4.7 |
| | 09/25/13 | 4.0 |
| | Minimum | 1.0 |
| | Maximum | 4.7 |
| | Mean | 2.6 |
| | Number of Samples | 5 |

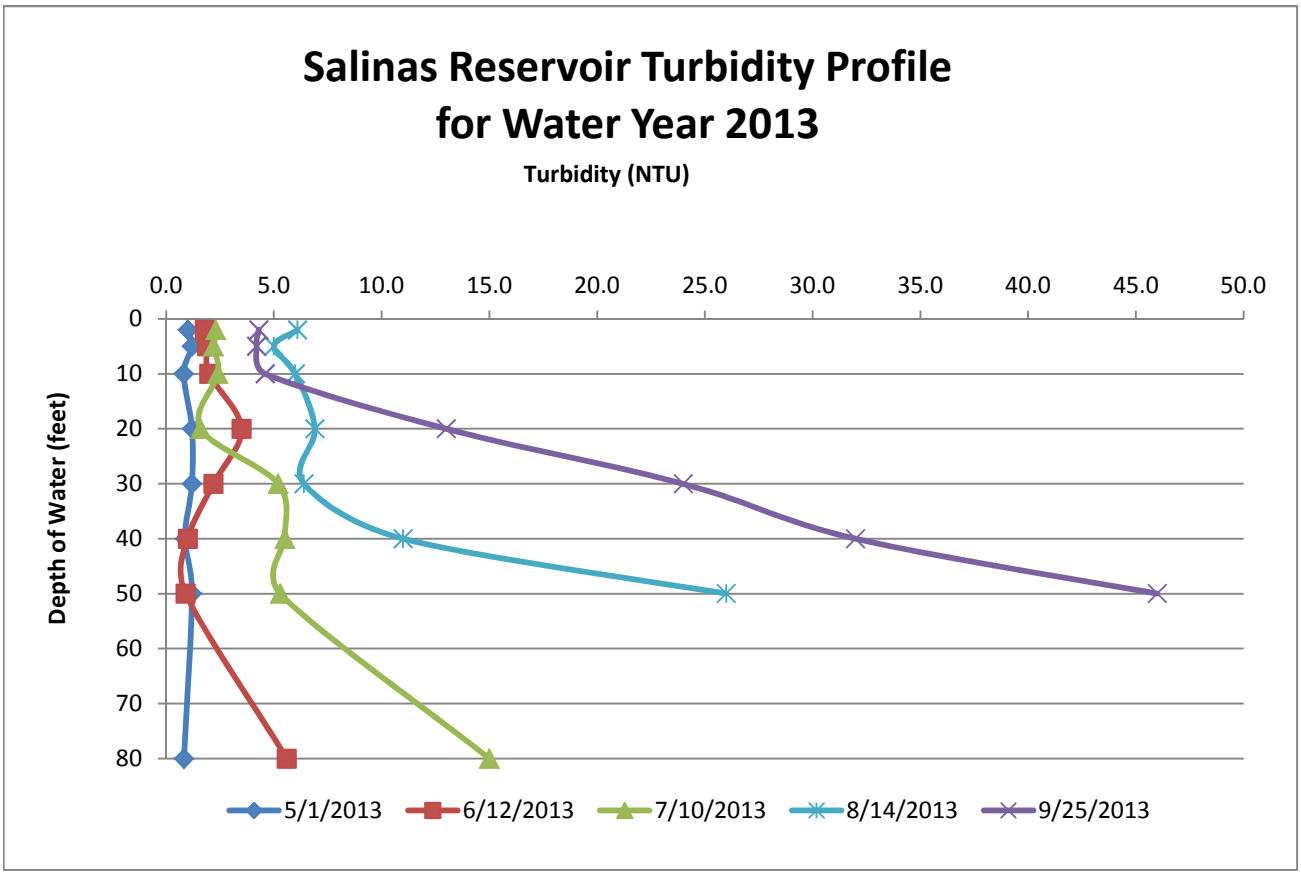
## Appendix D - 4  Odor Profile




**SALINAS RESERVOIR THRESHOLD ODOR PROFILE**
**Data from Water Year 2013**

| | Threshold Odor Number (TON) | | | | |
|---|---|---|---|---|---|
| **Depth (feet)** | **5/1/2013** | **6/12/2013** | **7/10/2013** | **8/14/2013** | **9/25/2013** |
| 2 | 12 | 38 | 3.0 | 10 | 7.0 |
| 5 | 10 | 28 | 3.0 | 15 | 8.5 |
| 10 | 8.5 | 20 | 2.4 | 11 | 15 |
| 20 | 15 | 22 | 3.0 | 4.0 | 67 |
| 30 | 12 | 20 | 3.5 | 20 | 100 |
| 40 | 6.5 | 10 | 5.5 | 4.0 | 100 |
| 50 | 3.5 | 10 | 4.0 | 67 | 100 |
| 80 | 4.0 | 100 | 40 | | |

## Appendix D - 5 Turbidity Profile




**SALINAS RESERVOIR TURBIDITY PROFILE**
**Water Year 2013**

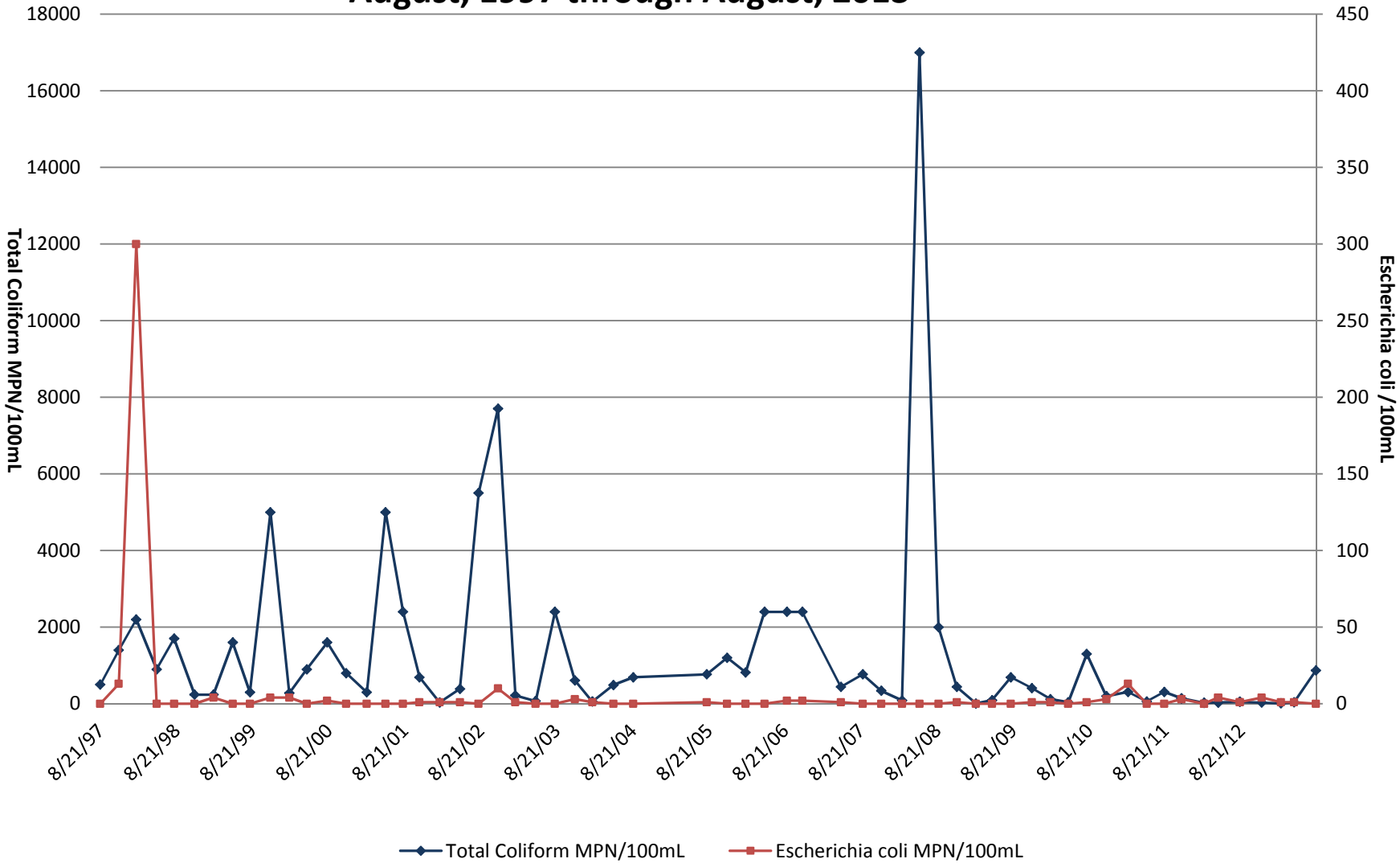
| | Turbidity (NTU) | | | | |
|---|---|---|---|---|---|
| **Depth (feet)** | **5/1/2013** | **6/12/2013** | **7/10/2013** | **8/14/2013** | **9/25/2013** |
| 2 | 1.0 | 1.8 | 2.3 | 6.1 | 4.3 |
| 5 | 1.2 | 1.9 | 2.2 | 5.0 | 4.2 |
| 10 | 0.82 | 2.0 | 2.4 | 6.0 | 4.6 |
| 20 | 1.2 | 3.5 | 1.6 | 6.9 | 13 |
| 30 | 1.2 | 2.2 | 5.2 | 6.4 | 24 |
| 40 | 0.87 | 1.0 | 5.5 | 11 | 32 |
| 50 | 1.2 | 0.9 | 5.3 | 26 | 46 |
| 80 | 0.8 | 5.6 | 15.0 | | |

**Appendix E - 1** **Coliform Data (All Sites Monitored Water Year 2013)**

**SALINAS RESERVOIR**
**BACTERIOLOGICAL SUMMARY of all SITES MONITORED October 2012 through September 2013**

| Sample Site | Collected Date | Total Coliform (MPN/100mL) | *Escherichia coli* (MPN/100mL) |
|---|---|---|---|
| ALAMO CREEK | There was no flow in Alamo Creek during the four quarters of monitoring in Water Year 2013 | | |
| | *Follow-up sample to Salinas River, 5/2/2013 total coliform/E. coli >24000 | | |
| SALINAS RIVER | 11/27/2012 | 580 | 16 |
| | 2/13/2013 | 1600 | 26 |
| | 5/20/2013 | >24000 | >24000 |
| | 6/4/2013* | 1000 | 86 |
| | Minimum | 580 | 16 |
| | Maximum | >24000 | >24000 |
| | Mean | 6800 | 6000 |
| | Number of Samples | 4 | 4 |
| | | | |
| SALSIPUEDES CREEK | 2/27/2013 | 160 | 1 |
| | | | |
| TORO CREEK | 11/27/2012 | 1600 | 270 |
| | 2/13/2013 | 2400 | 27 |
| | 5/20/2013 | 2500 | 240 |
| | 6/4/2013* | 1600 | 690 |
| | 8/28/2013 | 1100 | 66 |
| | Minimum | 1100 | 27 |
| | Maximum | 2500 | 690 |
| | Mean | 1800 | 260 |
| | Number of Samples | 5 | 5 |
| | | | |
| INTAKE / RAW WATER | 11/27/2012 | 31 | 4 |
| | 2/27/2013 | 11 | 1 |
| | 5/1/2013 | 38 | 1 |
| | 8/14/2013 | 870 | <1 |
| | Minimum | 11 | <1 |
| | Maximum | 870 | 4 |
| | Mean | 240 | 2 |
| | Number of Samples | 4 | 4 |
| | | | |
| V-NOTCH | 8/22/2012 | 1600 | 5 |
| | 11/27/2012 | 1200 | 1 |
| | 2/13/2013 | 770 | <1 |
| | 5/20/2013 | 290 | 3 |
| | Minimum | 290 | <1 |
| | Maximum | 1600 | 5 |
| | Mean | 970 | 2 |
| | Number of Samples | 4 | 4 |

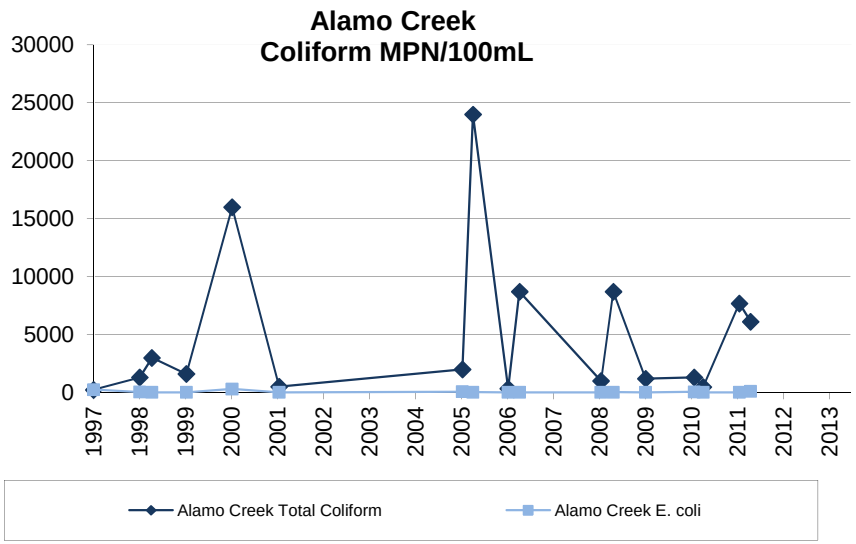
# Appendix E-2
# SALINAS RESERVOIR RAW WATER
# COLIFORM DATA
# August, 1997 through August, 2013

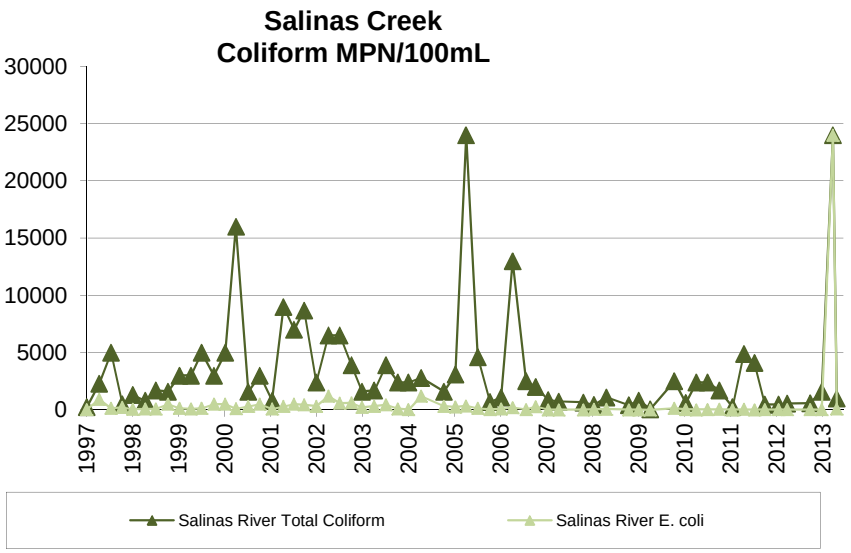


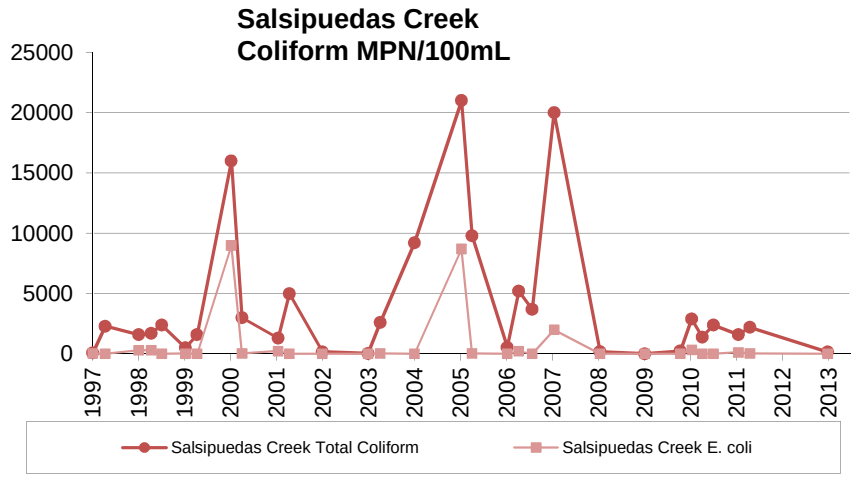
Appendix E - 3 Salinas Reservoir Historical Bacteriological Data for Creeks

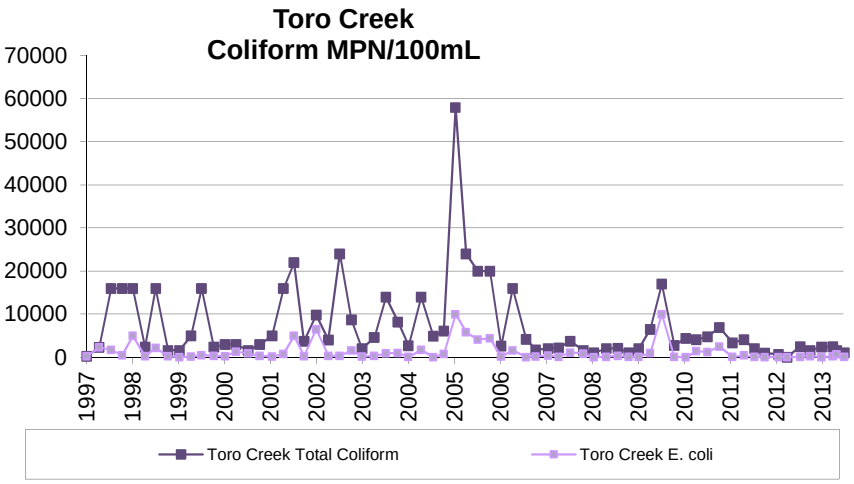
| Collected Date | Raw Water Total Coliform | Raw Water *E. coli* | Alamo Creek Total Coliform | Alamo Creek *E. coli* | Salinas River Total Coliform | Salinas River *E. coli* | Salsipuedas Creek Total Coliform | Salsipuedas Creek *E. coli* | Toro Creek Total Coliform | Toro Creek *E. coli* |
|---|---|---|---|---|---|---|---|---|---|---|
| Feb-1997 | | | 240 | 240 | 240 | 30 | 80 | 30 | 240 | 240 |
| May-1997 | | | | | 2300 | 920 | 2300 | <11 | 2300 | 2300 |
| Aug-1997 | 500 | <1 | | | 5000 | 130 | | | 16000 | 1700 |
| Nov-1997 | 1400 | 13 | | | 510 | 210 | | | 16,000 | 500 |
| Feb-1998 | 2200 | | 1300 | 30 | 1300 | 50 | 1600 | 300 | 16000 | 5000 |
| May-1998 | 900 | <1 | 3000 | 11 | 800 | 80 | 1700 | 300 | 2400 | 230 |
| Aug-1998 | 1700 | <1 | | | 1700 | 80 | 2400 | <2 | 16000 | 2200 |
| Nov-1998 | 240 | <1 | | | 1600 | 500 | | | 1600 | 220 |
| Feb-1999 | 240 | 4 | 1600 | <2 | 3000 | 130 | 500 | 13 | 1600 | 8 |
| May-1999 | 1600 | <1 | | | 3000 | 80 | 1600 | <2 | 5000 | 170 |
| Aug-1999 | 300 | <1 | | | 5000 | 140 | | | 16000 | 500 |
| Nov-1999 | 5000 | 4 | | | 3000 | 500 | | | 2400 | 300 |
| Feb-2000 | 280 | 4 | 16000 | 300 | 5000 | 500 | 16000 | 9000 | 3000 | 230 |
| May-2000 | 900 | <1 | | | 16000 | 110 | 3000 | 30 | 3000 | 1300 |
| Aug-2000 | 1600 | 2 | | | 1600 | 300 | | | 1600 | 900 |
| Nov-2000 | 800 | <1 | | | 3000 | 500 | | | 3000 | 300 |
| Feb-2001 | 300 | <1 | 500 | 8 | 800 | 80 | 1300 | 230 | 5000 | 170 |
| May-2001 | 5000 | <1 | | | 9000 | 300 | 5000 | 8 | 16000 | 800 |
| Aug-2001 | 2400 | <1 | | | 7000 | 500 | | | 22000 | 5000 |
| Nov-2001 | 690 | 1 | | | 8700 | 440 | | | 3700 | 260 |
| Feb-2002 | 35 | 1 | | | 2400 | 320 | 180 | 1 | 9800 | 6500 |
| May-2002 | 390 | 1 | | | 6500 | 1200 | | | 4000 | 340 |
| Aug-2002 | 5500 | <1 | | | 6500 | 580 | | | 24000 | 310 |
| Nov-2002 | 7700 | 10 | | | 3900 | 610 | | | 8700 | 1600 |
| Feb-2003 | 220 | 1 | | | 1600 | 210 | 46 | <1 | 2000 | 140 |
| May-2003 | 71 | <1 | | | 1700 | 310 | 2600 | 23 | 4600 | 290 |
| Aug-2003 | 2400 | <1 | | | 3900 | 440 | | | 14000 | 920 |
| Nov-2003 | 610 | 3 | | | 2400 | 96 | | | 8200 | 980 |
| Feb-2004 | 58 | 1 | | | 2400 | 20 | 9200 | 2 | 2700 | 68 |
| May-2004 | 490 | <1 | | | 2800 | 1200 | | | 14000 | 1700 |
| Aug-2004 | 690 | <1 | | | | | | | 4900 | 59 |
| Nov-2004 | | | | | 1600 | 310 | | | 6100 | 770 |
| Feb-2005 | | | 2000 | 63 | 3100 | 240 | 21000 | 8700 | 58000 | 10000 |
| May-2005 | | | 24000 | 20 | 24000 | 340 | 9800 | 28 | 24000 | 5800 |
| Aug-2005 | 770 | 1 | | | 4600 | 140 | | | 20000 | 4100 |
| Nov-2005 | 1200 | <1 | | | 690 | 36 | | | 20000 | 4400 |
| Feb-2006 | 820 | <1 | 340 | 1 | 1100 | 70 | 550 | 1 | 2600 | 150 |
| May-2006 | 2400 | <1 | 8700 | 12 | 13000 | 200 | 5200 | 220 | 16000 | 1600 |
| Aug-2006 | 2400 | 2 | | | 2500 | 33 | 3700 | < 1 | 4200 | 58 |
| Nov-2006 | 2400 | 2 | | | 2000 | 290 | | | 1700 | 190 |
| Feb-2007 | | | | | 870 | 6 | 20000 | 2000 | 2000 | 390 |
| May-2007 | 440 | 1 | | | 730 | 13 | | | 2200 | 110 |
| Aug-2007 | | | | | | | | | 3700 | 1100 |
| Aug-2007 | 770 | <1 | | | | | | | | |
| Nov-2007 | 340 | <1 | | | 650 | 2 | | | 1600 | 870 |
| Feb-2008 | | | 1000 | 7 | 440 | 45 | 190 | 2 | 1100 | 16 |
| Mar-2008 | 88 | <1 | | | | | | | | |
| May-2008 | 17000 | <1 | 8700 | 18 | 1100 | 66 | | | 2000 | 120 |
| Aug-2008 | 2000 | <1 | | | | | | | 2100 | 310 |
| Nov-2008 | 440 | 1 | | | 410 | 7 | | | 1100 | 64 |
| Feb-2009 | | | 1200 | 1 | 820 | 12 | 16 | <1 | 2000 | 130 |
| Feb-2009 | 6 | <1 | | | | | | | | |
| May-2009 | 93 | <1 | | | 59 | <1 | | | 6500 | 1000 |
| Aug-2009 | 690 | <1 | | | | | | | 17000 | 10000 |
| Nov-2009 | 410 | 1 | | | 2500 | 130 | 240 | 5 | 2800 | 71 |
| Feb-2010 | 120 | 1 | | | 600 | 35 | 2900 | 340 | 4400 | 16 |
| Mar-2010 | | | 1300 | 46 | | | | | | |
| May-2010 | 39 | <1 | 490 | 9 | 2400 | 6 | 1400 | 3 | 4100 | 1400 |
| Aug-2010 | 1300 | 1 | | | 2400 | 26 | 2400 | 6 | 4800 | 1200 |
| Nov-2010 | 200 | 3 | | | 1700 | 55 | | | 6900 | 2500 |
| Feb-2011 | 310 | 13 | 7700 | 1 | 240 | 13 | 1600 | 120 | 3400 | 80 |
| May-2011 | 62 | <1 | 6100 | 84 | 4900 | 56 | 2200 | 38 | 4100 | 460 |
| Aug-2011 | 310 | <1 | | | 4100 | 7 | | | 2000 | 65 |
| Nov-2011 | 14 | 3 | | | 460 | 14 | | | 980 | 50 |
| Feb-2012 | 25 | <1 | | | 460 | 25 | | | 690 | 54 |
| May-2012 | 33 | 4 | | | 550 | 26 | | | 16 | 31 |
| Aug-2012 | 51 | 1 | | | | | | | 2500 | 88 |
| Nov-2012 | 31 | 4 | | | 580 | 16 | | | 1600 | 270 |
| Feb-2013 | 11 | 1 | | | 1600 | 26 | 160 | 1 | 2400 | 27 |
| May-2013 | 38 | 1 | | | 24000 | 24000 | | | 2500 | 240 |
| Jun-2013 | | | | | 1000 | 86 | | | 1600 | 690 |
| Aug-2013 | 870 | <1 | | | | | | | 1100 | 66 |
| Average | 1300 | 1 | 5000 | 50 | 3500 | 600 | 4000 | 710 | 7200 | 1200 |
| Low | 6 | <1 | 240 | <1 | 59 | <1 | 16 | <1 | 16 | 8 |
| High | 17000 | 13 | 24000 | 300 | 24000 | 24000 | 21000 | 9000 | 58000 | 10000 |
| Number | 61 | 61 | 17 | 17 | 62 | 62 | 30 | 30 | 68 | 68 |

**Appendix E - 4 Chart**
**Salinas Reservoir Creeks**
**Historical Bacteriological Data (MPN/100mL)**
**(1997 - 2013)**

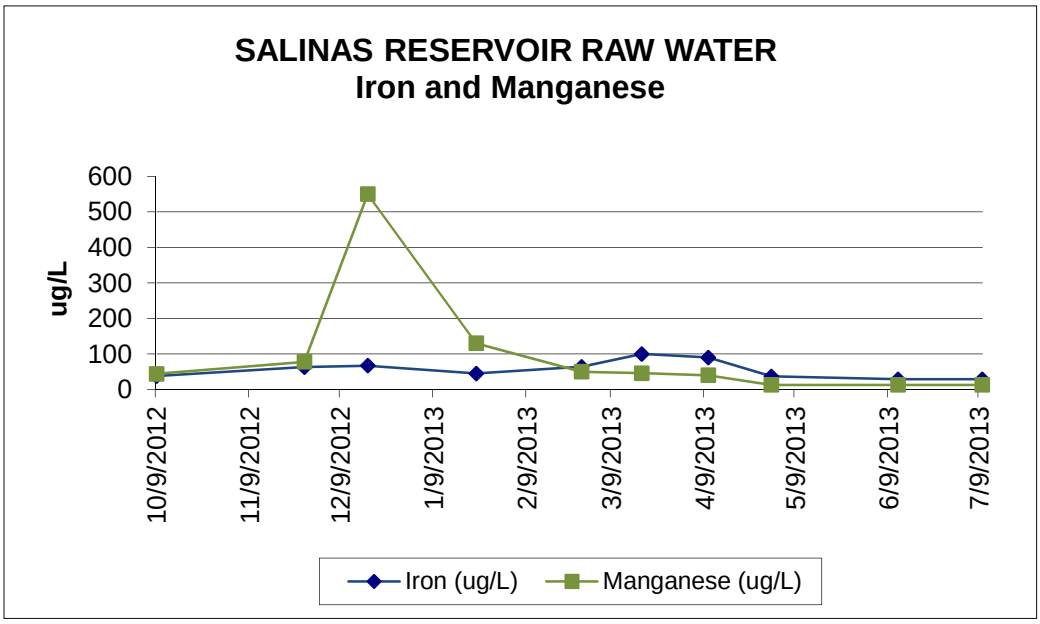


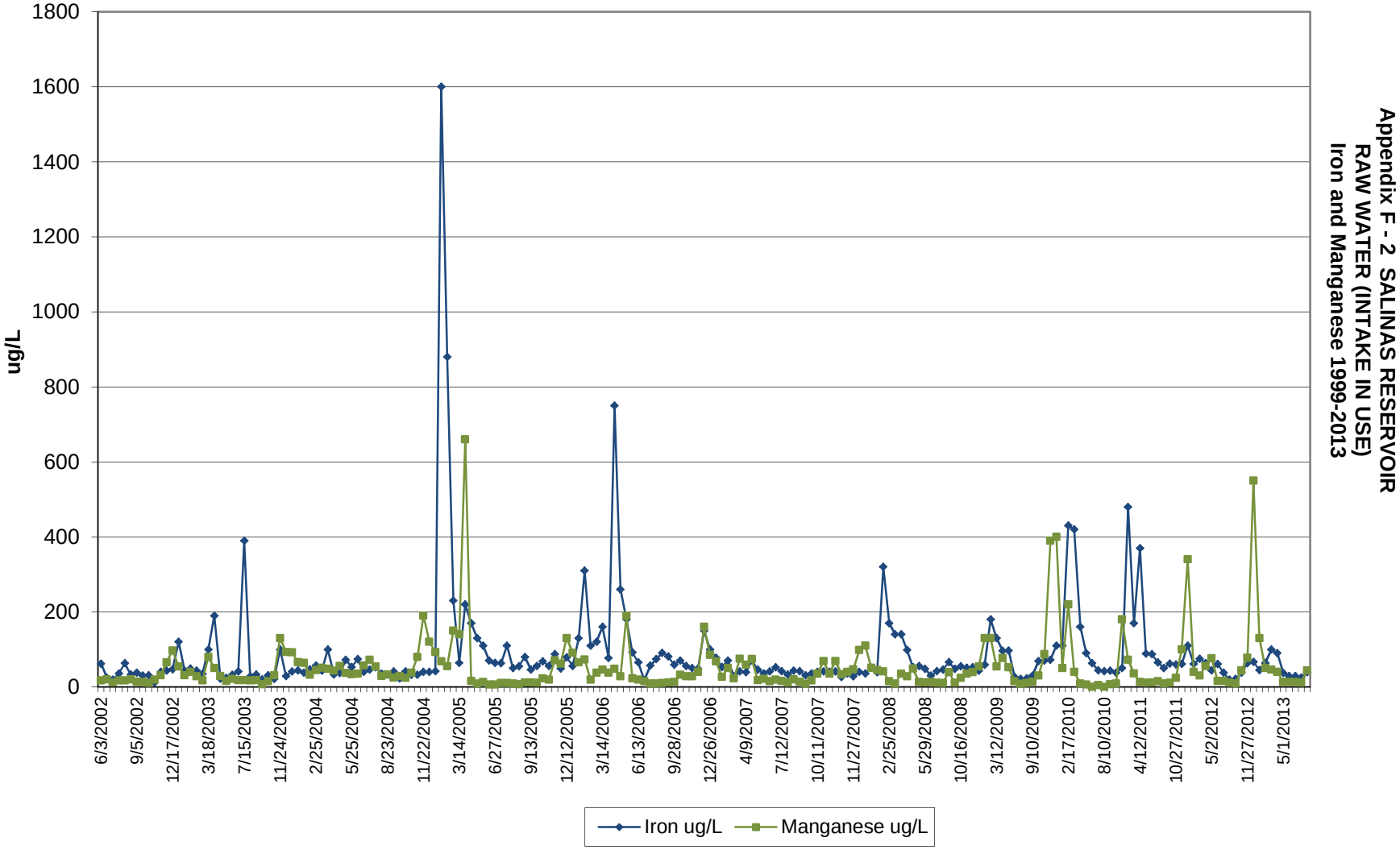



## Appendix F - 1  Raw Water Iron and Manganese Water Year 2013




**SALINAS RESERVOIR RAW WATER (INTAKE IN USE) IRON and MANGANESE for October, 2012 through September, 2013**

| Collected Date | Iron (ug/L) | Manganese (ug/L) |
|---|---|---|
| Secondary MCL for Drinking Water | 300 | 50 |
| 10/9/2012 | 38 | 44 |
| 11/27/2012 | 63 | 78 |
| 12/18/2012 | 67 | 550 |
| 1/23/2013 | 45 | 130 |
| 2/27/2013 | 64 | 50 |
| 3/19/2013 | 100 | 46 |
| 4/10/2013 | 90 | 40 |
| 5/1/2013 | 37 | 13 |
| 6/12/2013 | 29 | 13 |
| 7/10/2013 | 29 | 13 |
| 8/14/2013 | 25 | 11 |
| 9/25/2013 | 39 | 44 |
| Minimum | 25 | 11 |
| Maximum | 100 | 550 |
| Mean | 52 | 86 |
| Median | 42 | 44 |
| Number of samples | 12 | 12 |


Appendix F - 2 SALINAS RESERVOIR
RAW WATER (INTAKE IN USE)
Iron and Manganese 1999-2013
ug/L
1800
1600
1400
1200
1000
800
600
400
200
0
6/3/2002
9/5/2002
12/17/2002
3/18/2003
7/15/2003
11/24/2003
2/25/2004
5/25/2004
8/23/2004
11/22/2004
3/14/2005
6/27/2005
9/13/2005
12/12/2005
3/14/2006
6/13/2006
9/28/2006
12/26/2006
4/9/2007
7/12/2007
10/11/2007
11/27/2007
2/25/2008
5/29/2008
10/16/2008
3/12/2009
9/10/2009
2/17/2010
8/10/2010
4/12/2011
10/27/2011
5/2/2012
11/27/2012
5/1/2013
Iron ug/L
Manganese ug/L

**APPENDIX F-3**

## SALINAS RESERVOIR TRACE METALS and CYANIDE SUMMARY for all Sites Monitored in Water Year 2013 (October, 2012 through September, 2013)

| Constituent (Results in ug/L) | | Aluminum | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Copper | Cyanide | Iron | Mercury | Manganese | Nickel | Lead | Selenium | Silver | Thallium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Drinking Water Maximum Contaminant Level (MCL) | | 1000 | 6 | 10 | 1000 | 40 | 5 | 50 | 1300 | 150 | | 2 | | 100 | 15 | 50 | | 2 | |
| *Secondary MCL | | *200 | | | | | | | *1000 | | *300 | | *50 | | | | *100 | | *5000 |
| DLR (Detection Limit for the Purposes of Reporting) | | 50 | 6 | 2 | 100 | 1 | 1 | 10 | 50 | 100 | 100 | 1 | 20 | 10 | 5 | 5 | 10 | 1 | 50 |
| **Sample Site** | | | | | | | | | | | | | | | | | | | |
| **ALAMO CREEK** | Alamo Creek had no flow during the quarterly sampling events. | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| **SALINAS RIVER** | 11/27/12 | 52 | | | | | | | <25 | | 490 | | 290 | | | | | | <25 |
| | 2/13/13 | <20 | | | | | | | <25 | | 160 | | 50 | | | | | | <25 |
| | 5/20/13 | <20 | | | | | | | <25 | | 320 | | 240 | | | | | | <25 |
| | | | | | | | | | | | | | | | | | | | |
| **SALSIPUEDES CREEK** | 2/27/13 | 140 | | | | | | | <25 | | 14 | | 9 | | | | | | <25 |
| | | | | | | | | | | | | | | | | | | | |
| **TORO CREEK** | 11/27/12 | 240 | | | | | | | <25 | | 760 | | 44 | | | | | | <25 |
| | 2/13/13 | 24 | | | | | | | <25 | | 200 | | 36 | | | | | | <25 |
| | 5/20/13 | 37 | | | | | | | <25 | | 890 | | 240 | | | | | | 36 |
| | 8/28/13 | <40 | | | | | | | <25 | | 1100 | | 62 | | | | | | <25 |
| | | | | | | | | | | | | | | | | | | | |
| **WHITE OAK** | 5/1/13 | 31 | <1 | 1.6 | 26 | <1 | <0.5 | <1 | | <25 | | <0.2 | | <5 | <0.5 | <5 | <0.5 | <1 | |
| | | | | | | | | | | | | | | | | | | | |
| **INTAKE / RAW WATER** | 11/27/12 | 25 | | | | | | | <25 | | 63 | | 78 | | | | | | <25 |
| | 2/27/13 | 23 | | | | | | | <25 | | 64 | | 50 | | | | | | <25 |
| | 5/1/13 | <20 | <1 | 1.8 | 26 | <1 | <0.5 | <1 | <25 | <25 | 37 | <0.2 | 13 | <5 | <0.5 | <5 | <0.5 | <1 | <25 |
| | 8/14/13 | <20 | | | | | | | <25 | | 25 | | 11 | | | | | | <25 |
| | | | | | | | | | | | | | | | | | | | |
| **V-NOTCH** | 11/27/12 | 120 | | | | | | | <25 | | 120 | | 770 | | | | | | <25 |
| | 2/13/13 | <20 | | | | | | | <25 | | 150 | | 1300 | | | | | | <25 |
| | 5/20/13 | <20 | | | | | | | <25 | | 39 | | 450 | | | | | | <25 |
| | 8/14/13 | <20 | | | | | | | <25 | | 110 | | 1100 | | | | | | <25 |

# SALINAS RESERVOIR GENERAL MINERAL DATA

Water Year 2013 (October 2012 through September, 2013)

| Constituent | | Aggressive Index | Alkalinity as CaCO3 | Bicarbonate as CaCO3 | Carbonate as CaCO3 | Hydroxide Alkalinity as CaCO3 | Calcium | Chloride | Electrical Conductivity | Fluoride | Hardness as CaCO3 | Langelier Index | Magnesium | Methylene Blue Activated Substances | Nitrate | Nitrate as Nitrogen | Nitrite as Nitrogen | Nitrate and Nitrite Combined as Nitrogen | pH | pH-Field | Sodium | Sulfate | Total Dissolved Solids | Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | umhos/cm | mg/L | mg/L | | mg/L | mg/L | mg/L | ug/L | ug/L | ug/L | | | mg/L | mg/L | mg/L | °C |
| Drinking Water Maximum Contaminant Level (MCL) | | | | | | | | | 1600 | | | | | | 45 | 10000 | 1000 | 10000 | | | | | | |
| *Secondary MCL | | | | | | | | *250 | | *2.0 | | | | | | | | | *6.5 - 8.5 | | | *250 | *500 | |
| Sample Site | Collected Date | | | | | | | | | | | | | | | | | | | | | | | |
| ALAMO CREEK | Alamo Creek had no flow during the quarterly sampling events. | | | | | | | | | | | | | | | | | | | | | | | |
| SALINAS RIVER | 11/27/12 | 11.8 | 190 | 190 | 0 | 0 | 56 | 27.8 | 793 | 0.367 | 310 | -0.39 | 37 | <0.10 | 0.456 | 103 | <100 | <400 | 7.34 | 7.04 | 47 | 174 | 520 | 10.4 |
| | 2/13/13 | 12.1 | 160 | 160 | 0 | 0 | 64 | 25.4 | 740 | 0.296 | 290 | -0.05 | 34 | <0.10 | <0.443 | <100 | <100 | <400 | 7.76 | 7.63 | 44 | 187 | 480 | 11.8 |
| | 5/20/13 | 12.1 | 170 | 170 | 0 | 0 | 59 | 26.6 | 664 | 0.312 | 600 | 0.12 | 36 | <0.10 | <0.443 | <100 | <100 | <400 | 7.72 | 7.11 | 45 | 190 | 500 | 18.3 |
| | Minimum | 11.8 | 160 | 160 | 0 | 0 | 56 | 25.4 | 664 | 0.296 | 290 | -0.39 | 34 | <0.1 | <0.443 | <100 | <100 | <400 | 7.34 | 7.04 | 44 | 174 | 480 | 10.4 |
| | Maximum | 12.1 | 190 | 190 | 0 | 0 | 64 | 27.8 | 793 | 0.312 | 600 | 0.12 | 37 | <0.1 | 0.456 | 103 | <100 | <400 | 7.76 | 7.63 | 47 | 190 | 520 | 18.3 |
| | Mean | 12.0 | 170 | 170 | 0 | 0 | 60 | 26.6 | 730 | 0.304 | 400 | -0.11 | 36 | <0.1 | <0.443 | <100 | <100 | <400 | 7.61 | 7.26 | 45 | 184 | 500 | 13.5 |
| | Number of Samples | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| SALSIPUEDES CREEK | 2/27/13 | 12.7 | 220 | 220 | 0 | 0 | 80 | 28.8 | 988 | 0.187 | 430 | 0.39 | 57 | <0.10 | <0.443 | <100 | <100 | <400 | 8.03 | 7.90 | 55 | 270 | 690 | 7.0 |
| TORO CREEK | 11/27/12 | 12.1 | 160 | 160 | 0 | 0 | 57 | 31.5 | 670 | 0.487 | 250 | -0.13 | 28 | <0.10 | 0.598 | 135 | <100 | <400 | 7.70 | 7.44 | 41 | 131 | 460 | 11.6 |
| | 2/13/13 | 12.1 | 160 | 160 | 0 | 0 | 57 | 32.2 | 670 | 0.454 | 250 | -0.07 | 27 | <0.10 | 0.505 | 114 | <100 | <400 | 7.76 | 7.10 | 43 | 138 | 420 | 11.1 |
| | 5/20/13 | 12.1 | 180 | 180 | 0 | 0 | 55 | 31.3 | 659 | 0.493 | 250 | 0.09 | 28 | <0.10 | 0.616 | 139 | <100 | <400 | 7.71 | 7.19 | 43 | 127 | 450 | 18.5 |
| | 8/28/13 | 11.8 | 180 | 180 | 0 | 0 | 56 | 31.1 | 670 | 0.464 | 251 | -0.25 | 27 | <0.10 | 0.709 | 160 | <100 | <400 | 7.36 | 7.23 | 43 | 118 | 430 | 18.6 |
| | Minimum | 11.8 | 160 | 160 | 0 | 0 | 55 | 31.1 | 659 | 0.454 | 250 | -0.25 | 27 | <0.1 | 0.505 | 114 | <100 | <400 | 7.36 | 7.10 | 41 | 118 | 420 | 11.1 |
| | Maximum | 12.1 | 180 | 180 | 0 | 0 | 57 | 32.2 | 670 | 0.493 | 251 | 0.09 | 28 | <0.1 | 0.709 | 160 | <100 | <400 | 7.76 | 7.44 | 43 | 138 | 460 | 18.6 |
| | Mean | 12.0 | 170 | 170 | 0 | 0 | 56 | 31.5 | 670 | 0.475 | 250 | -0.09 | 28 | <0.1 | 0.607 | 137 | <100 | <400 | 7.63 | 7.24 | 43 | 129 | 440 | 15.0 |
| | Number of Samples | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| INTAKE/RAW WATER | 11/27/12 | 12.0 | 120 | 120 | 0 | 0 | 32 | 13.1 | 412 | 0.195 | 160 | -0.09 | 20 | <0.10 | <0.443 | <100 | <100 | <400 | 8.03 | 7.81 | 22 | 66.6 | 260 | 13.9 |
| | 2/27/13 | 12.5 | 120 | 98 | 23 | 0 | 34 | 13.1 | 419 | 0.189 | 170 | 0.38 | 20 | <0.10 | 0.465 | 105 | <100 | <400 | 8.53 | 8.47 | 23 | 70.8 | 260 | 11.1 |
| | 5/1/13 | 12.6 | 130 | 100 | 28 | 0 | 37 | 14.6 | 450 | 0.206 | 180 | 0.68 | 22 | <0.10 | <0.443 | <100 | <100 | <400 | 8.70 | 8.53 | 24 | 80.0 | 260 | 20.9 |
| | 8/14/13 | 13.3 | 106 | 81 | 25 | 0 | 20 | 16.7 | 415 | 0.210 | 150 | 1.38 | 25 | <0.10 | <0.443 | <100 | <100 | <400 | 9.52 | 9.16 | 28 | 83.5 | 276 | 23.8 |
| | Minimum | 12.0 | 106 | 81 | 0 | 0 | 20 | 13.1 | 412 | 0.189 | 150 | -0.09 | 20 | <0.1 | <0.443 | <100 | <100 | <400 | 8.03 | 7.81 | 22 | 66.6 | 260 | 11.1 |
| | Maximum | 13.3 | 130 | 120 | 28 | 0 | 37 | 16.7 | 450 | 0.210 | 180 | 1.38 | 25 | <0.1 | 0.465 | 105 | <100 | <400 | 9.52 | 9.16 | 28 | 83.5 | 276 | 23.8 |
| | Mean | 12.6 | 120 | 100 | 19 | 0 | 31 | 14.4 | 420 | 0.200 | 170 | 0.59 | 22 | <0.1 | <0.443 | <100 | <100 | <400 | 8.70 | 8.49 | 24 | 75.2 | 260 | 17.4 |
| | Number of Samples | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| V-NOTCH | 11/27/12 | 11.6 | 130 | 130 | 0 | 0 | 34 | 11.7 | 406 | 0.175 | 160 | -0.57 | 18 | <0.1 | 3.7 | 836 | <100 | 836 | 7.59 | 7.20 | 19 | 47.5 | 270 | 9.9 |
| | 5/13/13 | 13.0 | 160 | 130 | 30 | 0 | 50 | 18.3 | 600 | 0.342 | 240 | 0.82 | 27 | <0.1 | <0.443 | <100 | <100 | <400 | 8.70 | 8.47 | 38 | 127 | 390 | 10.9 |
| | 5/20/13 | 12.4 | 140 | 140 | 0 | 0 | 34 | 13.4 | 424 | 0.192 | 170 | 0.38 | 20 | <0.1 | 1.55 | 350 | <100 | <400 | 8.30 | 8.12 | 22 | 70.2 | 280 | 17.3 |
| | 8/14/13 | 12.2 | 141 | 141 | 0 | 0 | 34 | 13.3 | 434 | 0.172 | 170 | 0.19 | 21 | <0.1 | 1.47 | 332 | <100 | <400 | 8.14 | 7.79 | 22 | 60.6 | 278 | 16.5 |
| | Minimum | 11.6 | 130 | 130 | 0 | 0 | 34 | 11.7 | 406 | 0.172 | 160 | -0.57 | 18 | <0.1 | <0.443 | <100 | <100 | <400 | 7.59 | 7.20 | 19 | 47.5 | 270 | 9.9 |
| | Maximum | 13.0 | 160 | 141 | 30 | 0 | 50 | 18.3 | 600 | 0.342 | 240 | 0.82 | 27 | <0.1 | 3.70 | 836 | <100 | <400 | 8.70 | 8.47 | 38 | 127 | 390 | 17.3 |
| | Mean | 12.3 | 140 | 140 | 8 | 0 | 38 | 14.2 | 470 | 0.220 | 190 | 0.21 | 22 | <0.1 | 2.24 | 510 | <100 | <400 | 8.18 | 7.90 | 25 | 76 | 300 | 13.7 |
| | Number of Samples | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

APPENDIX G - 2 HISTORICAL GENERAL MINERAL DATA 1991 through WATER YEAR 2013

HISTORICAL GENERAL MINERAL DATA EPILIMNION

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | | mg/L | mg/L | mg/L | mg/L | umhos/cm | mg/L | mg/L | mg/L | | mg/L | mg/L | mg/L | mg/L | ug/L | mg/L | ug/L | ug/L | mg/L | | mg/L | mg/L | mg/L | C | mg/L | mg/L |
| 2/17/1987 | 11.8 | 106 | 32 | 8.1 | 0 | 388 | | 160 | 106 | -0.54 | 0.3 | 19.4 | 18 | | | | | | 0 | 7.9 | | 72 | 254 | 19 | | |
| 6/10/1997 | 12.6 | 105 | 30 | 10.2 | 3 | 340 | 0.22 | 136 | 102 | 0.7 | <.1 | 15 | 17.6 | | <5.0 | <.22 | | <50 | 0 | 8.72 | | 56 | 254 | 22.9 | | |
| 11/9/1987 | 12.3 | 147 | 36 | 15 | 0 | 476 | | 183 | 147 | 0.2 | | 23 | 22.4 | | | | | | 0 | 8.15 | | 71 | 333 | 16.3 | | |
| 5/11/1993 | 12.3 | 96 | 28 | 14 | 0 | 330 | | 133 | 96 | 0.3 | <0.1 | 15 | 17.2 | | | <.44 | | <100 | 0 | 8.44 | | 66 | 254 | 20 | | |
| 6/4/1996 | 12.6 | 114 | 32 | 10.1 | 6 | 386 | | 154 | 108 | 0.7 | <.1 | 18 | 19.6 | | <5.0 | <.22 | <50 | <50 | 0 | 8.64 | | 67.2 | 310 | 23.9 | | |
| 5/7/1998 | 11.8 | 94 | 37 | 12 | 0 | 434 | 0.23 | 170 | 94 | -0.2 | 0.1 | 19 | 21 | | <100 | <.44 | <400 | <100 | 0 | 7.83 | | 93 | 330 | 18.6 | | |
| 5/19/1999 | 12.6 | 160 | 44 | 15 | 16 | 504 | 0.27 | 210 | 140 | 0.7 | <0.1 | 25 | 26 | | <100 | <.44 | <400 | <100 | 0 | 8.5 | | 98 | 370 | 19.7 | | |
| 5/9/2000 | 11.9 | 130 | 37 | 14 | 0 | 390 | 0.24 | 180 | 130 | 0 | <0.1 | 22 | 23 | | <100 | <0.44 | <400 | <100 | 0 | 8.19 | | 95 | 400 | 20.2 | | |
| 5/22/2001 | 12.3 | 100 | 31 | 10 | 8 | 320 | 0.2 | 130 | 92 | 0.5 | <0.1 | 16 | 15 | | <100 | <0.44 | <400 | <100 | 0 | 8.46 | | 64 | 240 | 23.2 | | |
| 5/14/2002 | 12.6 | 150 | 37 | 14 | 10 | 430 | 0.28 | 170 | 140 | 0.6 | <0.1 | 23 | 23 | | <100 | <0.44 | <400 | <100 | 0 | 8.54 | | 79 | 290 | 16 | | |
| 5/14/2003 | 12.6 | 150 | 41 | 15 | 10 | 470 | 0.27 | 200 | 140 | 0.6 | <0.1 | 27 | 25 | | <100 | <0.44 | <400 | <100 | 0 | 8.43 | | 90 | 320 | 18.7 | | |
| 3/31/2004 | 12.1 | 140 | 38 | 32 | 0 | 550 | 0.3 | 190 | 140 | 0.2 | <0.1 | 27 | 29 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 8.01 | | 110 | 360 | 18.2 | | |
| 2/16/2005 | 10.9 | 59 | 16 | 5.2 | 0 | 180 | 0.18 | 78 | 59 | -1.1 | <0.1* | 9.6 | 7.7 | | <100 | 0.62 | <400 | 140 | 0 | 7.53 | | 26 | 130 | 15.8 | | |
| 2/15/2006 | 11.6 | 98 | 30 | 10 | 0 | 340 | 0.064 | 140 | 98 | -0.6 | <0.1 | 17 | 16 | | <100 | 1.2 | <400 | 280 | 0 | 7.71 | | 56 | 250 | 11.8 | | |
| 2/27/2007 | 11.9 | 110 | 33 | 9.5 | 0 | 360 | 0.31 | 140 | 110 | -0.3 | <0.1 | 16 | 17 | | <100 | <0.44 | <400 | <100 | 0 | 7.93 | | 57 | 230 | 8 | | |
| 2/21/2008 | 10.9 | 94 | 31 | 9.4 | 0 | 340 | 0.21 | 140 | 94 | -1.3 | <0.1 | 16 | 16 | | <100 | 3.3 | 750 | 750 | 0 | 7.03 | | 53 | 230 | 8.6 | | |
| Average | 12.0 | 116 | 33 | 13 | 3 | 390 | 0.23 | 157 | 112 | 0.0 | <0.1 | 19 | 20 | | <100 | <0.44 | <400 | <100 | 0 | 8.13 | | 72 | 285 | 17.6 | | |
| Low | 10.9 | 59 | 16 | 5.2 | 0 | 180 | 0.064 | 78 | 59 | -1.3 | <0.1 | 9.6 | 7.7 | | <100 | <0.44 | <400 | <100 | 0 | 7.03 | | 26 | 130 | 8 | | |
| High | 12.6 | 160 | 44 | 32 | 16 | 550 | 0.31 | 210 | 147 | 0.7 | 0.3 | 27 | 29 | | <100 | 3.3 | <400 | 750 | 0 | 8.72 | | 110 | 400 | 23.9 | | |
| Count | 16 | 16 | 16 | 16 | 16 | 16 | 12 | 16 | 16 | 16 | 16 | 16 | 16 | 0 | 14 | 14 | 12 | 14 | 16 | 16 | 0 | 16 | 16 | 16 | 0 | 0 |

HISTORICAL GENERAL MINERAL DATA HYPOLIMNION

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | | mg/L | mg/L | mg/L | mg/L | umhos/cm | mg/L | mg/L | mg/L | | mg/L | mg/L | mg/L | mg/L | ug/L | mg/L | ug/L | ug/L | mg/L | | mg/L | mg/L | mg/L | C | mg/L | mg/L |
| 2/17/1987 | 11.6 | 106 | 33 | 10.4 | 0 | 394 | | 163 | 106 | -0.73 | 0 | 19.6 | 17.3 | | | | | | 0 | 7.7 | | 72 | 249 | 19 | | |
| 6/10/1997 | 11.0 | 84.6 | 24 | 8.2 | 0 | 290 | 0.17 | 113 | 84.6 | -1.1 | <.1 | 13 | 14.1 | | <5.0 | 2.8 | | 630 | 0 | 7.32 | | 50 | 194 | 12.3 | | |
| 11/9/1987 | 11.6 | 157 | 37 | 13 | 0 | 471 | | 175 | 157 | -0.6 | | 20 | 19 | | | | | | 0 | 7.48 | | 49 | 330 | 10.2 | | |
| 5/11/1993 | 10.7 | 77 | 24 | 10 | 0 | 245 | 0.18 | 105 | 77 | -1.4 | <0.1 | 11 | 13.3 | | | <.44 | | <100 | 0 | 7.04 | | 57 | 202 | 12 | | |
| 6/4/1996 | 11.1 | 110 | 30 | 9.6 | 0 | 352 | | 140 | 110 | -1.1 | <.1 | 16 | 17.8 | | 22 | <.22 | <50 | <50 | 0 | 7.17 | | 61.7 | 258 | 11.6 | | |
| 5/7/1998 | 11.1 | 89 | 33 | 9.7 | 0 | 371 | 0.23 | 150 | 89 | -1 | 0.1 | 16 | 16 | | <100 | 1.3 | <400 | 290 | 0 | 7.25 | | 75 | 260 | 13.2 | | |
| 5/19/1999 | 11.4 | 150 | 44 | 15 | 0 | 498 | 0.26 | 210 | 150 | -0.7 | <0.1 | 24 | 24 | | <100 | 1.3 | <400 | 300 | 0 | 7.43 | | 87 | 330 | 10 | | |
| 5/9/2000 | 11.5 | 160 | 46 | 17 | 0 | 470 | 0.29 | 230 | 160 | -0.8 | <0.1 | 27 | 28 | | <100 | 1.7 | <400 | 390 | 0 | 7.29 | | 110 | 430 | 10.5 | | |
| 5/22/2001 | 11.3 | 99 | 31 | 11 | 0 | 310 | 0.22 | 140 | 99 | -0.8 | <0.1 | 17 | 16 | | <100 | 0.53 | <400 | 120 | 0 | 7.7 | | 66 | 230 | 13.5 | | |
| 5/14/2002 | 11.4 | 150 | 38 | 13 | 0 | 420 | 0.29 | 190 | 150 | -0.8 | <0.1 | 22 | 22 | | <100 | 2.7 | 610 | 610 | 0 | 7.35 | | 75 | 300 | 11.5 | | |
| 5/14/2003 | 11.7 | 140 | 41 | 17 | 0 | 470 | 0.27 | 190 | 140 | -0.4 | <0.1 | 27 | 25 | | <100 | <0.44 | <400 | <100 | 0 | 7.53 | | 91 | 320 | 12.3 | | |
| 3/31/2004 | 11.6 | 140 | 38 | 18 | 0 | 500 | 0.28 | 190 | 140 | -0.6 | <0.1 | 27 | 29 | | < 100 | 1.6 | < 400 | 350 | 0 | 7.46 | | 100 | 330 | 10.1 | | |
| 2/16/2005 | 10.8 | 82 | 23 | 9.4 | 0 | 340 | 0.22 | 120 | 82 | -1.2 | <0.1* | 16 | 15 | | <100 | 2.4 | 550 | 550 | 0 | 7.15 | | 61 | 240 | 15.7 | | |
| 2/15/2006 | 11.3 | 98 | 30 | 10 | 0 | 340 | 0.069 | 140 | 98 | -0.9 | <0.1 | 17 | 16 | | <100 | 2.2 | 500 | 500 | 0 | 7.44 | | 57 | 230 | 10.8 | | |
| 2/27/2007 | 11.2 | 110 | 31 | 9.6 | 0 | 360 | 0.33 | 140 | 110 | -0.9 | <0.1 | 15 | 17 | | <100 | 0.93 | <400 | 210 | 0 | 7.29 | | 56 | 230 | 11 | | |
| 2/21/2008 | 11.0 | 110 | 31 | 11 | 0 | 370 | 0.18 | 140 | 110 | -1.2 | <0.1 | 16 | 18 | | <100 | 2.7 | 610 | 610 | 0 | 7.09 | | 58 | 260 | 8.7 | | |
| Average | 11.3 | 116 | 33 | 12 | 0 | 388 | 0.23 | 159 | 116 | -0.9 | <0.1 | 19 | 19 | | <100 | 1.8 | <400 | 420 | 0 | 7.36 | | 70 | 275 | 12.0 | | |
| Low | 10.7 | 77 | 23 | 8.2 | 0 | 245 | 0.069 | 105 | 77 | -1.4 | <0.1 | 11 | 13.3 | | <100 | <0.44 | <400 | <100 | 0 | 7.04 | | 49 | 194 | 8.7 | | |
| High | 11.7 | 160 | 46 | 18 | 0 | 500 | 0.33 | 230 | 160 | -0.4 | 0.1 | 27 | 29 | | <100 | 2.8 | 610 | 630 | 0 | 7.70 | | 110 | 430 | 19 | | |
| Count | 16 | 16 | 16 | 16 | 16 | 16 | 13 | 16 | 16 | 16 | 16 | 16 | 16 | 0 | 13 | 11 | 9 | 11 | 16 | 16 | 0 | 16 | 16 | 16 | 0 | 0 |

HISTORICAL GENERAL MINERAL DATA INTAKE

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | | mg/L | mg/L | mg/L | mg/L | umhos/cm | mg/L | mg/L | mg/L | | mg/L | mg/L | mg/L | mg/L | ug/L | mg/L | ug/L | ug/L | mg/L | | mg/L | mg/L | mg/L | C | mg/L | mg/L |
| 4/26/1995 | 12.4 | 140 | 45.9 | 18 | 0 | 515 | | 216 | 140 | 0.5 | <0.1 | 25 | 30.3 | | <5 | 3.3 | 740 | 740 | 0 | 8.22 | | 114 | 480 | 21.6 | | |
| 5/11/2005 | 11.6 | 95 | 30 | 10 | 0 | 340 | | 140 | 95 | -0.3 | <0.1 | 16 | 17 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 7.79 | | 66 | 240 | 18.5 | | |
| 8/11/2005 | 12.6 | 120 | 35 | 12 | 10 | 400 | | 160 | 110 | 0.8 | <0.1 | 18 | 21 | | <100 | <0.44 | <400 | <100 | 0 | 8.61 | | 76 | 270 | 25.5 | | |
| 11/14/2005 | 11.8 | 130 | 37 | 12 | 0 | 410 | | 170 | 130 | -0.3 | <0.1 | 20 | 20 | | <100 | <0.44 | <400 | <100 | 0 | 7.68 | <0.01 | 73 | 260 | 16.7 | 0.55 | |
| 2/15/2006 | 12.2 | 98 | 30 | 10 | 0 | 340 | | 140 | 98 | 0 | <0.1 | 16 | 16 | | <100 | 0.84 | <400 | 190 | 0 | 8.31 | 0.025 | 59 | 240 | 12 | 0.87 | |
| 6/13/2006 | 12.1 | 94 | 28 | 10 | 0 | 360 | | 130 | 94 | 0.2 | <0.1 | 15 | 17 | | <100 | <0.44 | <400 | <100 | 0 | 8.29 | <0.010 | 66 | 240 | 21.9 | 0.66 | |
| 8/15/2006 | 12.9 | 110 | 31 | 11 | 20 | 380 | | 160 | 90 | 1.1 | <0.1 | 19 | 19 | | <100 | <0.44 | <400 | <100 | 0 | 9.00 | | 70 | 270 | Not Analyzed | | |
| 11/13/2006 | 11.7 | 110 | 32 | 10 | 0 | 370 | | 140 | 110 | -0.3 | <0.1 | 15 | 17 | | <100 | <0.44 | <400 | <100 | 0 | 7.73 | <0.010 | 60 | 250 | 17 | 0.45 | |
| 5/17/2007 | 12.1 | 130 | 34 | 10 | 0 | 390 | | 170 | 130 | 0.2 | <0.1 | 20 | 19 | | <100 | <0.44 | <400 | <100 | 0 | 8.07 | 0.02 | 61 | 260 | 20 | 0.52 | |
| 8/14/2007 | 12.8 | 120 | 31 | 12 | 9 | 400 | | 160 | 110 | 0.9 | <0.1 | 19 | 21 | | <100 | <0.44 | <400 | <100 | 0 | 8.81 | | 66 | 240 | 24.2 | | |
| 11/27/2007 | 11.4 | 130 | 34 | 12 | 0 | 440 | | 170 | 130 | -0.67 | <0.1 | 20 | 21 | | <100 | 0.44 | <400 | 100 | 0 | 7.37 | 0.02 | 61 | 250 | 14.9 | 0.54 | |
| 3/6/2008 | 10.9 | 88 | 27 | 9.5 | 0 | 320 | | 120 | 88 | -1.17 | <0.1 | 12 | 15 | | <100 | 3.2 | 730 | 730 | 0 | 7.23 | 0.02 | 51 | 190 | 14.9 | 0.58 | |
| 5/29/2008 | 12.6 | 99 | 30 | 12 | 12 | 380 | | 150 | 87 | 0.59 | <0.1 | 17 | 18 | | <100 | <0.44 | <400 | <100 | 0 | 8.68 | < 0.020 | 70 | 230 | 19 | 0.66 | |
| 8/28/2008 | 12.3 | 110 | 31 | 13 | 10 | 390 | | 150 | 100 | 0.54 | <0.1 | 18 | 21 | | <100 | <0.44 | <400 | <100 | 0 | 8.40 | 0.04 | 68 | 250 | 27.3 | 0.73 | |

APPENDIX G - 2 HISTORICAL GENERAL MINERAL DATA 1991 through WATER YEAR 2013

HISTORICAL GENERAL MINERAL DATA EPILIMNION

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/24/2008 | 11.9 | 120 | 34 | 13.2 | 0 | 410 | | 160 | 120 | -0.19 | <0.1 | 17 | 20 | | <100 | <0.443 | <400 | <100 | 0 | 7.88 | < 0.020 | 66.9 | 250 | 14.7 | 0.8 | |
| 2/24/2009 | 12.4 | 130 | 35 | 13.8 | 0 | 410 | | 170 | 130 | 0.23 | <0.1 | 20 | 20 | | <100 | <0.443 | <400 | <100 | 0 | 8.35 | | 63.4 | 260 | 10.8 | | |
| 5/12/2009 | 12.7 | 130 | 37 | 14.2 | 0 | 440 | | 170 | 130 | 0.78 | <0.1 | 19 | 22 | | <100 | <0.443 | <400 | <100 | 0 | 8.63 | | 69.6 | 280 | 20.6 | | |
| 8/11/2009 | 12.8 | 120 | 33 | 14.5 | 6 | 460 | | 170 | 110 | 0.94 | <0.1 | 21 | 25 | | <100 | <0.443 | <400 | <100 | 0 | 8.80 | <0.02 | 70.7 | 270 | 24.2 | 0.66 | |
| 11/19/2009 | 11.6 | 130 | 33 | 15.2 | 0 | 430 | | 180 | 130 | -0.48 | <0.1 | 23 | 24 | | <100 | <0.443 | <400 | <100 | 0 | 7.60 | 0.067 | 68.0 | 260 | 13.5 | 0.76 | |
| 2/17/2010 | 11.0 | 90 | 27 | 11 | 0 | 320 | | 130 | 90 | -1.1 | <0.1 | 15 | 16 | | <100 | 1.45 | <400 | 328 | 0 | 7.70 | 0.04 | 53.2 | 240 | 12.3 | 0.75 | |
| 5/13/2010 | 12.1 | 98 | 30 | 11.3 | 0 | 360 | | 150 | 98 | 0.12 | <0.1 | 17 | 18 | | <100 | <0.443 | <400 | <100 | 0 | 8.24 | <0.05 | 67.4 | 220 | 18 | 0.6 | |
| 8/10/2010 | 12.9 | 115 | 54 | 13.3 | 5 | 399 | 0.222 | 164 | 110 | 1.03 | <0.1 | 7 | 22 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 8.71 | <0.04 | 78.5 | 260 | 23.9 | 0.41 | |
| 11/12/2010 | 12.1 | 120 | 32 | 13 | 0 | 400 | 0.260 | 150 | 120 | -0.004 | <0.1 | 18 | 21 | | <100 | <0.44 | <400 | <100 | 0 | 8.07 | <0.030 | 67.0 | 240 | 15.5 | 0.5 | |
| 2/24/2011 | 11.5 | 83 | 24 | 9.39 | 0 | 314 | 0.181 | 120 | 83 | -0.65 | <0.10 | 15 | 14 | | < 100 | 0.908 | < 400 | 205 | 0 | 7.83 | 0.048 | 52.2 | 210 | 10.2 | 0.6 | |
| 5/25/2011 | 12.1 | 100 | 30 | 10.6 | 11 | 354 | 0.224 | 140 | 91 | 0.18 | <0.10 | 16 | 17 | | <100 | <0.443 | <400 | <100 | 0 | 8.27 | 0.061 | 61.2 | 290 | 19.2 | 0.33 | |
| 8/17/2011 | 12.9 | 110 | 32 | 12 | 7.7 | | 0.220 | 160 | 110 | | | 19 | 21 | | <100 | <0.44 | <400 | <100 | 0 | 9.00 | 0.065 | 73.0 | 270 | | 0.4 | |
| 11/8/2011 | 12.0 | 110 | 30 | 11.9 | 0 | 400 | 0.272 | 150 | 110 | -0.07 | <0.1 | 18 | 19 | | <100 | <0.443 | <400 | <100 | 0 | 8.07 | 0.051 | 65.4 | 230 | 15.5 | 0.42 | |
| 2/24/2012 | 12.3 | 100 | 31 | 10.4 | 0 | 370 | 0.180 | 150 | 100 | 0.17 | <0.10 | 16 | 17 | | < 100 | < 0.443 | < 400 | < 100 | 0 | 8.44 | 0.022 | 61.1 | 230 | 11.8 | 0.64 | |
| 5/2/2012 | 12.5 | 120 | 33 | 11.6 | 10 | 383 | 0.216 | 160 | 110 | 0.54 | <0.10 | 18 | 20 | | <100 | <0.443 | <400 | <100 | 0 | 8.50 | <0.020 | 69.2 | 240 | 19.8 | 0.29 | |
| 8/14/2012 | 12.7 | 110 | 30 | 13.2 | 30 | 401 | 0.523 | 170 | 80 | 0.90 | <0.10 | 23 | 22 | | <100 | 0.492 | <400 | 111 | 0 | 8.79 | <0.020 | 72.0 | 260 | 26.9 | 0.47 | |
| 11/27/2012 | 12.0 | 120 | 32 | 13.1 | 0 | 412 | 0.195 | 160 | 120 | -0.09 | <0.10 | 20 | 22 | | < 100 | < 0.443 | < 400 | < 100 | 0 | 8.00 | 0.074 | 66.6 | 260 | 13.9 | 0.70 | |
| 2/27/2013 | 12.5 | 120 | 34 | 13.1 | 23 | 419 | 0.189 | 170 | 98 | 0.38 | <0.10 | 20 | 23 | | < 100 | 0.465 | 465 | 105 | 0 | 8.47 | 0.034 | 70.8 | 260 | 11.1 | 0.68 | |
| 5/1/2013 | 12.6 | 130 | 37 | 14.6 | 28 | 450 | 0.206 | 180 | 100 | 0.68 | <0.10 | 22 | 24 | | <100 | <0.443 | <400 | <100 | 0 | 8.70 | <0.020 | 80.0 | 260 | 20.9 | 0.50 | |
| 8/14/2013 | 13.3 | 106 | 20 | 16.7 | 25 | 415 | 0.210 | 150 | 81 | 1.38 | <0.10 | 25 | 28 | | <100 | <0.443 | <400 | <100 | 0 | 9.52 | 0.023 | 83.5 | 276 | 23.8 | 1.1 | |
| Average | 12.2 | 113 | 32 | 12.3 | 6 | 390 | 0.238 | 160 | 110 | 0.2 | <0.1 | 18 | 20 | | <100 | <0.443 | <400 | <100 | 0 | 8.29 | 0.034 | 68 | 260 | 18.1 | 0.60 | |
| Low | 10.9 | 83 | 20 | 9.4 | 0 | 314 | 0.180 | 120 | 80 | -1.2 | <0.1 | 7 | 14.0 | | <100 | <0.44 | <400 | <100 | 0 | 7.23 | <0.020 | 51 | 190 | 10.2 | 0.29 | |
| High | 13.3 | 140 | 54 | 18 | 30 | 515 | 0.523 | 216 | 140 | 1.4 | <0.1 | 25 | 30.3 | | <100 | 3.3 | 740 | 740 | 0 | 9.52 | 0.074 | 114 | 480 | 27.3 | 1.10 | |
| Count | 34 | 34 | 34 | 34 | 34 | 33 | 13 | 34 | 34 | 33 | 33 | 34 | 34 | 0 | 34 | 34 | 34 | 34 | 34 | 34 | 18 | 34 | 34 | 32 | 27 | 0 |

HISTORICAL GENERAL MINERAL DATA ALAMO CREEK

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | | mg/L | mg/L | mg/L | mg/L | umhos/cm | mg/L | mg/L | mg/L | | mg/L | mg/L | mg/L | mg/L | ug/L | mg/L | ug/L | ug/L | mg/L | | mg/L | mg/L | mg/L | C | mg/L | mg/L |
| 3/31/1992 | 12.6 | 143 | 52 | 38 | 11 | 650 | 0.36 | 246 | 132 | 0.5 | <.10 | 28 | 41.4 | | | <.44 | | <100 | 0 | 8.35 | | 139 | 480 | 17.1 | | |
| 5/11/1993 | 11.9 | 146 | 51 | 36 | 0 | 690 | <.10 | 267 | 146 | -0.1 | <0.1 | 34 | 44.1 | | | <.44 | | <100 | 0 | 7.66 | | 152 | 488 | 16 | | |
| 4/26/1994 | 12.3 | 175 | 61 | 44 | 0 | 850 | 0.36 | 329 | 175 | 0.2 | <.1 | 43 | 54.6 | | <5 | <.44 | <100 | <100 | 0 | 7.83 | | 226 | 570 | 18 | | |
| 4/26/1995 | 12.6 | 210 | 96 | 47.5 | 0 | 1120 | 0.3 | 584 | 210 | 0.5 | <0.1 | 84 | 55 | | <5.0 | <.44 | <100 | <100 | 0 | 7.86 | | 395 | 958 | 18.5 | | |
| 2/14/1996 | 12.4 | 166 | 60 | 41 | 0 | 815 | 0.38 | 325 | 166 | 0.5 | <.1 | 42 | 48.4 | | <5.0 | <.44 | <100 | <100 | 0 | 8.02 | | 202 | 620 | 22 | | |
| 2/10/1997 | 11.8 | 132 | 36 | 23.2 | 0 | 530 | 0.2 | 215 | 132 | -0.4 | <.1 | 30 | 25 | <0.10 | <5.0 | 0.35 | <400 | <100 | 0 | 7.68 | <0.10 | 102 | 360 | 12 | | |
| 2/10/1998 | 11.5 | 76 | 24 | 12 | 0 | 280 | 0.24 | 110 | 76 | -0.6 | <0.1 | 12 | 17.2 | <.10 | <100 | 1.3 | <400 | 300 | 0 | 7.88 | 0.15 | 55 | 220 | 12 | | |
| 5/19/1998 | 12.3 | 180 | 55 | 33 | 0 | 788 | 0.24 | 340 | 180 | 0.1 | <0.1 | 49 | 40 | 0.12 | <100 | <.44 | <400 | <100 | 0 | 7.9 | <.10 | 190 | 540 | 11.8 | | |
| 2/16/1999 | 11.1 | 98 | 130 | 54 | 0 | 1600 | 0.36 | 760 | 98 | -1.2 | <0.1 | 110 | 90 | 0.13 | <100 | 5.8 | 1300 | 1300 | 0 | 6.9 | <.10 | 740 | 1300 | 10.5 | | |
| 2/23/2000 | 10.9 | 48 | 15 | 7.2 | 0 | 180 | 0.14 | 78 | 48 | -1.3 | 0.05 | 9.7 | 9 | <.10 | <100 | 0.53 | <400 | 120 | 0 | 7.6 | 0.11 | 40 | 130 | 9.9 | <1.0 | <1.0 |
| 2/21/2001 | 11.0 | 110 | 35 | 25 | 0 | 500 | 0.3 | 190 | 110 | -1.1 | <0.1 | 25 | 29 | <0.10 | <100 | 0.75 | <400 | 170 | 0 | 7.52 | <0.10 | 140 | 320 | 14 | <1.0 | <1.0 |
| 2/16/2005 | 11.9 | 130 | 49 | 28 | 0 | 650 | 0.35 | 280 | 130 | -0.1 | <0.1 | 38 | 40 | | <100 | 0.89 | <400 | 200 | 0 | 7.73 | <0.1 | 180 | 480 | 16 | <0.5 | |
| 5/11/2005 | 11.6 | 140 | 53 | 35 | 0 | 710 | | 280 | 140 | -0.4 | <0.1 | 36 | 45 | | < 100 | < 0.44 | < 100 | < 100 | 0 | 7.36 | <0.1 | 180 | 510 | 16.2 | < 0.5 | |
| 2/15/2006 | 12.2 | 160 | 70 | 45 | 0 | 930 | 0.19 | 380 | 160 | 0.1 | <0.1 | 49 | 58 | | <100 | 0.58 | <400 | 130 | 0 | 7.8 | 0.031 | 270 | 660 | 12 | 0.57 | |
| 6/1/2006 | 12.0 | 140 | 52 | 31 | 0 | 710 | | 260 | 140 | 0.1 | <0.1 | 32 | 46 | | <100 | <0.44 | <400 | <100 | 0 | 7.78 | | 150 | 430 | 22.2 | | |
| 3/6/2008 | 11.1 | 120 | 42 | 18 | 0 | 510 | 0.28 | 190 | 120 | -0.99 | <0.1 | 22 | 28 | | <100 | 1.2 | <400 | 270 | 0 | 7.13 | 0.06 | 110 | 320 | 14 | 0.77 | |
| 5/29/2008 | 13.2 | 360 | 110 | 66 | 15 | 1500 | | 740 | 340 | 1.24 | <0.1 | 110 | 68 | | <100 | <0.44 | <400 | <100 | 0 | 8.23 | 0.28 | 430 | 1100 | 21.2 | 1.4 | |
| 2/10/2009 | 12.4 | 190 | 92 | 46.6 | 0 | 1300 | | 580 | 190 | 0.11 | <0.1 | 86 | 58 | | <100 | 1.01 | <400 | 228 | 0 | 7.71 | <0.20 | 418 | 900 | 10.3 | < 0.20 | |
| 3/4/2010 | 11.3 | 73 | 22 | 18.3 | 0 | 320 | | 110 | 73 | -0.67 | <0.1 | 14 | 22 | | <100 | 0.461 | <400 | 104 | 0 | 7.66 | 0.1 | 49.7 | 210 | Not Analyzed | 0.41 | |
| 5/13/2010 | 12.4 | 140 | 50 | 33.1 | 0 | 660 | | 260 | 140 | 0.36 | <0.1 | 33 | 42 | | <100 | 0.452 | <400 | 102 | 0 | 7.76 | <0.05 | 149 | 430 | 15.4 | 0.29 | |
| 2/14/2011 | 12.1 | 140 | 42 | 31.7 | 0 | 642 | 0.339 | 250 | 140 | -0.11 | <0.10 | 34 | 40 | | < 100 | 0.478 | < 400 | 108 | 0 | 7.93 | <0.020 | 141 | 400 | 10 | 0.24 | |
| 5/31/2011 | 12.1 | 140 | 45 | 35.2 | 0 | 657 | 0.423 | 250 | 140 | 0.12 | <0.10 | 35 | 40 | | < 100 | 0.51 | < 400 | 114 | 0 | 7.93 | <0.020 | 147 | 410 | 18.5 | | |
| Average | 11.9 | 146 | 56 | 34 | 0 | 754 | 0.28 | 319 | 145 | -0.14 | <0.1 | 43 | 43 | <0.10 | <100 | 0.65 | <400 | 143 | 0 | 7.74 | <0.10 | 209 | 538 | 15.1 | 0.3 | <1.0 |
| Low | 10.9 | 48 | 15 | 7.2 | 0 | 180 | <0.10 | 78 | 48 | -1.3 | <0.1 | 9.7 | 9.0 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 6.90 | <0.10 | 40 | 130 | 9.9 | <0.20 | <1.0 |
| High | 13.2 | 360 | 130 | 66 | 15 | 1600 | 0.42 | 760 | 340 | 1.24 | <0.1 | 110 | 90 | 0.13 | <100 | 5.8 | 1300 | 1300 | 0 | 8.35 | 0.28 | 740 | 1300 | 22.2 | 1.4 | <1.0 |
| Count | 22 | 22 | 22 | 22 | 22 | 22 | 16 | 22 | 22 | 22 | 22 | 22 | 22 | 6 | 20 | 22 | 20 | 22 | 22 | 22 | 16 | 22 | 22 | 21 | 11 | 2 |

HISTORICAL GENERAL MINERAL DATA SALINAS CREEK

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | | mg/L | mg/L | mg/L | mg/L | umhos/cm | mg/L | mg/L | mg/L | | mg/L | mg/L | mg/L | mg/L | ug/L | mg/L | ug/L | ug/L | mg/L | | mg/L | mg/L | mg/L | C | mg/L | mg/L |
| 4/30/1991 | 12.3 | 93 | 34 | 14 | 0 | 293 | 0.4 | 162 | 93 | 0.3 | <0.1 | 18 | 20 | | | 2.39 | | 540 | 0 | 8.38 | | 83 | 290 | | | |
| 3/31/1992 | 12.2 | 140 | 46 | 22 | 0 | 520 | 0.34 | 206 | 140 | 0.2 | <.10 | 22 | 29.9 | | | <.44 | | <100 | 0 | 8.03 | | 106 | 418 | 16.2 | | |
| 5/11/1993 | 12.1 | 144 | 45 | 22 | 0 | 670 | <.10 | 224 | 144 | 0 | <0.1 | 27 | 33 | | | <.44 | | <100 | 0 | 7.85 | | 120 | 414 | 16 | | |
| 4/26/1994 | 12.4 | 158 | 52 | 23 | 0 | 639 | 0.32 | 256 | 158 | 0.3 | <.1 | 31 | 36.7 | | <5 | <.44 | <100 | <100 | 0 | 8.09 | | 146 | 392 | 15 | | |
| 8/7/1995 | 12.2 | 156 | 50 | 21.7 | 0 | 610 | 0.4 | 234 | 156 | 0.2 | <.1 | 26 | 37 | | <5.0 | 1.3 | 290 | 290 | 0 | 7.9 | | 133 | 464 | 20.4 | | |

APPENDIX G - 2 HISTORICAL GENERAL MINERAL DATA 1991 through WATER YEAR 2013

HISTORICAL GENERAL MINERAL DATA EPILIMNION

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/8/1995 | 12.2 | 162 | 52 | 22.9 | 0 | 660 | 0.38 | 249 | 162 | 0 | <.1 | 29 | 37 | | <5.0 | 2.3 | 510 | 510 | 0 | 7.83 | | 142 | 420 | 14.2 | | |
| 2/7/1996 | 11.7 | 105 | 36 | 14.3 | 0 | 420 | 0.26 | 165 | 105 | -0.3 | <.1 | 19 | 22.4 | | <5.0 | 3.5 | 780 | 780 | 0 | 7.78 | | 84 | 336 | 18 | | |
| 5/15/1996 | 12.6 | 150 | 47 | 18.2 | 0 | 602 | 0.38 | 237 | 150 | 0.7 | <.1 | 29 | 35.4 | | <5.0 | 0.97 | 220 | 220 | 0 | 8.31 | | 116 | 376 | | | |
| 8/5/1996 | 12.4 | 164 | 50 | 23.1 | 0 | 615 | 0.34 | 237 | 164 | 0.9 | <.1 | 28 | 38 | | <5.0 | 0.33 | 74 | 74 | 0 | 8.06 | | 119 | 398 | 20.1 | | |
| 11/13/1996 | 12.3 | 165 | 54 | 22.5 | 0 | 680 | 0.36 | 260 | 165 | 0.2 | <.1 | 30 | 39 | | 6.3 | 1.6 | 370 | 360 | 0 | 7.96 | | 126 | 434 | 15.1 | | |
| 2/10/1997 | 11.8 | 140 | 42 | 15.5 | 0 | 480 | 0.23 | 197 | 140 | -0.3 | <.1 | 22 | 23.7 | <0.10 | <5.0 | 3.5 | 780 | 780 | 0 | 7.63 | <.10 | 92 | 382 | 13 | | |
| 5/20/1997 | 12.4 | 166 | 49 | 20 | 0 | 680 | 0.36 | 236 | 166 | 0.5 | <.1 | 28 | 36.5 | <0.10 | <5.0 | 0.43 | | 97 | 0 | 8.06 | <.10 | 117 | 398 | 20 | | |
| 8/21/1997 | 12.3 | 176 | 53 | 22.4 | 0 | 650 | 0.44 | 239 | 176 | 0.4 | <.1 | 26 | 38.9 | 0.17 | <5.0 | 0.49 | | 110 | 0 | 7.95 | <.10 | 119 | 396 | 24.4 | | |
| 11/18/1997 | 11.9 | 178 | 51 | 21 | 0 | 623 | 0.41 | 248 | 178 | -0.2 | <0.1 | 29 | 39.2 | <0.10 | <100 | 2.2 | 490 | 490 | 0 | 7.5 | <.10 | 130 | 404 | 15 | | |
| 2/10/1998 | 11.8 | 104 | 29 | 9.1 | 0 | 310 | 0.2 | 136 | 104 | -0.4 | <0.1 | 15 | 16 | <0.10 | <100 | 7.5 | 1700 | 1700 | 0 | 7.89 | <0.10 | 56 | 228 | 12 | | |
| 5/19/1998 | 12.1 | 150 | 50 | 16 | 0 | 578 | 0.28 | 240 | 150 | 0 | <0.1 | 28 | 28 | <0.10 | <100 | 2.1 | 480 | 480 | 0 | 7.85 | <.10 | 130 | 390 | 13.7 | | |
| 8/11/1998 | 12.6 | 160 | 50 | 21 | 0 | 606 | 0.43 | 250 | 160 | 0.8 | <0.1 | 30 | 38 | <0.10 | <100 | 3.1 | 700 | 700 | 0 | 8.27 | <.10 | 130 | 390 | 27.8 | | |
| 11/17/1998 | 12.5 | 170 | 51 | 22 | 0 | 600 | 0.42 | 240 | 170 | 0.5 | <0.1 | 27 | 36 | <0.10 | <100 | 6.2 | 1400 | 1400 | 0 | 8.18 | <.10 | 120 | 400 | 16 | | |
| 2/16/1999 | 12.3 | 170 | 52 | 20 | 0 | 580 | 0.39 | 230 | 170 | 0.1 | <0.1 | 25 | 36 | <0.10 | <100 | 6.6 | 1500 | 1500 | 0 | 8.06 | <.10 | 110 | 400 | 11.9 | | |
| 5/19/1999 | 12.6 | 180 | 52 | 20 | 0 | 600 | 0.38 | 240 | 180 | 0.7 | <0.1 | 27 | 35 | <0.10 | <100 | 2.1 | 480 | 480 | 0 | 8.29 | <0.10 | 120 | 410 | 25 | | |
| 8/10/1999 | 12.4 | 190 | 53 | 23 | 0 | 622 | 0.38 | 260 | 190 | 0.3 | <0.1 | 28 | 38 | <0.10 | <100 | 1.9 | 440 | 440 | 0 | 7.93 | 0.1 | 140 | 400 | 17.4 | | |
| 11/16/1999 | 12.6 | 190 | 53 | 27 | 0 | 630 | 0.39 | 280 | 190 | 0.5 | <0.1 | 36 | 36 | <0.10 | <100 | 2.1 | 470 | 470 | 0 | 8.05 | <0.10 | 120 | 420 | 15.2 | | |
| 2/15/2000 | 11.1 | 82 | 27 | 11 | 0 | 310 | 0.19 | 140 | 82 | -1.1 | 0.1 | 18 | 15 | <0.10 | <100 | 5.3 | 1200 | 1200 | 0 | 7.58 | <0.10 | 80 | 220 | 12 | <1.0 | 1.2 |
| 5/9/2000 | 12.6 | 170 | 52 | 23 | 20 | 500 | 0.36 | 250 | 150 | 0.7 | <0.1 | 29 | 36 | <0.10 | <100 | 0.44 | <400 | 100 | 0 | 8.6 | <0.10 | 130 | 400 | 22.4 | <1.0 | <1.0 |
| 8/15/2000 | 11.7 | 190 | 56 | 23 | 0 | 670 | 0.43 | 250 | 190 | -0.3 | <0.1 | 27 | 39 | <0.10 | <100 | 0.62 | <400 | 140 | 0 | 7.95 | <0.10 | 130 | 430 | 18.4 | <1.0* | <1.0 |
| 11/14/2000 | 12.3 | 180 | 55 | 25 | 0 | 650 | 0.36 | 260 | 180 | 0.1 | <0.1 | 30 | 38 | <0.10 | <100 | 1.3 | <400 | 300 | 0 | 7.94 | <0.10 | 130 | 420 | 10.2 | <1.0 | <1.0 |
| 2/21/2001 | 11.7 | 110 | 31 | 11 | 0 | 380 | 0.17 | 160 | 110 | -0.5 | <0.1 | 20 | 18 | <0.10 | <100 | 1.1 | <400 | 240 | 0 | 7.72 | <0.10 | 89 | 250 | 9.6 | <1.0 | <1.0 |
| 5/22/2001 | 11.8 | 160 | 31 | 20 | 0 | 560 | 0.33 | 240 | 160 | -0.2 | <0.1 | 39 | 32 | <0.10 | <100 | 0.66 | <400 | 150 | 0 | 7.99 | <0.10 | 130 | 400 | 18.9 | <1.0 | <1.0 |
| 8/14/2001 | 12.1 | 190 | 51 | 23 | 0 | 610 | 0.43 | 250 | 190 | 0.2 | <0.1 | 30 | 39 | | <100 | 0.44 | <400 | 100 | 0 | 8.14 | <0.10 | 130 | 410 | 23.7 | <1.0 | |
| 11/1/2001 | 11.8 | 190 | 56 | 25 | 0 | 620 | 0.51 | 260 | 190 | -0.3 | <0.1 | 29 | 39 | | <100 | 0.66 | <400 | 150 | 0 | 7.87 | <0.10 | 140 | 420 | 14.5 | <1.0 | |
| 2/6/2002 | 12.1 | 180 | 53 | 26 | 0 | 630 | 0.41 | 250 | 180 | -0.1 | <0.1 | 28 | 37 | | <100 | 1.5 | <400 | 340 | 0 | 7.89 | <0.10 | 140 | 420 | 10.2 | <1.0 | |
| 5/14/2002 | 12.0 | 200 | 55 | 23 | 0 | 630 | 0.43 | 250 | 200 | -0.1 | <0.1 | 28 | 40 | | <100 | 0.89 | <400 | 200 | 0 | 7.86 | <.10 | 130 | 430 | 15.3 | <1.0 | |
| 8/12/2002 | 12.0 | 200 | 56 | 26 | 0 | 670 | 0.46 | 270 | 200 | 0.1 | <0.1 | 30 | 43 | | <100 | <0.44 | <400 | <100 | 0 | 7.8 | 0.02 | 140 | 460 | 20 | <0.5 | |
| 11/13/2002 | 11.9 | 190 | 56 | 26 | 0 | 660 | 0.42 | 260 | 190 | -0.2 | <.1 | 28 | 42 | | <100 | <0.44 | <400 | <100 | 0 | 7.68 | 0.03 | 170 | 490 | 15 | <0.5 | |
| 2/4/2003 | 11.9 | 180 | 55 | 24 | 0 | 620 | 0.39 | 250 | 180 | -0.2 | <0.1 | 28 | 35 | | <100 | 0.54 | <400 | 120 | 0 | 7.96 | 0.02 | 140 | 420 | 14.4 | <0.5 | |
| 5/13/2003 | 12.4 | 170 | 54 | 19 | 0 | 570 | | 260 | 170 | 0.4 | <0.1 | 30 | 32 | | <100 | <0.44 | <400 | <100 | 0 | 7.99 | | 130 | 390 | 20.9 | | |
| 8/13/2003 | 12.1 | 190 | 55 | 23 | 0 | 660 | 0.47 | 290 | 190 | 0.1 | <0.1 | 37 | 38 | | <100 | <0.44 | <400 | <100 | 0 | 7.69 | 0.27 | 150 | 430 | 17.5 | <0.5 | |
| 11/17/2003 | 12.3 | 180 | 59 | 21 | 0 | 560 | 0.38 | 280 | 180 | 0.1 | <0.1 | 32 | 37 | | <100 | <0.44 | <400 | <100 | 0 | 7.83 | 0.02 | 150 | 430 | 12.6 | 0.2 | |
| 2/9/2004 | 12.3 | 180 | 54 | 21 | 0 | 630 | 0.38 | 280 | 180 | 0.1 | <0.1 | 35 | 38 | | <100 | <0.44 | <400 | <100 | 0 | 7.93 | <0.05 | 140 | 440 | 10.5 | 0.2 | |
| 5/20/2004 | 11.9 | 180 | 52 | 19 | 0 | 590 | | 260 | 180 | -0.2 | <0.1 | 32 | 35 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 7.54 | < 0.05 | 150 | 390 | 14.8 | 0.1 | |
| 11/15/2004 | 11.8 | 170 | 55 | 22 | 0 | 660 | | 280 | 170 | -0.4 | <0.1 | 34 | 39 | | <100 | <0.44 | <400 | < 100 | 0 | 7.41 | <0.1 | 150 | 450 | 13.3 | <0.5 | |
| 2/16/2005 | 11.8 | 160 | 52 | 18 | 0 | 570 | 0.33 | 260 | 160 | -0.2 | <0.1 | 31 | 35 | | <100 | 1.2 | <400 | 280 | 0 | 7.49 | <0.1 | 150 | 400 | 17.1 | <0.5 | |
| 5/11/2005 | 12.0 | 140 | 48 | 18 | 0 | 540 | | 230 | 140 | 0.02 | <0.1 | 27 | 30 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 7.76 | < 0.1 | 130 | 370 | 19.9 | < 0.5 | |
| 8/11/2005 | 11.9 | 160 | 59 | 23 | 0 | 640 | | 260 | 160 | 0 | <0.1 | 27 | 38 | | <100 | <0.44 | <400 | <100 | 0 | 7.48 | | 150 | 430 | 24.1 | | |
| 11/17/2005 | 12.0 | 170 | 57 | 24 | 0 | 660 | | 270 | 170 | 0 | <0.1 | 32 | 38 | | <100 | <0.44 | <400 | <100 | 0 | 7.66 | | 150 | 430 | 15.6 | | |
| 2/14/2006 | 12.5 | 150 | 49 | 21 | 0 | 610 | 0.18 | 240 | 150 | 0.5 | <0.1 | 30 | 34 | | <100 | <0.44 | <400 | <100 | 0 | 8.28 | < 0.010 | 140 | 400 | 16.7 | 0.47 | |
| 5/16/2006 | 11.9 | 140 | 47 | 18 | 0 | 580 | | 230 | 140 | 0 | <0.1 | 27 | 33 | | < 100 | 0.9 | 200 | 200 | 0 | 7.71 | | 130 | 360 | 19.4 | | |
| 8/31/2006 | 11.7 | 180 | 61 | 28 | 0 | 740 | | 320 | 180 | -0.3 | <0.1 | 40 | 46 | | <100 | <0.44 | <400 | <100 | 0 | 7.28 | | 180 | 490 | 19.2 | | |
| 11/14/2006 | 12.1 | 160 | 56 | 23 | 0 | 670 | | 270 | 160 | 0.1 | <0.1 | 31 | 39 | | <100 | 0.53 | <400 | 120 | 0 | 7.75 | | 160 | 450 | 19.5 | | |
| 2/21/2007 | 12.2 | 160 | 56 | 24 | 0 | 670 | 0.44 | 260 | 160 | 0.1 | <0.1 | 29 | 39 | | <100 | <0.44 | <400 | <100 | 0 | 7.87 | | 150 | 430 | 15.8 | | |
| 5/17/2007 | 12.0 | 180 | 55 | 24 | 0 | 690 | | 270 | 180 | -0.01 | <0.1 | 33 | 41 | | <100 | <0.44 | <400 | <100 | 0 | 7.56 | <0.02 | 160 | 430 | 20.2 | 0.22 | |
| 11/27/2007 | 11.6 | 200 | 61 | 26 | 0 | 780 | | 300 | 200 | -0.66 | <0.1 | 36 | 44 | | <100 | <0.44 | <400 | <100 | 0 | 7.07 | < 0.020 | 170 | 490 | 10.6 | < 0.20 | |
| 2/21/2008 | 11.6 | 140 | 48 | 19 | 0 | 600 | 0.31 | 230 | 140 | -0.51 | <0.1 | 27 | 32 | | <100 | 2.6 | 580 | 580 | 0 | 7.40 | <0.020 | 150 | 390 | 12.0 | <0.20 | |
| 5/29/2008 | 12.3 | 160 | 57 | 25 | 0 | 700 | | 270 | 160 | 0.3 | <0.1 | 30 | 39 | | <100 | <0.44 | <400 | <100 | 0 | 7.93 | 0.02 | 170 | 450 | 19.5 | 0.20 | |
| 11/24/2008 | 11.7 | 190 | 64 | 28.7 | 0 | 780 | | 310 | 190 | -0.44 | <0.1 | 37 | 46 | | <100 | <0.443 | <400 | <100 | 0 | 7.26 | < 0.020 | 188 | 510 | 11.8 | < 0.20 | |
| 2/10/2009 | 12.2 | 160 | 62 | 26 | 0 | 730 | | 290 | 160 | -0.03 | <0.1 | 33 | 44 | | <100 | <0.443 | <400 | <100 | 0 | 7.79 | < 0.020 | 182 | 480 | 10.4 | < 0.20 | |
| 5/12/2009 | 12.1 | 170 | 61 | 27.3 | 0 | 760 | | 300 | 170 | 0.14 | <0.1 | 35 | 45 | | <100 | <0.443 | <400 | <100 | 0 | 7.69 | 0.02 | 184 | 490 | 20.2 | 0.26 | |
| 11/19/2009 | 11.9 | 170 | 70 | 30.4 | 0 | 820 | | 350 | 170 | -0.25 | <0.1 | 41 | 48 | | <100 | <0.443 | <400 | <100 | 0 | 7.41 | <0.02 | 224 | 550 | 13.5 | <0.2 | |
| 2/17/2010 | 12.0 | 120 | 45 | 16.8 | 0 | 510 | | 210 | 120 | -0.1 | <0.1 | 24 | 28 | | <100 | 1.28 | <400 | 290 | 0 | 7.73 | <0.050 | 112 | 330 | 13.2 | 0.17 | |
| 5/13/2010 | 11.8 | 150 | 51 | 20.3 | 0 | 600 | | 250 | 150 | -0.11 | <0.1 | 30 | 35 | | <100 | <0.443 | <400 | <100 | 0 | 7.9 | <0.05 | 140 | 390 | 17.8 | <0.2 | |
| 8/10/2010 | 12.3 | 170 | 49 | 22.8 | 0 | 629 | 0.394 | 261 | 170 | 0.4 | <0.1 | 34 | 39 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 7.96 | <0.04 | 152 | 430 | 24.3 | <0.2 | |
| 11/12/2010 | 12.2 | 170 | 52 | 22 | 0 | 640 | 0.420 | 250 | 170 | 0.15 | <0.1 | 29 | 37 | | <100 | <0.44 | <400 | <100 | 0 | 7.87 | <0.030 | 120 | 410 | 16.1 | <0.2 | |
| 2/14/2011 | 12.1 | 150 | 45 | 18.4 | 0 | 571 | 0.304 | 230 | 150 | -0.06 | <0.10 | 28 | 33 | | < 100 | < 0.443 | < 400 | < 100 | 0 | 7.89 | <0.020 | 124 | 370 | 10.9 | <0.2 | |
| 5/25/2011 | 12.1 | 150 | 50 | 19.4 | 0 | 608 | 0.361 | 250 | 150 | 0.06 | <0.10 | 30 | 36 | | <100 | <0.443 | <400 | <100 | 0 | 7.8 | <0.020 | 128 | 430 | 18.7 | < 0.20 | |
| 8/17/2011 | 11.8 | 180 | 56 | 25 | 0 | 740 | 0.370 | 280 | 170 | 0.32 | <0.1 | 33 | 42 | | <100 | <0.88 | <400 | <200 | 0 | 7.40 | | 180 | 520 | 24.1 | 0.44 | |
| 11/8/2011 | 12.1 | 180 | 56 | 24.3 | 0 | 700 | 0.427 | 270 | 180 | -0.01 | <0.1 | 32 | 40 | | <100 | 0.509 | <400 | 115 | 0 | 7.67 | | 154 | 430 | 15.2 | <0.2 | |

HISTORICAL GENERAL MINERAL DATA EPILIMNION

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/23/2012 | 12.0 | 160 | 54 | 23.4 | 0 | 660 | 0.353 | 270 | 160 | -0.13 | <0.10 | 32 | 38 | | <100 | <0.443 | <400 | <100 | 0 | 7.70 | | 148 | 430 | 12.0 | <0.2 | |
| 5/2/2012 | 12.2 | 170 | 56 | 23.8 | 0 | 664 | 0.384 | 270 | 170 | 0.23 | <0.10 | 32 | 40 | | <100 | <0.443 | <400 | <100 | 0 | 7.86 | 0.021 | 153 | 430 | 18.9 | <0.2 | |
| 11/27/2012 | 11.8 | 190 | 64 | 27.8 | 0 | 793 | 0.367 | 310 | 190 | -0.39 | <0.10 | 37 | 47 | | <100 | <0.443 | <400 | 103 | 0 | 7.34 | 0.022 | 174 | 520 | 10.4 | <0.2 | |
| 2/13/2013 | 12.1 | 160 | 59 | 25.4 | 0 | 740 | 0.296 | 290 | 160 | -0.05 | <0.10 | 34 | 44 | | <100 | <0.443 | <400 | <100 | 0 | 7.76 | <0.020 | 187 | 480 | 11.8 | <0.2 | |
| 5/20/2013 | 12.1 | 170 | 60 | 26.6 | 0 | 744 | 0.312 | 600 | 170 | 0.12 | <0.10 | 36 | 45 | | < 100 | 0.456 | < 400 | <100 | 0 | 7.72 | 0.022 | 190 | 500 | 18.3 | <0.2 | |
| Average | 12.1 | 160 | 52 | 21.8 | 0 | 620 | 0.36 | 260 | 160 | 0.04 | <0.1 | 30 | 36 | <0.10 | <100 | 1.08 | <400 | <400 | 0 | 7.82 | <0.020 | 139 | 420 | 16.5 | <0.2 | <1.0 |
| Low | 11.1 | 82 | 27 | 9.1 | 0 | 293 | <0.10 | 136 | 82 | -1.1 | <0.1 | 15 | 15 | <0.10 | <100 | <0.44 | <400 | <400 | 0 | 7.07 | <0.020 | 56 | 220 | 9.6 | <0.2 | <1.0 |
| High | 12.6 | 200 | 70 | 30.4 | 20 | 820 | 0.51 | 600 | 200 | 0.9 | 0.1 | 41 | 48.0 | 0.17 | <100 | 7.5 | 1700 | 1700 | 0 | 8.60 | 0.27 | 224 | 550 | 27.8 | 0.47 | 1.2 |
| Count | 71 | 71 | 71 | 71 | 71 | 71 | 52 | 71 | 71 | 71 | 71 | 71 | 71 | 18 | 68 | 66 | 66 | 66 | 71 | 71 | 51 | 71 | 71 | 69 | 42 | 6 |

HISTORICAL GENERAL MINERAL DATA SALSIPUEDAS CREEK

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | | mg/L | mg/L | mg/L | mg/L | umhos/cm | mg/L | mg/L | mg/L | | mg/L | mg/L | mg/L | mg/L | ug/L | mg/L | ug/L | ug/L | mg/L | | mg/L | mg/L | mg/L | C | mg/L | mg/L |
| 4/30/1991 | 12.0 | 72 | 25 | 11 | 0 | 238 | 0.35 | 124 | 72 | 0.1 | <0.1 | 15 | 15 | | | 4.61 | | 1040 | 0 | 8.35 | | 67 | 234 | | | |
| 3/31/1992 | 12.9 | 235 | 65 | 23 | 26 | 730 | 0.24 | 333 | 209 | 0.8 | <.10 | 42 | 32.9 | | | <.44 | | <100 | 0 | 8.4 | | 134 | 522 | 12.4 | | |
| 5/11/1993 | 12.9 | 260 | 86 | 32 | 0 | 840 | <.10 | 446 | 260 | 0.9 | <0.1 | 56 | 44.8 | | | <.44 | | <100 | 0 | 8.19 | | 214 | 664 | 17 | | |
| 4/26/1994 | 12.9 | 246 | 88 | 33 | 0 | 1010 | 0.23 | 445 | 246 | 0.8 | <.1 | 55 | 57.6 | | <5 | <.44 | <100 | <100 | 0 | 8.16 | | 272 | 674 | 14 | | |
| 4/26/1995 | 13.2 | 248 | 85 | 25.9 | 9 | 830 | 0.26 | 414 | 239 | 1 | <0.1 | 49 | 37.7 | | <5.0 | <.44 | <100 | <100 | 0 | 8.5 | | 204 | 654 | 16.3 | | |
| 2/7/1996 | 12.2 | 154 | 42 | 12 | 0 | 470 | 0.19 | 216 | 154 | 0.2 | <.1 | 27 | 19.2 | | <5.0 | 3.1 | 700 | 700 | 0 | 8.04 | | 87.5 | 354 | 16 | | |
| 5/15/1996 | 12.9 | 260 | 85 | 28.3 | 0 | 933 | 0.3 | 434 | 260 | 1.7 | <.1 | 54 | 52.6 | | <5.0 | 0.44 | 100 | 100 | 0 | 8.11 | | 230 | 702 | | | |
| 2/10/1997 | 12.7 | 200 | 60 | 15.4 | 0 | 640 | | 294 | 200 | 0.5 | <.1 | 35 | 23.4 | | <5.0 | 0.29 | 66 | 66 | 0 | 8.19 | | 127 | 460 | 12 | | |
| 2/10/1997 | 12.7 | 200 | 60 | 15.4 | 0 | 640 | 0.22 | 294 | 200 | 0.5 | <.1 | 35 | 23.4 | <.10 | <5.0 | 0.29 | | 66 | 0 | 8.19 | <.10 | 127 | 460 | 12 | | |
| 5/20/1997 | 12.6 | 276 | 101 | 40.8 | 0 | 970 | 0.3 | 505 | 276 | 0.6 | <.1 | 61 | 70.5 | <.10 | <5.0 | <.22 | | <50 | 0 | 7.75 | <.10 | 320 | 850 | 20 | | |
| 2/10/1998 | 11.7 | 84 | 23 | 5.9 | 0 | 240 | 0.19 | 106 | 84 | -0.4 | <0.1 | 12 | 10 | <.10 | <100 | 2.3 | 510 | 510 | 0 | 7.98 | 0.12 | 38 | 186 | 14 | | |
| 5/19/1998 | 12.8 | 210 | 74 | 18 | 0 | 764 | 0.25 | 370 | 210 | 0.6 | <0.1 | 45 | 30 | <.10 | <100 | <.44 | <400 | <100 | 0 | 8.17 | <.10 | 180 | 540 | 11.2 | | |
| 8/11/1998 | 12.8 | 300 | 110 | 46 | 0 | 1240 | 0.26 | 570 | 300 | 0.8 | <0.1 | 72 | 72 | <.10 | <100 | <.44 | <400 | <100 | 0 | 7.92 | <.10 | 360 | 910 | 20.9 | | |
| 2/16/1999 | 12.6 | 230 | 90 | 32 | 0 | 940 | 0.28 | 450 | 230 | 0.3 | <0.1 | 55 | 47 | <0.10 | <100 | 0.53 | <400 | 120 | 0 | 8.18 | <.10 | 260 | 720 | 8 | | |
| 5/19/1999 | 12.6 | 160 | 47 | 16 | 12 | 525 | 0.28 | 240 | 150 | 0.7 | <0.1 | 30 | 27 | <0.10 | <100 | <.44 | <400 | <100 | 0 | 8.41 | <0.10 | 110 | 390 | 20.7 | | |
| 2/23/2000 | 11.0 | 66 | 14 | 5.2 | 0 | 170 | 0.13 | 74 | 66 | -1.1 | 0.05 | 9.2 | 8.1 | <.10 | <100 | 0.62 | <400 | 140 | 0 | 7.64 | 0.12 | 25 | 140 | 12.2 | <1.0 | <1.0 |
| 5/9/2000 | 12.6 | 260 | 79 | 27 | 0 | 780 | 0.28 | 400 | 260 | 0.5 | <0.1 | 50 | 44 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 7.94 | <0.10 | 220 | 600 | 17 | <1.0 | <1.0 |
| 2/21/2001 | 11.4 | 120 | 30 | 11 | 0 | 350 | 0.2 | 150 | 120 | -0.7 | <0.1 | 18 | 16 | <0.10 | <100 | 0.53 | <400 | 120 | 0 | 8.14 | <0.10 | 65 | 290 | 11 | <1.0 | <1.0 |
| 5/22/2001 | 12.6 | 270 | 87 | 28 | 0 | 870 | 0.31 | 420 | 270 | 0.6 | <0.1 | 49 | 46 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 7.95 | <0.10 | 210 | 660 | 21 | <1.0 | <1.0 |
| 2/20/2002 | 12.2 | 250 | 76 | 27 | 0 | 850 | 0.3 | 380 | 250 | 0 | <0.1 | 45 | 41 | | <100 | <0.44 | <400 | <100 | 0 | 8.29 | <0.10 | 210 | 590 | 12.3 | <1.0 | |
| 2/10/2003 | 12.3 | 240 | 71 | 22 | 0 | 820 | 0.31 | 380 | 240 | 0.2 | <0.1 | 50 | 41 | | <100 | <0.44 | <400 | <100 | 0 | 7.69 | 0.03 | 180 | 560 | 15 | 0.5 | |
| 5/14/2003 | 13.1 | 280 | 74 | 19 | 30 | 780 | | 370 | 250 | 1 | <0.1 | 46 | 37 | | <100 | <0.44 | <400 | <100 | 0 | 8.39 | 0.04 | 140 | 530 | 15 | 0.7 | |
| 3/31/2004 | 12.7 | 250 | 78 | 33 | 0 | 930 | 0.33 | 400 | 250 | 0.8 | <0.1 | 49 | 52 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 8.01 | < 0.05 | 230 | 670 | 24 | 0.5 | |
| 2/16/2005 | 12.1 | 130 | 34 | 10 | 0 | 410 | | 180 | 130 | 0.1 | <0.1 | 23 | 17 | | <100 | <0.44 | <400 | <100 | 0 | 8.04 | | 75 | 290 | 16.3 | | |
| 5/11/2005 | 12.9 | 260 | 89 | 26 | 0 | 890 | | 410 | 260 | 0.8 | <0.1 | 47 | 42 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 8.1 | < 0.1 | 220 | 640 | 15.2 | < 0.5 | |
| 2/15/2006 | 12.7 | 210 | 82 | 31 | 0 | 970 | 0.11 | 410 | 210 | 0.4 | <0.1 | 51 | 56 | | <100 | <0.44 | <400 | <100 | 0 | 8.07 | 0.023 | 270 | 680 | 8.1 | 0.27 | |
| 5/16/2006 | 12.9 | 320 | 74 | 22 | 0 | 900 | | 490 | 320 | 0.9 | <0.1 | 73 | 29 | | < 100 | <0.44 | < 100 | < 100 | 0 | 8.14 | | 160 | 560 | 16.6 | | |
| 8/31/2006 | 12.5 | 120 | 32 | 12 | 8 | 390 | | 160 | 110 | 0.6 | <0.1 | 18 | 21 | | <100 | <0.44 | <400 | <100 | 0 | 8.48 | < 0.010 | 68 | 270 | 23.4 | 0.72 | |
| 2/27/2007 | 12.5 | 190 | 80 | 30 | 0 | 990 | 0.34 | 410 | 190 | 0.5 | <0.1 | 51 | 51 | | <100 | 0.71 | <400 | 160 | 0 | 7.9 | 0.12 | 290 | 680 | Not analyzed | 0.64 | |
| 3/6/2008 | 12.5 | 97 | 30 | 13 | 19 | 390 | 0.2 | 150 | 78 | 0.38 | <0.1 | 17 | 18 | | <100 | 1.4 | <400 | 320 | 0 | 8.21 | 0.06 | 68 | 240 | 13.4 | 1.6 | |
| 2/24/2009 | 12.3 | 120 | 37 | 13.3 | 0 | 410 | | 160 | 120 | 0.17 | <0.1 | 18 | 20 | | <100 | <0.443 | <400 | <100 | 0 | 8.26 | | 66.5 | 270 | 12.2 | | |
| 11/19/2009 | 12.3 | 290 | 100 | 37.6 | 0 | 1100 | | 490 | 290 | 0.08 | <0.1 | 56 | 80 | | <100 | <0.443 | <400 | <100 | 0 | 7.48 | <0.02 | 312 | 780 | 8.6 | 0.49 | |
| 3/4/2010 | 12.0 | 110 | 31 | 7.46 | 0 | 350 | | 160 | 110 | 0.11 | <0.1 | 19 | 14 | | <100 | 0.47 | <400 | 106 | 0 | 8.11 | 0.038 | 48.6 | 230 | Not Analyzed | 0.36 | |
| 5/13/2010 | 12.3 | 260 | 86 | 24.7 | 0 | 890 | | 420 | 260 | 0.41 | <0.1 | 50 | 44 | | <100 | <0.443 | <400 | <100 | 0 | 8.19 | <0.05 | 204 | 600 | 15.8 | 0.28 | |
| 8/10/2010 | 13.0 | 350 | 112 | 60.3 | 0 | 1410 | 0.222 | 642 | 350 | 0.86 | <0.1 | 88 | 97 | | < 100 | 0.47 | < 400 | 105 | 0 | 7.99 | 0.042 | 390 | 1000 | 15.6 | 0.3 | |
| 2/24/2011 | 12.6 | 170 | 48 | 11.8 | 10 | 570 | 0.187 | 250 | 160 | 0.38 | <0.10 | 32 | 23 | | < 100 | 0.642 | < 400 | 145 | 0 | 8.3 | 0.021 | 118 | 370 | 8 | 0.27 | |
| 5/25/2011 | 13.1 | 250 | 84 | 25.3 | 27 | 929 | 0.296 | 440 | 230 | 1.07 | <0.10 | 55 | 43 | | <100 | <0.443 | <400 | <100 | 0 | 8.36 | <0.020 | 231 | 670 | 18.3 | 0.31 | |
| 2/27/2013 | 12.7 | 220 | 80 | 28.8 | 0 | 988 | 0.187 | 430 | 220 | 0.39 | <0.10 | 57 | 55 | | < 100 | < 0.443 | < 400 | < 100 | 0 | 8.03 | | 270 | 690 | 7 | <0.2 | |
| Average | 12.5 | 210 | 67 | 23 | 4 | 741 | 0.24 | 343 | 206 | 0.5 | <0.1 | 42 | 38 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 8.11 | <0.10 | 179 | 535 | 15 | 0.3 | <1.0 |
| Low | 11.0 | 66 | 14 | 5.2 | 0 | 170 | <0.10 | 74 | 66 | -1.1 | <0.1 | 9.2 | 8.1 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 7.48 | <0.10 | 25 | 140 | 7 | <0.2 | <1.0 |
| High | 13.2 | 350 | 112 | 60.3 | 30 | 1410 | 0.35 | 642 | 350 | 1.7 | <0.1 | 88 | 97 | <0.10 | <100 | 4.61 | 700 | 1040 | 0 | 8.50 | 0.12 | 390 | 1000 | 24 | 1.6 | <1.0 |
| Count | 38 | 38 | 38 | 38 | 38 | 38 | 28 | 38 | 38 | 38 | 38 | 38 | 38 | 11 | 35 | 38 | 33 | 38 | 38 | 38 | 26 | 38 | 38 | 34 | 20 | 4 |

HISTORICAL GENERAL MINERAL DATA TORO CREEK

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | | mg/L | mg/L | mg/L | mg/L | umhos/cm | mg/L | mg/L | mg/L | | mg/L | mg/L | mg/L | mg/L | ug/L | mg/L | ug/L | ug/L | mg/L | | mg/L | mg/L | mg/L | C | mg/L | mg/L |
| 3/31/1992 | 12.0 | 158 | 79 | 36 | 0 | 830 | 0.5 | 359 | 158 | -0.1 | <.10 | 39 | 47.9 | | | 1.42 | | 320 | 0 | 7.47 | | 218 | 644 | 17.4 | | |
| 5/11/1993 | 12.1 | 146 | 61 | 33 | 0 | 700 | 0.56 | 270 | 146 | 0 | <0.1 | 29 | 44 | | | 0.49 | | 110 | 0 | 7.72 | | 164 | 508 | 15 | | |
| 4/26/1994 | 12.2 | 166 | 59 | 30 | 0 | 675 | 0.45 | 258 | 166 | 0.1 | <.1 | 27 | 40.2 | | <5 | 0.66 | 18 | 150 | 0 | 7.83 | | 159 | 436 | 15 | | |
| 4/26/1995 | 12.1 | 148 | 47 | 22 | 0 | 515 | 0.48 | 210 | 148 | 0.1 | <0.1 | 23 | 33 | | 8.7 | 4.4 | 1000 | 990 | 0 | 7.86 | | 108 | 392 | 20.1 | | |

APPENDIX G - 2 HISTORICAL GENERAL MINERAL DATA 1991 through WATER YEAR 2013

HISTORICAL GENERAL MINERAL DATA EPILIMNION

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8/7/1995 | 12.3 | 144 | 45 | 23 | 0 | 520 | 0.52 | 193 | 144 | 0.3 | <.1 | 20 | 34 | | 7.3 | 1.7 | 390 | 380 | 0 | 8.07 | | 97.5 | 374 | 19 | | |
| 11/8/1995 | 12.0 | 129 | 39 | 19.8 | 0 | 480 | 0.48 | 184 | 129 | 0 | <.1 | 21 | 29.2 | | <5.0 | 1.7 | 390 | 390 | 0 | 7.93 | | 84 | 308 | 17.3 | | |
| 2/7/1996 | 11.9 | 134 | 41 | 22.6 | 0 | 530 | 0.44 | 183 | 134 | 0 | 0.1 | 20 | 30.6 | | 5.9 | 3.5 | 810 | 800 | 0 | 7.78 | | 92.2 | 344 | 20 | | |
| 5/15/1996 | 12.1 | 129 | 40 | 17.4 | 0 | 468 | 0.5 | 170 | 129 | 0.4 | <.1 | 17 | 31.3 | | <5.0 | 1.2 | 270 | 270 | 0 | 8.03 | | 75 | 304 | | | |
| 8/5/1996 | 12.4 | 138 | 39 | 22.3 | 0 | 460 | 0.46 | 166 | 138 | 0.4 | <.1 | 17 | 32.3 | | <5.0 | 0.66 | 150 | 150 | 0 | 8.22 | | 83.7 | 308 | 21.1 | | |
| 11/13/1996 | 12.2 | 140 | 42 | 20.8 | 0 | 550 | 0.5 | 186 | 140 | 0.2 | <.1 | 20 | 31.6 | | <5 | 0.75 | 170 | 170 | 0 | 8.06 | | 73 | 312 | 18.2 | | |
| 2/10/1997 | 12.2 | 155 | 44 | 19.8 | 0 | 480 | 0.44 | 183 | 155 | 0.1 | 0.15 | 18 | 29 | <0.10 | 7.8 | 2.2 | 500 | 500 | 0 | 7.94 | 0.2 | 80 | 324 | 15 | | |
| 5/20/1997 | 12.1 | 151 | 43 | 20.1 | 0 | 490 | 0.5 | 180 | 151 | 0.3 | <.1 | 18 | 33.4 | <.10 | <5.0 | <.22 | | <50 | 0 | 7.94 | 0.2 | 84 | 310 | 24 | | |
| 8/21/1997 | 12.2 | 154 | 42 | 20.2 | 0 | 530 | 0.56 | 174 | 154 | 0.3 | <.1 | 17 | 34.9 | <.10 | 6.2 | 0.34 | | 77 | 0 | 7.97 | 0.14 | 83 | 336 | 25.9 | | |
| 11/18/1997 | 11.9 | 155 | 42 | 18 | 0 | 494 | 0.51 | 185 | 155 | -0.2 | <0.1 | 19 | 34.4 | <.10 | <100 | 0.53 | <400 | 120 | 0 | 7.66 | <.10 | 87 | 334 | 15 | | |
| 2/10/1998 | 11.9 | 122 | 39 | 18 | 0 | 420 | 0.43 | 169 | 122 | -0.1 | 0.1 | 17 | 25.3 | <.10 | <100 | 3.9 | 880 | 880 | 0 | 7.85 | 0.14 | 72 | 292 | 16 | | |
| 5/19/1998 | 12.1 | 130 | 41 | 19 | 0 | 449 | 0.44 | 180 | 130 | 0.2 | 0.1 | 19 | 27 | <.10 | <100 | 5.3 | 1200 | 1200 | 0 | 7.94 | <.10 | 68 | 320 | 22.7 | | |
| 8/11/1998 | 12.3 | 130 | 42 | 20 | 0 | 469 | 0.43 | 180 | 130 | 0.5 | <0.1 | 18 | 30 | <.10 | <100 | 2.7 | 600 | 600 | 0 | 8.18 | <.10 | 83 | 320 | 27.1 | | |
| 11/17/1998 | 12.2 | 130 | 39 | 19 | 0 | 445 | 0.36 | 170 | 130 | 0.2 | 0.1 | 18 | 29 | <.10 | <100 | 3.4 | 770 | 770 | 0 | 8.11 | 0.12 | 75 | 300 | 17 | | |
| 2/16/1999 | 12.3 | 130 | 41 | 19 | 0 | 440 | 0.45 | 170 | 130 | 0.1 | 0.1 | 17 | 31 | <0.10 | <100 | 4.4 | 1000 | 1000 | 0 | 8.03 | <.10 | 76 | 310 | 11.7 | | |
| 5/19/1999 | 12.1 | 150 | 42 | 19 | 0 | 462 | 0.44 | 170 | 150 | 0.2 | <0.1 | 17 | 30 | <0.10 | <100 | 0.62 | <400 | 140 | 0 | 8.03 | <0.10 | 78 | 320 | 20.4 | | |
| 8/10/1999 | 12.3 | 140 | 41 | 22 | 0 | 496 | 0.47 | 170 | 140 | 0.3 | <0.1 | 17 | 33 | <0.10 | <100 | 1.5 | <400 | 340 | 0 | 8.03 | 0.1 | 93 | 340 | 18.3 | | |
| 11/16/1999 | 12.1 | 150 | 42 | 24 | 0 | 480 | 0.43 | 190 | 150 | 0.1 | <0.1 | 22 | 31 | <0.10 | <100 | 1.2 | <400 | 260 | 0 | 8.08 | <0.10 | 93 | 330 | 17.6 | | |
| 2/15/2000 | 12.3 | 160 | 44 | 26 | 0 | 520 | 0.5 | 210 | 160 | 0.3 | <0.1 | 23 | 32 | <0.10 | <100 | 1.6 | <400 | 360 | 0 | 8.03 | <0.10 | 120 | 350 | 16.1 | <1.0 | <1.0 |
| 5/9/2000 | 12.2 | 150 | 46 | 23 | 0 | 450 | 0.47 | 210 | 150 | 0.3 | <0.1 | 22 | 32 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 7.98 | <0.10 | 98 | 340 | 23.8 | <1.0 | <1.0 |
| 8/15/2000 | 11.3 | 150 | 43 | 24 | 0 | 530 | 0.52 | 200 | 150 | -0.6 | <0.1 | 22 | 34 | <0.10 | <100 | 0.98 | <400 | 220 | 0 | 8.06 | <0.10* | 93 | 330 | 18.6 | <1.0* | <1.0 |
| 11/14/2000 | 11.1 | 160 | 43 | 26 | 0 | 520 | 0.49 | 190 | 160 | -1 | <0.1 | 19 | 35 | <0.10 | <100 | 0.93 | <400 | 210 | 0 | 8.10 | <0.10 | 92 | 330 | 10.4 | <1.0 | <1.0 |
| 2/21/2001 | 12.0 | 160 | 58 | 25 | 0 | 630 | 0.54 | 260 | 160 | -0.1 | <0.1 | 29 | 37 | <0.10 | <100 | 2.1 | 470 | 470 | 0 | 8.07 | <0.10 | 150 | 450 | 14 | <1.0 | <1.0 |
| 5/22/2001 | 12.2 | 150 | 48 | 24 | 0 | 510 | 0.49 | 210 | 150 | 0.3 | <0.1 | 22 | 32 | <0.10 | <100 | 0.84 | <400 | 190 | 0 | 8.07 | <0.10 | 100 | 380 | 21.1 | <1.0 | <1.0 |
| 8/14/2001 | 12.3 | 170 | 48 | 19 | 20 | 510 | 0.57 | 200 | 150 | 0.5 | <0.1 | 19 | 36 | | <100 | <0.44 | <400 | <100 | 0 | 8.35 | <0.10 | 63 | 350 | 24.5 | <1.0 | |
| 11/1/2001 | 11.9 | 170 | 48 | 26 | 0 | 530 | 0.49 | 210 | 170 | -0.1 | <0.1 | 22 | 38 | | <100 | <0.44 | <400 | <100 | 0 | 8.11 | <0.10 | 100 | 370 | 15.1 | <1.0 | |
| 2/6/2002 | 11.4 | 160 | 48 | 30 | 0 | 550 | 0.48 | 210 | 160 | -0.8 | <0.1 | 23 | 35 | | <100 | <0.44 | <400 | <100 | 0 | 8.20 | <0.10 | 110 | 370 | 12 | <1.0 | |
| 5/14/2002 | 11.9 | 170 | 49 | 26 | 0 | 540 | 0.54 | 200 | 170 | -0.1 | <0.1 | 18 | 37 | | <100 | <0.44 | <400 | <100 | 0 | 8.01 | <.10 | 94 | 370 | 17.2 | <1.0 | |
| 8/12/2002 | 11.9 | 170 | 48 | 28 | 0 | 540 | 0.57 | 190 | 170 | 0.1 | <0.1 | 18 | 38 | | <100 | <0.44 | <400 | <100 | 0 | 8.08 | 0.07 | 90 | 370 | 25 | <0.5 | |
| 11/13/2002 | 11.9 | 170 | 56 | 29 | 0 | 620 | 0.57 | 260 | 170 | -0.1 | <.1 | 30 | 41 | | <100 | 1.1 | <400 | 250 | 0 | 7.75 | 0.02 | 130 | 450 | 17.1 | 0.5 | |
| 2/4/2003 | 12.1 | 170 | 56 | 29 | 0 | 620 | 0.7 | 240 | 170 | 0 | <0.1 | 24 | 40 | | <100 | <0.44 | <400 | <100 | 0 | 8.04 | 0.05 | 130 | 420 | 15.9 | 0.5 | |
| 5/13/2003 | 12.5 | 180 | 53 | 28 | 0 | 600 | | 270 | 180 | 0.5 | <0.1 | 32 | 39 | | <100 | <0.44 | <400 | <100 | 0 | 8.09 | | 120 | 410 | 21.1 | | |
| 8/13/2003 | 12.3 | 190 | 50 | 31 | 0 | 600 | 0.61 | 230 | 190 | 0.3 | <0.1 | 26 | 38 | | <100 | <0.44 | <400 | <100 | 0 | 7.94 | 0.14 | 100 | 410 | 17.6 | <0.5 | |
| 11/17/2003 | 12.4 | 170 | 55 | 31 | 0 | 530 | 0.39 | 250 | 170 | 0.3 | <0.1 | 28 | 40 | | <100 | 0.84 | <400 | 190 | 0 | 8.03 | 0.07 | 120 | 370 | 14 | 0.3 | |
| 2/9/2004 | 12.3 | 180 | 56 | 29 | 0 | 620 | 0.48 | 240 | 180 | 0.2 | <0.1 | 26 | 42 | | <100 | 0.58 | <400 | 130 | 0 | 7.94 | 0.04 | 130 | 440 | 11.6 | 0.3 | |
| 5/20/2004 | 12.2 | 170 | 63 | 28 | 0 | 630 | | 270 | 170 | 0.2 | <0.1 | 28 | 41 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 7.77 | 0.07 | 150 | 450 | 18.6 | 0.61 | |
| 8/24/2004 | 12.4 | 170 | 58 | 29 | 0 | 640 | | 260 | 170 | 0.4 | <0.1 | 27 | 42 | | < 100 | < 440 | < 400 | < 100 | 0 | 7.96 | 0.09 | 120 | 440 | 19.7 | 0.6 | |
| 11/15/2004 | 12.3 | 180 | 58 | 32 | 0 | 670 | | 280 | 180 | 0.2 | <0.1 | 33 | 44 | | <100 | <0.44 | <400 | < 100 | 0 | 7.91 | 0.1 | 140 | 460 | 14.3 | <0.5 | |
| 2/16/2005 | 12.3 | 150 | 66 | 25 | 0 | 630 | | 300 | 150 | 0.2 | <0.1* | 33 | 37 | | <100 | 1.4 | <400 | 320 | 0 | 7.91 | | 170 | 440 | 16.8 | | |
| 5/11/2005 | 12.2 | 160 | 71 | 32 | 0 | 750 | | 310 | 160 | 0.2 | <0.1 | 32 | 45 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 7.70 | <0.1 | 200 | 540 | 20.6 | < 0.5 | |
| 8/11/2005 | 12.4 | 160 | 64 | 31 | 0 | 690 | | 280 | 160 | 0.6 | <0.1 | 29 | 42 | | <100 | 0.62 | <400 | 140 | 0 | 7.99 | | 170 | 480 | 26.6 | | |
| 11/17/2005 | 12.2 | 160 | 56 | 32 | 0 | 660 | | 260 | 160 | 0 | <0.1 | 30 | 41 | | <100 | 1.1 | <400 | 240 | 0 | 7.83 | | 160 | 460 | 13 | | |
| 2/14/2006 | 12.7 | 140 | 62 | 30 | 10 | 690 | 0.35 | 290 | 130 | 0.7 | <0.1 | 32 | 42 | | <100 | <0.44 | <400 | <100 | 0 | 8.38 | 0.052 | 170 | 470 | 19.6 | 0.31 | |
| 5/16/2006 | 12.3 | 150 | 62 | 28 | 0 | 680 | | 270 | 150 | 0.3 | <0.1 | 29 | 40 | | < 100 | <0.44 | < 100 | < 100 | 0 | 7.90 | | 160 | 440 | 21 | | |
| 8/31/2006 | 11.9 | 160 | 58 | 30 | 0 | 660 | | 260 | 160 | -0.2 | <0.1 | 27 | 43 | | <100 | 0.53 | <400 | 120 | 0 | 7.51 | | 140 | 460 | 17.2 | | |
| 11/14/2006 | 11.9 | 160 | 60 | 30 | 0 | 670 | | 260 | 160 | -0.1 | <0.1 | 26 | 42 | | <100 | <0.44 | <400 | <100 | 0 | 7.51 | | 140 | 460 | 17.1 | | |
| 2/21/2007 | 12.1 | 160 | 58 | 32 | 0 | 690 | 0.59 | 260 | 160 | 0 | <0.1 | 28 | 42 | | <100 | 0.75 | <400 | 170 | 0 | 7.75 | | 150 | 440 | 15.2 | | |
| 5/17/2007 | 11.9 | 170 | 59 | 31 | 0 | 690 | | 260 | 170 | -0.01 | <0.1 | 29 | 42 | | <100 | 0.49 | <400 | 110 | 0 | 7.55 | 0.08 | 150 | 450 | 20.2 | 0.29 | |
| 8/15/2007 | 11.8 | 170 | 60 | 33 | 0 | 710 | | 270 | 170 | -0.1 | <0.1 | 29 | 42 | | <100 | 0.44 | <400 | 100 | 0 | 7.42 | 0.09 | 150 | 450 | 21.1 | 0.28 | |
| 11/27/2007 | 11.7 | 160 | 59 | 34 | 0 | 720 | | 260 | 160 | -0.4 | <0.1 | 28 | 40 | | <100 | 0.44 | <400 | 100 | 0 | 7.36 | 0.07 | 140 | 460 | 13.7 | < 0.20 | |
| 2/21/2008 | 12.0 | 170 | 64 | 35 | 0 | 720 | 0.53 | 270 | 170 | -0.08 | <0.1 | 27 | 42 | | <100 | <0.44 | <400 | <100 | 0 | 7.60 | 0.07 | 160 | 490 | 14 | 0.27 | |
| 5/29/2008 | 12.3 | 180 | 59 | 36 | 0 | 710 | | 260 | 180 | 0.26 | <0.1 | 28 | 41 | | <100 | <0.44 | <400 | <100 | 0 | 7.83 | 0.1 | 140 | 450 | 19.9 | 0.29 | |
| 8/28/2008 | 12.1 | 180 | 59 | 33 | 0 | 670 | | 260 | 180 | 0.18 | <0.1 | 27 | 43 | | 110 | 0.53 | <400 | 120 | 0 | 7.72 | | 130 | 470 | 20.5 | | |
| 11/24/2008 | 12.0 | 180 | 56 | 33.3 | 0 | 670 | | 250 | 180 | -0.14 | <0.1 | 26 | 42 | | <100 | 0.669 | <400 | 151 | 0 | 7.59 | 0.06 | 132 | 440 | 13.4 | < 0.20 | |
| 2/10/2009 | 12.1 | 170 | 58 | 36.3 | 0 | 720 | | 270 | 170 | -0.14 | <0.1 | 30 | 47 | | <100 | 0.607 | <400 | 137 | 0 | 7.68 | 0.06 | 145 | 460 | 10.5 | 0.66 | |
| 5/12/2009 | 12.3 | 140 | 57 | 33.4 | 0 | 670 | | 250 | 140 | 0.42 | <0.1 | 25 | 42 | | <100 | 0.713 | <400 | 161 | 0 | 8.02 | 0.12 | 125 | 430 | 23.4 | 0.72 | |
| 8/11/2009 | 12.6 | 160 | 54 | 30.8 | 0 | 660 | | 230 | 160 | 0.75 | <0.1 | 23 | 41 | | <100 | 0.488 | <400 | 105 | 0 | 8.45 | | 110 | 420 | 25.6 | | |
| 11/19/2009 | 12.4 | 160 | 57 | 33.1 | 0 | 640 | | 260 | 160 | 0.29 | <0.1 | 29 | 42 | | <100 | 0.611 | <400 | 138 | 0 | 8.04 | 0.043 | 143 | 440 | 14.8 | 0.22 | |
| 2/17/2010 | 12.0 | 180 | 67 | 39.8 | 0 | 760 | | 300 | 180 | -0.09 | <0.1 | 33 | 47 | | <100 | 0.443 | <400 | 100 | 0 | 7.82 | 0.081 | 167 | 510 | 16.8 | 0.34 | |
| 5/13/2010 | 11.7 | 160 | 40 | 32.7 | 0 | 670 | | 270 | 160 | -0.07 | <0.1 | 40 | 42 | | <100 | 0.478 | <400 | 108 | 0 | 7.92 | 0.1 | 147 | 440 | 23.6 | 1 | |
| 8/10/2010 | 12.5 | 150 | 54 | 32.2 | 0 | 613 | 0.5 | 235 | 150 | 0.62 | <0.1 | 24 | 42 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 8.19 | 0.073 | 128 | 420 | 24.5 | 0.42 | |

APPENDIX G - 2 HISTORICAL GENERAL MINERAL DATA 1991 through WATER YEAR 2013

HISTORICAL GENERAL MINERAL DATA EPILIMNION

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/12/2010 | 12.3 | 160 | 54 | 34 | 0 | 650 | 0.51 | 240 | 160 | 0.22 | <0.1 | 25 | 40 | | <100 | 0.48 | <400 | 110 | 0 | 7.97 | 0.052 | 120 | 420 | 15.4 | <0.2 | |
| 2/14/2011 | 12.2 | 170 | 57 | 32.8 | 0 | 686 | 0.491 | 270 | 170 | 0.01 | <0.10 | 30 | 43 | | < 100 | 0.616 | < 400 | 139 | 0 | 7.84 | 0.062 | 143 | 440 | 10.6 | 0.26 | |
| 5/25/2011 | 12.5 | 160 | 58 | 30.9 | 0 | 673 | 0.499 | 260 | 160 | 0.5 | <0.10 | 29 | 42 | | <100 | 0.589 | <400 | 133 | 0 | 8.09 | 0.058 | 144 | 490 | 20.8 | | |
| 8/17/2011 | 12.4 | 170 | 55 | 30 | 0 | 650 | 0.53 | 250 | 170 | 0.6 | <0.10 | 27 | 41 | | <100 | <0.88 | <400 | <200 | 0 | 8.00 | | 120 | 460 | | 0.3 | |
| 11/8/2011 | 12.1 | 170 | 55 | 31 | 0 | 660 | 0.605 | 250 | 170 | 0.01 | <0.1 | 27 | 41 | | <100 | 0.873 | <400 | 197 | 0 | 7.75 | | 128 | 420 | 14.1 | <0.2 | |
| 2/23/2012 | 12.1 | 160 | 56 | 30.3 | 0 | 660 | 0.529 | 260 | 160 | 0.01 | <0.10 | 28 | 40 | | <100 | 0.487 | <400 | 110 | 0 | 7.80 | | 139 | 440 | 13 | <0.2 | |
| 5/2/2012 | 12.2 | 160 | 56 | 30.7 | 0 | 663 | 0.549 | 260 | 160 | 0.24 | <0.10 | 28 | 42 | | <100 | 0.62 | <400 | 140 | 0 | 7.88 | 0.079 | 139 | 450 | 19 | 0.48 | |
| 8/22/2012 | 12.2 | 170 | 57 | 32 | 0 | 663 | 0.748 | 260 | 170 | 0.14 | <0.10 | 28 | 42 | | <100 | 0.75 | <400 | 170 | 0 | 7.79 | 0.096 | 130 | 440 | 17.9 | 0.22 | |
| 11/27/2012 | 12.1 | 160 | 57 | 31.5 | 0 | 670 | 0.487 | 250 | 160 | -0.13 | <0.10 | 28 | 41 | | <100 | 0.598 | < 400 | 135 | 0 | 7.70 | 0.080 | 131 | 460 | 11.6 | 0.20 | |
| 2/13/2013 | 12.1 | 160 | 57 | 32.2 | 0 | 670 | 0.454 | 250 | 160 | -0.07 | <0.10 | 27 | 43 | | <100 | 0.505 | < 400 | 114 | 0 | 7.76 | 0.049 | 138 | 420 | 11.1 | <0.20 | |
| 5/20/2013 | 12.1 | 180 | 55 | 31.3 | 0 | 659 | 0.493 | 250 | 180 | 0.09 | <0.10 | 28 | 43 | | <100 | 0.616 | < 400 | 139 | 0 | 7.71 | 0.010 | 127 | 450 | 18.5 | 0.21 | |
| 8/28/2013 | 11.8 | 180 | 56 | 31.1 | 0 | 670 | 0.464 | 251 | 180 | -0.25 | <0.10 | 27 | 43 | | <100 | 0.709 | < 400 | 160 | 0 | 7.36 | 0.103 | 118 | 430 | 18.6 | <0.20 | |
| Average | 12.1 | 159 | 53 | 28 | 0 | 603 | 0.50 | 250 | 158 | 0.1 | <0.1 | 25 | 38 | <0.10 | <100 | 0.92 | <400 | 207 | 0 | 7.90 | <0.10 | 122 | 409 | 17.9 | 0.4 | <1.0 |
| Low | 11.1 | 122 | 39 | 17 | 0 | 420 | 0.35 | 166 | 122 | -1.0 | <0.1 | 17 | 25.3 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 7.36 | <0.10 | 63 | 292 | 10.4 | <0.2 | <1.0 |
| High | 12.7 | 190 | 79 | 40 | 20 | 830 | 0.75 | 359 | 190 | 0.75 | 0.15 | 40 | 47.9 | <0.10 | 110 | 5.3 | 1200 | 1200 | 0 | 8.45 | 0.20 | 218 | 644 | 27.1 | 1 | <1.0 |
| Count | 77 | 77 | 77 | 77 | 77 | 77 | 54 | 77 | 77 | 77 | 75 | 77 | 77 | 18 | 73 | 75 | 71 | 75 | 77 | 77 | 48 | 77 | 77 | 75 | 23 | 6 |

HISTORICAL GENERAL MINERAL DATA VALVE TO SLO

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | | mg/L | mg/L | mg/L | mg/L | umhos/cm | mg/L | mg/L | mg/L | | mg/L | mg/L | mg/L | mg/L | ug/L | mg/L | ug/L | ug/L | mg/L | | mg/L | mg/L | mg/L | C | mg/L | mg/L |
| 3/31/1992 | 11.1 | 71 | 26 | 12 | 0 | 300 | <.10 | 118 | 71 | -1 | <.10 | 13 | 12.1 | | | 1.77 | | 400 | 0 | 7.43 | | 64 | 228 | 12.9 | | |
| 5/4/1992 | 11.5 | 88 | 26 | 9.6 | 0 | 297 | <.10 | 115 | 88 | -0.7 | <.10 | 12 | 13.8 | | | 1.77 | | 400 | 0 | 7.72 | | 60 | 228 | | | |
| 5/11/1993 | 12.0 | 92 | 28 | 14 | 0 | 345 | <.10 | 128 | 92 | 0 | <0.1 | 14 | 16.8 | | | <.44 | | <100 | 0 | 8.16 | | 63 | 244 | 20 | | |
| 4/26/1994 | 12.9 | 119 | 37 | 14 | 8 | 405 | 0.19 | 165 | 111 | 0.9 | <.1 | 18 | 18.2 | | <5 | <.44 | <100 | <100 | 0 | 8.88 | | 83 | 278 | | | |
| 4/26/1995 | 11.9 | 87 | 26 | 8.7 | 0 | 300 | 0.17 | 120 | 87 | 0.8 | <0.1 | 13 | 13.8 | | <5.0 | <.44 | <100 | <100 | 0 | 8.16 | | 53.5 | 266 | 15.5 | | |
| 8/7/1995 | 12.4 | 118 | 33 | 12 | 10 | 395 | 0.26 | 158 | 108 | 0.5 | <.1 | 18 | 20.2 | | <5.0 | <.44 | <100 | <100 | 0 | 8.44 | | 79 | 354 | 22.3 | | |
| 11/8/1995 | 11.8 | 121 | 36 | 10.9 | 0 | 390 | 0.24 | 162 | 121 | -0.2 | <.1 | 18 | 18.8 | | <5.0 | <.44 | <100 | <100 | 0 | 7.74 | | 76.2 | 284 | 17 | | |
| 2/7/1996 | 12.3 | 117 | 34 | 11.1 | 0 | 350 | 0.2 | 161 | 117 | 0.2 | <.1 | 19 | 18.2 | | <5.0 | <.44 | <100 | <100 | 0 | 8.29 | | 66 | 278 | 15 | | |
| 5/15/1996 | 12.2 | 106 | 32 | 8.8 | 0 | 460 | 0.22 | 160 | 106 | 0.7 | <.1 | 19 | 19.5 | | <5.0 | 0.53 | 120 | 120 | 0 | 8.23 | | 74.2 | 390 | | | |
| 8/5/1996 | 13.0 | 122 | 33 | 14.5 | 10 | 390 | 0.22 | 158 | 112 | 1.1 | <.1 | 18 | 21.5 | | <5.0 | <.22 | <50 | <50 | 0 | 8.96 | | 71.9 | 288 | 26.1 | | |
| 11/13/1996 | 11.8 | 126 | 33 | 12.1 | 0 | 510 | 0.24 | 169 | 126 | -0.3 | <.1 | 21 | 21.1 | | <5.0 | <.22 | <50 | <50 | 0 | 7.76 | | 65 | 352 | 15.6 | | |
| 2/10/1997 | 11.1 | 71 | 20 | 5 | 0 | 230 | 0.18 | 96 | 71 | -1 | <.1 | 11 | 11 | <.10 | 6.1 | 2.7 | 610 | 610 | 0 | 7.57 | <.10 | 41 | 174 | 13 | | |
| 5/20/1997 | 12.6 | 108 | 28 | 10.4 | 6 | 330 | 0.18 | 135 | 102 | 0.7 | <.1 | 16 | 17 | <.10 | <5.0 | 0.36 | | 81 | 0 | 8.77 | <.10 | 55 | 308 | 23 | | |
| 8/21/1997 | 12.1 | 120 | 29 | 8.7 | 0 | 360 | 0.22 | 150 | 120 | 1.2 | <.1 | 19 | 18.9 | <.10 | <5.0 | <.22 | | <50 | 0 | 8.18 | <.10 | 46 | 214 | 22.4 | | |
| 11/18/1997 | 11.3 | 129 | 31 | 9.9 | 0 | 360 | 0.21 | 145 | 129 | -0.8 | <0.1 | 16 | 18.8 | <.10 | <100 | <.44 | <400 | <100 | 0 | 7.27 | 0.26 | 54 | 240 | 14.5 | | |
| 2/10/1998 | 11.4 | 76 | 20 | 6.7 | 0 | 220 | 0.19 | 90 | 76 | -0.7 | 0.1 | 9.7 | 11.6 | <.10 | <100 | 4.1 | 930 | 930 | 0 | 7.86 | 0.12 | 35 | 188 | 11 | | |
| 5/19/1998 | 11.6 | 100 | 34 | 11 | 0 | 408 | 0.21 | 160 | 100 | -0.4 | 0.1 | 18 | 19 | <.10 | <100 | <.44 | <400 | <100 | 0 | 7.66 | <.10 | 83 | 280 | 16.8 | | |
| 8/11/1998 | 12.6 | 140 | 43 | 15 | 0 | 511 | 0.25 | 210 | 140 | 0.7 | <0.1 | 25 | 26 | <.10 | <100 | <.44 | <400 | <100 | 0 | 8.38 | <.10 | 110 | 360 | 23.9 | | |
| 11/17/1998 | 12.0 | 140 | 40 | 14 | 0 | 470 | 0.27 | 190 | 140 | 0 | <0.1 | 22 | 24 | <.10 | <100 | <.44 | <400 | <100 | 0 | 7.88 | <.10 | 99 | 380 | 15 | | |
| 2/16/1999 | 12.5 | 140 | 45 | 14 | 0 | 480 | 0.27 | 210 | 140 | 0.3 | <0.1 | 23 | 26 | <0.10 | <100 | <.44 | <400 | <100 | 0 | 8.04 | <.10 | 92 | 350 | 10.2 | | |
| 5/19/1999 | 12.1 | 150 | 45 | 15 | 0 | 503 | 0.25 | 220 | 150 | 0 | <0.1 | 27 | 25 | <0.10 | <100 | <.44 | <400 | <100 | 0 | 8.44 | <0.10 | 100 | 400 | 14.2 | | |
| 8/10/1999 | 12.7 | 140 | 45 | 19 | 24 | 527 | 0.27 | 210 | 110 | 0.8 | <0.1 | 26 | 28 | <0.10 | <100 | <.44 | <400 | <100 | 0 | 8.34 | <0.10 | 120 | 510 | 22 | | |
| 11/16/1999 | 12.2 | 160 | 42 | 17 | 0 | 540 | 0.27 | 220 | 160 | 0.1 | <0.1 | 31 | 28 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 8.21 | <0.10 | 110 | 510 | 15.4 | | |
| 2/15/2000 | 12.5 | 180 | 44 | 19 | 0 | 520 | 0.3 | 220 | 180 | 0.4 | <0.1 | 27 | 29 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 8.16 | <0.10 | 120 | 470 | 12 | <1.0 | <1.0 |
| 5/9/2000 | 11.2 | 140 | 39 | 14 | 0 | 447 | 0.24 | 190 | 140 | -0.9 | <0.1 | 23 | 28 | <0.10 | <100 | 0.97 | <400 | 220 | 0 | 7.57 | <0.10 | 95 | 430 | 15.6 | <1.0 | <1.0 |
| 8/15/2000 | 12.1 | 140 | 39 | 17 | 0 | 510 | 0.25 | 200 | 140 | 0.2 | <0.1 | 25 | 26 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 8.28 | <0.10 | 110 | 340 | 23.4 | <1.0* | <1.0 |
| 11/14/2000 | 11.7 | 140 | 40 | 16 | 0 | 480 | 0.27 | 190 | 140 | -0.4 | <0.1 | 23 | 26 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 7.98 | <0.10 | 100 | 370 | 13.2 | <1.0 | <1.0 |
| 2/21/2001 | 11.6 | 150 | 42 | 18 | 0 | 500 | 0.28 | 210 | 150 | -0.6 | <0.1 | 25 | 27 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 8.03 | <0.10 | 110 | 450 | 10.9 | <1.0 | <1.0 |
| 5/22/2001 | 11.2 | 91 | 30 | 9.6 | 0 | 300 | 0.19 | 120 | 91 | -0.9 | <0.1 | 15 | 14 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 7.38 | <0.10 | 57 | 230 | 16.2 | <1.0 | <1.0 |
| 8/14/2001 | 12.1 | 130 | 34 | 12 | 0 | 370 | 0.24 | 160 | 130 | 0.3 | <0.1 | 17 | 20 | | <100 | <0.44 | <400 | <100 | 0 | 8.22 | <0.10 | 66 | 260 | 23 | <1.0 | |
| 11/1/2001 | 11.6 | 130 | 38 | 13 | 0 | 380 | 0.27 | 160 | 130 | -0.4 | <0.1 | 16 | 21 | | <100 | <0.44 | <400 | <100 | 0 | 8.01 | <0.10 | 75 | 290 | 17 | <1.0 | |
| 2/6/2002 | 11.6 | 140 | 36 | 13 | 0 | 410 | 0.26 | 160 | 140 | -0.6 | <0.1 | 18 | 20 | | <100 | <0.44 | <400 | <100 | 0 | 7.91 | <0.10 | 76 | 330 | 10 | <1.0 | |
| 5/14/2002 | 12.3 | 150 | 36 | 14 | 10 | 420 | 0.3 | 180 | 140 | 0.3 | <0.1 | 22 | 24 | | <100 | <0.44 | <400 | <100 | 0 | 8.49 | 0.36 | 83 | 290 | 19.8 | <1.0 | |
| 8/12/2002 | 12.6 | 140 | 30 | 16 | 30 | 420 | 0.3 | 160 | 110 | 0.8 | <0.1 | 22 | 27 | | <100 | <0.44 | <400 | <100 | 0 | 8.94 | 0.03 | 81 | 300 | 24 | 0.6 | |
| 11/13/2002 | 11.8 | 140 | 31 | 15 | 0 | 430 | 0.31 | 180 | 140 | -0.3 | <.1 | 25 | 26 | | <100 | <0.44 | <400 | <100 | 0 | 7.99 | 0.03 | 75 | 320 | 14 | 0.6 | |
| 2/4/2003 | 12.0 | 140 | 35 | 15 | 10 | 440 | 0.44 | 180 | 130 | -0.1 | <0.1 | 22 | 25 | | <100 | <0.44 | <400 | <100 | 0 | 8.4 | 0.04 | 81 | 300 | 11.9 | 0.8 | |
| 5/13/2003 | 12.4 | 150 | 41 | 16 | 0 | 470 | | 200 | 150 | 0.4 | <0.1 | 23 | 25 | | <100 | <0.44 | <400 | <100 | 0 | 8.23 | | 100 | 310 | 17.4 | | |
| 8/13/2003 | 12.8 | 140 | 34 | 18 | 30 | 480 | 0.4 | 190 | 110 | 1 | <0.1 | 25 | 28 | | <100 | <0.44 | <400 | <100 | 0 | 8.74 | 0.04 | 110 | 330 | 24.5 | 0.6 | |
| 11/17/2003 | 12.0 | 150 | 35 | 17 | 0 | 420 | 0.32 | 210 | 150 | 0 | <0.1 | 29 | 29 | | <100 | <0.44 | <400 | <100 | 0 | 7.93 | 0.05 | 94 | 290 | 15.1 | 0.73 | |
| 2/9/2004 | 12.3 | 150 | 38 | 18 | 0 | 500 | 0.35 | 210 | 150 | 0.1 | <0.1 | 28 | 30 | | <100 | <0.44 | <400 | <100 | 0 | 8.14 | 0.03 | 100 | 330 | 9.8 | 0.92 | |
| 5/20/2004 | 12.6 | 160 | 42 | 17 | 20 | 490 | | 210 | 140 | 0.7 | <0.1 | 25 | 29 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 8.41 | < 0.05 | 100 | 330 | 19.2 | 0.61 | |
| 8/24/2004 | 12.3 | 140 | 33 | 19 | 30 | 530 | | 200 | 110 | 0.5 | <0.1 | 28 | 34 | | < 100 | < 440 | < 400 | < 100 | 0 | 8.73 | 0.04 | 110 | 350 | 24.1 | 0.8 | |

APPENDIX G - 2 HISTORICAL GENERAL MINERAL DATA 1991 through WATER YEAR 2013

HISTORICAL GENERAL MINERAL DATA EPILIMNION

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/15/2004 | 11.7 | 160 | 39 | 19 | 0 | 560 | | 230 | 160 | -0.4 | <0.1 | 32 | 33 | | <100 | <0.44 | <400 | < 100 | 0 | 7.5 | <0.1 | 110 | 380 | 13.9 | 0.8 | |
| 2/16/2005 | 10.9 | 87 | 27 | 9.5 | 0 | 330 | | 130 | 87 | -1.1 | <0.1* | 15 | 15 | | <100 | 2.5 | 570 | 570 | 0 | 7.18 | | 61 | 230 | 16.5 | | |
| 5/11/2005 | 11.6 | 97 | 29 | 10 | 0 | 340 | | 130 | 97 | -0.4 | <0.1 | 15 | 17 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 7.72 | < 0.1 | 69 | 240 | 20.2 | 0.5 | |
| 8/11/2005 | 10.8 | 98 | 27 | 9.4 | 0 | 330 | | 130 | 98 | -1.2 | <0.1 | 15 | 15 | | <100 | <0.44 | <400 | <100 | 0 | 7.03 | | 57 | 230 | 16.1 | | |
| 11/17/2005 | 11.7 | 130 | 35 | 12 | 0 | 410 | | 170 | 130 | -0.3 | <0.1 | 19 | 20 | | <100 | <0.44 | <400 | <100 | 0 | 7.67 | | 70 | 290 | 15.7 | | |
| 2/14/2006 | 11.9 | 98 | 29 | 10 | 0 | 340 | 0.067 | 150 | 98 | -0.3 | <0.1 | 18 | 16 | | <100 | 0.93 | <400 | 210 | 0 | 8.01 | 0.064 | 58 | 230 | 12.4 | 1 | |
| 5/16/2006 | 11.3 | 85 | 26 | 8 | 0 | 300 | | 120 | 85 | -0.7 | <0.1 | 13 | 15 | | < 100 | <0.44 | < 100 | < 100 | 0 | 7.53 | | 52 | 200 | 20.1 | | |
| 8/31/2006 | 12.8 | 110 | 32 | 11 | 12 | 370 | | 150 | 100 | 0.9 | <0.1 | 17 | 20 | | <100 | <0.44 | <400 | <100 | 0 | 8.84 | | 67 | 260 | 23.9 | | |
| 11/14/2006 | 11.7 | 110 | 33 | 10 | 0 | 360 | | 140 | 110 | -0.3 | <0.1 | 15 | 17 | | <100 | <0.44 | <400 | <100 | 0 | 7.79 | | 61 | 250 | 16.1 | | |
| 2/21/2007 | 12.5 | 110 | 31 | 9.7 | 10 | 360 | 0.31 | 140 | 100 | 0.3 | <0.1 | 16 | 17 | | <100 | <0.44 | <400 | <100 | 10 | 8.52 | | 57 | 240 | 11.7 | | |
| 5/17/2007 | 12.1 | 120 | 35 | 10 | 0 | 390 | | 160 | 120 | 0.2 | <0.1 | 18 | 19 | | <100 | <0.44 | <400 | <100 | 0 | 8.12 | <0.02 | 62 | 240 | 21.3 | 0.53 | |
| 8/15/2007 | 12.1 | 120 | 33 | 12 | 0 | 400 | | 160 | 120 | 0.3 | <0.1 | 18 | 20 | | <100 | 0.66 | <400 | 150 | 0 | 8.15 | < 0.020 | 71 | 230 | 25 | 0.5 | |
| 11/27/2007 | 11.4 | 130 | 34 | 12 | 0 | 430 | | 170 | 130 | -0.61 | <0.1 | 20 | 21 | | <100 | <0.44 | <400 | <100 | 0 | 7.4 | 0.04 | 61 | 270 | 15.3 | 0.5 | |
| 2/21/2008 | 11.0 | 91 | 26 | 9.2 | 0 | 330 | 0.16 | 120 | 91 | -1.1 | <0.1 | 13 | 15 | | <100 | 3.3 | 750 | 750 | 0 | 7.26 | 0.04 | 51 | 230 | 10.2 | 0.63 | |
| 5/29/2008 | 11.6 | 97 | 33 | 13 | 0 | 380 | | 140 | 97 | -0.43 | <0.1 | 14 | 17 | | <100 | 0.62 | <400 | 140 | 0 | 7.65 | 0.02 | 67 | 240 | 18.3 | 0.78 | |
| 8/28/2008 | 11.5 | 120 | 33 | 17 | 0 | 430 | | 160 | 120 | -0.3 | <0.1 | 18 | 23 | | <100 | <0.44 | <400 | <100 | 0 | 7.54 | 0.07 | 70 | 260 | 25.3 | 1.3 | |
| 11/24/2008 | 11.9 | 110 | 33 | 13.1 | 0 | 410 | | 150 | 110 | -0.14 | <0.1 | 17 | 20 | | <100 | <0.443 | <400 | <100 | 0 | 7.98 | < 0.020 | 66.1 | 250 | 14.6 | 0.68 | |
| 2/10/2009 | 12.1 | 120 | 34 | 12.4 | 0 | 410 | | 160 | 120 | -0.11 | <0.1 | 18 | 20 | | <100 | <0.443 | <400 | <100 | 0 | 8.06 | 0.04 | 63.6 | 250 | 10.9 | 0.7 | |
| 5/12/2009 | 12.7 | 150 | 37 | 14.2 | 15 | 430 | | 170 | 130 | 0.73 | <0.1 | 19 | 22 | | <100 | <0.443 | <400 | <100 | 0 | 8.51 | 0.02 | 69.5 | 280 | 21.4 | 0.55 | |
| 8/11/2009 | 12.4 | 120 | 34 | 15.3 | 5 | 460 | | 160 | 110 | 0.58 | <0.1 | 20 | 25 | | <100 | <0.443 | <400 | <100 | 0 | 8.78 | <0.02 | 69.9 | 260 | 26.8 | 0.61 | |
| Average | 12.0 | 123 | 34 | 13 | 4 | 409 | 0.23 | 165 | 119 | -0.02 | <0.1 | 20 | 21 | <0.10 | <100 | 0.33 | <400 | <100 | 0 | 8.05 | 0.03 | 77 | 298 | 17.3 | 0.7 | <1.0 |
| Low | 10.8 | 71 | 20 | 5.0 | 0 | 220 | 0.067 | 90 | 71 | -1.2 | <0.1 | 9.7 | 11 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 7.03 | <0.02 | 35 | 174 | 9.8 | 0.5 | <1.0 |
| High | 13.0 | 180 | 45 | 19 | 30 | 560 | 0.44 | 230 | 180 | 1.2 | 0.1 | 32 | 34 | <0.10 | <100 | 4.1 | 930 | 930 | 10 | 8.96 | 0.36 | 120 | 510 | 26.8 | 1.3 | <1.0 |
| Count | 62 | 62 | 62 | 62 | 62 | 62 | 42 | 62 | 62 | 62 | 2 | 62 | 62 | 18 | 59 | 62 | 57 | 62 | 62 | 62 | 43 | 62 | 62 | 59 | 21 | 6 |

HISTORICAL GENERAL MINERAL DATA V-NOTCH

| Date | Al-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | | mg/L | mg/L | mg/L | mg/L | umhos/cm | mg/L | mg/L | mg/L | | mg/L | mg/L | mg/L | mg/L | ug/L | mg/L | ug/L | ug/L | mg/L | | mg/L | mg/L | mg/L | C | mg/L | mg/L |
| 4/30/1991 | 11.7 | 124 | 61 | 18 | 0 | 523 | 0.52 | 308 | 124 | 0.7 | <0.1 | 38 | 31 | | | 5.18 | | 1170 | 0 | 8.43 | | 229 | 516 | | | |
| 3/31/1992 | 11.9 | 116 | 47 | 16 | 0 | 408 | 0.26 | 207 | 116 | 0 | <.10 | 22 | 20.4 | | | 1.42 | | 320 | 0 | 7.99 | | 108 | 402 | 12.8 | | |
| 8/7/1995 | 11.8 | 84 | 23 | 6 | 0 | 260 | 0.18 | 105 | 83.5 | -0.3 | <.1 | 12 | 12.6 | | 25 | 1.1 | 280 | 250 | 0 | 7.96 | | 48.9 | 242 | 20.7 | | |
| 11/8/1995 | 12.8 | 112 | 31 | 7.8 | 0 | 325 | 0.26 | 141 | 112 | -0.2 | <.1 | 16 | 15.5 | | 13 | 1.7 | 390 | 380 | 0 | 8.01 | | 52.5 | 218 | 12.3 | | |
| 2/7/1996 | 12.3 | 118 | 44 | 11.2 | 0 | 450 | 0.3 | 193 | 118 | 0.1 | <.1 | 20 | 21.4 | | <5.0 | 0.97 | 220 | 220 | 0 | 8.04 | | 98.5 | 405 | 16 | | |
| 5/15/1996 | 12.5 | 132 | 37 | 9.6 | 4 | 630 | 0.3 | 164 | 128 | 0.8 | <.1 | 17 | 24.1 | | <5.0 | 0.49 | 110 | 110 | 0 | 8.10 | | 78.5 | 536 | | | |
| 8/5/1996 | 11.7 | 120 | 32 | 11.5 | 0 | 350 | 0.19 | 144 | 120 | -0.2 | <.1 | 16 | 18 | | 8.7 | <.22 | <50 | <50 | 0 | 7.82 | | 54.3 | 240 | 15.9 | | |
| 11/13/1996 | 12.3 | 130 | 32 | 9.6 | 0 | 450 | 0.22 | 149 | 130 | -0.7 | <.1 | 17 | 18 | | 48 | 1.5 | 340 | 290 | 0 | 7.42 | | 47 | 304 | 10.8 | | |
| 2/10/1997 | 11.8 | 77 | 21 | 5.3 | 0 | 240 | 0.18 | 88 | 77 | -0.7 | <.1 | 8.7 | 11.4 | <.10 | 5.7 | 2.7 | 620 | 620 | 0 | 7.77 | 0.53 | 39 | 166 | 12 | | |
| 5/20/1997 | 12.8 | 98 | 26 | 8.8 | 0 | 320 | 0.18 | 133 | 98 | -0.3 | <.1 | 17 | 15.6 | <.10 | <5.0 | 2.8 | | 630 | 0 | 7.99 | <.10 | 56 | 204 | 14 | | |
| 8/21/1997 | 11.6 | 110 | 28 | 6.5 | 0 | 340 | 0.24 | 125 | 110 | -0.1 | <.1 | 13 | 16.4 | 0.28 | 32 | 0.89 | | 200 | 0 | 8.01 | 0.15 | 43 | 294 | 16.6 | | |
| 11/18/1997 | 11.5 | 122 | 28 | 8.4 | 0 | 325 | 0.19 | 133 | 122 | -0.6 | <0.1 | 15 | 16.4 | 0.5 | <100 | 0.75 | <400 | 170 | 0 | 7.60 | <.10 | 41 | 226 | 13 | | |
| 2/10/1998 | 12.4 | 75 | 23 | 6.5 | 0 | 270 | 0.19 | 97 | 75 | -0.8 | 0.2 | 9.6 | 11.8 | <.10 | <100 | 3.8 | 850 | 850 | 0 | 7.69 | <0.10 | 37 | 180 | 10 | | |
| 5/19/1998 | 12.2 | 110 | 36 | 11 | 0 | 423 | 0.21 | 170 | 110 | 0.2 | 0.1 | 19 | 20 | <.10 | <100 | <.44 | <400 | <100 | 0 | 8.31 | <.10 | 84 | 270 | 13.6 | | |
| 8/11/1998 | 12.3 | 110 | 36 | 11 | 0 | 407 | 0.2 | 160 | 110 | 0.4 | <0.1 | 17 | 20 | <.10 | <100 | 1.3 | <400 | 300 | 0 | 8.28 | <.10 | 79 | 260 | 21.4 | | |
| 11/17/1998 | 11.8 | 130 | 32 | 11 | 0 | 380 | 0.22 | 160 | 130 | -0.4 | <0.1 | 19 | 18 | <.10 | <100 | 0.53 | <400 | 120 | 0 | 7.75 | 0.17 | 66 | 290 | 12 | | |
| 2/16/1999 | 12.5 | 130 | 41 | 13 | 0 | 460 | 0.28 | 190 | 130 | 0.3 | <0.1 | 21 | 26 | <0.10 | <100 | <.44 | <400 | <100 | 0 | 8.17 | <.10 | 94 | 430 | 11.1 | | |
| 5/19/1999 | 12.6 | 150 | 43 | 14 | 13 | 490 | 0.24 | 200 | 140 | 0.6 | <0.1 | 23 | 24 | <0.10 | <100 | 1.5 | <400 | 330 | 0 | 7.99 | <0.10 | 88 | 340 | 21.1 | | |
| 8/10/1999 | 12.4 | 160 | 44 | 18 | 0 | 506 | 0.3 | 210 | 160 | 0.3 | <0.1 | 24 | 26 | 0.21 | <100 | 0.66 | <400 | 150 | 0 | 7.96 | 0.16 | 100 | 370 | 14.2 | | |
| 11/16/1999 | 12.1 | 180 | 46 | 15 | 0 | 500 | 0.24 | 210 | 180 | -0.1 | <0.1 | 24 | 24 | 0.41 | <100 | 0.8 | <400 | 180 | 0 | 7.86 | 0.19 | 85 | 330 | 12.2 | | |
| 2/15/2000 | 11.9 | 160 | 44 | 16 | 0 | 500 | 0.36 | 220 | 160 | -0.3 | <0.1 | 27 | 26 | <0.10 | <100 | 1.6 | <400 | 360 | 0 | 7.81 | <0.10 | 120 | 340 | 10.5 | <1.0 | <1.0 |
| 5/9/2000 | 12.4 | 140 | 42 | 16 | 10 | 430 | 0.31 | 190 | 130 | 0.4 | <0.1 | 22 | 24 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 8.55 | <0.10 | 110 | 330 | 17.7 | <1.0 | <1.0 |
| 8/15/2000 | 11.4 | 170 | 41 | 17 | 0 | 530 | 0.26 | 210 | 170 | -0.6 | <0.1 | 27 | 26 | 0.31 | <100 | 0.53 | <400 | 120 | 0 | 8.13 | 0.16 | 88 | 470 | 15.2 | <1.0* | <1.0 |
| 11/14/2000 | 11.6 | 160 | 42 | 17 | 0 | 510 | 0.27 | 220 | 160 | -0.6 | <0.1 | 28 | 28 | <0.10 | <100 | 1 | <400 | 230 | 0 | 8.07 | 0.17 | 91 | 450 | 9.7 | <1.0 | <1.0 |
| 2/21/2001 | 11.8 | 130 | 40 | 17 | 0 | 500 | 0.32 | 210 | 130 | -0.4 | <0.1 | 26 | 27 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 8.43 | <0.10 | 110 | 470 | 10.9 | <1.0 | <1.0 |
| 5/22/2001 | 13.0 | 110 | 35 | 12 | 24 | 360 | 0.3 | 150 | 86 | 1.2 | <0.1 | 18 | 20 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 9.07 | <0.10 | 75 | 280 | 24.28 | <1.0 | <1.0 |
| 8/14/2001 | 12.0 | 130 | 34 | 12 | 0 | 400 | 0.21 | 160 | 130 | 0 | <0.1 | 18 | 21 | | <100 | 0.93 | <400 | 210 | 0 | 8.09 | <0.10 | 66 | 310 | 15.7 | <1.0 | |
| 11/1/2001 | 11.7 | 140 | 37 | 13 | 0 | 380 | 0.28 | 160 | 140 | -0.5 | <0.1 | 18 | 21 | | <100 | 0.49 | <400 | 110 | 0 | 7.95 | 0.19 | 72 | 290 | 12.1 | <1.0 | |
| 2/6/2002 | 11.0 | 160 | 35 | 14 | 0 | 420 | 0.32 | 160 | 160 | -1.2 | <0.1 | 19 | 21 | | <100 | <0.44 | <400 | <100 | 0 | 8.04 | <0.10 | 76 | 350 | 8.5 | <1.0 | |
| 5/14/2002 | 12.2 | 150 | 39 | 13 | 0 | 410 | 0.3 | 170 | 150 | 0.1 | <0.1 | 18 | 22 | | <100 | 0.66 | <400 | 150 | 0 | 8.13 | 0.53 | 69 | 300 | 13.2 | <1.0 | |
| 8/12/2002 | 11.8 | 170 | 38 | 13 | 0 | 420 | 0.3 | 170 | 170 | -0.3 | <0.1 | 19 | 22 | | <100 | 0.62 | <400 | 140 | 0 | 7.71 | 0.22 | 62 | 300 | 11.5 | <0.5 | |
| 11/13/2002 | 11.7 | 170 | 40 | 13 | 0 | 410 | 0.3 | 190 | 170 | -0.5 | <.1 | 21 | 22 | | <100 | 1 | <400 | 230 | 0 | 7.55 | 0.36 | 58 | 290 | 10 | 1 | |
| 2/4/2003 | 12.5 | 190 | 54 | 23 | 20 | 600 | 0.6 | 250 | 170 | 0.3 | <0.1 | 28 | 37 | | <100 | <0.44 | <400 | <100 | 0 | 8.45 | 0.27 | 120 | 420 | 8.6 | 1.4 | |
| 5/13/2003 | 12.0 | 200 | 56 | 17 | 0 | 640 | | 280 | 200 | -0.1 | <0.1 | 34 | 38 | | <100 | <0.44 | <400 | <100 | 0 | 7.53 | | 150 | 450 | 17.6 | | |

APPENDIX G - 2 HISTORICAL GENERAL MINERAL DATA 1991 through WATER YEAR 2013

HISTORICAL GENERAL MINERAL DATA EPILIMNION

| Date | AI-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8/13/2003 | 11.7 | 160 | 37 | 16 | 0 | 470 | 0.32 | 180 | 160 | -0.4 | <0.1 | 22 | 24 | | <100 | 1.7 | <400 | 380 | 0 | 7.53 | 0.24 | 80 | 320 | 14 | 1 | |
| 11/17/2003 | 11.9 | 170 | 41 | 15 | 0 | 410 | 0.27 | 230 | 170 | -0.3 | <0.1 | 31 | 25 | | <100 | 1.7 | <400 | 380 | 0 | 7.64 | 0.47 | 65 | 310 | 10.5 | 1.4 | |
| 2/9/2004 | 12.1 | 160 | 39 | 18 | 0 | 500 | 0.33 | 220 | 160 | -0.2 | <0.1 | 31 | 31 | | <100 | 0.53 | <400 | 120 | 0 | 7.86 | 0.02 | 99 | 330 | 6.6 | 0.73 | |
| 5/20/2004 | 11.8 | 160 | 40 | 17 | 0 | 480 | | 210 | 160 | -0.3 | <0.1 | 26 | 28 | | < 100 | 1 | < 400 | 230 | 0 | 7.63 | 0.07 | 96 | 320 | 13 | 0.61 | |
| 8/24/2004 | 11.6 | 160 | 37 | 16 | 0 | 500 | | 190 | 160 | -0.5 | <0.1 | 23 | 29 | | < 100 | 1.9 | 430 | 430 | 0 | 7.44 | 0.24 | 78 | 340 | 13.1 | 1.1 | |
| 11/15/2004 | 11.7 | 170 | 41 | 20 | 0 | 540 | | 220 | 170 | -0.5 | <0.1 | 28 | 32 | | <100 | 2.1 | 470 | 470 | 0 | 7.45 | 0.3 | 92 | 360 | 11.3 | 1.1 | |
| 2/16/2005 | 11.0 | 62 | 14 | 5.4 | 0 | 190 | | 65 | 62 | -0.9 | <0.1* | 7.3 | 7.8 | | <100 | 0.58 | <400 | 130 | 0 | 7.70 | | 28 | 130 | 16.4 | | |
| 5/11/2005 | 12.0 | 96 | 30 | 10 | 0 | 340 | | 140 | 96 | 0.1 | <0.1 | 15 | 17 | | < 100 | < 0.44 | < 400 | < 100 | 0 | 8.16 | < 0.1 | 70 | 240 | 20.8 | 0.9 | |
| 8/11/2005 | 11.7 | 100 | 26 | 10 | 0 | 340 | | 130 | 100 | -0.3 | <0.1 | 17 | 16 | | <100 | 0.71 | <400 | 160 | 0 | 7.86 | | 58 | 240 | 17.7 | | |
| 11/17/2005 | 11.4 | 120 | 29 | 10 | 0 | 340 | | 140 | 120 | -0.8 | <0.1 | 16 | 16 | | <100 | 1.8 | <400 | 410 | 0 | 7.44 | | 51 | 230 | 9.7 | | |
| 2/14/2006 | 11.6 | 99 | 30 | 10 | 0 | 350 | 0.072 | 140 | 99 | -0.6 | <0.1 | 16 | 17 | | <100 | 0.93 | <400 | 210 | 0 | 7.74 | 0.058 | 60 | 250 | 10.9 | 0.73 | |
| 5/16/2006 | 12.4 | 89 | 26 | 9 | 0 | 320 | | 120 | 89 | 0.5 | <0.1 | 14 | 16 | | < 100 | <0.44 | < 100 | < 100 | 0 | 8.65 | | 59 | 220 | 23.9 | | |
| 8/31/2006 | 11.4 | 83 | 22 | 7 | 0 | 260 | | 99 | 83 | -0.6 | <0.1 | 11 | 12 | | <100 | 0.53 | <400 | 120 | 0 | 7.78 | 0.21 | 36 | 180 | 14.6 | 0.64 | |
| 11/14/2006 | 11.3 | 85 | 22 | 6.9 | 0 | 260 | | 100 | 85 | -0.8 | <0.1 | 11 | 11 | | <100 | 0.89 | <400 | 200 | 0 | 7.59 | | 32 | 180 | 14 | | |
| 2/21/2007 | 11.8 | 100 | 31 | 9.8 | 0 | 360 | 0.31 | 150 | 100 | -0.4 | <0.1 | 18 | 17 | | <100 | 0.93 | <400 | 210 | 0 | 7.96 | | 56 | 230 | 8.5 | | |
| 5/17/2007 | 12.2 | 120 | 32 | 9.5 | 0 | 370 | | 160 | 120 | 0.2 | <0.1 | 19 | 17 | | <100 | 0.53 | <400 | 120 | 0 | 8.20 | 0.04 | 55 | 230 | 19.5 | 0.49 | |
| 8/15/2007 | 11.9 | 120 | 30 | 9.6 | 0 | 370 | | 150 | 120 | -0.1 | <0.1 | 18 | 17 | | <100 | 0.93 | <400 | 210 | 0 | 7.93 | 0.14 | 52 | 220 | 18.1 | 0.63 | |
| 11/27/2007 | 11.4 | 130 | 32 | 10 | 0 | 400 | | 150 | 130 | -0.81 | <0.1 | 18 | 17 | | <100 | 1.6 | <400 | 350 | 0 | 7.35 | 0.4 | 41 | 250 | 10.8 | 1 | |
| 2/21/2008 | 11.9 | 80 | 23 | 8.6 | 0 | 300 | 0.15 | 110 | 80 | -0.3 | <0.1 | 13 | 14 | | <100 | 3 | 670 | 670 | 0 | 8.19 | 0.06 | 48 | 210 | 11.2 | 0.81 | |
| 5/29/2008 | 12.9 | 96 | 30 | 12 | 47 | 350 | | 130 | 49 | 0.96 | <0.1 | 14 | 16 | | <100 | 2.3 | 530 | 530 | 0 | 9.08 | 0.05 | 59 | 240 | 18.1 | 0.53 | |
| 8/28/2008 | 11.8 | 100 | 30 | 9.8 | 0 | 330 | | 140 | 100 | -0.24 | <0.1 | 15 | 17 | | <100 | 0.84 | <400 | 190 | 0 | 7.92 | 0.2 | 49 | 220 | 16.8 | 0.91 | |
| 11/24/2008 | 11.6 | 110 | 29 | 10.8 | 0 | 360 | | 130 | 110 | -0.6 | <0.1 | 15 | 16 | | <100 | 1.45 | <400 | 327 | 0 | 7.68 | 0.26 | 46.3 | 230 | 10.6 | 1 | |
| 2/10/2009 | 12.0 | 120 | 34 | 12.5 | 0 | 420 | | 160 | 120 | -0.23 | <0.1 | 18 | 21 | | <100 | 0.806 | <400 | 182 | 0 | 7.94 | 0.06 | 62.1 | 260 | 10.2 | 0.66 | |
| 5/12/2009 | 12.5 | 130 | 35 | 13.2 | 0 | 420 | | 160 | 130 | 0.51 | <0.1 | 19 | 20 | | <100 | 0.633 | <400 | 143 | 0 | 8.43 | 0.11 | 62 | 260 | 18.7 | 0.61 | |
| 8/11/2009 | 11.6 | 130 | 35 | 14.7 | 0 | 450 | | 160 | 130 | -0.36 | <0.1 | 18 | 21 | | <100 | 2.62 | 591 | 591 | 0 | 7.88 | 0.23 | 53.2 | 260 | 18.2 | 0.89 | |
| 11/19/2009 | 11.9 | 150 | 36 | 13 | 0 | 420 | | 180 | 150 | -0.29 | <0.1 | 22 | 21 | | <100 | 2.11 | 476 | 476 | 0 | 7.74 | 0.57 | 46.5 | 260 | 11.3 | 1.8 | |
| 5/13/2010 | 12.8 | 120 | 35 | 12.8 | 47 | 400 | | 170 | 68 | 0.92 | <0.1 | 19 | 22 | | <100 | 0.926 | <400 | 209 | 0 | 9.61 | 0.06 | 76.7 | 250 | 19.4 | 0.93 | |
| 8/10/2010 | 11.9 | 110 | 20 | 12 | 0 | 352 | 0.212 | 139 | 110 | -0.15 | <0.1 | 21 | 19 | | < 100 | 0.74 | < 400 | 167 | 0 | 8.14 | 0.2 | 57.7 | 230 | 16.1 | 0.79 | |
| 11/12/2010 | 11.8 | 130 | 31 | 13 | 0 | 370 | 0.26 | 150 | 130 | -0.33 | <0.1 | 16 | 18 | | <100 | 2.9 | 650 | 650 | 0 | 7.80 | 0.33 | 46 | 230 | 12 | 0.86 | |
| 2/14/2011 | 11.8 | 96 | 26 | 9.38 | 0 | 307 | 0.173 | 190 | 96 | -0.35 | <0.10 | 14 | 15 | | < 100 | 0.589 | < 400 | 133 | 0 | 8.04 | 0.049 | 48.4 | 210 | 10.4 | 0.74 | |
| 5/25/2011 | 12.3 | 98 | 32 | 10.3 | 11 | 360 | 0.235 | 140 | 87 | 0.46 | <0.10 | 15 | 18 | | <100 | 0.682 | <400 | 154 | 0 | 8.44 | 0.06 | 63.9 | 280 | 23.6 | | |
| 8/17/2011 | 11.8 | 73 | 21 | 6.7 | 0 | 250 | 0.15 | 100 | 72 | 0.33 | <0.10 | 12 | 13 | | <100 | 0.84 | <400 | 190 | 0 | 8.20 | | 40 | 180 | | 0.58 | |
| 11/8/2011 | 11.4 | 84 | 21 | 7.8 | 0 | 270 | 0.218 | 100 | 84 | -0.69 | <0.1 | 13 | 12 | | <100 | 1.14 | <400 | 258 | 0 | 7.74 | | 36.6 | 180 | 12.1 | 0.78 | |
| 2/23/2012 | 12.0 | 110 | 30 | 11 | 0 | 360 | 0.189 | 150 | 110 | -0.14 | <0.10 | 17 | 17 | | <100 | 1.02 | <400 | 231 | 0 | 8.12 | | 60.9 | 240 | 10.8 | 0.43 | |
| 5/2/2012 | 12.9 | 160 | 46 | 16.8 | 20 | 567 | 0.4 | 220 | 140 | 0.97 | <0.10 | 26 | 35 | | <100 | <0.443 | <400 | <100 | 0 | 8.60 | 0.36 | 121 | 370 | 22.6 | 1.4 | |
| 8/22/2012 | 12.2 | 120 | 33 | 12 | 0 | 380 | 0.433 | 150 | 120 | 0.12 | <0.10 | 17 | 19 | | <100 | 1.3 | <400 | 290 | 0 | 8.20 | 0.32 | 57 | 240 | 14.6 | 0.88 | |
| 11/27/2012 | 11.6 | 130 | 34 | 11.7 | 0 | 406 | 0.175 | 160 | 130 | -0.57 | <0.10 | 18 | 19 | | < 100 | 3.7 | 836 | 836 | 0 | 7.59 | 0.52 | 47.5 | 270 | 9.9 | 0.76 | |
| 2/13/2013 | 13.0 | 160 | 50 | 18.3 | 30 | 600 | 0.342 | 240 | 130 | 0.82 | <0.10 | 27 | 38 | | < 100 | < 0.443 | < 400 | < 100 | 0 | 8.70 | 0.23 | 127 | 390 | 10.9 | 0.48 | |
| 5/20/2013 | 12.4 | 140 | 34 | 13.4 | 0 | 424 | 0.192 | 170 | 140 | 0.38 | <0.10 | 20 | 22 | | < 100 | 1.55 | <400 | 350 | 0 | 8.30 | 0.14 | 60.6 | 280 | 17.3 | 0.52 | |
| 8/14/2013 | 12.2 | 141 | 17 | 13.3 | 0 | 434 | 0.172 | 170 | 141 | 0.19 | <0.10 | 21 | 22 | | < 100 | 1.47 | < 400 | 332 | 0 | 8.14 | 0.305 | 370 | 278 | 16.5 | 0.82 | |
| Average | 12.0 | 126 | 34 | 12 | 3 | 404 | 0.26 | 165 | 123 | -0.12 | <0.1 | 19 | 21 | 0.10 | <100 | 1.2 | 110 | 262 | 0 | 8.01 | 0.17 | 75 | 289 | 14.2 | 0.65 | <1.0 |
| Low | 11.0 | 62 | 14 | 5.3 | 0 | 190 | 0.072 | 65 | 49 | -1.2 | <0.1 | 7.3 | 7.8 | <0.10 | <100 | <0.44 | <400 | <100 | 0 | 7.35 | <0.10 | 28 | 130 | 6.6 | 0.43 | <1.0 |
| High | 13.0 | 200 | 61 | 23 | 47 | 640 | 0.60 | 308 | 200 | 1.2 | 0.2 | 38 | 38 | 0.50 | <100 | 5.18 | 850 | 1170 | 0 | 9.61 | 0.57 | 370 | 536 | 24.28 | 1.8 | <1.0 |
| Count | 74 | 74 | 74 | 74 | 74 | 74 | 52 | 74 | 74 | 74 | 72 | 74 | 74 | 18 | 72 | 72 | 68 | 72 | 74 | 74 | 56 | 74 | 74 | 71 | 46 | 6 |
| Date | AI-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | Phosphate | SO4 | TDS | Temp | TKN | TN-C |
| Units | | mg/L | mg/L | mg/L | mg/L | umhos/cm | mg/L | mg/L | mg/L | | mg/L | mg/L | mg/L | mg/L | ug/L | mg/L | ug/L | ug/L | mg/L | | mg/L | mg/L | mg/L | C | mg/L | mg/L |
| Date | AI-C | Alk | Ca | Cl | CO3 | EC | F | Hard | HCO3 | LI-C | MBAS | Mg | Na | NH3-N | NO2-N | NO3 | NO3+NO2-N | NO3-N | OH | pH | PO4-P-T-WQL | SO4 | TDS | Temp | TKN | TN-C |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Appendix G - 3**
VOCs, SOCs and Perchlorate

## SALINAS RESERVOIR RAW WATER (Most Recent Data)

| Constituent | Collected Date | Result | Units |
|---|---|---|---|
| **VOLATILE ORGANIC COMPOUNDS (VOCs)** | (Collected every 3 years) | | |
| | 8/11/2009 | Not Detected | |
| | 8/14/2012 | Not Detected | |
| | | | |
| **SYNTHETIC ORGANIC COMPOUNDS (SOCs)** | (waived by CDPH) | | |
| Atrazine | 8/11/2009 | <0.05 | ug/L |
| Simazine | 8/11/2009 | <0.05 | ug/L |
| | | | |
| Atrazine | 2/27/2007 | <0.05 | ug/L |
| Simazine | 2/27/2007 | <1.0 | ug/L |
| Benzo (a) pyrene | 2/27/2007 | <0.1 | ug/L |
| Diethylhexylphthalate (DEHP) | 2/27/2007 | <3.0 | ug/L |
| Di - (2-Ethylhexyl) adipate | 2/27/2007 | <5.0 | ug/L |
| Hexachlorobenzene | 2/27/2007 | <0.5 | ug/L |
| Hexachlorocyclopentdiene | 2/27/2007 | <1.0 | ug/L |
| Molinate | 2/27/2007 | <2.0 | ug/L |
| Thiobencarb | 2/27/2007 | <1.0 | ug/L |

| **PERCHLORATE** | (Collected Annually) | | |
|---|---|---|---|
| | 11/13/2007 | <4.0 | ug/L |
| | 5/29/2008 | <4.0 | ug/L |
| | 11/10/2008 | <4.0 | ug/L |
| | 5/12/2009 | <4.0 | ug/L |
| | 5/13/2010 | <4.0 | ug/L |
| | 5/25/2011 | <4.0 | ug/L |
| | 5/2/2012 | <4.0 | ug/L |
| | 5/1/2013 | <4.0 | ug/L |

SAL

APPENDIX H

# Creek/Watershed Inspection checklist

**Date:** 5/20/13 **Time:** 1253

**GPS coordinates:** **N:** **W:**

**Site/Location:** SALINAS

**Picture/Photo documentation?** (Yes) / No (Remember to archive images)

**Investigator(s):** KFH

**Routing to:**

| | | |
|---|---|---|
| **System Chemist** | KD | |

**Inspection items are listed below. Check the appropriate box to match observations.**

**I. In-stream characteristics**

**1. Water Flow:** Present conditions: SMALL CREEK BUT FLOWING SLOWLY

☑ in channel ☐ flooding over banks ☐ dry/pooling ☐ no flow

**Presence of naturally occurring organic material in stream:**

| | | | |
|---|---|---|---|
| Logs or large woody debris: | ☐ None | ☑ occasional | ☐ plentiful |
| Leaves, twigs, root mats, etc. | ☐ None | ☐ occasional | ☑ plentiful |

**2. Water odor:**

☐ no water present
☑ natural/none
☐ gasoline
☐ sewage
☐ chlorine
☐ rotten egg
☐ chemical
☐ other

**3. Water Surface:**

☐ no water present
☑ clear
☐ natural oily sheen
☐ foamy
☐ oily sheen (petroleum)
☐ other

**4. Water clarity: check all that apply (best determined by viewing water in a clear container)**

☑ turbid - suspended matter in water ☑ sediment ☑ blue/green algae

☐ tannic - clear water naturally stained orange/brownish due to organic acids in water

☐ no staining / no suspended matter ☐ other (chemical discharges, dyes)

**Notes on water clarity:**

**5. Stream bed: check all that apply**

☑ stream bed can be seen ☑ sediment buildup ☑ blue/green algae growth

☐ stream bed can not be seen ☑ other types of growths

**Notes on stream bed observations:**

PLANT GROWTH

**6. Bank erosion:**

How vegetated are the banks, looking up and down stream, for the length of your reach (circle a percentage)?

Vegetated banks — Bare/Eroded Banks

**100% 90% (80%) 70% 60% 50% 40% 30% 20% 10% 0%**

**What visual criteria did you use to assess the percentage above (check all that apply)?**

☑ sediment ☑ obvious loss of soil ☑ soil covered with vegetation

☐ steep slopes (banks are U shaped) ☑ gentle slopes

☐ exposed roots ☑ no exposed roots

SAL

**II. Visual Biological Survey**

**1. Wildlife in or around the stream:** ☐ no wildlife observed

☑ amphibians ☐ waterfowl ☑ birds ☐ reptiles ☐ crustaceans

☐ domesticated / farm animals (indicate type below) ☑ insect life

Notes on wildlife:

TADPOLES FIREFLIES, GNATS

**2. Fish in the stream:**

☑ none present ☐ yes, but rare ☐ yes, abundant

If present, estimate size

☐ small (1 - 2") ☐ medium (3 - 6") ☐ large (7" and above)

**3. Dumping (any)**

☑ none present ☐ yes, but rare ☐ yes, abundant

If dumping is present, indicate type

☐ construction material ☐ appliances ☐ other

Notes on dumping:

**Additional Observations and comments:**

| YES | NO | Inspection item |
|---|---|---|
| ✓ | | Sampling ? |

If yes, complete second page of this form which contains the Sampling checklist.

## Creek/Watershed Sampling checklist

If sampling, collect for the following:

***Remember to check only the items applicable to your specific site***

| Constituents | Type of sample | Units | Field Reading |
|---|---|---|---|
| Flow volume | estimate | gal/d | |
| Flow rate | estimate | gal/m | |
| pH | grab | pH units | 7.11 |
| Temperature | grab | °C | 18.5 |
| Dissolved oxygen | grab | mg/L | |
| Total chlorine residual | grab | mg/L | |

***Constituents below require samples to be collected.***

| Constituents | Type of sample | Collected | In-house / contract lab? |
|---|---|---|---|
| Total suspended solids | grab | | In-house / contract lab |
| Settleable solids | grab | | In-house / contract lab |
| Total dissolved solids | grab | | In-house / contract lab |
| Oil and grease | grab | | In-house / contract lab |
| Color | grab | | In-house / contract lab |
| Turbidity | grab | | In-house / contract lab |
| Total coliform | grab | | In-house / contract lab |
| Acute toxicity | grab | | In-house / contract lab |
| Other as specified | grab | | In-house / contract lab |
| List other requested analyses: | | | |

APPENDIX I

## Salinas Reservoir Invasive Mussel Inspection Form

**General observations/comments**

| **Analysis Number (WQL use)** | **Date Time Inspector** | **Site** | **Area Inspected** | **Depth or Linear (ft) Inspected** | **Status** | **Observations** | |
|---|---|---|---|---|---|---|---|
| | | Ranger Dock | Plexiglass/Condo<br>Concrete block<br>Rope length<br>Shoreline | 4.2<br>5<br>5 | **Are mussels present?**<br>____Not as far as I can tell<br>____Didn't inspect ☐No time; ☐Missing<br>____Maybe? Let's talk | Snails ☐<br>Midge larvae ☐<br>Grit/sandy substance ☐<br>Algae ☐ | Gelatinous organism ☐<br>Other ☐<br>Describe: |
| | | White Oak Flat | Plexiglass/Condo<br>Concrete block<br>Rope length<br>Shoreline | 4<br>8<br>10 | **Are mussels present?**<br>____Not as far as I can tell<br>____Didn't inspect ☐No time; ☐Missing<br>____Maybe? Let's talk | Snails ☐<br>Midge larvae ☐<br>Grit/sandy substance ☐<br>Algae ☐ | Gelatinous organism ☐<br>Other ☐<br>Describe: |
| | | Log Boom<br>(in 5 mph zone) | Plexiglass/Condo<br>Concrete block<br>Rope length<br>Shoreline | 3.5<br>8<br>15 | **Are mussels present?**<br>____Not as far as I can tell<br>____Didn't inspect ☐No time; ☐Missing<br>____Maybe? Let's talk | Snails ☐<br>Midge larvae ☐<br>Grit/sandy substance ☐<br>Algae ☐ | Gelatinous organism ☐<br>Other ☐<br>Describe: |
| | | | Plexiglass/Condo<br>Concrete block<br>Rope length<br>Shoreline | | **Are mussels present?**<br>____Not as far as I can tell<br>____Didn't inspect ☐No time; ☐Missing<br>____Maybe? Let's talk | Snails ☐<br>Midge larvae ☐<br>Grit/sandy substance ☐<br>Algae ☐ | Gelatinous organism ☐<br>Other ☐<br>Describe: |

Zebra and quagga mussels: can attach to both hard and soft surfaces - can detach from one place and move to another - prefer low light areas, especially juveniles. Juveniles can be < 1/4 inch; adults can be up to 2 inches. A hand lens is recommended for examining small organisms. Look for anything suspicious - especially a striped "D" shaped shell. I**nspection of other surfaces such as docks, buoys etc is encouraged**. Perform a tactile search in areas where visual inspection is impractical (e.g. dock flotation) - lightly run hand along surface; note observations, especially a feeling like seeds, small pebbles, or rough sandpaper.

**Suspicious organisms: If you have a question or concern anything you observe, please call the Water Quality Lab (805-781-5111) for follow up.**

Limpet

Pond snail

Zebra mussel

P. mag

Quagga mussel

Asian clam

APPENDIX J-1

# Salinas Dam Release Report

Date Range: 10/01/2012 - 09/30/2013

| Date | Lake Elevation | Capacity | Cap. Change | Pipeline Div. | Pipeline Div. | Downstream Release | SW Dis | Total Dis. | Pan Read | Pan Coeff | Lake Surface | Lake Evap. | Precip. | Precip. | Daily Outflow | Inflow |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (Ft) | (AF) | (AF) | (MGD) | (AF) | (AF) | (AF) | (AF) | (In) | | | (AF) | (In) | (AF) | (AF) | (AF) |
| 10/01/12 | 1,286.60 | 14,955.20 | -37.40 | 5.78 | 17.74 | 12.40 | 0.00 | 30.14 | 0.22 | 0.86 | 528.94 | 8.34 | 0.00 | 0.00 | 38.47 | 1.08 |
| 10/02/12 | 1,286.53 | 14,917.70 | -37.50 | 5.63 | 17.28 | 12.40 | 0.00 | 29.67 | 0.37 | 0.86 | 527.92 | 14.00 | 0.00 | 0.00 | 43.67 | 6.17 |
| 10/03/12 | 1,286.46 | 14,880.30 | -37.40 | 5.22 | 16.02 | 11.60 | 0.00 | 27.62 | 0.43 | 0.86 | 526.91 | 16.24 | 0.00 | 0.00 | 43.86 | 6.46 |
| 10/04/12 | 1,286.40 | 14,848.20 | -32.10 | 5.25 | 16.11 | 12.40 | 0.00 | 28.51 | 0.35 | 0.86 | 526.04 | 13.19 | 0.00 | 0.00 | 41.70 | 9.60 |
| 10/05/12 | 1,286.34 | 14,816.10 | -32.10 | 7.75 | 23.78 | 12.40 | 0.00 | 36.18 | 0.16 | 0.86 | 525.16 | 6.02 | 0.00 | 0.00 | 42.20 | 10.10 |
| 10/06/12 | 1,286.28 | 14,784.00 | -32.10 | 6.20 | 19.03 | 11.60 | 0.00 | 30.63 | 0.17 | 0.86 | 524.29 | 6.39 | 0.00 | 0.00 | 37.02 | 4.92 |
| 10/07/12 | 1,286.22 | 14,752.00 | -32.00 | 5.48 | 16.82 | 11.60 | 0.00 | 28.42 | 0.24 | 0.86 | 523.42 | 9.00 | 0.00 | 0.00 | 37.42 | 5.42 |
| 10/08/12 | 1,286.16 | 14,719.90 | -32.10 | 3.08 | 9.45 | 11.60 | 0.00 | 21.06 | 0.24 | 0.86 | 522.55 | 8.99 | 0.00 | 0.00 | 30.04 | -2.06 |
| 10/09/12 | 1,286.11 | 14,693.10 | -26.80 | 5.17 | 15.87 | 12.00 | 0.00 | 27.87 | 0.18 | 0.86 | 521.82 | 6.73 | 0.00 | 0.00 | 34.60 | 7.80 |
| 10/10/12 | 1,286.04 | 14,655.70 | -37.40 | 4.58 | 14.06 | 12.00 | 0.00 | 26.06 | 0.22 | 0.86 | 520.80 | 8.21 | 0.00 | 0.00 | 34.27 | -3.13 |
| 10/11/12 | 1,286.01 | 14,639.70 | -16.00 | 5.12 | 15.71 | 12.40 | 0.00 | 28.11 | 0.12 | 0.86 | 520.37 | 4.48 | 0.39 | 16.91 | 15.67 | -0.33 |
| 10/12/12 | 1,286.02 | 14,645.00 | 5.30 | 4.40 | 13.50 | 12.00 | 0.00 | 25.50 | 0.00 | 0.86 | 520.51 | 0.00 | 0.69 | 29.93 | -4.43 | 0.87 |
| 10/13/12 | 1,285.97 | 14,619.10 | -25.90 | 3.04 | 9.33 | 11.60 | 0.00 | 20.93 | 0.12 | 0.86 | 519.80 | 4.47 | 0.00 | 0.00 | 25.40 | -0.50 |
| 10/14/12 | 1,285.92 | 14,593.80 | -25.30 | 2.04 | 6.26 | 11.60 | 0.00 | 17.86 | 0.10 | 0.86 | 519.10 | 3.72 | 0.00 | 0.00 | 21.58 | -3.72 |
| 10/15/12 | 1,285.88 | 14,573.60 | -20.20 | 3.60 | 11.05 | 12.00 | 0.00 | 23.05 | 0.12 | 0.86 | 518.54 | 4.46 | 0.00 | 0.00 | 27.51 | 7.31 |
| 10/16/12 | 1,285.83 | 14,548.30 | -25.30 | 2.81 | 8.62 | 11.23 | 0.00 | 19.85 | 0.18 | 0.86 | 517.84 | 6.68 | 0.00 | 0.00 | 26.53 | 1.23 |
| 10/17/12 | 1,285.79 | 14,528.00 | -20.30 | 3.96 | 12.15 | 6.68 | 0.00 | 18.84 | 0.20 | 0.86 | 517.28 | 7.41 | 0.00 | 0.00 | 26.25 | 5.95 |
| 10/18/12 | 1,285.75 | 14,507.80 | -20.20 | 6.74 | 20.68 | 6.68 | 0.00 | 27.37 | 0.22 | 0.86 | 516.72 | 8.15 | 0.00 | 0.00 | 35.52 | 15.32 |
| 10/19/12 | 1,285.74 | 14,502.70 | -5.10 | 4.98 | 15.28 | 6.68 | 0.00 | 21.97 | 0.18 | 0.86 | 516.58 | 6.66 | 0.00 | 0.00 | 28.63 | 23.53 |
| 10/20/12 | 1,285.65 | 14,457.10 | -45.60 | 4.81 | 14.76 | 6.68 | 0.00 | 21.45 | 0.20 | 0.86 | 515.32 | 7.39 | 0.00 | 0.00 | 28.83 | -16.77 |
| 10/21/12 | 1,285.60 | 14,431.80 | -25.30 | 4.80 | 14.73 | 6.68 | 0.00 | 21.42 | 0.20 | 0.86 | 514.62 | 7.38 | 0.00 | 0.00 | 28.79 | 3.49 |
| 10/22/12 | 1,285.56 | 14,411.60 | -20.20 | 4.12 | 12.64 | 6.96 | 0.00 | 19.61 | 0.16 | 0.86 | 514.06 | 5.89 | 0.00 | 0.00 | 25.50 | 5.30 |
| 10/23/12 | 1,285.54 | 14,401.50 | -10.10 | 3.48 | 10.69 | 6.17 | 0.00 | 16.86 | 0.06 | 0.86 | 513.78 | 2.21 | 0.12 | 5.14 | 13.93 | 3.83 |
| 10/24/12 | 1,285.52 | 14,391.30 | -10.20 | 2.04 | 6.26 | 6.96 | 0.00 | 13.22 | 0.10 | 0.86 | 513.50 | 3.68 | 0.00 | 0.00 | 16.90 | 6.70 |
| 10/25/12 | 1,285.45 | 14,355.90 | -35.40 | 3.96 | 12.15 | 8.77 | 0.00 | 20.92 | 0.18 | 0.86 | 512.51 | 6.61 | 0.00 | 0.00 | 27.53 | -7.87 |
| 10/26/12 | 1,285.40 | 14,330.60 | -25.30 | 4.75 | 14.58 | 5.65 | 0.00 | 20.23 | 0.26 | 0.86 | 511.81 | 9.54 | 0.00 | 0.00 | 29.77 | 4.47 |
| 10/27/12 | 1,285.36 | 14,310.30 | -20.30 | 3.80 | 11.66 | 5.41 | 0.00 | 17.08 | 0.22 | 0.86 | 511.25 | 8.06 | 0.00 | 0.00 | 25.14 | 4.84 |
| 10/28/12 | 1,285.32 | 14,290.10 | -20.20 | 3.44 | 10.56 | 5.18 | 0.00 | 15.73 | 0.29 | 0.86 | 510.69 | 10.61 | 0.00 | 0.00 | 26.35 | 6.15 |
| 10/29/12 | 1,285.26 | 14,259.70 | -30.40 | 3.61 | 11.08 | 5.91 | 0.00 | 16.99 | 0.19 | 0.86 | 509.85 | 6.94 | 0.00 | 0.00 | 23.93 | -6.47 |
| 10/30/12 | 1,285.23 | 14,244.50 | -15.20 | 2.26 | 6.94 | 5.91 | 0.00 | 12.85 | 0.06 | 0.86 | 509.43 | 2.19 | 0.00 | 0.00 | 15.04 | -0.16 |
| 10/31/12 | 1,285.20 | 14,229.30 | -15.20 | 4.21 | 12.92 | 5.91 | 0.00 | 18.83 | 0.24 | 0.86 | 509.01 | 8.75 | 0.00 | 0.00 | 27.59 | 12.39 |
| 11/01/12 | 1,285.15 | 14,204.00 | -25.30 | 3.10 | 9.51 | 5.91 | 0.00 | 15.42 | 0.13 | 0.75 | 508.31 | 4.13 | 0.00 | 0.00 | 19.55 | -5.75 |
| 11/02/12 | 1,285.12 | 14,188.80 | -15.20 | 3.26 | 10.00 | 6.17 | 0.00 | 16.17 | 0.09 | 0.75 | 507.89 | 2.86 | 0.00 | 0.00 | 19.03 | 3.83 |
| 11/03/12 | 1,285.07 | 14,163.50 | -25.30 | 5.84 | 17.92 | 6.17 | 0.00 | 24.09 | 0.27 | 0.75 | 507.19 | 8.56 | 0.00 | 0.00 | 32.65 | 7.35 |
| 11/04/12 | 1,285.03 | 14,143.30 | -20.20 | 5.27 | 16.17 | 6.17 | 0.00 | 22.34 | 0.06 | 0.75 | 506.63 | 1.90 | 0.00 | 0.00 | 24.24 | 4.04 |
| 11/05/12 | 1,284.98 | 14,118.00 | -25.30 | 1.89 | 5.80 | 6.17 | 0.00 | 11.97 | 0.09 | 0.75 | 505.93 | 2.85 | 0.00 | 0.00 | 14.81 | -10.49 |

APPENDIX J-2

# Salinas Dam Release Report

Date Range: 10/01/2012 - 09/30/2013

| Date | Lake Elevation | Capacity | Cap. Change | Pipeline Div. | Pipeline Div. | Downstream Release | SW Dis | Total Dis. | Pan Read | Pan Coeff | Lake Surface | Lake Evap. | Precip. | Precip. | Daily Outflow | Inflow |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (Ft) | (AF) | (AF) | (MGD) | (AF) | (AF) | (AF) | (AF) | (In) | | | (AF) | (In) | (AF) | (AF) | (AF) |
| 11/06/12 | 1,284.95 | 14,102.80 | -15.20 | 4.78 | 14.67 | 6.17 | 0.00 | 20.84 | 0.02 | 0.75 | 505.51 | 0.63 | 0.00 | 0.00 | 21.47 | 6.27 |
| 11/07/12 | 1,284.90 | 14,077.50 | -25.30 | 6.08 | 18.66 | 6.17 | 0.00 | 24.83 | 0.23 | 0.75 | 504.81 | 7.26 | 0.00 | 0.00 | 32.08 | 6.78 |
| 11/08/12 | 1,284.87 | 14,062.30 | -15.20 | 2.91 | 8.93 | 6.17 | 0.00 | 15.10 | 0.14 | 0.75 | 504.39 | 4.41 | 0.01 | 0.42 | 19.09 | 3.89 |
| 11/09/12 | 1,284.83 | 14,042.00 | -20.30 | 3.47 | 10.65 | 5.65 | 0.00 | 16.30 | 0.09 | 0.75 | 503.83 | 2.83 | 0.00 | 0.00 | 19.14 | -1.16 |
| 11/10/12 | 1,284.80 | 14,026.90 | -15.10 | 4.25 | 13.04 | 4.72 | 0.00 | 17.76 | 0.11 | 0.75 | 503.41 | 3.46 | 0.00 | 0.00 | 21.22 | 6.12 |
| 11/11/12 | 1,284.76 | 14,006.60 | -20.30 | 5.00 | 15.34 | 4.94 | 0.00 | 20.28 | 0.11 | 0.75 | 502.85 | 3.46 | 0.00 | 0.00 | 23.74 | 3.44 |
| 11/12/12 | 1,284.72 | 13,986.40 | -20.20 | 3.61 | 11.08 | 4.72 | 0.00 | 15.80 | 0.19 | 0.75 | 502.29 | 5.96 | 0.00 | 0.00 | 21.76 | 1.56 |
| 11/13/12 | 1,284.67 | 13,961.10 | -25.30 | 4.11 | 12.61 | 4.72 | 0.00 | 17.33 | 0.20 | 0.75 | 501.59 | 6.27 | 0.00 | 0.00 | 23.60 | -1.70 |
| 11/14/12 | 1,284.63 | 13,940.80 | -20.30 | 4.41 | 13.53 | 4.72 | 0.00 | 18.25 | 0.16 | 0.75 | 501.02 | 5.01 | 0.00 | 0.00 | 23.26 | 2.96 |
| 11/15/12 | 1,284.61 | 13,930.70 | -10.10 | 2.34 | 7.18 | 1.01 | 0.00 | 8.19 | 0.11 | 0.75 | 500.74 | 3.44 | 0.00 | 0.00 | 11.64 | 1.54 |
| 11/16/12 | 1,284.55 | 13,900.30 | -30.40 | 4.39 | 13.47 | 1.01 | 0.00 | 14.49 | 0.14 | 0.75 | 499.90 | 4.37 | 0.00 | 0.00 | 18.86 | -11.54 |
| 11/17/12 | 1,284.56 | 13,905.40 | 5.10 | 3.34 | 10.25 | 1.01 | 0.00 | 11.26 | 0.04 | 0.75 | 500.04 | 1.25 | 0.48 | 20.00 | -7.49 | -2.39 |
| 11/18/12 | 1,284.57 | 13,910.40 | 5.00 | 3.29 | 10.10 | 1.01 | 0.00 | 11.11 | 0.18 | 0.75 | 500.18 | 5.63 | 0.26 | 10.84 | 5.90 | 10.90 |
| 11/19/12 | 1,284.59 | 13,920.60 | 10.20 | 3.27 | 10.04 | 1.01 | 0.00 | 11.05 | 0.00 | 0.75 | 500.46 | 0.00 | 0.10 | 4.17 | 6.88 | 17.08 |
| 11/20/12 | 1,284.56 | 13,905.40 | -15.20 | 3.45 | 10.59 | 1.01 | 0.00 | 11.60 | 0.09 | 0.75 | 500.04 | 2.81 | 0.00 | 0.00 | 14.41 | -0.79 |
| 11/21/12 | 1,284.53 | 13,890.20 | -15.20 | 2.09 | 6.41 | 1.01 | 0.00 | 7.43 | 0.05 | 0.75 | 499.62 | 1.56 | 0.00 | 0.00 | 8.99 | -6.21 |
| 11/22/12 | 1,284.50 | 13,875.00 | -15.20 | 2.20 | 6.75 | 1.01 | 0.00 | 7.77 | 0.06 | 0.75 | 499.20 | 1.87 | 0.00 | 0.00 | 9.64 | -5.56 |
| 11/23/12 | 1,284.49 | 13,869.90 | -5.10 | 2.08 | 6.38 | 1.01 | 0.00 | 7.40 | 0.07 | 0.75 | 499.06 | 2.18 | 0.00 | 0.00 | 9.58 | 4.48 |
| 11/24/12 | 1,284.48 | 13,864.90 | -5.00 | 1.86 | 5.71 | 1.01 | 0.00 | 6.72 | 0.08 | 0.75 | 498.92 | 2.49 | 0.00 | 0.00 | 9.22 | 4.22 |
| 11/25/12 | 1,284.46 | 13,854.70 | -10.20 | 1.65 | 5.06 | 1.01 | 0.00 | 6.08 | 0.12 | 0.75 | 498.64 | 3.74 | 0.00 | 0.00 | 9.82 | -0.38 |
| 11/26/12 | 1,284.45 | 13,849.70 | -5.00 | 1.69 | 5.19 | 1.01 | 0.00 | 6.20 | 0.09 | 0.75 | 498.50 | 2.80 | 0.00 | 0.00 | 9.00 | 4.00 |
| 11/27/12 | 1,284.43 | 13,839.60 | -10.10 | 2.16 | 6.63 | 1.01 | 0.00 | 7.64 | 0.09 | 0.75 | 498.22 | 2.80 | 0.00 | 0.00 | 10.44 | 0.34 |
| 11/28/12 | 1,284.40 | 13,824.40 | -15.20 | 2.50 | 7.67 | 1.10 | 0.00 | 8.77 | 0.06 | 0.75 | 497.80 | 1.87 | 0.00 | 0.00 | 10.64 | -4.56 |
| 11/29/12 | 1,284.45 | 13,849.70 | 25.30 | 1.34 | 4.11 | 1.10 | 0.00 | 5.21 | 0.04 | 0.75 | 498.50 | 1.25 | 0.81 | 33.65 | -27.19 | -1.89 |
| 11/30/12 | 1,284.44 | 13,844.60 | -5.10 | 3.24 | 9.94 | 1.10 | 0.00 | 11.04 | 0.00 | 0.75 | 498.36 | 0.00 | 0.35 | 14.54 | -3.49 | -8.59 |
| 12/01/12 | 1,284.48 | 13,864.90 | 20.30 | 2.16 | 6.63 | 1.74 | 0.00 | 8.37 | 0.01 | 0.64 | 498.92 | 0.27 | 0.26 | 10.81 | -2.18 | 18.12 |
| 12/02/12 | 1,284.49 | 13,869.90 | 5.00 | 2.91 | 8.93 | 1.74 | 0.00 | 10.67 | 0.02 | 0.64 | 499.06 | 0.53 | 0.36 | 14.97 | -3.77 | 1.23 |
| 12/03/12 | 1,284.60 | 13,925.60 | 55.70 | 2.34 | 7.18 | 1.50 | 0.00 | 8.68 | 0.06 | 0.64 | 500.60 | 1.60 | 0.93 | 38.80 | -28.51 | 27.19 |
| 12/04/12 | 1,284.59 | 13,920.60 | -5.00 | 1.75 | 5.37 | 1.50 | 0.00 | 6.87 | 0.05 | 0.64 | 500.46 | 1.33 | 0.00 | 0.00 | 8.21 | 3.21 |
| 12/05/12 | 1,284.58 | 13,915.50 | -5.10 | 2.14 | 6.57 | 1.50 | 0.00 | 8.07 | 0.04 | 0.64 | 500.32 | 1.07 | 0.00 | 0.00 | 9.14 | 4.04 |
| 12/06/12 | 1,284.55 | 13,900.30 | -15.20 | 4.39 | 13.47 | 3.00 | 0.00 | 16.47 | 0.03 | 0.64 | 499.90 | 0.80 | 0.00 | 0.00 | 17.27 | 2.07 |
| 12/07/12 | 1,284.53 | 13,890.20 | -10.10 | 3.36 | 10.31 | 3.15 | 0.00 | 13.47 | 0.07 | 0.64 | 499.62 | 1.87 | 0.00 | 0.00 | 15.33 | 5.23 |
| 12/08/12 | 1,284.51 | 13,880.10 | -10.10 | 3.46 | 10.62 | 0.27 | 0.00 | 10.89 | 0.12 | 0.64 | 499.34 | 3.20 | 0.00 | 0.00 | 14.09 | 3.99 |
| 12/09/12 | 1,284.48 | 13,864.90 | -15.20 | 4.05 | 12.43 | 0.16 | 0.00 | 12.59 | 0.05 | 0.64 | 498.92 | 1.33 | 0.00 | 0.00 | 13.92 | -1.28 |
| 12/10/12 | 1,284.46 | 13,854.70 | -10.20 | 1.62 | 4.97 | 0.16 | 0.00 | 5.13 | 0.06 | 0.64 | 498.64 | 1.60 | 0.00 | 0.00 | 6.73 | -3.47 |
| 12/11/12 | 1,284.46 | 13,854.70 | 0.00 | 1.46 | 4.48 | 0.16 | 0.00 | 4.64 | 0.06 | 0.64 | 498.64 | 1.60 | 0.00 | 0.00 | 6.23 | 6.23 |

APPENDIX J-3

# Salinas Dam Release Report

Date Range: 10/01/2012 - 09/30/2013

| Date | Lake Elevation | Capacity | Cap. Change | Pipeline Div. | Pipeline Div. | Downstream Release | SW Dis | Total Dis. | Pan Read | Pan Coeff | Lake Surface | Lake Evap. | Precip. | Precip. | Daily Outflow | Inflow |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (Ft) | (AF) | (AF) | (MGD) | (AF) | (AF) | (AF) | (AF) | (In) | | | (AF) | (In) | (AF) | (AF) | (AF) |
| 12/12/12 | 1,284.43 | 13,839.60 | -15.10 | 1.65 | 5.06 | 0.16 | 0.00 | 5.22 | 0.10 | 0.64 | 498.22 | 2.66 | 0.00 | 0.00 | 7.88 | -7.22 |
| 12/13/12 | 1,284.44 | 13,844.60 | 5.00 | 2.16 | 6.63 | 0.16 | 0.00 | 6.79 | 0.05 | 0.64 | 498.36 | 1.33 | 0.23 | 9.55 | -1.44 | 3.56 |
| 12/14/12 | 1,284.43 | 13,839.60 | -5.00 | 1.49 | 4.57 | 0.16 | 0.00 | 4.73 | 0.02 | 0.64 | 498.22 | 0.53 | 0.00 | 0.00 | 5.26 | 0.26 |
| 12/15/12 | 1,284.41 | 13,829.40 | -10.20 | 1.56 | 4.79 | 0.16 | 0.00 | 4.95 | 0.02 | 0.64 | 497.94 | 0.53 | 0.00 | 0.00 | 5.48 | -4.72 |
| 12/16/12 | 1,284.41 | 13,829.40 | 0.00 | 2.22 | 6.81 | 0.19 | 0.00 | 7.01 | 0.03 | 0.64 | 497.94 | 0.80 | 0.13 | 5.39 | 2.41 | 2.41 |
| 12/17/12 | 1,284.41 | 13,829.40 | 0.00 | 1.31 | 4.02 | 0.23 | 0.00 | 4.25 | 0.00 | 0.64 | 497.94 | 0.00 | 0.11 | 4.56 | -0.31 | -0.31 |
| 12/18/12 | 1,284.39 | 13,819.30 | -10.10 | 1.65 | 5.06 | 0.19 | 0.00 | 5.26 | 0.02 | 0.64 | 497.66 | 0.53 | 0.15 | 6.22 | -0.43 | -10.53 |
| 12/19/12 | 1,284.39 | 13,819.30 | 0.00 | 1.70 | 5.22 | 0.23 | 0.00 | 5.45 | 0.09 | 0.64 | 497.66 | 2.39 | 0.00 | 0.00 | 7.84 | 7.84 |
| 12/20/12 | 1,284.38 | 13,814.30 | -5.00 | 1.41 | 4.33 | 0.27 | 0.00 | 4.60 | 0.06 | 0.64 | 497.52 | 1.59 | 0.00 | 0.00 | 6.19 | 1.19 |
| 12/21/12 | 1,284.37 | 13,809.20 | -5.10 | 1.28 | 3.93 | 0.13 | 0.00 | 4.06 | 0.06 | 0.64 | 497.38 | 1.59 | 0.00 | 0.00 | 5.65 | 0.55 |
| 12/22/12 | 1,284.44 | 13,844.60 | 35.40 | 1.79 | 5.49 | 0.42 | 0.00 | 5.91 | 0.09 | 0.64 | 498.36 | 2.39 | 0.76 | 31.56 | -23.26 | 12.14 |
| 12/23/12 | 1,284.44 | 13,844.60 | 0.00 | 1.40 | 4.30 | 0.36 | 0.00 | 4.66 | 0.01 | 0.64 | 498.36 | 0.27 | 0.45 | 18.69 | -13.76 | -13.76 |
| 12/24/12 | 1,284.83 | 14,042.00 | 197.40 | 1.39 | 4.27 | 0.72 | 0.00 | 4.98 | 0.00 | 0.64 | 503.83 | 0.00 | 1.24 | 52.06 | -47.08 | 150.32 |
| 12/25/12 | 1,284.97 | 14,112.90 | 70.90 | 1.21 | 3.71 | 0.42 | 0.00 | 4.13 | 0.02 | 0.64 | 505.79 | 0.54 | 0.00 | 0.00 | 4.67 | 75.57 |
| 12/26/12 | 1,285.07 | 14,163.50 | 50.60 | 1.17 | 3.59 | 0.42 | 0.00 | 4.01 | 0.00 | 0.64 | 507.19 | 0.00 | 0.48 | 20.29 | -16.28 | 34.32 |
| 12/27/12 | 1,285.12 | 14,188.80 | 25.30 | 2.03 | 6.23 | 0.42 | 0.00 | 6.65 | 0.03 | 0.64 | 507.89 | 0.81 | 0.14 | 5.93 | 1.53 | 26.83 |
| 12/28/12 | 1,285.14 | 14,199.00 | 10.20 | 2.03 | 6.23 | 0.42 | 0.00 | 6.65 | 0.05 | 0.64 | 508.17 | 1.36 | 0.00 | 0.00 | 8.00 | 18.20 |
| 12/29/12 | 1,285.21 | 14,234.40 | 35.40 | 1.54 | 4.73 | 0.47 | 0.00 | 5.20 | 0.00 | 0.64 | 509.15 | 0.00 | 0.31 | 13.15 | -7.95 | 27.45 |
| 12/30/12 | 1,285.28 | 14,269.80 | 35.40 | 0.50 | 1.53 | 0.47 | 0.00 | 2.01 | 0.04 | 0.64 | 510.13 | 1.09 | 0.00 | 0.00 | 3.09 | 38.49 |
| 12/31/12 | 1,285.31 | 14,285.00 | 15.20 | 1.32 | 4.05 | 0.23 | 0.00 | 4.28 | 0.04 | 0.64 | 510.55 | 1.09 | 0.00 | 0.00 | 5.37 | 20.57 |
| 01/01/13 | 1,285.32 | 14,290.10 | 5.10 | 1.43 | 4.39 | 0.23 | 0.00 | 4.62 | 0.05 | 0.61 | 510.69 | 1.30 | 0.00 | 0.00 | 5.92 | 11.02 |
| 01/02/13 | 1,285.31 | 14,285.00 | -5.10 | 1.33 | 4.08 | 0.23 | 0.00 | 4.31 | 0.04 | 0.61 | 510.55 | 1.04 | 0.00 | 0.00 | 5.35 | 0.25 |
| 01/03/13 | 1,285.34 | 14,300.20 | 15.20 | 1.37 | 4.20 | 0.19 | 0.00 | 4.40 | 0.07 | 0.61 | 510.97 | 1.82 | 0.00 | 0.00 | 6.21 | 21.42 |
| 01/04/13 | 1,285.35 | 14,305.30 | 5.10 | 1.49 | 4.57 | 0.23 | 0.00 | 4.80 | 0.06 | 0.61 | 511.11 | 1.56 | 0.00 | 0.00 | 6.36 | 11.46 |
| 01/05/13 | 1,285.35 | 14,305.30 | 0.00 | 1.49 | 4.57 | 0.27 | 0.00 | 4.84 | 0.07 | 0.61 | 511.11 | 1.82 | 0.00 | 0.00 | 6.66 | 6.66 |
| 01/06/13 | 1,285.39 | 14,325.50 | 20.20 | 1.48 | 4.54 | 0.36 | 0.00 | 4.91 | 0.12 | 0.61 | 511.67 | 3.12 | 0.42 | 17.91 | -9.88 | 10.32 |
| 01/07/13 | 1,285.41 | 14,335.60 | 10.10 | 1.26 | 3.87 | 0.19 | 0.00 | 4.06 | 0.03 | 0.61 | 511.95 | 0.78 | 0.18 | 7.68 | -2.84 | 7.26 |
| 01/08/13 | 1,285.40 | 14,330.60 | -5.00 | 1.49 | 4.57 | 0.32 | 0.00 | 4.89 | 0.05 | 0.61 | 511.81 | 1.30 | 0.00 | 0.00 | 6.19 | 1.19 |
| 01/09/13 | 1,285.42 | 14,340.70 | 10.10 | 1.71 | 5.25 | 0.27 | 0.00 | 5.52 | 0.06 | 0.61 | 512.09 | 1.56 | 0.00 | 0.00 | 7.08 | 17.18 |
| 01/10/13 | 1,285.42 | 14,340.70 | 0.00 | 1.76 | 5.40 | 0.27 | 0.00 | 5.67 | 0.05 | 0.61 | 512.09 | 1.30 | 0.00 | 0.00 | 6.97 | 6.97 |
| 01/11/13 | 1,285.42 | 14,340.70 | 0.00 | 1.79 | 5.49 | 0.16 | 0.00 | 5.65 | 0.06 | 0.61 | 512.09 | 1.56 | 0.00 | 0.00 | 7.21 | 7.21 |
| 01/12/13 | 1,285.43 | 14,345.80 | 5.10 | 1.33 | 4.08 | 0.16 | 0.00 | 4.24 | 0.06 | 0.61 | 512.23 | 1.56 | 0.00 | 0.00 | 5.80 | 10.90 |
| 01/13/13 | 1,285.43 | 14,345.80 | 0.00 | 1.52 | 4.66 | 0.16 | 0.00 | 4.82 | 0.04 | 0.61 | 512.23 | 1.04 | 0.00 | 0.00 | 5.86 | 5.86 |
| 01/14/13 | 1,285.43 | 14,345.80 | 0.00 | 1.41 | 4.33 | 0.16 | 0.00 | 4.49 | 0.11 | 0.61 | 512.23 | 2.86 | 0.00 | 0.00 | 7.35 | 7.35 |
| 01/15/13 | 1,285.43 | 14,345.80 | 0.00 | 1.66 | 5.09 | 0.13 | 0.00 | 5.23 | 0.06 | 0.61 | 512.23 | 1.56 | 0.00 | 0.00 | 6.79 | 6.79 |
| 01/16/13 | 1,285.42 | 14,340.70 | -5.10 | 1.90 | 5.83 | 0.13 | 0.00 | 5.96 | 0.10 | 0.61 | 512.09 | 2.60 | 0.00 | 0.00 | 8.56 | 3.47 |

APPENDIX -J-4

# Salinas Dam Release Report

Date Range: 10/01/2012 - 09/30/2013

| Date | Lake Elevation | Capacity | Cap. Change | Pipeline Div. | Pipeline Div. | Downstream Release | SW Dis | Total Dis. | Pan Read | Pan Coeff | Lake Surface | Lake Evap. | Precip. | Precip. | Daily Outflow | Inflow |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (Ft) | (AF) | (AF) | (MGD) | (AF) | (AF) | (AF) | (AF) | (In) | | | (AF) | (In) | (AF) | (AF) | (AF) |
| 01/17/13 | 1,285.40 | 14,330.60 | -10.10 | 1.40 | 4.30 | 0.13 | 0.00 | 4.43 | 0.05 | 0.61 | 511.81 | 1.30 | 0.00 | 0.00 | 5.73 | -4.37 |
| 01/18/13 | 1,285.41 | 14,335.60 | 5.00 | 2.81 | 8.62 | 0.16 | 0.00 | 8.78 | 0.13 | 0.61 | 511.95 | 3.38 | 0.00 | 0.00 | 12.17 | 17.17 |
| 01/19/13 | 1,285.40 | 14,330.60 | -5.00 | 1.82 | 5.59 | 0.16 | 0.00 | 5.74 | 0.09 | 0.61 | 511.81 | 2.34 | 0.00 | 0.00 | 8.09 | 3.09 |
| 01/20/13 | 1,285.41 | 14,335.60 | 5.00 | 1.93 | 5.92 | 0.11 | 0.00 | 6.03 | 0.09 | 0.61 | 511.95 | 2.34 | 0.00 | 0.00 | 8.37 | 13.37 |
| 01/21/13 | 1,285.41 | 14,335.60 | 0.00 | 1.95 | 5.98 | 0.11 | 0.00 | 6.09 | 0.12 | 0.61 | 511.95 | 3.12 | 0.00 | 0.00 | 9.21 | 9.21 |
| 01/22/13 | 1,285.40 | 14,330.60 | -5.00 | 2.01 | 6.17 | 0.11 | 0.00 | 6.27 | 0.08 | 0.61 | 511.81 | 2.08 | 0.00 | 0.00 | 8.35 | 3.35 |
| 01/23/13 | 1,285.39 | 14,325.50 | -5.10 | 2.04 | 6.26 | 0.13 | 0.00 | 6.39 | 0.12 | 0.61 | 511.67 | 3.12 | 0.00 | 0.00 | 9.51 | 4.41 |
| 01/24/13 | 1,285.40 | 14,330.60 | 5.10 | 2.35 | 7.21 | 0.19 | 0.00 | 7.40 | 0.06 | 0.61 | 511.81 | 1.56 | 0.31 | 13.22 | -4.26 | 0.84 |
| 01/25/13 | 1,285.44 | 14,350.80 | 20.20 | 2.29 | 7.03 | 0.23 | 0.00 | 7.26 | 0.01 | 0.61 | 512.37 | 0.26 | 0.42 | 17.93 | -10.41 | 9.79 |
| 01/26/13 | 1,285.46 | 14,361.00 | 10.20 | 1.80 | 5.52 | 0.42 | 0.00 | 5.94 | 0.02 | 0.61 | 512.66 | 0.52 | 0.00 | 0.00 | 6.46 | 16.66 |
| 01/27/13 | 1,285.46 | 14,361.00 | 0.00 | 3.33 | 10.22 | 0.19 | 0.00 | 10.41 | 0.04 | 0.61 | 512.66 | 1.04 | 0.00 | 0.00 | 11.45 | 11.45 |
| 01/28/13 | 1,285.46 | 14,361.00 | 0.00 | 2.25 | 6.91 | 0.36 | 0.00 | 7.27 | 0.08 | 0.61 | 512.66 | 2.08 | 0.00 | 0.00 | 9.35 | 9.35 |
| 01/29/13 | 1,285.46 | 14,361.00 | 0.00 | 2.43 | 7.46 | 0.47 | 0.00 | 7.93 | 0.06 | 0.61 | 512.66 | 1.56 | 0.00 | 0.00 | 9.49 | 9.49 |
| 01/30/13 | 1,285.46 | 14,361.00 | 0.00 | 2.40 | 7.37 | 0.53 | 0.00 | 7.90 | 0.08 | 0.61 | 512.66 | 2.08 | 0.00 | 0.00 | 9.98 | 9.98 |
| 01/31/13 | 1,285.44 | 14,350.80 | -10.20 | 3.15 | 9.67 | 0.53 | 0.00 | 10.20 | 0.09 | 0.61 | 512.37 | 2.34 | 0.00 | 0.00 | 12.54 | 2.34 |
| 02/01/13 | 1,285.44 | 14,350.80 | 0.00 | 1.50 | 4.60 | 0.53 | 0.00 | 5.13 | 0.10 | 0.62 | 512.37 | 2.65 | 0.00 | 0.00 | 7.78 | 7.78 |
| 02/02/13 | 1,285.43 | 14,345.80 | -5.00 | 3.04 | 9.33 | 0.54 | 0.00 | 9.87 | 0.09 | 0.62 | 512.23 | 2.38 | 0.00 | 0.00 | 12.25 | 7.25 |
| 02/03/13 | 1,285.42 | 14,340.70 | -5.10 | 3.15 | 9.67 | 0.54 | 0.00 | 10.20 | 0.04 | 0.62 | 512.09 | 1.06 | 0.00 | 0.00 | 11.26 | 6.16 |
| 02/04/13 | 1,285.40 | 14,330.60 | -10.10 | 2.91 | 8.93 | 0.54 | 0.00 | 9.47 | 0.07 | 0.62 | 511.81 | 1.85 | 0.00 | 0.00 | 11.32 | 1.22 |
| 02/05/13 | 1,285.42 | 14,340.70 | 10.10 | 1.96 | 6.02 | 0.54 | 0.00 | 6.55 | 0.07 | 0.62 | 512.09 | 1.85 | 0.00 | 0.00 | 8.40 | 18.50 |
| 02/06/13 | 1,285.41 | 14,335.60 | -5.10 | 2.01 | 6.17 | 0.59 | 0.00 | 6.76 | 0.07 | 0.62 | 511.95 | 1.85 | 0.00 | 0.00 | 8.61 | 3.51 |
| 02/07/13 | 1,285.40 | 14,330.60 | -5.00 | 1.85 | 5.68 | 0.54 | 0.00 | 6.21 | 0.09 | 0.62 | 511.81 | 2.38 | 0.00 | 0.00 | 8.59 | 3.59 |
| 02/08/13 | 1,285.41 | 14,335.60 | 5.00 | 3.52 | 10.80 | 0.65 | 0.00 | 11.46 | 0.11 | 0.62 | 511.95 | 2.91 | 0.00 | 0.00 | 14.36 | 19.36 |
| 02/09/13 | 1,285.42 | 14,340.70 | 5.10 | 2.07 | 6.35 | 0.65 | 0.00 | 7.01 | 0.02 | 0.62 | 512.09 | 0.53 | 0.06 | 2.56 | 4.97 | 10.07 |
| 02/10/13 | 1,285.41 | 14,335.60 | -5.10 | 2.06 | 6.32 | 0.59 | 0.00 | 6.91 | 0.12 | 0.62 | 511.95 | 3.17 | 0.00 | 0.00 | 10.09 | 4.99 |
| 02/11/13 | 1,285.40 | 14,330.60 | -5.00 | 1.82 | 5.59 | 0.72 | 0.00 | 6.30 | 0.04 | 0.62 | 511.81 | 1.06 | 0.00 | 0.00 | 7.36 | 2.36 |
| 02/12/13 | 1,285.41 | 14,335.60 | 5.00 | 2.04 | 6.26 | 0.65 | 0.00 | 6.91 | 0.10 | 0.62 | 511.95 | 2.65 | 0.00 | 0.00 | 9.56 | 14.56 |
| 02/13/13 | 1,285.40 | 14,330.60 | -5.00 | 1.85 | 5.68 | 0.65 | 0.00 | 6.33 | 0.10 | 0.62 | 511.81 | 2.64 | 0.00 | 0.00 | 8.97 | 3.97 |
| 02/14/13 | 1,285.38 | 14,320.50 | -10.10 | 2.08 | 6.38 | 0.11 | 0.00 | 6.49 | 0.11 | 0.62 | 511.53 | 2.91 | 0.00 | 0.00 | 9.40 | -0.70 |
| 02/15/13 | 1,285.38 | 14,320.50 | 0.00 | 2.20 | 6.75 | 0.11 | 0.00 | 6.86 | 0.08 | 0.62 | 511.53 | 2.11 | 0.00 | 0.00 | 8.97 | 8.97 |
| 02/16/13 | 1,285.37 | 14,315.40 | -5.10 | 2.25 | 6.91 | 0.11 | 0.00 | 7.01 | 0.10 | 0.62 | 511.39 | 2.64 | 0.00 | 0.00 | 9.65 | 4.55 |
| 02/17/13 | 1,285.37 | 14,315.40 | 0.00 | 1.36 | 4.17 | 0.08 | 0.00 | 4.26 | 0.17 | 0.62 | 511.39 | 4.49 | 0.00 | 0.00 | 8.75 | 8.75 |
| 02/18/13 | 1,285.36 | 14,310.30 | -5.10 | 1.62 | 4.97 | 0.08 | 0.00 | 5.05 | 0.08 | 0.62 | 511.25 | 2.11 | 0.00 | 0.00 | 7.17 | 2.07 |
| 02/19/13 | 1,285.36 | 14,310.30 | 0.00 | 1.66 | 5.09 | 0.11 | 0.00 | 5.20 | 0.14 | 0.62 | 511.25 | 3.70 | 0.00 | 0.00 | 8.90 | 8.90 |
| 02/20/13 | 1,285.43 | 14,345.80 | 35.50 | 1.81 | 5.55 | 0.11 | 0.00 | 5.66 | 0.12 | 0.62 | 512.23 | 3.18 | 0.31 | 13.23 | -4.40 | 31.10 |
| 02/21/13 | 1,285.40 | 14,330.60 | -15.20 | 2.03 | 6.23 | 0.13 | 0.00 | 6.36 | 0.09 | 0.62 | 511.81 | 2.38 | 0.00 | 0.00 | 8.74 | -6.46 |

APPENDIX J-5

# Salinas Dam Release Report

Date Range: 10/01/2012 - 09/30/2013

| Date | Lake Elevation | Capacity | Cap. Change | Pipeline Div. | Pipeline Div. | Downstream Release | SW Dis | Total Dis. | Pan Read | Pan Coeff | Lake Surface | Lake Evap. | Precip. | Precip. | Daily Outflow | Inflow |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (Ft) | (AF) | (AF) | (MGD) | (AF) | (AF) | (AF) | (AF) | (In) | | | (AF) | (In) | (AF) | (AF) | (AF) |
| 02/22/13 | 1,285.39 | 14,325.50 | -5.10 | 3.15 | 9.67 | 0.13 | 0.00 | 9.80 | 0.08 | 0.62 | 511.67 | 2.11 | 0.00 | 0.00 | 11.91 | 6.81 |
| 02/23/13 | 1,285.37 | 14,315.40 | -10.10 | 2.78 | 8.53 | 0.13 | 0.00 | 8.66 | 0.10 | 0.62 | 511.39 | 2.64 | 0.00 | 0.00 | 11.30 | 1.21 |
| 02/24/13 | 1,285.36 | 14,310.30 | -5.10 | 2.51 | 7.70 | 0.13 | 0.00 | 7.83 | 0.12 | 0.62 | 511.25 | 3.17 | 0.00 | 0.00 | 11.00 | 5.90 |
| 02/25/13 | 1,285.36 | 14,310.30 | 0.00 | 2.30 | 7.06 | 0.16 | 0.00 | 7.22 | 0.16 | 0.62 | 511.25 | 4.23 | 0.00 | 0.00 | 11.44 | 11.44 |
| 02/26/13 | 1,285.33 | 14,295.20 | -15.10 | 2.64 | 8.10 | 0.11 | 0.00 | 8.21 | 0.16 | 0.62 | 510.83 | 4.22 | 0.00 | 0.00 | 12.43 | -2.67 |
| 02/27/13 | 1,285.33 | 14,295.20 | 0.00 | 2.48 | 7.61 | 0.13 | 0.00 | 7.74 | 0.19 | 0.62 | 510.83 | 5.01 | 0.00 | 0.00 | 12.76 | 12.76 |
| 02/28/13 | 1,285.32 | 14,290.10 | -5.10 | 2.79 | 8.56 | 0.13 | 0.00 | 8.69 | 0.16 | 0.62 | 510.69 | 4.22 | 0.00 | 0.00 | 12.91 | 7.81 |
| 03/01/13 | 1,285.30 | 14,280.00 | -10.10 | 2.27 | 6.97 | 0.13 | 0.00 | 7.10 | 0.15 | 0.66 | 510.41 | 4.21 | 0.00 | 0.00 | 11.31 | 1.21 |
| 03/02/13 | 1,285.29 | 14,274.90 | -5.10 | 1.86 | 5.71 | 0.16 | 0.00 | 5.87 | 0.20 | 0.66 | 510.27 | 5.61 | 0.00 | 0.00 | 11.48 | 6.38 |
| 03/03/13 | 1,285.27 | 14,264.80 | -10.10 | 3.12 | 9.57 | 0.16 | 0.00 | 9.73 | 0.22 | 0.66 | 509.99 | 6.17 | 0.00 | 0.00 | 15.90 | 5.80 |
| 03/04/13 | 1,285.27 | 14,264.80 | 0.00 | 2.98 | 9.15 | 0.16 | 0.00 | 9.30 | 0.18 | 0.66 | 509.99 | 5.05 | 0.00 | 0.00 | 14.35 | 14.35 |
| 03/05/13 | 1,285.25 | 14,254.70 | -10.10 | 2.97 | 9.11 | 0.08 | 0.00 | 9.20 | 0.14 | 0.66 | 509.71 | 3.92 | 0.00 | 0.00 | 13.12 | 3.02 |
| 03/06/13 | 1,285.29 | 14,274.90 | 20.20 | 2.41 | 7.40 | 0.13 | 0.00 | 7.53 | 0.12 | 0.66 | 510.27 | 3.37 | 0.00 | 0.00 | 10.89 | 31.09 |
| 03/07/13 | 1,285.27 | 14,264.80 | -10.10 | 1.93 | 5.92 | 0.11 | 0.00 | 6.03 | 0.20 | 0.66 | 509.99 | 5.61 | 0.20 | 8.50 | 3.14 | -6.96 |
| 03/08/13 | 1,285.32 | 14,290.10 | 25.30 | 1.94 | 5.95 | 0.13 | 0.00 | 6.08 | 0.09 | 0.66 | 510.69 | 2.53 | 0.32 | 13.62 | -5.01 | 20.29 |
| 03/09/13 | 1,285.32 | 14,290.10 | 0.00 | 1.90 | 5.83 | 0.13 | 0.00 | 5.96 | 0.04 | 0.66 | 510.69 | 1.12 | 0.02 | 0.85 | 6.23 | 6.23 |
| 03/10/13 | 1,285.31 | 14,285.00 | -5.10 | 1.88 | 5.77 | 0.13 | 0.00 | 5.90 | 0.10 | 0.66 | 510.55 | 2.81 | 0.00 | 0.00 | 8.71 | 3.61 |
| 03/11/13 | 1,285.30 | 14,280.00 | -5.00 | 1.95 | 5.98 | 0.13 | 0.00 | 6.12 | 0.15 | 0.66 | 510.41 | 4.21 | 0.00 | 0.00 | 10.33 | 5.33 |
| 03/12/13 | 1,285.29 | 14,274.90 | -5.10 | 1.97 | 6.05 | 0.13 | 0.00 | 6.18 | 0.19 | 0.66 | 510.27 | 5.33 | 0.00 | 0.00 | 11.51 | 6.41 |
| 03/13/13 | 1,285.29 | 14,274.90 | 0.00 | 2.58 | 7.92 | 0.13 | 0.00 | 8.05 | 0.20 | 0.66 | 510.27 | 5.61 | 0.00 | 0.00 | 13.66 | 13.66 |
| 03/14/13 | 1,285.28 | 14,269.80 | -5.10 | 2.84 | 8.72 | 0.11 | 0.00 | 8.82 | 0.25 | 0.66 | 510.13 | 7.01 | 0.00 | 0.00 | 15.84 | 10.73 |
| 03/15/13 | 1,285.25 | 14,254.70 | -15.10 | 2.39 | 7.33 | 0.11 | 0.00 | 7.44 | 0.19 | 0.66 | 509.71 | 5.33 | 0.00 | 0.00 | 12.77 | -2.33 |
| 03/16/13 | 1,285.25 | 14,254.70 | 0.00 | 2.00 | 6.14 | 0.13 | 0.00 | 6.27 | 0.24 | 0.66 | 509.71 | 6.73 | 0.00 | 0.00 | 13.00 | 13.00 |
| 03/17/13 | 1,285.23 | 14,244.50 | -10.20 | 1.73 | 5.31 | 0.16 | 0.00 | 5.47 | 0.27 | 0.66 | 509.43 | 7.57 | 0.00 | 0.00 | 13.03 | 2.83 |
| 03/18/13 | 1,285.25 | 14,254.70 | 10.20 | 2.22 | 6.81 | 0.11 | 0.00 | 6.92 | 0.23 | 0.66 | 509.71 | 6.45 | 0.00 | 0.00 | 13.37 | 23.57 |
| 03/19/13 | 1,285.21 | 14,234.40 | -20.30 | 4.01 | 12.31 | 0.11 | 0.00 | 12.41 | 0.16 | 0.66 | 509.15 | 4.48 | 0.00 | 0.00 | 16.89 | -3.41 |
| 03/20/13 | 1,285.17 | 14,214.20 | -20.20 | 2.91 | 8.93 | 0.11 | 0.00 | 9.04 | 0.25 | 0.66 | 508.59 | 6.99 | 0.00 | 0.00 | 16.03 | -4.17 |
| 03/21/13 | 1,285.17 | 14,214.20 | 0.00 | 2.90 | 8.90 | 0.11 | 0.00 | 9.00 | 0.14 | 0.66 | 508.59 | 3.92 | 0.00 | 0.00 | 12.92 | 12.92 |
| 03/22/13 | 1,285.17 | 14,214.20 | 0.00 | 2.90 | 8.90 | 0.11 | 0.00 | 9.00 | 0.19 | 0.66 | 508.59 | 5.31 | 0.00 | 0.00 | 14.32 | 14.32 |
| 03/23/13 | 1,285.16 | 14,209.10 | -5.10 | 1.07 | 3.28 | 0.11 | 0.00 | 3.39 | 0.28 | 0.66 | 508.45 | 7.83 | 0.00 | 0.00 | 11.22 | 6.12 |
| 03/24/13 | 1,285.14 | 14,199.00 | -10.10 | 2.85 | 8.75 | 0.11 | 0.00 | 8.85 | 0.20 | 0.66 | 508.17 | 5.59 | 0.00 | 0.00 | 14.44 | 4.34 |
| 03/25/13 | 1,285.12 | 14,188.80 | -10.20 | 3.34 | 10.25 | 0.11 | 0.00 | 10.36 | 0.30 | 0.66 | 507.89 | 8.38 | 0.00 | 0.00 | 18.74 | 8.54 |
| 03/26/13 | 1,285.09 | 14,173.70 | -15.10 | 3.29 | 10.10 | 0.11 | 0.00 | 10.20 | 0.21 | 0.66 | 507.47 | 5.86 | 0.00 | 0.00 | 16.06 | 0.96 |
| 03/27/13 | 1,285.09 | 14,173.70 | 0.00 | 3.58 | 10.99 | 0.08 | 0.00 | 11.07 | 0.73 | 0.66 | 507.47 | 20.37 | 0.00 | 0.00 | 31.44 | 31.44 |
| 03/28/13 | 1,285.05 | 14,153.40 | -20.30 | 3.94 | 12.09 | 6.96 | 0.00 | 19.05 | 0.23 | 0.66 | 506.91 | 6.41 | 0.00 | 0.00 | 25.47 | 5.17 |
| 03/29/13 | 1,285.03 | 14,143.30 | -10.10 | 2.72 | 8.35 | 6.96 | 0.00 | 15.31 | 0.23 | 0.66 | 506.63 | 6.41 | 0.00 | 0.00 | 21.72 | 11.62 |

APPENDIX J-6

# Salinas Dam Release Report

Date Range: 10/01/2012 - 09/30/2013

| Date | Lake Elevation | Capacity | Cap. Change | Pipeline Div. | Pipeline Div. | Downstream Release | SW Dis | Total Dis. | Pan Read | Pan Coeff | Lake Surface | Lake Evap. | Precip. | Precip. | Daily Outflow | Inflow |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (Ft) | (AF) | (AF) | (MGD) | (AF) | (AF) | (AF) | (AF) | (In) | | | (AF) | (In) | (AF) | (AF) | (AF) |
| 03/30/13 | 1,285.00 | 14,128.10 | -15.20 | 1.43 | 4.39 | 6.96 | 0.00 | 11.35 | 0.23 | 0.66 | 506.21 | 6.40 | 0.00 | 0.00 | 17.75 | 2.55 |
| 03/31/13 | 1,284.98 | 14,118.00 | -10.10 | 2.82 | 8.65 | 7.24 | 0.00 | 15.89 | 0.13 | 0.66 | 505.93 | 3.62 | 0.15 | 6.32 | 13.19 | 3.09 |
| 04/01/13 | 1,284.96 | 14,107.90 | -10.10 | 1.63 | 5.00 | 6.96 | 0.00 | 11.96 | 0.13 | 0.69 | 505.65 | 3.78 | 0.01 | 0.42 | 15.32 | 5.22 |
| 04/02/13 | 1,284.94 | 14,097.70 | -10.20 | 2.26 | 6.94 | 6.96 | 0.00 | 13.90 | 0.11 | 0.69 | 505.37 | 3.20 | 0.00 | 0.00 | 17.09 | 6.89 |
| 04/03/13 | 1,284.90 | 14,077.50 | -20.20 | 1.84 | 5.65 | 6.96 | 0.00 | 12.61 | 0.33 | 0.69 | 504.81 | 9.58 | 0.00 | 0.00 | 22.19 | 1.99 |
| 04/04/13 | 1,284.88 | 14,067.40 | -10.10 | 1.84 | 5.65 | 7.24 | 0.00 | 12.89 | 0.24 | 0.69 | 504.53 | 6.96 | 0.02 | 0.84 | 19.01 | 8.91 |
| 04/05/13 | 1,284.85 | 14,052.20 | -15.20 | 4.84 | 14.85 | 6.96 | 0.00 | 21.82 | 0.21 | 0.69 | 504.11 | 6.09 | 0.00 | 0.00 | 27.90 | 12.70 |
| 04/06/13 | 1,284.83 | 14,042.00 | -10.20 | 2.61 | 8.01 | 7.24 | 0.00 | 15.25 | 0.18 | 0.69 | 503.83 | 5.21 | 0.00 | 0.00 | 20.46 | 10.26 |
| 04/07/13 | 1,284.78 | 14,016.70 | -25.30 | 4.11 | 12.61 | 6.96 | 0.00 | 19.58 | 0.12 | 0.69 | 503.13 | 3.47 | 0.00 | 0.00 | 23.05 | -2.25 |
| 04/08/13 | 1,284.76 | 14,006.60 | -10.10 | 2.94 | 9.02 | 6.96 | 0.00 | 15.98 | 0.28 | 0.69 | 502.85 | 8.10 | 0.00 | 0.00 | 24.08 | 13.98 |
| 04/09/13 | 1,284.71 | 13,981.30 | -25.30 | 3.07 | 9.42 | 7.24 | 0.00 | 16.66 | 0.28 | 0.69 | 502.15 | 8.08 | 0.00 | 0.00 | 24.75 | -0.55 |
| 04/10/13 | 1,284.68 | 13,966.10 | -15.20 | 3.82 | 11.72 | 7.24 | 0.00 | 18.96 | 0.34 | 0.69 | 501.73 | 9.81 | 0.00 | 0.00 | 28.77 | 13.57 |
| 04/11/13 | 1,284.63 | 13,940.80 | -25.30 | 5.45 | 16.73 | 6.96 | 0.00 | 23.69 | 0.32 | 0.69 | 501.02 | 9.22 | 0.00 | 0.00 | 32.91 | 7.61 |
| 04/12/13 | 1,284.57 | 13,910.40 | -30.40 | 4.88 | 14.98 | 7.24 | 0.00 | 22.22 | 0.36 | 0.69 | 500.18 | 10.35 | 0.00 | 0.00 | 32.57 | 2.17 |
| 04/13/13 | 1,284.53 | 13,890.20 | -20.20 | 4.27 | 13.10 | 7.24 | 0.00 | 20.34 | 0.32 | 0.69 | 499.62 | 9.19 | 0.00 | 0.00 | 29.54 | 9.34 |
| 04/14/13 | 1,284.51 | 13,880.10 | -10.10 | 2.87 | 8.81 | 7.24 | 0.00 | 16.05 | 0.29 | 0.69 | 499.34 | 8.33 | 0.00 | 0.00 | 24.37 | 14.27 |
| 04/15/13 | 1,284.47 | 13,859.80 | -20.30 | 2.91 | 8.93 | 6.96 | 0.00 | 15.89 | 0.28 | 0.69 | 498.78 | 8.03 | 0.00 | 0.00 | 23.92 | 3.62 |
| 04/16/13 | 1,284.43 | 13,839.60 | -20.20 | 4.60 | 14.12 | 7.24 | 0.00 | 21.36 | 0.22 | 0.69 | 498.22 | 6.30 | 0.00 | 0.00 | 27.66 | 7.46 |
| 04/17/13 | 1,284.39 | 13,819.30 | -20.30 | 3.16 | 9.70 | 6.96 | 0.00 | 16.66 | 0.30 | 0.69 | 497.66 | 8.58 | 0.00 | 0.00 | 25.24 | 4.94 |
| 04/18/13 | 1,284.36 | 13,804.10 | -15.20 | 2.88 | 8.84 | 6.96 | 0.00 | 15.80 | 0.28 | 0.69 | 497.24 | 8.01 | 0.00 | 0.00 | 23.81 | 8.61 |
| 04/19/13 | 1,284.31 | 13,778.80 | -25.30 | 2.95 | 9.05 | 7.24 | 0.00 | 16.29 | 0.34 | 0.69 | 496.54 | 9.71 | 0.00 | 0.00 | 26.00 | 0.70 |
| 04/20/13 | 1,284.27 | 13,758.60 | -20.20 | 3.39 | 10.40 | 7.24 | 0.00 | 17.64 | 0.32 | 0.69 | 495.98 | 9.13 | 0.00 | 0.00 | 26.77 | 6.57 |
| 04/21/13 | 1,284.24 | 13,743.40 | -15.20 | 3.39 | 10.40 | 7.24 | 0.00 | 17.64 | 0.34 | 0.69 | 495.56 | 9.69 | 0.00 | 0.00 | 27.33 | 12.13 |
| 04/22/13 | 1,284.19 | 13,718.10 | -25.30 | 3.39 | 10.40 | 7.24 | 0.00 | 17.64 | 0.34 | 0.69 | 494.86 | 9.67 | 0.00 | 0.00 | 27.32 | 2.02 |
| 04/23/13 | 1,284.15 | 13,697.80 | -20.30 | 3.05 | 9.36 | 7.24 | 0.00 | 16.60 | 0.35 | 0.69 | 494.30 | 9.95 | 0.00 | 0.00 | 26.55 | 6.25 |
| 04/24/13 | 1,284.10 | 13,672.50 | -25.30 | 4.78 | 14.67 | 7.24 | 0.00 | 21.91 | 0.36 | 0.69 | 493.60 | 10.22 | 0.00 | 0.00 | 32.13 | 6.83 |
| 04/25/13 | 1,284.08 | 13,662.40 | -10.10 | 3.23 | 9.91 | 6.68 | 0.00 | 16.60 | 0.16 | 0.69 | 493.32 | 4.54 | 0.00 | 0.00 | 21.14 | 11.04 |
| 04/26/13 | 1,284.03 | 13,637.10 | -25.30 | 3.20 | 9.82 | 6.68 | 0.00 | 16.50 | 0.23 | 0.69 | 492.62 | 6.51 | 0.00 | 0.00 | 23.02 | -2.28 |
| 04/27/13 | 1,283.97 | 13,607.50 | -29.60 | 4.52 | 13.87 | 6.68 | 0.00 | 20.56 | 0.21 | 0.69 | 491.80 | 5.94 | 0.00 | 0.00 | 26.49 | -3.11 |
| 04/28/13 | 1,283.93 | 13,588.40 | -19.10 | 4.52 | 13.87 | 6.68 | 0.00 | 20.56 | 0.51 | 0.69 | 491.26 | 14.41 | 0.00 | 0.00 | 34.96 | 15.86 |
| 04/29/13 | 1,283.90 | 13,574.00 | -14.40 | 2.91 | 8.93 | 6.68 | 0.00 | 15.61 | 0.47 | 0.69 | 490.86 | 13.27 | 0.00 | 0.00 | 28.88 | 14.48 |
| 04/30/13 | 1,283.84 | 13,545.30 | -28.70 | 4.50 | 13.81 | 6.96 | 0.00 | 20.77 | 0.42 | 0.69 | 490.06 | 11.83 | 0.00 | 0.00 | 32.61 | 3.91 |
| 05/01/13 | 1,283.80 | 13,526.10 | -19.20 | 3.09 | 9.48 | 6.96 | 0.00 | 16.44 | 0.32 | 0.72 | 489.53 | 9.40 | 0.00 | 0.00 | 25.84 | 6.64 |
| 05/02/13 | 1,283.77 | 13,511.80 | -14.30 | 4.98 | 15.28 | 6.96 | 0.00 | 22.25 | 0.33 | 0.72 | 489.13 | 9.68 | 0.00 | 0.00 | 31.93 | 17.63 |
| 05/03/13 | 1,283.70 | 13,478.20 | -33.60 | 4.02 | 12.34 | 6.96 | 0.00 | 19.30 | 0.39 | 0.72 | 488.19 | 11.42 | 0.00 | 0.00 | 30.72 | -2.88 |
| 05/04/13 | 1,283.64 | 13,449.50 | -28.70 | 4.02 | 12.34 | 6.68 | 0.00 | 19.02 | 0.49 | 0.72 | 487.39 | 14.33 | 0.00 | 0.00 | 33.35 | 4.65 |

APPENDIX J-7

# Salinas Dam Release Report

Date Range: 10/01/2012 - 09/30/2013

| Date | Lake Elevation | Capacity | Cap. Change | Pipeline Div. | Pipeline Div. | Downstream Release | SW Dis | Total Dis. | Pan Read | Pan Coeff | Lake Surface | Lake Evap. | Precip. | Precip. | Daily Outflow | Inflow |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (Ft) | (AF) | (AF) | (MGD) | (AF) | (AF) | (AF) | (AF) | (In) | | | (AF) | (In) | (AF) | (AF) | (AF) |
| 05/05/13 | 1,283.59 | 13,425.60 | -23.90 | 4.41 | 13.53 | 6.68 | 0.00 | 20.22 | 0.37 | 0.72 | 486.72 | 10.81 | 0.00 | 0.00 | 31.02 | 7.12 |
| 05/06/13 | 1,283.55 | 13,406.40 | -19.20 | 6.42 | 19.70 | 6.68 | 0.00 | 26.39 | 0.16 | 0.72 | 486.19 | 4.67 | 0.32 | 12.97 | 18.09 | -1.11 |
| 05/07/13 | 1,283.51 | 13,387.30 | -19.10 | 3.17 | 9.73 | 6.68 | 0.00 | 16.41 | 0.12 | 0.72 | 485.65 | 3.50 | 0.01 | 0.40 | 19.50 | 0.40 |
| 05/08/13 | 1,283.48 | 13,372.90 | -14.40 | 2.47 | 7.58 | 6.68 | 0.00 | 14.26 | 0.20 | 0.72 | 485.25 | 5.82 | 0.00 | 0.00 | 20.09 | 5.69 |
| 05/09/13 | 1,283.42 | 13,344.20 | -28.70 | 4.77 | 14.64 | 6.68 | 0.00 | 21.32 | 0.18 | 0.72 | 484.45 | 5.23 | 0.00 | 0.00 | 26.56 | -2.15 |
| 05/10/13 | 1,283.38 | 13,325.00 | -19.20 | 2.93 | 8.99 | 4.09 | 0.00 | 13.08 | 0.33 | 0.72 | 483.92 | 9.58 | 0.00 | 0.00 | 22.66 | 3.46 |
| 05/11/13 | 1,283.33 | 13,301.10 | -23.90 | 4.57 | 14.02 | 4.09 | 0.00 | 18.11 | 0.32 | 0.72 | 483.25 | 9.28 | 0.00 | 0.00 | 27.39 | 3.49 |
| 05/12/13 | 1,283.29 | 13,281.90 | -19.20 | 4.89 | 15.01 | 4.09 | 0.00 | 19.09 | 0.35 | 0.72 | 482.71 | 10.14 | 0.00 | 0.00 | 29.23 | 10.03 |
| 05/13/13 | 1,283.23 | 13,253.20 | -28.70 | 4.95 | 15.19 | 4.09 | 0.00 | 19.28 | 0.61 | 0.72 | 481.91 | 17.64 | 0.00 | 0.00 | 36.91 | 8.21 |
| 05/14/13 | 1,283.18 | 13,229.20 | -24.00 | 3.07 | 9.42 | 4.09 | 0.00 | 13.51 | 0.47 | 0.72 | 481.25 | 13.57 | 0.00 | 0.00 | 27.08 | 3.08 |
| 05/15/13 | 1,283.16 | 13,219.70 | -9.50 | 4.95 | 15.19 | 4.09 | 0.00 | 19.28 | 0.39 | 0.72 | 480.98 | 11.25 | 0.00 | 0.00 | 30.53 | 21.03 |
| 05/16/13 | 1,283.10 | 13,190.90 | -28.80 | 5.01 | 15.38 | 4.09 | 0.00 | 19.46 | 0.35 | 0.72 | 480.18 | 10.08 | 0.00 | 0.00 | 29.54 | 0.75 |
| 05/17/13 | 1,283.06 | 13,171.80 | -19.10 | 4.92 | 15.10 | 4.72 | 0.00 | 19.82 | 0.23 | 0.72 | 479.64 | 6.62 | 0.00 | 0.00 | 26.44 | 7.34 |
| 05/18/13 | 1,283.00 | 13,143.10 | -28.70 | 4.63 | 14.21 | 4.72 | 0.00 | 18.93 | 0.31 | 0.72 | 478.84 | 8.91 | 0.00 | 0.00 | 27.84 | -0.86 |
| 05/19/13 | 1,282.94 | 13,114.30 | -28.80 | 4.97 | 15.25 | 4.72 | 0.00 | 19.97 | 0.36 | 0.72 | 478.04 | 10.33 | 0.00 | 0.00 | 30.30 | 1.50 |
| 05/20/13 | 1,282.88 | 13,085.60 | -28.70 | 3.34 | 10.25 | 4.72 | 0.00 | 14.97 | 0.42 | 0.72 | 477.24 | 12.03 | 0.00 | 0.00 | 27.00 | -1.70 |
| 05/21/13 | 1,282.83 | 13,061.60 | -24.00 | 4.53 | 13.90 | 4.72 | 0.00 | 18.62 | 0.48 | 0.72 | 476.57 | 13.73 | 0.00 | 0.00 | 32.35 | 8.35 |
| 05/22/13 | 1,282.76 | 13,028.10 | -33.50 | 4.04 | 12.40 | 4.72 | 0.00 | 17.12 | 0.46 | 0.72 | 475.64 | 13.13 | 0.00 | 0.00 | 30.25 | -3.25 |
| 05/23/13 | 1,282.72 | 13,009.00 | -19.10 | 5.07 | 15.56 | 4.72 | 0.00 | 20.28 | 0.34 | 0.72 | 475.10 | 9.69 | 0.00 | 0.00 | 29.97 | 10.87 |
| 05/24/13 | 1,282.66 | 12,980.20 | -28.80 | 5.60 | 17.19 | 4.72 | 0.00 | 21.91 | 0.32 | 0.72 | 474.30 | 9.11 | 0.00 | 0.00 | 31.01 | 2.21 |
| 05/25/13 | 1,282.63 | 12,965.90 | -14.30 | 2.75 | 8.44 | 1.29 | 0.00 | 9.73 | 0.33 | 0.72 | 473.90 | 9.38 | 0.00 | 0.00 | 19.11 | 4.81 |
| 05/26/13 | 1,282.58 | 12,941.90 | -24.00 | 2.99 | 9.18 | 1.19 | 0.00 | 10.37 | 0.33 | 0.72 | 473.23 | 9.37 | 0.00 | 0.00 | 19.74 | -4.26 |
| 05/27/13 | 1,282.55 | 12,927.60 | -14.30 | 3.05 | 9.36 | 1.29 | 0.00 | 10.65 | 0.35 | 0.72 | 472.83 | 9.93 | 0.00 | 0.00 | 20.58 | 6.28 |
| 05/28/13 | 1,282.50 | 12,903.60 | -24.00 | 2.85 | 8.75 | 1.19 | 0.00 | 9.94 | 0.34 | 0.72 | 472.16 | 9.63 | 0.00 | 0.00 | 19.57 | -4.43 |
| 05/29/13 | 1,282.46 | 12,884.50 | -19.10 | 3.26 | 10.00 | 1.19 | 0.00 | 11.20 | 0.37 | 0.72 | 471.63 | 10.47 | 0.00 | 0.00 | 21.67 | 2.57 |
| 05/30/13 | 1,282.44 | 12,874.90 | -9.60 | 1.19 | 3.65 | 1.19 | 0.00 | 4.84 | 0.38 | 0.72 | 471.36 | 10.75 | 0.00 | 0.00 | 15.59 | 5.99 |
| 05/31/13 | 1,282.42 | 12,865.30 | -9.60 | 0.17 | 0.52 | 1.19 | 0.00 | 1.71 | 0.47 | 0.72 | 471.10 | 13.29 | 0.00 | 0.00 | 15.00 | 5.40 |
| 06/01/13 | 1,282.36 | 12,836.60 | -28.70 | 3.39 | 10.40 | 1.19 | 0.00 | 11.60 | 0.45 | 0.75 | 470.29 | 13.23 | 0.00 | 0.00 | 24.82 | -3.88 |
| 06/02/13 | 1,282.31 | 12,812.70 | -23.90 | 3.09 | 9.48 | 1.19 | 0.00 | 10.67 | 0.48 | 0.75 | 469.63 | 14.09 | 0.00 | 0.00 | 24.76 | 0.86 |
| 06/03/13 | 1,282.29 | 12,803.10 | -9.60 | 3.01 | 9.24 | 1.19 | 0.00 | 10.43 | 0.52 | 0.75 | 469.36 | 15.25 | 0.00 | 0.00 | 25.68 | 16.08 |
| 06/04/13 | 1,282.27 | 12,793.50 | -9.60 | 0.00 | 0.00 | 1.19 | 0.00 | 1.19 | 0.29 | 0.75 | 469.09 | 8.50 | 0.00 | 0.00 | 9.69 | 0.09 |
| 06/05/13 | 1,282.25 | 12,783.90 | -9.60 | 0.00 | 0.00 | 1.10 | 0.00 | 1.10 | 0.25 | 0.75 | 468.83 | 7.33 | 0.00 | 0.00 | 8.43 | -1.17 |
| 06/06/13 | 1,282.23 | 12,774.30 | -9.60 | 0.00 | 0.00 | 1.19 | 0.00 | 1.19 | 0.35 | 0.75 | 468.56 | 10.25 | 0.00 | 0.00 | 11.44 | 1.84 |
| 06/07/13 | 1,282.21 | 12,764.80 | -9.50 | 0.00 | 0.00 | 1.19 | 0.00 | 1.19 | 0.39 | 0.75 | 468.29 | 11.41 | 0.00 | 0.00 | 12.61 | 3.11 |
| 06/08/13 | 1,282.19 | 12,755.20 | -9.60 | 0.00 | 0.00 | 1.19 | 0.00 | 1.19 | 0.39 | 0.75 | 468.02 | 11.41 | 0.00 | 0.00 | 12.60 | 3.00 |
| 06/09/13 | 1,282.17 | 12,745.60 | -9.60 | 0.00 | 0.00 | 1.19 | 0.00 | 1.19 | 0.42 | 0.75 | 467.76 | 12.28 | 0.00 | 0.00 | 13.47 | 3.87 |

APPENDIX J-8

# Salinas Dam Release Report

Date Range: 10/01/2012 - 09/30/2013

| Date | Lake Elevation (Ft) | Capacity (AF) | Cap. Change (AF) | Pipeline Div. (MGD) | Pipeline Div. (AF) | Downstream Release (AF) | SW Dis (AF) | Total Dis. (AF) | Pan Read (In) | Pan Coeff | Lake Surface | Lake Evap. (AF) | Precip. (In) | Precip. (AF) | Daily Outflow (AF) | Inflow (AF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/10/13 | 1,282.15 | 12,736.00 | -9.60 | 0.00 | 0.00 | 1.19 | 0.00 | 1.19 | 0.40 | 0.75 | 467.49 | 11.69 | 0.00 | 0.00 | 12.88 | 3.28 |
| 06/11/13 | 1,282.14 | 12,731.20 | -4.80 | 0.00 | 0.00 | 1.19 | 0.00 | 1.19 | 0.27 | 0.75 | 467.36 | 7.89 | 0.00 | 0.00 | 9.08 | 4.28 |
| 06/12/13 | 1,282.11 | 12,716.90 | -14.30 | 0.00 | 0.00 | 1.19 | 0.00 | 1.19 | 0.42 | 0.75 | 466.96 | 12.26 | 0.00 | 0.00 | 13.45 | -0.85 |
| 06/13/13 | 1,282.09 | 12,707.30 | -9.60 | 0.00 | 0.00 | 1.29 | 0.00 | 1.29 | 0.43 | 0.75 | 466.69 | 12.54 | 0.00 | 0.00 | 13.83 | 4.23 |
| 06/14/13 | 1,282.06 | 12,692.90 | -14.40 | 0.00 | 0.00 | 2.26 | 0.00 | 2.26 | 0.44 | 0.75 | 466.29 | 12.82 | 0.00 | 0.00 | 15.08 | 0.68 |
| 06/15/13 | 1,282.04 | 12,683.40 | -9.50 | 0.00 | 0.00 | 2.54 | 0.00 | 2.54 | 0.60 | 0.75 | 466.02 | 17.48 | 0.00 | 0.00 | 20.01 | 10.51 |
| 06/16/13 | 1,282.01 | 12,669.00 | -14.40 | 0.00 | 0.00 | 2.40 | 0.00 | 2.40 | 0.34 | 0.75 | 465.62 | 9.89 | 0.00 | 0.00 | 12.29 | -2.11 |
| 06/17/13 | 1,281.98 | 12,655.20 | -13.80 | 0.00 | 0.00 | 2.40 | 0.00 | 2.40 | 0.48 | 0.75 | 465.22 | 13.96 | 0.00 | 0.00 | 16.36 | 2.56 |
| 06/18/13 | 1,281.95 | 12,641.60 | -13.60 | 0.00 | 0.00 | 2.40 | 0.00 | 2.40 | 0.55 | 0.75 | 464.83 | 15.98 | 0.00 | 0.00 | 18.38 | 4.78 |
| 06/19/13 | 1,281.93 | 12,632.50 | -9.10 | 0.00 | 0.00 | 2.54 | 0.00 | 2.54 | 0.44 | 0.75 | 464.56 | 12.78 | 0.00 | 0.00 | 15.31 | 6.21 |
| 06/20/13 | 1,281.91 | 12,623.50 | -9.00 | 0.00 | 0.00 | 2.54 | 0.00 | 2.54 | 0.47 | 0.75 | 464.30 | 13.64 | 0.00 | 0.00 | 16.18 | 7.18 |
| 06/21/13 | 1,281.87 | 12,605.40 | -18.10 | 0.00 | 0.00 | 2.40 | 0.00 | 2.40 | 0.50 | 0.75 | 463.77 | 14.49 | 0.00 | 0.00 | 16.89 | -1.21 |
| 06/22/13 | 1,281.84 | 12,591.80 | -13.60 | 0.00 | 0.00 | 2.54 | 0.00 | 2.54 | 0.46 | 0.75 | 463.37 | 13.32 | 0.00 | 0.00 | 15.86 | 2.26 |
| 06/23/13 | 1,281.81 | 12,578.30 | -13.50 | 0.00 | 0.00 | 2.68 | 0.00 | 2.68 | 0.52 | 0.75 | 462.98 | 15.05 | 0.00 | 0.00 | 17.72 | 4.22 |
| 06/24/13 | 1,281.81 | 12,578.30 | 0.00 | 0.00 | 0.00 | 2.68 | 0.00 | 2.68 | 0.42 | 0.75 | 462.98 | 12.15 | 0.00 | 0.00 | 14.83 | 14.83 |
| 06/25/13 | 1,281.79 | 12,569.20 | -9.10 | 0.00 | 0.00 | 3.49 | 0.00 | 3.49 | 0.20 | 0.75 | 462.71 | 5.78 | 0.00 | 0.00 | 9.27 | 0.18 |
| 06/26/13 | 1,281.77 | 12,560.20 | -9.00 | 0.00 | 0.00 | 3.15 | 0.00 | 3.15 | 0.33 | 0.75 | 462.45 | 9.54 | 0.00 | 0.00 | 12.69 | 3.69 |
| 06/27/13 | 1,281.75 | 12,551.10 | -9.10 | 0.00 | 0.00 | 3.15 | 0.00 | 3.15 | 0.53 | 0.75 | 462.19 | 15.31 | 0.00 | 0.00 | 18.46 | 9.36 |
| 06/28/13 | 1,281.71 | 12,533.00 | -18.10 | 0.00 | 0.00 | 3.15 | 0.00 | 3.15 | 0.48 | 0.75 | 461.66 | 13.85 | 0.00 | 0.00 | 17.00 | -1.10 |
| 06/29/13 | 1,281.69 | 12,524.00 | -9.00 | 0.00 | 0.00 | 3.15 | 0.00 | 3.15 | 0.89 | 0.75 | 461.39 | 25.66 | 0.00 | 0.00 | 28.82 | 19.82 |
| 06/30/13 | 1,281.65 | 12,505.90 | -18.10 | 0.00 | 0.00 | 3.15 | 0.00 | 3.15 | 0.88 | 0.75 | 460.87 | 25.35 | 0.00 | 0.00 | 28.50 | 10.40 |
| 07/01/13 | 1,281.63 | 12,496.90 | -9.00 | 0.00 | 0.00 | 3.15 | 0.00 | 3.15 | 0.75 | 0.79 | 460.60 | 22.74 | 0.00 | 0.00 | 25.90 | 16.90 |
| 07/02/13 | 1,281.60 | 12,483.30 | -13.60 | 0.00 | 0.00 | 5.41 | 0.00 | 5.41 | 0.60 | 0.79 | 460.21 | 18.18 | 0.00 | 0.00 | 23.59 | 9.99 |
| 07/03/13 | 1,281.58 | 12,474.20 | -9.10 | 0.00 | 0.00 | 5.18 | 0.00 | 5.18 | 0.66 | 0.79 | 459.94 | 19.98 | 0.00 | 0.00 | 25.16 | 16.06 |
| 07/04/13 | 1,281.54 | 12,456.20 | -18.00 | 0.00 | 0.00 | 5.41 | 0.00 | 5.41 | 0.84 | 0.79 | 459.41 | 25.41 | 0.00 | 0.00 | 30.82 | 12.82 |
| 07/05/13 | 1,281.50 | 12,438.10 | -18.10 | 0.00 | 0.00 | 5.41 | 0.00 | 5.41 | 0.66 | 0.79 | 458.89 | 19.94 | 0.00 | 0.00 | 25.35 | 7.25 |
| 07/06/13 | 1,281.48 | 12,429.00 | -9.10 | 0.00 | 0.00 | 5.41 | 0.00 | 5.41 | 0.43 | 0.79 | 458.62 | 12.98 | 0.00 | 0.00 | 18.40 | 9.30 |
| 07/07/13 | 1,281.45 | 12,415.50 | -13.50 | 0.00 | 0.00 | 5.41 | 0.00 | 5.41 | 0.47 | 0.79 | 458.23 | 14.18 | 0.00 | 0.00 | 19.59 | 6.09 |
| 07/08/13 | 1,281.47 | 12,424.50 | 9.00 | 0.00 | 0.00 | 5.41 | 0.00 | 5.41 | 0.60 | 0.79 | 458.49 | 18.11 | 0.00 | 0.00 | 23.53 | 32.53 |
| 07/09/13 | 1,281.38 | 12,383.80 | -40.70 | 0.00 | 0.00 | 5.41 | 0.00 | 5.41 | 0.60 | 0.79 | 457.30 | 18.06 | 0.00 | 0.00 | 23.48 | -17.22 |
| 07/10/13 | 1,281.33 | 12,361.20 | -22.60 | 0.00 | 0.00 | 10.85 | 0.00 | 10.85 | 0.80 | 0.79 | 456.64 | 24.05 | 0.00 | 0.00 | 34.90 | 12.30 |
| 07/11/13 | 1,281.29 | 12,343.10 | -18.10 | 0.00 | 0.00 | 10.85 | 0.00 | 10.85 | 0.60 | 0.79 | 456.11 | 18.02 | 0.00 | 0.00 | 28.87 | 10.77 |
| 07/12/13 | 1,281.26 | 12,329.50 | -13.60 | 0.00 | 0.00 | 10.85 | 0.00 | 10.85 | 0.56 | 0.79 | 455.72 | 16.80 | 0.00 | 0.00 | 27.65 | 14.05 |
| 07/13/13 | 1,281.22 | 12,311.40 | -18.10 | 0.00 | 0.00 | 10.85 | 0.00 | 10.85 | 0.52 | 0.79 | 455.19 | 15.58 | 0.00 | 0.00 | 26.43 | 8.33 |
| 07/14/13 | 1,281.18 | 12,293.30 | -18.10 | 0.00 | 0.00 | 10.85 | 0.00 | 10.85 | 0.54 | 0.79 | 454.66 | 16.16 | 0.00 | 0.00 | 27.01 | 8.91 |
| 07/15/13 | 1,281.13 | 12,270.70 | -22.60 | 0.00 | 0.00 | 10.85 | 0.00 | 10.85 | 0.60 | 0.79 | 454.00 | 17.93 | 0.00 | 0.00 | 28.78 | 6.18 |

APPENDIX J-9

# Salinas Dam Release Report

Date Range: 10/01/2012 - 09/30/2013

| Date | Lake Elevation | Capacity | Cap. Change | Pipeline Div. | Pipeline Div. | Downstream Release | SW Dis | Total Dis. | Pan Read | Pan Coeff | Lake Surface | Lake Evap. | Precip. | Precip. | Daily Outflow | Inflow |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (Ft) | (AF) | (AF) | (MGD) | (AF) | (AF) | (AF) | (AF) | (In) | | | (AF) | (In) | (AF) | (AF) | (AF) |
| 07/16/13 | 1,281.10 | 12,257.20 | -13.50 | 0.00 | 0.00 | 11.23 | 0.00 | 11.23 | 0.65 | 0.79 | 453.61 | 19.41 | 0.00 | 0.00 | 30.64 | 17.14 |
| 07/17/13 | 1,281.05 | 12,234.50 | -22.70 | 0.00 | 0.00 | 10.85 | 0.00 | 10.85 | 0.45 | 0.79 | 452.95 | 13.42 | 0.00 | 0.00 | 24.27 | 1.57 |
| 07/18/13 | 1,281.02 | 12,221.00 | -13.50 | 0.00 | 0.00 | 11.23 | 0.00 | 11.23 | 0.48 | 0.79 | 452.55 | 14.30 | 0.00 | 0.00 | 25.53 | 12.03 |
| 07/19/13 | 1,280.97 | 12,198.40 | -22.60 | 0.00 | 0.00 | 11.23 | 0.00 | 11.23 | 0.58 | 0.79 | 451.89 | 17.25 | 0.00 | 0.00 | 28.48 | 5.88 |
| 07/20/13 | 1,280.92 | 12,175.70 | -22.70 | 0.00 | 0.00 | 11.23 | 0.00 | 11.23 | 0.68 | 0.79 | 451.23 | 20.20 | 0.00 | 0.00 | 31.43 | 8.73 |
| 07/21/13 | 1,280.90 | 12,166.70 | -9.00 | 0.00 | 0.00 | 11.23 | 0.00 | 11.23 | 0.58 | 0.79 | 450.97 | 17.22 | 0.00 | 0.00 | 28.45 | 19.45 |
| 07/22/13 | 1,280.88 | 12,157.60 | -9.10 | 0.00 | 0.00 | 11.23 | 0.00 | 11.23 | 0.48 | 0.79 | 450.70 | 14.24 | 0.00 | 0.00 | 25.47 | 16.37 |
| 07/23/13 | 1,280.82 | 12,130.50 | -27.10 | 0.00 | 0.00 | 11.23 | 0.00 | 11.23 | 0.50 | 0.79 | 449.91 | 14.81 | 0.00 | 0.00 | 26.04 | -1.06 |
| 07/24/13 | 1,280.76 | 12,103.40 | -27.10 | 3.39 | 10.40 | 11.23 | 0.00 | 21.63 | 0.62 | 0.79 | 449.12 | 18.33 | 0.00 | 0.00 | 39.96 | 12.86 |
| 07/25/13 | 1,280.69 | 12,071.70 | -31.70 | 2.57 | 7.89 | 11.23 | 0.00 | 19.11 | 0.59 | 0.79 | 448.20 | 17.41 | 0.00 | 0.00 | 36.52 | 4.82 |
| 07/26/13 | 1,280.64 | 12,049.10 | -22.60 | 2.18 | 6.69 | 11.23 | 0.00 | 17.92 | 0.57 | 0.79 | 447.54 | 16.79 | 0.00 | 0.00 | 34.71 | 12.11 |
| 07/27/13 | 1,280.58 | 12,022.00 | -27.10 | 2.94 | 9.02 | 11.23 | 0.00 | 20.25 | 0.60 | 0.79 | 446.74 | 17.65 | 0.00 | 0.00 | 37.90 | 10.80 |
| 07/28/13 | 1,280.52 | 11,994.80 | -27.20 | 3.23 | 9.91 | 11.23 | 0.00 | 21.14 | 0.66 | 0.79 | 445.95 | 19.38 | 0.00 | 0.00 | 40.52 | 13.32 |
| 07/29/13 | 1,280.46 | 11,967.70 | -27.10 | 2.31 | 7.09 | 11.23 | 0.00 | 18.32 | 0.42 | 0.79 | 445.16 | 12.31 | 0.00 | 0.00 | 30.62 | 3.52 |
| 07/30/13 | 1,280.41 | 11,945.10 | -22.60 | 2.46 | 7.55 | 11.23 | 0.00 | 18.78 | 0.42 | 0.79 | 444.50 | 12.29 | 0.00 | 0.00 | 31.07 | 8.47 |
| 07/31/13 | 1,280.36 | 11,922.50 | -22.60 | 2.23 | 6.84 | 11.23 | 0.00 | 18.07 | 0.37 | 0.79 | 443.84 | 10.81 | 0.00 | 0.00 | 28.88 | 6.28 |
| 08/01/13 | 1,280.29 | 11,890.80 | -31.70 | 2.32 | 7.12 | 11.23 | 0.00 | 18.35 | 0.39 | 0.84 | 442.92 | 12.09 | 0.00 | 0.00 | 30.44 | -1.26 |
| 08/02/13 | 1,280.23 | 11,863.70 | -27.10 | 3.07 | 9.42 | 11.23 | 0.00 | 20.65 | 0.59 | 0.84 | 442.12 | 18.26 | 0.00 | 0.00 | 38.91 | 11.81 |
| 08/03/13 | 1,280.17 | 11,836.50 | -27.20 | 3.32 | 10.19 | 11.23 | 0.00 | 21.42 | 0.48 | 0.84 | 441.33 | 14.83 | 0.00 | 0.00 | 36.24 | 9.04 |
| 08/04/13 | 1,280.11 | 11,809.40 | -27.10 | 2.56 | 7.86 | 11.23 | 0.00 | 19.08 | 0.50 | 0.84 | 440.54 | 15.42 | 0.00 | 0.00 | 34.50 | 7.40 |
| 08/05/13 | 1,280.05 | 11,782.20 | -27.20 | 2.48 | 7.61 | 11.60 | 0.00 | 19.21 | 0.53 | 0.84 | 439.75 | 16.31 | 0.00 | 0.00 | 35.53 | 8.33 |
| 08/06/13 | 1,279.99 | 11,755.40 | -26.80 | 2.93 | 8.99 | 11.23 | 0.00 | 20.22 | 0.49 | 0.84 | 438.97 | 15.06 | 0.00 | 0.00 | 35.28 | 8.48 |
| 08/07/13 | 1,279.93 | 11,729.70 | -25.70 | 2.15 | 6.60 | 11.23 | 0.00 | 17.82 | 0.41 | 0.84 | 438.27 | 12.58 | 0.00 | 0.00 | 30.40 | 4.70 |
| 08/08/13 | 1,279.88 | 11,708.30 | -21.40 | 2.23 | 6.84 | 11.23 | 0.00 | 18.07 | 0.43 | 0.84 | 437.69 | 13.17 | 0.00 | 0.00 | 31.24 | 9.84 |
| 08/09/13 | 1,279.83 | 11,687.00 | -21.30 | 3.21 | 9.85 | 11.23 | 0.00 | 21.08 | 0.39 | 0.84 | 437.11 | 11.93 | 0.00 | 0.00 | 33.01 | 11.71 |
| 08/10/13 | 1,279.79 | 11,669.90 | -17.10 | 3.47 | 10.65 | 11.23 | 0.00 | 21.88 | 0.39 | 0.84 | 436.64 | 11.92 | 0.00 | 0.00 | 33.80 | 16.70 |
| 08/11/13 | 1,279.71 | 11,635.70 | -34.20 | 1.90 | 5.83 | 11.23 | 0.00 | 17.06 | 0.43 | 0.84 | 435.71 | 13.11 | 0.00 | 0.00 | 30.17 | -4.03 |
| 08/12/13 | 1,279.65 | 11,610.00 | -25.70 | 1.93 | 5.92 | 11.23 | 0.00 | 17.15 | 0.54 | 0.84 | 435.01 | 16.44 | 0.00 | 0.00 | 33.59 | 7.89 |
| 08/13/13 | 1,279.59 | 11,584.40 | -25.60 | 3.32 | 10.19 | 11.23 | 0.00 | 21.42 | 0.51 | 0.84 | 434.31 | 15.50 | 0.00 | 0.00 | 36.92 | 11.32 |
| 08/14/13 | 1,279.52 | 11,554.50 | -29.90 | 3.17 | 9.73 | 11.23 | 0.00 | 20.96 | 0.46 | 0.84 | 433.50 | 13.96 | 0.00 | 0.00 | 34.91 | 5.01 |
| 08/15/13 | 1,279.45 | 11,524.50 | -30.00 | 3.46 | 10.62 | 11.23 | 0.00 | 21.85 | 0.54 | 0.84 | 432.68 | 16.36 | 0.00 | 0.00 | 38.20 | 8.20 |
| 08/16/13 | 1,279.40 | 11,503.20 | -21.30 | 3.22 | 9.88 | 6.68 | 0.00 | 16.57 | 0.56 | 0.84 | 432.10 | 16.94 | 0.00 | 0.00 | 33.50 | 12.20 |
| 08/17/13 | 1,279.35 | 11,481.80 | -21.40 | 3.95 | 12.12 | 7.54 | 0.00 | 19.66 | 0.54 | 0.84 | 431.52 | 16.31 | 0.00 | 0.00 | 35.97 | 14.57 |
| 08/18/13 | 1,279.29 | 11,456.10 | -25.70 | 3.57 | 10.96 | 6.68 | 0.00 | 17.64 | 0.58 | 0.84 | 430.82 | 17.49 | 0.00 | 0.00 | 35.13 | 9.43 |
| 08/19/13 | 1,279.25 | 11,439.10 | -17.00 | 2.04 | 6.26 | 6.96 | 0.00 | 13.22 | 0.50 | 0.84 | 430.36 | 15.06 | 0.00 | 0.00 | 28.29 | 11.29 |
| 08/20/13 | 1,279.20 | 11,417.70 | -21.40 | 2.37 | 7.27 | 6.68 | 0.00 | 13.96 | 0.56 | 0.84 | 429.77 | 16.85 | 0.00 | 0.00 | 30.80 | 9.41 |

APPENDIX J-10

# Salinas Dam Release Report

Date Range: 10/01/2012 - 09/30/2013

| Date | Lake Elevation (Ft) | Capacity (AF) | Cap. Change (AF) | Pipeline Div. (MGD) | Pipeline Div. (AF) | Downstream Release (AF) | SW Dis (AF) | Total Dis. (AF) | Pan Read (In) | Pan Coeff | Lake Surface | Lake Evap. (AF) | Precip. (In) | Precip. (AF) | Daily Outflow (AF) | Inflow (AF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 08/21/13 | 1,279.16 | 11,400.60 | -17.10 | 3.05 | 9.36 | 8.45 | 0.00 | 17.81 | 0.47 | 0.84 | 429.31 | 14.12 | 0.00 | 0.00 | 31.93 | 14.83 |
| 08/22/13 | 1,279.11 | 11,379.20 | -21.40 | 2.27 | 6.97 | 8.45 | 0.00 | 15.42 | 0.46 | 0.84 | 428.73 | 13.81 | 0.00 | 0.00 | 29.22 | 7.82 |
| 08/23/13 | 1,279.05 | 11,353.60 | -25.60 | 3.55 | 10.89 | 8.45 | 0.00 | 19.34 | 0.44 | 0.84 | 428.03 | 13.18 | 0.00 | 0.00 | 32.53 | 6.93 |
| 08/24/13 | 1,278.99 | 11,327.90 | -25.70 | 2.69 | 8.26 | 8.45 | 0.00 | 16.71 | 0.42 | 0.84 | 427.33 | 12.56 | 0.00 | 0.00 | 29.27 | 3.57 |
| 08/25/13 | 1,278.94 | 11,306.50 | -21.40 | 1.91 | 5.86 | 8.45 | 0.00 | 14.31 | 0.54 | 0.84 | 426.75 | 16.13 | 0.00 | 0.00 | 30.44 | 9.04 |
| 08/26/13 | 1,278.89 | 11,285.20 | -21.30 | 2.27 | 6.97 | 8.45 | 0.00 | 15.42 | 0.46 | 0.84 | 426.16 | 13.72 | 0.00 | 0.00 | 29.14 | 7.84 |
| 08/27/13 | 1,278.83 | 11,259.50 | -25.70 | 2.50 | 7.67 | 8.45 | 0.00 | 16.12 | 0.49 | 0.84 | 425.47 | 14.59 | 0.00 | 0.00 | 30.72 | 5.02 |
| 08/28/13 | 1,278.78 | 11,238.20 | -21.30 | 2.50 | 7.67 | 8.77 | 0.00 | 16.44 | 0.58 | 0.84 | 424.88 | 17.25 | 0.00 | 0.00 | 33.69 | 12.39 |
| 08/29/13 | 1,278.73 | 11,216.80 | -21.40 | 3.10 | 9.51 | 8.77 | 0.00 | 18.28 | 0.55 | 0.84 | 424.30 | 16.34 | 0.00 | 0.00 | 34.62 | 13.22 |
| 08/30/13 | 1,278.68 | 11,195.40 | -21.40 | 3.19 | 9.79 | 8.77 | 0.00 | 18.56 | 0.52 | 0.84 | 423.72 | 15.42 | 0.00 | 0.00 | 33.98 | 12.58 |
| 08/31/13 | 1,278.62 | 11,169.80 | -25.60 | 3.18 | 9.76 | 9.42 | 0.00 | 19.18 | 0.68 | 0.84 | 423.02 | 20.14 | 0.00 | 0.00 | 39.32 | 13.72 |
| 09/01/13 | 1,278.57 | 11,148.40 | -21.40 | 3.25 | 9.97 | 9.78 | 0.00 | 19.75 | 0.34 | 0.85 | 422.44 | 10.17 | 0.00 | 0.00 | 29.93 | 8.53 |
| 09/02/13 | 1,278.52 | 11,127.00 | -21.40 | 3.14 | 9.64 | 9.78 | 0.00 | 19.42 | 0.40 | 0.85 | 421.86 | 11.95 | 0.00 | 0.00 | 31.37 | 9.97 |
| 09/03/13 | 1,278.46 | 11,101.40 | -25.60 | 3.13 | 9.61 | 9.78 | 0.00 | 19.38 | 0.44 | 0.85 | 421.16 | 13.13 | 0.00 | 0.00 | 32.51 | 6.91 |
| 09/04/13 | 1,278.41 | 11,080.00 | -21.40 | 3.16 | 9.70 | 9.78 | 0.00 | 19.48 | 0.43 | 0.85 | 420.58 | 12.81 | 0.00 | 0.00 | 32.29 | 10.89 |
| 09/05/13 | 1,278.36 | 11,058.60 | -21.40 | 2.31 | 7.09 | 9.78 | 0.00 | 16.87 | 0.43 | 0.85 | 419.99 | 12.79 | 0.00 | 0.00 | 29.66 | 8.26 |
| 09/06/13 | 1,278.32 | 11,041.50 | -17.10 | 1.51 | 4.63 | 9.78 | 0.00 | 14.41 | 0.42 | 0.85 | 419.53 | 12.48 | 0.00 | 0.00 | 26.89 | 9.79 |
| 09/07/13 | 1,278.28 | 11,024.40 | -17.10 | 3.24 | 9.94 | 10.12 | 0.00 | 20.06 | 0.56 | 0.85 | 419.06 | 16.62 | 0.00 | 0.00 | 36.68 | 19.58 |
| 09/08/13 | 1,278.21 | 10,994.50 | -29.90 | 2.00 | 6.14 | 10.12 | 0.00 | 16.25 | 0.58 | 0.85 | 418.25 | 17.18 | 0.00 | 0.00 | 33.44 | 3.54 |
| 09/09/13 | 1,278.16 | 10,973.10 | -21.40 | 1.79 | 5.49 | 9.42 | 0.00 | 14.91 | 0.61 | 0.85 | 417.66 | 18.05 | 0.00 | 0.00 | 32.96 | 11.56 |
| 09/10/13 | 1,278.10 | 10,947.50 | -25.60 | 2.41 | 7.40 | 9.78 | 0.00 | 17.17 | 0.53 | 0.85 | 416.97 | 15.65 | 0.00 | 0.00 | 32.83 | 7.23 |
| 09/11/13 | 1,278.06 | 10,930.40 | -17.10 | 3.13 | 9.61 | 9.78 | 0.00 | 19.38 | 0.37 | 0.85 | 416.50 | 10.92 | 0.00 | 0.00 | 30.30 | 13.20 |
| 09/12/13 | 1,278.01 | 10,909.00 | -21.40 | 2.16 | 6.63 | 9.78 | 0.00 | 16.41 | 0.27 | 0.85 | 415.92 | 7.95 | 0.00 | 0.00 | 24.36 | 2.96 |
| 09/13/13 | 1,277.96 | 10,888.60 | -20.40 | 2.52 | 7.73 | 9.78 | 0.00 | 17.51 | 0.43 | 0.85 | 415.29 | 12.65 | 0.00 | 0.00 | 30.16 | 9.76 |
| 09/14/13 | 1,277.91 | 10,868.50 | -20.10 | 0.30 | 0.92 | 10.12 | 0.00 | 11.04 | 0.50 | 0.85 | 414.66 | 14.69 | 0.00 | 0.00 | 25.72 | 5.62 |
| 09/15/13 | 1,277.87 | 10,852.30 | -16.20 | 0.00 | 0.00 | 10.12 | 0.00 | 10.12 | 0.40 | 0.85 | 414.15 | 11.73 | 0.00 | 0.00 | 21.85 | 5.65 |
| 09/16/13 | 1,277.85 | 10,844.30 | -8.00 | 0.11 | 0.34 | 10.12 | 0.00 | 10.45 | 0.41 | 0.85 | 413.90 | 12.02 | 0.00 | 0.00 | 22.47 | 14.47 |
| 09/17/13 | 1,277.80 | 10,824.10 | -20.20 | 2.40 | 7.37 | 10.12 | 0.00 | 17.48 | 0.38 | 0.85 | 413.26 | 11.12 | 0.00 | 0.00 | 28.60 | 8.40 |
| 09/18/13 | 1,277.75 | 10,804.00 | -20.10 | 2.07 | 6.35 | 10.12 | 0.00 | 16.47 | 0.30 | 0.85 | 412.63 | 8.77 | 0.00 | 0.00 | 25.24 | 5.14 |
| 09/19/13 | 1,277.69 | 10,779.80 | -24.20 | 2.96 | 9.08 | 9.78 | 0.00 | 18.86 | 0.33 | 0.85 | 411.86 | 9.63 | 0.00 | 0.00 | 28.49 | 4.29 |
| 09/20/13 | 1,277.65 | 10,763.70 | -16.10 | 0.00 | 0.00 | 9.78 | 0.00 | 9.78 | 0.40 | 0.85 | 411.36 | 11.66 | 0.00 | 0.00 | 21.43 | 5.33 |
| 09/21/13 | 1,277.63 | 10,755.60 | -8.10 | 0.00 | 0.00 | 9.78 | 0.00 | 9.78 | 0.32 | 0.85 | 411.10 | 9.32 | 0.00 | 0.00 | 19.10 | 11.00 |
| 09/22/13 | 1,277.61 | 10,747.50 | -8.10 | 0.00 | 0.00 | 9.78 | 0.00 | 9.78 | 0.18 | 0.85 | 410.85 | 5.24 | 0.00 | 0.00 | 15.02 | 6.92 |
| 09/23/13 | 1,277.57 | 10,731.40 | -16.10 | 0.00 | 0.00 | 9.78 | 0.00 | 9.78 | 0.27 | 0.85 | 410.34 | 7.85 | 0.00 | 0.00 | 17.63 | 1.53 |
| 09/24/13 | 1,277.52 | 10,711.30 | -20.10 | 1.12 | 3.44 | 10.12 | 0.00 | 13.55 | 0.29 | 0.85 | 409.70 | 8.42 | 0.00 | 0.00 | 21.97 | 1.87 |
| 09/25/13 | 1,277.49 | 10,699.20 | -12.10 | 0.00 | 0.00 | 6.43 | 0.00 | 6.43 | 0.26 | 0.85 | 409.32 | 7.54 | 0.00 | 0.00 | 13.96 | 1.87 |

APPENDIX J-11

# Salinas Dam Release Report

Date Range: 10/01/2012 - 09/30/2013

| Date | Lake Elevation (Ft) | Capacity (AF) | Cap. Change (AF) | Pipeline Div. (MGD) | Pipeline Div. (AF) | Downstream Release (AF) | SW Dis (AF) | Total Dis. (AF) | Pan Read (In) | Pan Coeff | Lake Surface | Lake Evap. (AF) | Precip. (In) | Precip. (AF) | Daily Outflow (AF) | Inflow (AF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 09/26/13 | 1,277.47 | 10,691.10 | -8.10 | 1.34 | 4.11 | 6.17 | 0.00 | 10.28 | 0.30 | 0.85 | 409.07 | 8.69 | 0.00 | 0.00 | 18.97 | 10.87 |
| 09/27/13 | 1,277.42 | 10,670.90 | -20.20 | 2.84 | 8.72 | 6.17 | 0.00 | 14.88 | 0.27 | 0.85 | 408.43 | 7.81 | 0.00 | 0.00 | 22.70 | 2.50 |
| 09/28/13 | 1,277.37 | 10,650.80 | -20.10 | 3.18 | 9.76 | 6.17 | 0.00 | 15.93 | 0.37 | 0.85 | 407.80 | 10.69 | 0.00 | 0.00 | 26.62 | 6.51 |
| 09/29/13 | 1,277.32 | 10,630.60 | -20.20 | 2.37 | 7.27 | 6.17 | 0.00 | 13.44 | 0.33 | 0.85 | 407.16 | 9.52 | 0.00 | 0.00 | 22.96 | 2.76 |
| 09/30/13 | 1,277.27 | 10,610.50 | -20.10 | 4.63 | 14.21 | 6.43 | 0.00 | 20.64 | 0.31 | 0.85 | 406.53 | 8.93 | 0.00 | 0.00 | 29.56 | 9.46 |
| **Totals** | | | -4,382.10 | 895.59 | 2,748.49 | 1,724.10 | 0.00 | 4,472.58 | 99.70 | 267.28 | 176,309.14 | 2,958.91 | 11.51 | 484.04 | 6,947.46 | 2,565.36 |