

ANNUAL WATER QUALITY REPORT

Water testing performed in 2010



**Your water
meets or
exceeds health
standards**

2010 water testing results
show that your water meets
or exceeds health standards.
Este informe contiene
información muy importante
sobre su agua beber.
Tradúzcalo o hable con
alguien que lo entienda bien.



El Dorado Irrigation District
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Placerville, CA 95667
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Fair Oaks, CA
95628

2010 WATER QUALITY RESULTS...

Where your water comes from. EID has rights to approximately 77,590 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 our water supply. Forebay Reservoir in Pollock Pines delivers water 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. And we 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.

Information about potential sources of pollution. The California Department of Public Health (CDPH) 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 October 2006 and October 2008. 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 CDPH, Sacramento District Office, 1616 Capitol Avenue, Sacramento, CA 95899. To view them, contact Roxanne Cargill, CDPH Sacramento District Engineer, at 916-449-5668, or Dana Strahan, EID Drinking Water Division Operations 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 allows us to monitor for some contaminants less than once a year because the concentrations of the contaminants do not change frequently. Some of our data, although representative, may be more than a year old. The table below lists all constituents that were detected in 2010 under our monitoring and testing program. The information shows that EID meets or exceeds all state and federal drinking water standards.

...MEET OR EXCEED HEALTH STANDARDS

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 <http://www.epa.gov/safewater/lead>.

Questions?

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

For information from the California Department of Public Health, contact Roxanne Cargill, CDPH Sacramento District Engineer, at 916-449-5668. **Safe Drinking Water Hotline:** 1-800-426-4791

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The following definitions help explain information in the table.

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.

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.

* Summary Information For Operating Under an Extension

In July 2010, the quarterly Total Organic Carbon (TOC) monitoring results indicated EID did not reduce the required percentage amount of TOC as required by drinking water regulations. In September 2010, the California Department of Public Health (CDPH) granted an extension until July 2011 for this requirement to demonstrate this treatment technique infraction was due to an analytical testing error and not a failure of our water treatment process. All samples collected after July 1, 2010 demonstrate we were able to achieve the required percent reduction for TOC. If you have any questions or concerns about this extension, please contact Roxanne Cargill, CDPH Sacramento District Engineer, at 916-449-5668 or Dana Strahan, EID Drinking Water Division Operations Manager, at 530-642-4060.

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
umho/cm = micromhos per centimeter

2010 RESULTS CHART

General Properties	Units	EI Dorado Main Water System		Outingdale Water System		Strawberry Water System		Most Recent Sampling Date	Typical source of contaminant	
		MCL (SMCL) [PHG]	Range	Average	Range	Average	Range			Average
Alkalinity	mg/L	-	15-29	21	20-48	30	9-18	13	2010	
Bicarbonate	mg/L	-	18-29	22	20-32	27	11-15	13	2010	
Bromide	mg/L	-	ND-0.12	0.01	-	-	-	-	2010	
Calcium	mg/L	-	2.7-6.7	4.4	3.3-6.2	5.2	7.2-7.9	7.5	2010	
Chloride	mg/L	(500)	1.1-7.4	4.3	1.7	1.7	2.9	2.9	2010	Runoff/leaching from natural deposits; seawater influence
Corrosivity	Aggressive Index	Non-corrosive	9.3-10.2	9.7	9.98	9.98	8.85	8.85	2010	
Hardness	mg/L	-	10-20	16	15	15	6.1	6.1	2010	
Hardness (grains per gallon)	gpg	-	0.58-1.18	0.94	0.88	0.88	0.36	0.36	2010	
Magnesium	mg/L	-	ND-110	4.2	1.1	1.1	0.16	0.16	2010	
N-nitrosodimethylamine (NDMA)	µg/L	-	ND-0.003	ND	-	-	-	-	2010	
Orthophosphate	mg/L	-	ND-1.0	0.18	ND	ND	ND	ND	2010	
pH (pH Units)	Units	-	6.8-8.1	7.7	7.5-8.0	7.9	7.2-7.9	7.5	2010	
Sodium	mg/L	-	2.1-7.0	4.9	3.6	3.6	2.4	2.4	2010	
Specific Conductance	umho/cm	(1600)	50-72	64	51-61	58	56-61	58	2010	Substances that form ions when in water
Sulfate	mg/L	(500)	ND-2.4	0.9	0.75	0.75	ND	ND	2010	Runoff/leaching from natural deposits; industrial waste
Total Dissolved Solids	mg/L	(1000)	24-76	45	37	37	10	10	2010	Runoff/leaching from natural deposits
Inorganics										
Aluminum	mg/L	1 (0.20) [0.6]	ND	ND	ND	ND	0.061	0.061	2010	Erosion of a natural deposits; residue from some surface water treatment processes
Zinc	mg/L	5.0	ND-0.13	0.07	ND	ND	ND	ND	2010	Runoff/leaching from natural deposits; industrial waste
Microbiological										
Total Coliform Bacteria	% of Samples	(0)	No more than 5% positive monthly sample	<1%	No more than 1 positive monthly sample	0.0%	No more than 1 positive monthly sample	0.0%	2010	Naturally present in environment
Disinfection By-Products Precursors										
Total Organic Carbon	mg/L	TT=Removal	0.8-3.0	NA	-	NA	-	NA	2010	Various natural and man-made sources
Total Organic Carbon Removal Ratio	%	TT=<1.0	NA	0.73 *	-	NA	-	NA	2010	Various natural and man-made sources
Disinfection By-Products										
Chlorine (as Cl ₂)	mg/L	(4.0)	0.56-1.39	0.78	0.79-1.27	0.96	0.74-1.03	0.93	2010	Drinking water disinfectant added for treatment
Total Haloacetic Acids (HAA5)	µg/L	60	12-89	43.7	21	21	35	35	2010	By-product of drinking water disinfection
Total Trihalomethanes	µg/L	80	30-100	50.3	24	24	39	39	2010	By-product of drinking water disinfection
Lead and Copper										
Lead (at the tap)	µg/L	15	ND	51/0	5.4	10/1	ND	10/1	2008	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (at the tap)	mg/L	1.3	0.24	51/0	0.076	10/0	0.21	10/0	2008	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Units	EI Dorado Main Water System			Outingdale Water System			Strawberry Water System			Typical source of contaminant		
	MCL	Maximum Value	Lowest Monthly % samples meeting requirements	MCL	Maximum Value	Lowest Monthly % samples meeting requirements	MCL	Maximum Value	Lowest Monthly % samples meeting requirements			
Turbidity	NTU	TT=95% of samples ≤0.3 NTU	0.16	100%	TT=95% of samples ≤0.3 NTU	0.30	100%	TT=95% of samples ≤0.1 NTU	0.10	100%	2010	Soil runoff

WHAT THE STATE WANTS YOU TO KNOW

California's Department of Public Health requires all public water systems to include the following information in their yearly consumer confidence reports.

About drinking water

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.

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency and the California Department of Public Health prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department 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 U.S. Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 for more about contaminants and potential health effects.

CIP PROJECTS KEEP THE SYSTEM GOING STRONG

Maintaining a reliable, efficient water distribution system to ensure adequate service capacity now and in the future is a major focus at EID. Every year we take a look at long-term needs to maintain and improve our infrastructure. This planning process, which extends out five years, results in capital improvement plan (CIP) projects. These long-term projects include budget estimates for everything from treatment plant upgrades and pipeline improvements to flume replacements and sewer collection system repairs, and much more.

The Flume 9 replacement project is one such project. It consisted of replacing 142 feet of degraded wooden flume with precast concrete flume sections, the removal of hazardous rocks and trees, the installation of rock anchors and wire mesh drapery, as well as installation of subsurface drainage.

The flume project is part of the District's long-term rehabilitation program for the 22.3-mile El Dorado Canal, which delivers drinking water to customers throughout the District's service area and supplies water to generate renewable hydroelectric power. EID associate engineer Daryl Noel told the Board that the "cost of the project came in at \$1.9 million, approximately \$100,000 under budget estimates."

To read about other CIP projects, go to the District's document library and read the 2011–2015 CIP.

Boaters can help.

Let's keep these invaders out of our lakes.

We urge visitors to area lakes and rivers to help stop the spread of invasive quagga and zebra mussels. These small creatures have wreaked havoc east of the Mississippi and are now found in many states in the west, including California. To learn more about what you can do, visit the EID website at www.eid.org.



Contractor prepares to use a helicopter to fly in precast flume sections for placement

“Maintaining a reliable, efficient water distribution system to ensure adequate service capacity now and in the future is a major focus at EID.”