County of San Luis Obispo
Department of Public Works
County Government Center, Room 206
San Luis Obispo, CA 93408
www.slocounty.ca.gov/PW.htm

Water Quality Report

Nacimiento Water Project

System Number 4010080

2018

Public Works will be a valued community partner enhancing quality of life for our fellow county residents.

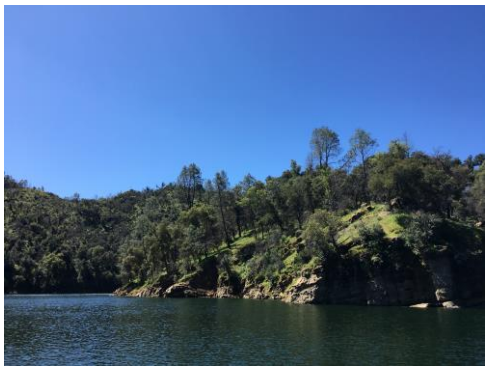
NACIMIENTO WATER PROJECT 2018 CCR

YOUR 2018 WATER QUALITY REPORT

The County of San Luis Obispo is pleased to present this annual report describing the quality of your drinking water. Included are details about where your water comes from, what it contains, and how it compares to State standards. We sincerely hope this report gives you the information you seek and have a right to know. ***Este informe contiene informacíon muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.***

YOUR WATER SUPPLY

The raw water provided to your water agency comes from Nacimiento Reservoir located in northern San Luis Obispo County. The Nacimiento Reservoir watershed encompasses 208,060 acres (325 square miles). Almost exactly half of this area, 104,480 acres, lies in Monterey County. The other half 103,580, lies in San Luis Obispo County.



Nacimiento Reservoir at 86% capacity April 2019

Nacimiento Water Project consists of five agencies that use raw water from Nacimiento Reservoir – City of El Paso de Robles, Templeton Community Services District, Atascadero Mutual Water Company, City of San Luis Obispo, and Cayucos County Service Area 10 (under a water exchange agreement with the City of San Luis Obispo for Whale Rock Reservoir water).

The watershed sanitary survey was updated in 2015. The survey identifies potential contaminating activities in the watershed and assesses their impact on the raw and treated water quality. The greatest risks to the Nacimiento Reservoir as a drinking water supply come from extensive grazing, unlimited body contact recreation, numerous domestic wastewater facilities, and the potential for a large wildland fire. Urban development and agricultural cropland are increasing and may present future risks. Variable risk levels are presented by military activities and illicit commercial crops.

A special contaminant of concern is mercury from abandoned mercury mines in the watershed. Although mercury currently does not present a risk to the reservoir as a drinking water supply, its presence in the environment has led to its accumulation in fish in Nacimiento Reservoir at levels that are unsafe for human consumption. Public awareness of this issue can lead to concerns about the safety of the water supply.

A copy of the survey can be found at the County of San Luis Obispo Department of Public Works website at: **https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Water-Resources/Watershed-Sanitary-Surveys/Nacimiento-Watershed-Sanitary-Survey-2015.aspx** or by contacting the Publics Works Department at (805) 781-5252.

ADDITIONAL INFORMATION

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1(800) 426-4791.

DRINKING WATER AND HEALTH RISKS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1(800) 426-4791.

LEAD HEALTH RISKS IN DRINKING WATER

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water typically comes from materials and components associated with service lines and home plumbing. The County of San Luis Obispo is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1(800) 426-4791 or **http://www.epa.gov/safewater/lead.**

OPERATIONS

Nacimiento Water Project is assigned three operators who, like all operators who work for the County, are certified by the California State Water Resources Control Board (SWRCB). Our operators are knowledgeable professionals who have many years of experience. They are dedicated to maintaining an excellent water system and providing you with the best quality water possible.

Operators conduct weekly inspections of the intake pump station, tanks, and the distribution system. In addition, the SWRCB routinely inspects the facilities, operating procedures, and the water quality monitoring records to verify compliance with state and federal regulatory requirements.

WATER QUALITY LABORATORY

The Department of Public Works Water Quality Laboratory provides laboratory services for most County operated water and wastewater systems. The lab is certified by the State of California's Environmental Laboratory Accreditation Program (ELAP). To remain certified by the State, the lab is required to annually demonstrate capability by analyzing unknown values for each constituent. In addition to analytical work, the laboratory also provides sampling, compliance reporting, watershed monitoring, and technical support services for Public Works systems.

COMMUNITY PARTICIPATION

The County of San Luis Obispo Board of Supervisors meets every Tuesday (except the 5th Tuesday in a month) in the board chambers located in the County Government Center at 1055 Monterey Street, San Luis Obispo. The Board holds budget hearings during the month of June. Interested persons should check the Board's agendas for specific dates. Agendas for all Board of Supervisors meetings are posted in some County libraries, the County Government Center, and on the Board of Supervisors internet web site at: **https://www.slocounty.ca.gov/Departments/Administrative-Office/Board-of-Supervisors-Agenda.aspx**.

The Nacimiento Project Commission holds public meetings quarterly at 4:00p.m. at the Templeton CSD. Scheduled meetings for 2019 are to be held May 23, August 22, and November 21. Meeting logistics are subject to change. Please contact County Public Works at (805) 781-5252 or **pwd@co.slo.ca.us** for confirmation of date, location and time.

NACIMIENTO WATER PROJECT

WATER QUALITY

The following tables are a snapshot of water quality constituents that were detected in 2018, unless otherwise noted. The presence of these substances in water does not necessarily indicate that the water poses a health risk. The Maximum Contaminant Level and Violation status are for treated Drinking Water and are used here to aid in treatment decisions of the Nacimiento Project Raw Water. The State allows us to monitor for some constituents less than once per year because the concentrations do not change frequently. Some of our data, although representative, may be more than one year old. For questions about this data, please contact the County of San Luis Obispo Department of Public Works Water Quality Laboratory at (805) 781-5111.

State Regulated Contaminants with Primary Maximum Contaminant Levels

Constituent (Units)	MCL or [MRDL]	PHG or (MCLG)	Range detected	Average detected	Violation	Potential Source of Contamination
Long Term 2 Enhanced Surface Water Treatment Rule Monitoring						
E. coli (MPN/100 mL)	TT	(0)	ND - 1	ND	No	Human and animal fecal waste
Turbidity (NTU)	TT	TT	3.1 – 45	17	No	Soil runoff
Inorganic						
Aluminum (mg/L)	1	0.6	0.039 – 0.13	0.074	No*	Erosion of natural deposits
Arsenic (ug/L)	10	0.004	ND – 5.9	3.2	No*	Erosion of natural deposits
Barium (mg/L)	1	2	0.033 – 0.056	0.042	No*	Erosion of natural deposits
Fluoride (mg/L)	2.0	1	ND – 0.244	0.134	No*	Erosion of natural deposits
Nickel (ug/L)	100	12	ND – 6.2	2.8	No*	Erosion of natural deposits
Nitrate as N (mg/L)	10	10	ND – 0.146	0.066	No*	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radioactivity						
Gross Alpha Particle Activity (pCi/L)	15	(0)	-----	ND (2010)	No*	Erosion of natural deposits
Disinfection Byproduct Precursors						
Dissolved Organic Carbon (mg/L)	TT	TT	3.2- 4.4	3.8	No*	Various natural and manmade sources
Total Organic Carbon (mg/L)	TT	TT	3.0 – 4.3	3.7	No*	Various natural and manmade sources
SUVA (L/mg-M)	TT	TT	2.0 – 2.8	2.3	No*	Various natural and manmade sources

NACIMIENTO WATER PROJECT

State Regulated Contaminants with Secondary Maximum Contaminant Levels and Unregulated Contaminants

Constituent (Units)	MCL secondary	Range detected	Average detected	Violation	Potential Source of Contamination
Aluminum (µg/L)	200	39 - 130	74	No*	Erosion of natural deposits; residue from some surface water treatment processes
Chloride (mg/L)	500	4.89- 5.63	5.30	No*	Runoff/leaching from natural deposits
Color, Apparent (CU)	15	8 – 59	21	No*	Naturally occurring organic materials
Color, True (CU)	15	4 – 20	8	No*	Naturally occurring organic materials
Iron (µg/L)	300	53- 260	110	No*	Leaching from natural deposits
Lead (ug/L)	15	ND – 0.81	0.70	No*	Erosion of natural deposits
Manganese (µg/L)	50	ND – 1100	120	No*	Leaching from natural deposits
Odor - Threshold (TON)	3	1.5 – 100	11	No*	Naturally occurring organic materials
Specific Conductance (µS/cm)	1600	270 - 330	290	No*	Runoff/leaching from natural deposits
Sulfate (mg/L)	500	26.7- 40.2	33.4	No*	Runoff/leaching from natural deposits; seawater influence
Total Dissolved Solids (mg/L)	1000	100 - 380	220	No*	Runoff/leaching from natural deposits; seawater influence
Turbidity (NTU)	5	1.8 – 8.6	3.6	No*	Soil runoff

Constituent (Units)	Contaminant	Range	Average	Potential Source of Contamination
Alkalinity as CaCO3 (mg/L)	Unregulated	99 - 120	107	Runoff/leaching from natural deposits
Boron (µg/L)	State Regulated RAL - 1000	54	54	Runoff/leaching from natural deposits
Calcium (mg/L)	Unregulated	28 - 34	31	Runoff/leaching from natural deposits
Hardness as CaCO3 (mg/L)	Unregulated	120 - 150	140	Generally found in ground and surface water
Magnesium (mg/L)	Unregulated	13 – 16	15	Runoff/leaching from natural deposits
pH	Unregulated	7.37 – 8.60	7.75	Runoff/leaching from natural deposits
Sodium (mg/L)	Unregulated	7.4 - 10	8.8	Runoff/leaching from natural deposits
Total Coliform Bacteria (MPN/100 mL)	Unregulated	25 – 24000	3900	Naturally present in the environment

Some additional constituents monitored but not detected above State reporting limits: 1,2,3-TCP, silver, antimony, asbestos, beryllium, cadmium, chromium, hexavalent chromium, perchlorate, cyanide, copper, lead, mercury, MBAS, nitrite, phosphorus, radium 228, selenium, thallium, zinc, and Title 22 volatile and synthetic organic chemicals.

No* The Maximum Contaminant Level and Violation status are for treated Drinking Water and are used here to aid in treatment decisions of the raw water from the Nacimiento Project Water.

KEY terms and abbreviations

CU – Color Units.

E. coli – *Escherichia coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms.

MCL – Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

MCLG – Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

mg/L – Milligrams per Liter.

MPN/100 mL – Most Probable Number per 100 milliliters

MRDL – Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG – Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ND – Not Detected. Contaminant is not detectable at testing limit.

NS – No Standard

NTU – Nephelometric Turbidity Unit. A measure of water clarity.

pCi/L – picocuries per liter (a measure of radioactivity).

PDWS – Primary Drinking Water Standards. MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements. PDWS pertain to the following: Filtration Performance, Microbiological Contaminants, Inorganic Contaminants, Radioactive Contaminants and Disinfection Byproducts, Disinfection Residuals, and Disinfection Byproduct Precursors.

PHG – Public Health Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

ppb – parts per billion, or micrograms per liter (µg/L).

ppm – parts per million, or milligrams per liter (mg/L).

Primary MCL – Maximum contaminant level for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.

RAL – Regulatory Action Level. The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

Secondary MCLs – Maximum contaminant level for contaminants to protect the taste, odor, or appearance of the drinking water. Contaminants with secondary MCLs do not affect health at the MCL levels.

SWRCB – State Water Resources Control Board

TON – Threshold Odor Number.

TT – Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water. For microbiological and turbidity contaminants, the raw water will be treated at a water treatment facility or used for groundwater recharge prior to use.

µS/cm – microsiemens per centimeter (unit of specific conductance of water).

µg/L – micrograms per Liter.

USEPA – United States Environmental Protection Agency

NACIMIENTO WATER PROJECT NEWS

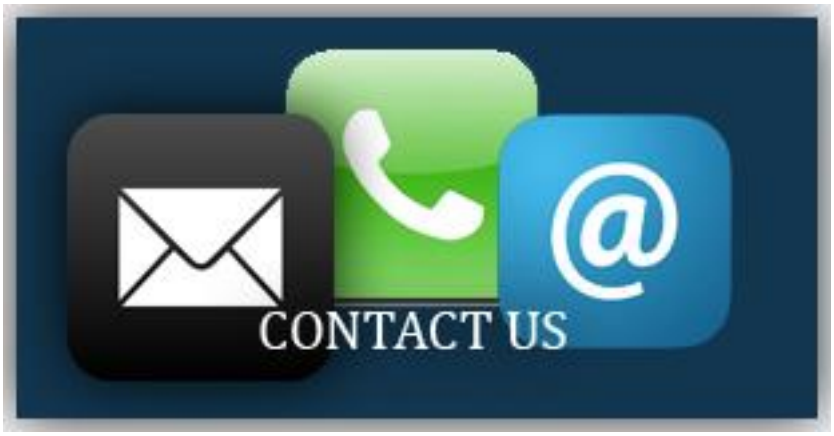
Maintaining and Operating the Nacimiento Water Project Dam and Delivery System is an on-going process. Some of the projects being addressed for 2018/2019 are:

- Rebuilding two failed pumps at the Intake Pump Station
- Retrofitting cooling water alarms at the Intake Pump Station
- Updating the Santa Ysabel Pump Station SCADA system
- Building a storage shed at the Santa Ysabel Pump Station site
- Installing inline isolation valves along the pipeline in order to isolate sections of pipeline
- Installing cathodic protection (magnesium anodes) on 5 sections of pipe identified as problematic

Following the above average rainfall in 2017 and heavy rains in March 2018, the Nacimiento Reservoir was able to maintain its non-drought status through the month of May. In 2018, Nacimiento's highest elevation was in March with the water level at 776.40 feet above mean sea level (56.2% capacity; 212,290 acre-feet). Since June 2018, Nacimiento has been at a level considered to be in severe drought condition (<40% capacity or 153,000 acre-feet). The average lake elevation for 2018 was 734.66 feet above mean sea level (30.2%; 114,126 acre-feet).

The Nacimiento Water Project delivered 2,363 million gallons (7,253 acre-feet) of water to its participating agencies in 2018. This is approximately 6.47 million gallons per day.

NACIMIENTO WATER PROJECT 2018 DELIVERIES (Million gallons)					
Month	**Paso Robles**	**Templeton**	**Atascadero**	**San Luis Obispo**	**Total Flow**
	(T2)	**(T4)**	**(T6)**	**(T11)**	
January	11.39	2.98	0.00	75.44	89.81
February	15.62	3.62	0.00	99.99	119.23
March	18.92	9.26	30.60	112.18	170.96
April	18.17	8.99	29.80	126.69	183.65
May	54.71	9.04	30.57	119.49	213.81
June	108.89	7.66	39.69	80.74	236.98
July	169.47	9.28	61.70	117.68	358.13
August	162.18	8.06	62.04	141.48	373.76
September	74.75	2.58	24.02	58.68	160.03
October	75.36	9.29	15.23	116.62	216.50
November	55.88	8.77	0.00	70.80	135.45
December	30.92	9.26	0.00	64.83	105.01
ANNUAL TOTAL FLOWS	**796.26**	**88.79**	**293.65**	**1,184.62**	**2,363.32**



CONTACT INFORMATION

Internet

USEPA Office of Ground Water and Drinking Water

http://water.epa.gov/drink/index.cfm

California State Water Resources Control Board (SWRCB)

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/publicwatersystems.shtml

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