

ANNUAL
**WATER
QUALITY
REPORT**

WATER TESTING PERFORMED IN 2015



NID

Nevada Irrigation District

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

PWS ID#: 2910007, 2910004, 2910014,
2910023, 2910006, 3110026

Meeting the Challenge

This report is a snapshot of the quality of the water the district provided to you in calendar year 2015. Included are details about where your water comes from, what it contains, and how it compares to state standards. The district's goal is to provide safe, high-quality drinking water at the lowest cost to our consumers. We are committed to providing you with information because informed customers are our best allies.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



NID Pledges Water Quality, Seeks Public Participation

The Board of Directors encourages public participation on issues concerning our water systems. District policy is set by the elected Board of Directors. Board meetings are held at 9 a.m. on the second and fourth Wednesdays of each month at the NID Business Center in Grass Valley. Check NID's Web site (www.nidwater.com) or call the Customer Service office at (530) 273-6185 to confirm meeting times.

Water Quality Testing

Effective operation and maintenance of the drinking water distribution system assures that high-quality drinking water travels through the system to your meter. The residual chlorine in the water after treatment prevents re-growth of organisms during storage and transmission in the distribution system. Annual flushing of water mains and rotation of stored supplies also keeps water fresh and limits growth of organisms. The district conducts weekly water quality testing in the distribution system to ensure that drinking water continues to meet state and federal requirements.

Substances That Could Be in Water

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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) 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 must 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.

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 can 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;

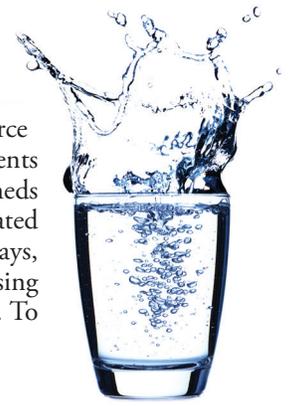
Organic Chemical Contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

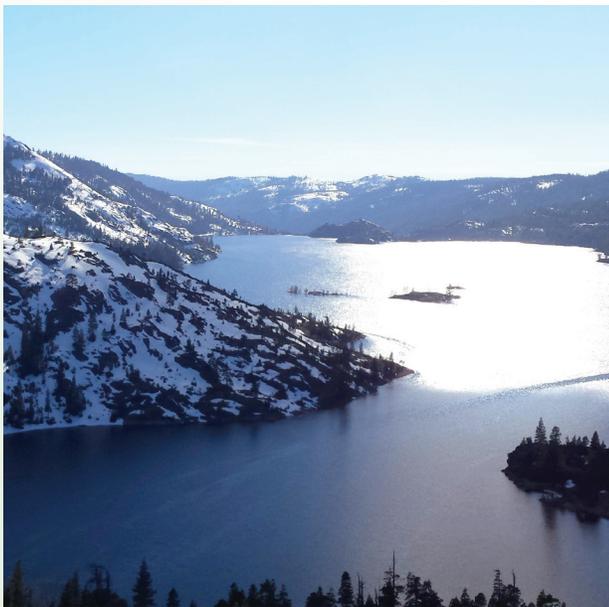
Source Water Assessment

In 2012, NID teamed with the Placer County Water Agency and Starr Consulting to update its Source Water Susceptibility Assessment. This assessment describes the susceptibility and types of constituents that may come into contact with your drinking water source. The report confirmed that district watersheds have very low levels of contaminants. To a limited extent, those contaminants found are usually associated with wildlife and human recreational activity. Leading sources of potential contamination include highways, roadways and railroads near rivers and raw water canals, septic tanks, unidentified utility pipelines crossing canals, recreation at upstream reservoirs, historic and active mining operations, and utility operations. To view the report, call our business office during normal office hours.



About the Sampling MCL Exceedance

On September 9, 2015, in the North Auburn area of NID, the system exceeded the MCL for total coliform bacteria by one sample. Coliforms, which are bacteria that are naturally present in the environment, are used as an indicator that other, potentially harmful bacteria may be present. Coliforms were found in more samples than allowed, which was a warning of potential problems. Sample stations were found to be the cause and they were replaced immediately. Additional samples taken were free from any coliform. The system has been in compliance since the incident.



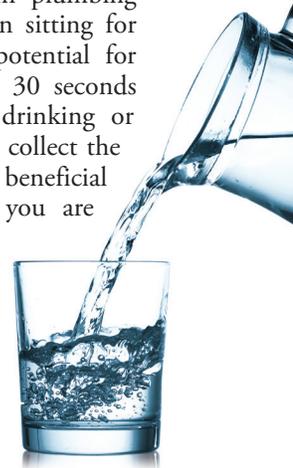
Sierra Snowpack Is the Source of Your Water

NID treated and distributed more than 2.5 billion gallons of surface water last year. This water originates in the Sierra Nevada snowpack on five mountain watersheds. These include the Middle and South Yuba rivers, the Bear River, north fork of the North Fork American River, and Deer Creek.

Most of this water is routed through Lake Spaulding and transported to NID's water treatment plants via canal systems operated by NID and the Pacific Gas and Electric Company.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) 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 or at www.epa.gov/lead.



QUESTIONS?

For additional water quality information, customers may contact NID Treated Water Superintendent Fred Waymire at the district office. In Nevada County, call (530) 273-6185. Placer County customers may dial toll-free, 1-800-222-4102.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

REGULATED SUBSTANCES

				North Auburn		Loma Rica		Cascade Shores			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2015	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.96	0.30–1.70	0.84	0.36–1.40	0.61	0.39–1.08	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2015	TT	NA	1.23	0.83–2.10	1.23	1.10–1.30	1.09	0.94–1.20	No	Various natural and man-made sources
<i>Cryptosporidium</i> (oocysts/liter)	2010	Surface water treatment=TT	HPC=NA; Others = (0)	0.0076	0–0.09	0.04	0–0.28	ND	0–0	No	Naturally present in the environment
Haloacetic Acids (ppb)	2015	60	NA	40.0	32.0–55.0	37.8	23.0–58.0	44.5	23.0–48.0	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2015	80	NA	70.0	56.0–91.0	71.5	30.0–85.0	54.5	32.0–72.0	No	By-product of drinking water disinfection
Total Coliform Bacteria [Total Coliform Rule] (# positive samples)	2015	No more than 1 positive monthly sample	(0)	2	NA	0	NA	0	NA	Yes ¹	Naturally present in the environment
Turbidity ² (NTU)	2015	TT	NA	0.049	0.03–0.28	0.034	0.02–0.19	0.033	0.02–0.30	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2015	TT = 95% of samples < 0.3 NTU	NA	100%	NA	100%	NA	100%	NA	No	Soil runoff

REGULATED SUBSTANCES

				Eliz. George		Lake Wildwood		Lake of the Pines			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2015	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.86	0.40–1.08	0.88	0.32–1.60	0.88	0.46–1.39	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2015	TT	NA	1.05	0.70–1.30	1.13	0.84–1.60	1.17	0.99–1.30	No	Various natural and man-made sources
<i>Cryptosporidium</i> (oocysts/liter)	2010	Surface water treatment=TT	HPC=NA; Others = (0)	0.03	0.0–0.64	0.0884	0–0.74	0.0266	0–0.036	No	Naturally present in the environment
Haloacetic Acids (ppb)	2015	60	NA	28.5	18.0–39.0	37.5	22.0–56.0	36.8	22.0–40.0	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2015	80	NA	48.3	29.0–78.0	62.8	43.0–68.0	59.8	36.0–73.0	No	By-product of drinking water disinfection
Total Coliform Bacteria [Total Coliform Rule] (# positive samples)	2015	No more than 1 positive monthly sample	(0)	1	NA	0	NA	0	NA	Yes ¹	Naturally present in the environment
Turbidity ² (NTU)	2015	TT	NA	0.037	0.02–0.17	0.038	0.02–0.13	0.038	0.02–0.28	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2015	TT = 95% of samples < 0.3 NTU	NA	100%	NA	100%	NA	100%	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.											
				North Auburn		Loma Rica		Cascade Shores			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2015	1.3	0.3	0.062 ⁴	0/20 ⁴	0.11	0/30	0.071 ³	0/10 ³	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2015	15	0.2	0 ⁴	0/20 ⁴	0.0	0/30	0 ³	0/10 ³	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.											
				Eliz. George		Lake Wildwood		Lake of the Pines			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2015	1.3	0.3	0.053	0/30	0.081 ⁴	0/20 ⁴	0.14 ⁴	0/20 ⁴	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2015	15	0.2	0	0/30	0 ⁴	0/20 ⁴	0 ⁴	0/20 ⁴	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

												North Auburn		Loma Rica		Cascade Shores		Eliz. George		Lake Wildwood		Lake of the Pines			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE																		
Aluminum (ppb)	2015	200	NS	63	NA	56	NA	ND	NA	ND	NA	ND	NA	ND	NA	No	Erosion of natural deposits; residual from some surface water treatment processes								
Chloride (ppm)	2015	500	NS	6.5	NA	4.6	NA	3.1	NA	3.5	NA	4.9	NA	5.6	NA	No	Runoff/leaching from natural deposits; seawater influence								
Specific Conductance (µS/cm)	2015	1,600	NS	87	NA	69	NA	73	NA	69	NA	79	NA	87	NA	No	Substances that form ions when in water; seawater influence								
Sulfate (ppm)	2015	500	NS	8.9	NA	6.8	NA	8.4	NA	10	NA	9.0	NA	10	NA	No	Runoff/leaching from natural deposits; industrial wastes								
Total Dissolved Solids (ppm)	2015	1,000	NS	46	NA	42	NA	44	NA	42	NA	48	NA	53	NA	No	Runoff/leaching from natural deposits								

OTHER SUBSTANCES

												North Auburn		Loma Rica		Cascade Shores		Eliz. George		Lake Wildwood		Lake of the Pines	
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH																				
Alkalinity (ppm)	2015	21	NA	16	NA	23	NA	13	NA	21	NA	21	NA	23	NA	23	NA						
Calcium (ppm)	2015	8.8	NA	7.3	NA	4.3	NA	7.5	NA	7.9	NA	8.6	NA	8.6	NA	8.6	NA						
Hardness [as CaCO ₃] (ppm)	2015	27	NA	21	NA	13	NA	21	NA	24	NA	28	NA	28	NA	28	NA						
pH (Units)	2015	7.6	NA	7.5	NA	7.1	NA	7.3	NA	7.5	NA	7.3	NA	7.3	NA	7.3	NA						
Sodium (ppm)	2015	5.9	NA	4.9	NA	9.4	NA	4.0	NA	4.8	NA	5.4	NA	5.4	NA	5.4	NA						

UNREGULATED CONTAMINANT MONITORING RULE PART 3 (UCMR3) - LOMA RICA

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Vanadium (ppb)	2015 ⁶	0.29	0.21–0.29
Strontium (ppb)	2015 ⁶	33	32–33

¹ This is a North Auburn violation only. See section called “About the Sampling MCL Exceedance”

² 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.

³ Sampled in 2013.

⁴ Sampled in 2014.

⁵ Sampled in 2015.

⁶ Retest from 2014.

Definitions

AL (Regulatory Action Level): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

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 (SMCLs) 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. EPA.

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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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 EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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