

EL DORADO IRRIGATION DISTRICT

2017 Water Quality Report

Water testing performed in 2017



Main Water System

*Este informe contiene información muy importante sobre su agua beber.
Tradúzcalo o hable con alguien que lo entienda bien.*

ABOUT THE WATER QUALITY REPORT

The Water Quality Report is an annual summary of the results of ongoing tests for contaminants in drinking water. The report is designed to inform you of the quality of your drinking water. Each year, the State Water Resources Control Board and U.S. Environmental Protection Agency require EID to compile and distribute a report to all of our water customers. The report includes a comparison of the District's water quality to state and federal standards.

WHERE YOUR WATER COMES FROM

EID has rights to approximately 75,000 acre-feet of water from various sources in the Sierra Nevada foothills. (An acre-foot equals one acre of land covered by a foot of water; there are 325,851 gallons in an acre-foot.) Jenkinson Lake, at the center of Sly Park Recreation Area, provides nearly one half of the Main System's water supply and is treated at the Reservoir A water treatment plant in Pollock Pines. Forebay Reservoir in Pollock Pines delivers water to the Reservoir 1 water treatment plant under a pre-1914 water right from the high-alpine streams and lakes that are part of our Project 184 hydropower system. We have a water contract with the Bureau of Reclamation at Folsom Lake, which Reclamation operates as part of the state's Central Valley Water Project. We also hold ditch water rights (Weber, Slab, and Hangtown creeks), water rights at Weber Reservoir, and a water right under Permit 21112 for Project 184 water—all of which is delivered from Folsom Lake through the El Dorado Hills water treatment plant. The EID Main water system provides water to 40,605 service accounts within a 225-square-mile service area.



ABOUT EID

EID is a multi-service, water-based public utility serving about 118,000 people in El Dorado County. The District holds water rights in the Sierra Nevada foothills that date back to the Gold Rush. Today EID provides a unique combination of services—from drinking water and water for pastures, orchards, and vineyards to wastewater treatment, recycled water for irrigated landscapes and front and back yards, hydroelectric and solar power generation, water efficiency programs, and outstanding recreation in Sierra Nevada alpine and western slope environments.

INFORMATION ABOUT POTENTIAL SOURCES OF POLLUTION

The State Water Resources Control Board, Division of Drinking Water requires water providers to conduct a source water assessment to help protect the quality of water supplies. The assessment describes where a water system's drinking water comes from, the types of polluting activities that may threaten the quality of the source water, and an evaluation of the water's vulnerability to the threats.

Updated assessments of EID's drinking water sources were completed in 2006, 2008, and 2013. Our source water is considered most vulnerable to recreation, residential sewer, septic system, and urban runoff activities, which are associated with constituents detected in the water supply. Our source water is also considered most vulnerable to illegal activities, dumping, fertilizer, pesticide and herbicide application, forest activities, and wildfires, although constituents associated with these activities were not detected. Copies of the assessments are available at State Water Resources Control Board, Division of Drinking Water, Sacramento District Office, 1001 I Street, 17th Floor, Sacramento, CA 95814. To view them, contact Ali Rezvani, Sacramento District Engineer, at 916-445-5285, or Radenko Odzakovic, EID Drinking Water Operations Division Manager, at 530-642-4060.

TESTING THE WATER

To help ensure that safe water is delivered to our customers, EID's water quality monitoring program includes taking samples of raw and treated water throughout the year from many locations in the District's service area. Analyses cover more than 100 different constituents. Analysis of the water is performed at state-certified commercial labs. The state of California may grant monitoring waivers for contaminants when historical monitoring results are less than the Maximum Contaminant Level. As a result, some of our data, although representative, may be more than a year old. The table on page four lists all constituents that were detected in 2017 under our monitoring and testing program. The information shows that EID meets or exceeds all state and federal drinking water standards. When available, the data reported reflects the treated water supply.

A NOTE FOR SENSITIVE POPULATIONS

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 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.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. EID 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, test methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline, or at www.epa.gov/safewater/lead.

LEAD IN SCHOOLS

In January 2017 the State Water Resources Control Board, Division of Drinking Water amended public water system's domestic water supply permits to require for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade schools served by the water system that have submitted a written request for lead sampling related assistance. In 2017, 11 schools out of 33 schools served by the Main Water System requested sampling in 2017. Please contact your individual school for a copy of the results or email the State Lead Sampling for Schools Specialist at DDW-PLU@waterboards.ca.gov with your request.

CRYPTOSPORIDIUM

Starting in April 2015 through April 2017, EID conducted required monthly *Cryptosporidium* monitoring at its source water supplies for its three water treatment plants. *Cryptosporidium* was only detected one time out of these 60 samples. *Cryptosporidium* is a microbial pathogen found in surface water throughout the United States. Although filtration removes *Cryptosporidium*, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

The following definitions help explain information in the table on the next page.

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

Maximum contaminant level goal (MCLG): The level of contaminant in drinking water below which there is no known or expected risk to health. The U.S. Environmental Protection Agency (EPA) sets these levels.

Maximum residual disinfectant level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants.

Maximum residual disinfectant level goal (MRDLG): 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.

Primary drinking water standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Public health goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. The California Environmental Protection Agency sets PHGs.

Regulatory action level (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements for water systems.

Treatment technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Turbidity: Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Health Effects Language: Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. The MCL violations occurred in a part of our service area along Salmon Falls Road served from the Monte Vista tank from January 1, 2016 to December 31, 2016 and the Gold Hill area served by Reservoir 5 from April 1, 2015 to March 31, 2016. As part of our ongoing efforts to supply the highest quality drinking water to our customers, we are implementing operational practices and/or design modifications that will reduce the formation of disinfection by-products in your drinking water. There were no HAA5 MCL violations in 2017.

QUESTIONS?

For more information from EID about this report, contact Radenko Odzakovic, Water Division Operations Manager, at 530-642-4060.

For information from the State Water Resources Control Board, Division of Drinking Water, contact Ali Rezvani, DDW Sacramento District Engineer, at 916-445-5285.

U.S. EPA Safe Drinking Water Hotline: 1-800-426-4791

Main Water System - Source Water Quality							
Primary Standards - Health Based (units)	Primary MCL	PHG (MCLG)	Highest Single Measurement	Lowest Monthly Percentage of Samples Meeting Limits	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Turbidity							
Highest single measurement of the Treated Surface Water (NTU)	TT = 1.0	n/a	0.74	n/a	No	2017	Soil runoff
Lowest Monthly % of the Treated Surface Water Meeting NTU Requirements	TT = 95% of samples ≤ 0.3 NTU	n/a	n/a	99%	No	2017	Soil runoff
Secondary Standards - Aesthetic (units)	Secondary MCL	PHG (MCLG)	Range of Detection	Average Level	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Giardia lamblia (oocyst/L)	TT	(0)	ND-0.10	0.01	No	2017	Naturally present in the environment
Aluminum (ug/L)	200	n/a	ND-97	49	No	2017	Erosion of natural deposits; residue from some surface water treatment processes
Chloride (mg/L)	500	n/a	ND-3.5	1.2	No	2017	Runoff/leaching from natural deposits; seawater influence
Corrosivity (A.I.)	Non-corrosive	n/a	9.4-9.9	9.7	No	2017	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Odor-Threshold (units)	3	n/a	1-2	2	No	2017	Naturally-occurring organic materials
Specific Conductance (µmhos/cm)	1600	n/a	36-52	47	No	2017	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	500	n/a	ND-0.8	0.3	No	2017	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L)	1000	n/a	27-45	37	No	2017	Runoff/leaching from natural deposits
Turbidity (NTU)	5	n/a	ND-0.28	0.15	No	2017	
Other Parameters (units)	Notification Level	PHG (MCLG)	Range of Detection	Average Level	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Alkalinity (mg/L)	Unregulated	n/a	11-21	17	n/a	2017	No Known Typical Source of Constituent
Bicarbonate (mg/L)	Unregulated	n/a	13-26	20	n/a	2017	
Calcium (mg/L)	Unregulated	n/a	2-3	3	n/a	2017	
Chlorate (ug/L)	800	n/a	ND-300	95	n/a	2013	
Hardness as CaCO ₃ (mg/L)	Unregulated	n/a	7-13	11	n/a	2017	
Hardness as CaCO ₃ (grains/gal)	Unregulated	n/a	0.41-0.76	0.65	n/a	2017	
Hexavalent Chromium (ug/L)	Unregulated ¹	0.02	ND-0.07	ND	n/a	2013	
Magnesium (mg/L)	Unregulated	n/a	0.5-1.2	0.9	n/a	2017	
pH (pH units)	Unregulated	n/a	7.5-7.6	7.6	n/a	2017	
Sodium (mg/L)	Unregulated	n/a	4.3-5.6	5.1	n/a	2017	
Strontium (ug/L)	Unregulated	n/a	ND-53	35	n/a	2013	
Vanadium (ug/L)	50	n/a	ND-0.63	0.18	n/a	2013	
Disinfection Byproduct Precursors (units)	Action Level	PHG (MRDLG)	Range of Detection	Lowest RAA Quarterly Average	MCL Violation?	Most Recent Sampling Date	
Total Organic Carbon [TOC] Filtered water (mg/L)	TT= Removal	n/a	0.77-1.20	n/a	n/a	2017	Various natural and manmade sources
Total Organic Carbon [TOC] Removal Ratio (Actual/Required)	TT=>1.0	n/a	n/a	1.0	No	2017	Various natural and manmade sources
Main Water System - Distribution System Water Quality							
Microbiological Constituents (units)	Primary MCL	PHG (MCLG)	Value	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent	
Total Coliform Bacteria > 40 Samples/Month (Present / Absent)	No more than 5% positive monthly sample	(0)	Highest number of monthly samples positive was 0.	No	2017	Naturally present in the environment	
Disinfection Byproducts and Disinfectant Residuals (units)	Primary MCL (MRDL)	PHG (MRDLG)	Range of Detection	Highest Running Annual Average (RAA)	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Chlorine [as Cl ₂] (mg/L)	(4.0)	(4)	0.38-0.76	0.59	No	2017	Drinking water disinfectant added for treatment
HAA5 [Total of five Haloacetic Acids] (ug/L)	60	n/a	27-77	57 ²	No	2017	Byproduct of drinking water disinfection
TTHMs [Total of four Trihalomethanes] (ug/L)	80	n/a	35-82	78 ²	No	2017	Byproduct of drinking water chlorination
Inorganic Constituents (units)	Action Level	PHG (MCLG)	Sample Data	90th % Level	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Copper (mg/L)[at the tap]	1.3	0.3	None of the 50 samples collected exceeded the action level	0.15	No	2017	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ug/L)[at the tap]	15	0.2	1 of the 50 samples collected exceeded the	2.4	No	2017	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Other Parameters (units)	Notification Level	PHG (MCLG)	Range of Detection	Average Level	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Chlorate (ug/L)	800	n/a	74-240	131	n/a	2013	No Known Typical Source of Constituent
Hexavalent Chromium (ug/L)	Unregulated ¹	0.02	0.06-0.09	0.08	n/a	2013	No Known Typical Source of Constituent
Strontium (ug/L)	Unregulated	n/a	38-55	45	n/a	2013	No Known Typical Source of Constituent
Vanadium (ug/L)	50	n/a	0.38-0.72	0.50	n/a	2013	No Known Typical Source of Constituent

¹ There is currently no MCL for hexavalent chromium. The previous MCL of 1 ug/L established July 1, 2014 was withdrawn on

² Highest Locational Running Annual Average (LRAA).

ND = Non Detect

KEY

NA=not applicable
 ND=not detected
 NR=not reportable

NTU=nephelometric turbidity unit (measure of clarity)
 mg/L=milligrams/liter
 µg/L=micrograms/liter
 µmho/cm=micromhos per centimeter

YOUR DRINKING WATER—WHAT YOU SHOULD KNOW

The sources of drinking water—both tap and bottled—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. The following contaminants may be present in source water before it is treated.

- **Microbial contaminants** such as viruses and bacteria from sewage treatment plants, septic systems, livestock operations, and wildlife.
- **Inorganic contaminants** such as salts and metals that occur naturally or stem from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.
- **Pesticides and herbicides** from sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants** such as synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production or that come from gas stations, urban stormwater runoff, agricultural applications, and septic systems.
- **Radioactive contaminants** that occur naturally or are the result of oil and gas production and mining.

Unregulated contaminant monitoring helps EPA and the State Water Resources Control Board determine where certain contaminants occur and whether the contaminants need to be regulated.

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

NOTE: 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. Contact the EPA's Safe Drinking Water Hotline at 1-800-426-4791 for more about contaminants and potential health effects.

GET INVOLVED

The El Dorado Irrigation District Board of Directors meetings are open to the public and are held on the second and fourth Mondays of each month. Meetings begin at 9:00 A.M. in the Placerville headquarters building at 2890 Mosquito Road. Go to the District website at www.eid.org to learn more.

The information provided in this report is required by law to be issued to every water user. Property owners: please share this information with your tenants.



Jenkinson Lake at Sly Park Recreation Area in Pollock Pines



In accordance with the Americans with Disabilities Act and California law, it is the policy of the El Dorado Irrigation District to offer its public programs, services and meetings in a manner that is readily accessible to everyone, including individuals with disabilities. If you are a person with a disability and require information or materials in an appropriate alternative format; or if you require any other accommodation, please contact the ADA Coordinator at the number or address below at least 72 hours prior to the meeting or when you desire to receive services. Advance notification within this guideline will enable the District to make reasonable arrangements to ensure accessibility. The District ADA Coordinator can be reached by phone at (530) 642-4045 or e-mail at adacoordinator@eid.org.