A dynamic splash of clear water against a white background, with a thick stream of water falling from the top center and splashing outwards at the bottom. The water droplets are captured in mid-air, creating a sense of movement and freshness.

# ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019



*Presented By*  
**Nevada Irrigation  
District**

## Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2019. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water

safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

For additional water quality information, customers may contact NID Treated Water Superintendent Fred Waymire at the district office at (530) 273-6185.

## NID Pledges Water Quality, Seeks Public Participation

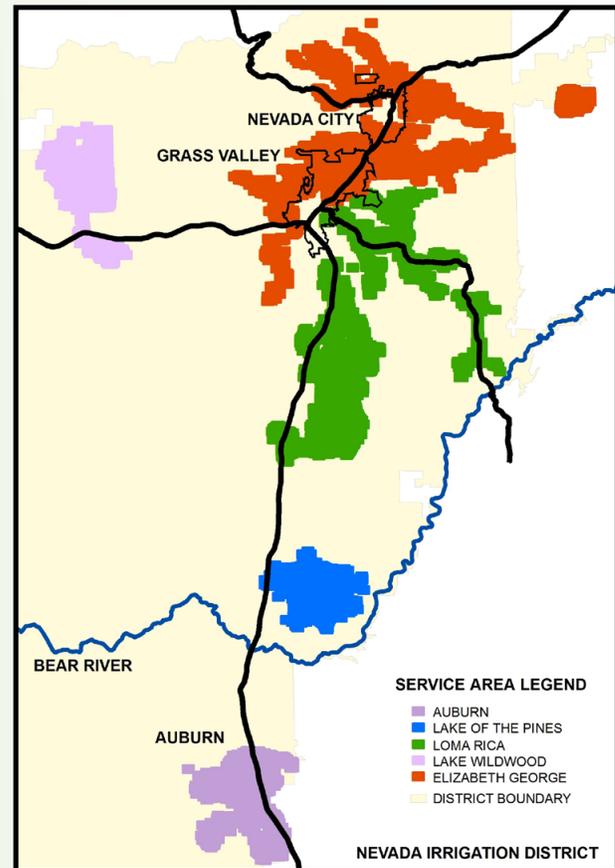
The board of directors encourages public participation on issues concerning our water systems. District policy is set by the elected board of directors. Board meetings are held at 9:00 a.m. on the second and fourth Wednesday of each month at the NID Business Center in Grass Valley. Check NID's website ([www.nidwater.com](http://www.nidwater.com)) or call the main office at (530) 273-6185 to confirm meeting times.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 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>.

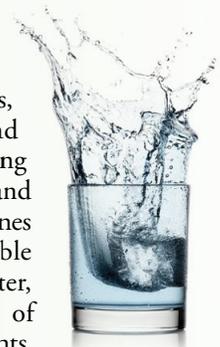


## Nevada Irrigation District Customers Served



## 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 at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).



## 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. The U.S. Food and Drug Administration regulations and California law 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.

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;

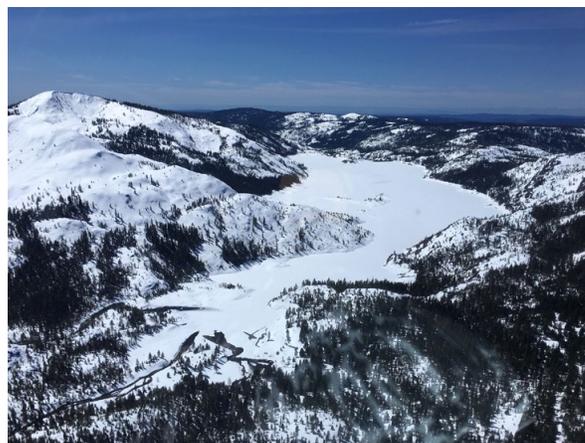
Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

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, which are by-products of industrial processes and petroleum production and which 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.



## Sierra Snowpack Is the Source of Your Water

NID treated and distributed more than 2.8 billion gallons of surface water last year. This water originates in the Sierra Nevada snowpack on five mountain watersheds. These include Middle and South Yuba Rivers, Bear River, North Fork of 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.

## Source Water Assessment

In 2016 and 2017, NID teamed with the Placer County Water Agency and Starr Consulting to update its source water susceptibility assessment. This assessment describes the susceptibility to 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, historical and active mining operations, and utility operations. This new assessment (Watershed Sanitary Survey 2017 Update) can be found on the NID website (<http://nidwater.com/ybrwss-2017-update-final/>).

## Water Quality Testing

Effective operation and maintenance of the drinking water distribution system assures that quality drinking water travels through the system to your meter. The residual chlorine in the water after treatment prevents regrowth of organisms during storage and transmission in the distribution system. Annual flushing of water mains and rotation of stored supplies also keep water fresh and limit 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.

## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here we only show those substances that were detected in our water. Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less 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 fourth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES															
				Loma Rica		North Auburn		Elizabeth George		Lake Wildwood		Lake of the Pines			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE								
<b>Chlorine</b> (ppm)	2019	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	0.92	0.62–1.23	0.98	0.59–1.40	0.89	0.68–1.13	0.88	0.62–1.20	1.03	0.31–1.42	No	Drinking water disinfectant added for treatment
<b>Control of DBP precursors [TOC]</b> (ppm)	2019	TT	NA	0.93	0.76–1.20	0.96	0.71–1.20	0.88	0.65–1.20	1.08	0.74–1.80	1.10	0.83–1.50	No	Various natural and man-made sources
<b>Cryptosporidium</b> (Units)	2018	Surface water treatment = TT	HPC = NA; Others = (0)	ND	NA	0.0116 <sup>1</sup>	ND–0.279 <sup>1</sup>	0.004	ND–0.093	ND <sup>1</sup>	NA <sup>1</sup>	0.0039 <sup>1</sup>	ND–0.093 <sup>1</sup>	No	Naturally present in the environment
<b>Haloacetic Acids</b> (ppb)	2019	60	NA	19.3	12.0–24.0	23.6	17.0–30.0	18.8	9.1–34.0	24.5	13.0–35.0	24.1	19.0–29.0	No	By-product of drinking water disinfection
<b>TTHMs [Total Trihalomethanes]</b> (ppb)	2019	80	NA	40.2	16.0–61.0	47.1	36.0–61.0	44.9	26.0–60.0	40.5	20.0–68.0	52.1	24.0–67.0	No	By-product of drinking water disinfection
<b>Turbidity<sup>2</sup></b> (NTU)	2019	TT	NA	0.021 Average	0.01–0.17	0.039 Average	0.01–0.15	0.028 Average	0.02–0.20	0.027 Average	0.02–0.13	0.031 Average	0.01–0.20	No	Soil runoff
<b>Turbidity</b> (Lowest monthly percent of samples meeting limit)	2019	TT = 95% of samples meet the limit	NA	100%	NA	100%	NA	100%	NA	100%	NA	100%	NA	No	Soil runoff
<b>Tap water samples were collected for lead and copper analyses from sample sites throughout the community</b>															
				Loma Rica		North Auburn		Elizabeth George		Lake Wildwood		Lake of the Pines			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
<b>Copper</b> (ppm)	2018	1.3	0.3	ND	0/31	0.077 <sup>3</sup>	0/20 <sup>3</sup>	ND	0/41	ND <sup>3</sup>	0/20 <sup>3</sup>	0.071 <sup>3</sup>	0/20 <sup>3</sup>	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Lead</b> (ppb)	2018	15	0.2	ND	0/31	ND <sup>3</sup>	0/20 <sup>3</sup>	ND	0/41	ND <sup>3</sup>	0/20 <sup>3</sup>	ND <sup>3</sup>	0/20 <sup>3</sup>	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

## SECONDARY SUBSTANCES

			Loma Rica		North Auburn		Elizabeth George		Lake Wildwood		Lake of the Pines				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2019	200	NS	ND	NA	50	NA	ND	NA	ND	NA	130	NA	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2019	500	NS	1.8	NA	2.5	NA	2.6	NA	3.7	NA	3.5	NA	No	Runoff/leaching from natural deposits; seawater influence
Manganese (ppb)	2019	50	NS	2.5	ND-10	ND	NA	2.17	0.75-4.6	0.76	ND-1.3	16	ND-29	No	Leaching from natural deposits
Specific Conductance (µS/cm)	2019	1,600	NS	62	51-73	77.5	55-100	66.5	56-77	83.5	69-98	89.5	69-110	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2019	500	NS	7.1	NA	7.2	NA	7.1	NA	8.7	NA	9.5	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2019	1,000	NS	47	NA	45	NA	44	NA	62	NA	46	NA	No	Runoff/leaching from natural deposits

## UNREGULATED AND OTHER SUBSTANCES <sup>4</sup>

			Loma Rica		North Auburn		Elizabeth George		Lake Wildwood		Lake of the Pines	
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Alkalinity (ppm)	2019	13	NA	14	NA	13	NA	17	NA	15	NA	
Calcium (ppm)	2019	3.2	NA	2.7	NA	3.2	NA	4.0	NA	8.0	NA	
Hardness, Total [as CaCO <sub>3</sub> ] (ppm)	2019	13	NA	10	NA	9.8	NA	15.0	NA	24	NA	
pH (Units)	2019	7.7	NA	8.0	NA	8.1	NA	7.8	NA	7.8	NA	
Sodium (ppm)	2019	6.7	NA	7.5	NA	5.5	NA	8.9	NA	4.0	NA	

## UNREGULATED CONTAMINANT MONITORING RULE - PART 4 (UCMR4) <sup>4</sup>

			Elizabeth George		Lake Wildwood	
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Bromochloroacetic Acid (ppb)	2019	0.43	ND-0.50	0.83	ND-0.98	
Bromodichloroacetic Acid (ppb)	2019	ND	NA	0.72	ND-0.94	

<sup>1</sup> Sampled in 2019.

<sup>2</sup> 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.

<sup>3</sup> Sampled in 2017.

<sup>4</sup> Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board determine where certain contaminants occur and whether the contaminants need to be regulated.

## Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90 percent of our lead and copper detections.

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

**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.

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