



WaterWays

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NID good steward mission includes diverse activities

Since 1921 when it was formed to provide irrigation water to farms for about 10 cents per day, Nevada Irrigation District (NID) has progressed to supply water to local farms, homes, businesses and industry. Today, the District supplies raw water to irrigate roughly 26,000 acres. NID covers 287,000 acres – including storage and distribution facilities in Sierra and Yuba counties - making it one of the largest districts in California by size.

Beyond providing water, NID has a role as a resource agency, and it takes an active role in its mission to “provide a dependable, quality water supply, strive to be good stewards of the watersheds and conserve available resources” to help keep Sierra and foothill ecosystems thriving.

In *WaterWays*, we will share what we are doing to live up to and exceed our mission in diverse focus areas, including:

- **Hydroelectric:** NID operates seven hydroelectric power plants that produce an average 375 million kilowatt hours of energy each year. That’s enough clean energy to serve 61,000 to 82,000 homes, depending on usage. NID’s hydroelectric power reduces dependence on non-renewable energy sources and helps protect the environment.
- **Watershed Health:** The role of NID’s Watershed Resources program is to engage in and promote healthy forest management and meadow restoration activities throughout the area. Through prudent and forward-thinking management, we can ensure resilient and sustainable operation of our systems to the benefit of watersheds and the environment, as well as our customers and community.
- **Reservoir Management:** Keeping our 10 reservoirs, dams and more than 460 miles of raw water distribution systems in tip-top condition is of utmost importance. For example, NID is looking at how to safely remove sediment from selected reservoirs to help restore lost capacity while setting a precedent in removing Gold Rush legacy mercury in California waterbodies.
- **Water Operations:** NID is constantly upgrading its raw and treated water operations and distribution systems . Raw water improvements, for example include piping and canal lining, while treated water improvements include water recycling and expansion of hydrants and piping.
- **Recreation:** NID’s recreation facilities feature beautiful settings for activities such as camping, fishing, swimming, sunning, boating, water skiing, sailing, kayaking and more! The sites stretch from the foothills – Rollins and Scotts Flat lakes - to the mountains - Jackson Meadows-Bowman Lake areas (**See Good Steward jump on Page 2**).

Water year off to a slow start - but reservoir carryover storage above average



Bowman Lake in 2017

It’s a new water year, and although we are off to a dry start in a the crucial winter snow season, reservoir levels are in good shape, thanks to the 2017 water year, which was one of the wettest year on record, and excellent water management of the District’s reservoirs.

On Jan. 3, the Department of Water Resources revealed the northern Sierra snowpack was just 2.3 inches, 21 percent of the multi-decade average for the date.

Yet, NID’s Bowman Lake (with its 68,510 acre-feet capacity) had 48,600 acre-feet of water as of Jan. 2. That was 71 percent of capacity and 157 percent of normal for the time of year.

NID has been keeping weather records at Bowman Lake (elev. 5,650 ft.) since 1929. As a member of the California Cooperative Snow Survey, we conduct four official snow surveys each year, in February, March, April and May. Interestingly, as of Jan. 3 Bowman had registered a relatively average amount of precipitation - 25.14 inches or about 95 percent of average - for that time of year. However, that precipitation had fallen mostly as rain; there was no measurable amount of snow. This continues to show the rising snow line we are experiencing in the Sierra (**See Water Year jump on Page 2**).

NID Briefs:

Stay informed – online agendas, reports and livestreaming

Discover tools to stay informed and engaged. NID's website features easy, clickable access to read Board of Director agendas and staff reports before each meeting, watch live streaming during the session and follow-up with archived materials and video sorted by date and subject. Find out more [here](#).

Board meetings start at 9 a.m. on the second and fourth Wednesdays of each month in the District board room located at 1036 West Main Street, Grass Valley.

2018 Board of Director officers: Morebeck is president

Will Morebeck, representing Division 4, will serve as Board of Director President for 2018. John H. Drew, of Division 2, will be vice president.

Director Nick Wilcox and Morebeck served as president and vice president, respectively, in 2017.

Celebrate the New Year: Resolve to Save Water!

Ring in 2018 by embracing a positive change: conserving water and protecting our precious water resources. Kick off the New Year and kick the water-wasting habit for good!

Here are a couple of ideas:

- Winterize outdoor plumbing and spigots with insulated wraps to help prevent freezing and a possible burst pipe
- Make sure you know the location of your home's water shut-off valve and how to turn it on and off. If a pipe does freeze then bursts, turning off the water fast could save hundreds, maybe thousands, of gushing gallons of water.

Make a Resolution that will reap rewards throughout the year – Save our valuable water resource!



Good Steward (from page 1)

The District faces challenges, such as providing water during drought conditions, climate change, plus normal District operations to keep up with a growing residential population and expanding local agricultural endeavors.

Historically during winter, precipitation above 5,000 feet has fallen as snow. The resulting snowpack has served as a natural reservoir, storing water until late spring and summer when the melted snow runs off to provide NID customers with their raw and treated water needs.

Continuing to flow downstream, Sierra water provides a significant amount - about 60 percent - of California's developed water supply.

With persistent drought and unpredictable changes to the climate, warmer temperatures mean more winter precipitation falls as rain and not snow. Lack of snowpack means more early-season runoff through the system. This shrinking snowpack poses problems, especially for the future. The Sierra's high-quality, reliable water supply becomes threatened, which in turn, impacts watersheds and delicate ecosystems. It also has adverse effects to NID's operations and facilities.

As the year progresses, we will share updates on the many, diverse ways we are working to ensure we live up to our mission and continue to honor and provide our communities with the best quality, most resilient supply of water. Look for these stories, plus many more, in future *WaterWays*, the NID website and local news releases.

Water Year (from page 1)

The "water year," which runs from October 1 through September 30 of the following year, is timed to coincide with precipitation that falls in late autumn and winter, and historically has included a snowpack that doesn't drain until the following spring's or summer's snowmelt.

Who We Are:

NID is a water resource district that supplies both treated drinking water and irrigation water to homes, farms and businesses in Nevada and Placer counties. The District also is a leader among Northern California water agencies in the production of clean, hydroelectric energy, and offers outstanding outdoor recreational opportunities at district reservoirs in the foothills and mountains of the Northern Sierra.

Customers: 27,577

District Size: 287,000 acres

Years of Service: Since 1921

Water Treatment Plants: 7

Canals: 460 miles

Pipelines: 300 miles

Number of Employees: 198

Mountain Watershed: 70,000 acres

Reservoirs: 10 (280,380 acre-feet)

Hydroelectric Power Plants: 7

NID Board of Directors



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Nevada City Area
Nancy Weber



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Chicago Park
John Drew



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Lincoln-
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Lake Wildwood
Nick Wilcox

Expansion goes beyond the vision

NID has gone well beyond what was envisioned to expand service to residential, industrial and agricultural customers in a guiding study developed in 2006. The District has installed more than 71,500 linear feet of pipeline - approximately 32.5 miles of waterline - for new customers. That represents a 9 percent increase to our now 394-mile treated water system. And projects continue to expand both treated and raw water services.

Eleven years ago NID directors embraced the objective to “proactively expand water services to existing and new customers within the service territory” and authorized a study, come to be known as the Sauers study, which outlined how to extend water lines and provide infrastructure to areas that pay taxes. That study considered 20 percent to be the maximum to be considered appropriate for funding.

In 2008, the District developed a Community Investment Program (CIP), including individual projects that expressed an interest in treated water. The CIP budget in 2008 was \$881,000, which included fire hydrants for specific projects. Since 2007, NID has invested more than 23 percent of taxes received to fund many various projects.

The following is a list of projects completed since 2006, which can be considered related to the Sauer’s report:

Project	Cost	Linear Foot	Year
Fay Road	\$ 10,201	1,565	2008
Horseshoe Lane	\$ 91,143	842	2010
Rodeo Flat	\$ 1,876,906	8,080	2011
Cement Hill	\$10,775,677	64,004	2012
Rattlesnake/Wheeler	\$ 584,177	2,860	2012
Lower Cascade Project (treated water)	\$ 2,474,535	23,567	2013
Winter Moon	\$ 446,689	2,181	2015
East Hacienda	\$ 967,098	10,234	2015
Salt Creek	\$ 370,826	2,490	2015
Brewer Road/Lodestar	\$ 2,286,410	9,756	2016
Lodestar/Conestoga	\$ 1,972,070	10,635	2017
Table Meadow	\$ 949,740	5,558	2017
Option 3 - Table Meadow	\$ 859,490	8,665	2017
E. George to Cascade Shores	\$ 3,555,245	21,069	2017
Total	\$27,220,207	171,506	

Many CIP projects replace existing raw water infrastructure with components sized to meet future demands. The goal is to include improvements to expand future capacity or improve water quality, rather than maintain or restore existing capacity.

To learn more about the CIP, click [here](#).

Newtown Canal upgrade ready for winter weather

An upgrade to a critical section of the Newtown Canal near Newtown and Champion Mine roads west of Nevada City has resulted in new headworks that will protect the vital canal, which serves as is the primary source of water to NID's Lake Wildwood Water Treatment Plant and customers in Lake Wildwood and Penn Valley.

The project was designed to remove a significant bottleneck in the canal. During storms, the amount of debris spilling into the open canal during storms was problematic, and NID crews would have to clean it to continue flows through the system. NID crews encased the headworks of the Newtown canal with 150 feet of 30-inch Ductile iron (a type of graphite-rich cast iron) pipe that also is being capped in concrete. Another 50 feet still is being formed and poured into a box flume.

The project also included about 1,900 feet of the canal is being realigned through a pipe along a roadside easement. The canal realignment was through a \$1.3 million contract with Hansen Brothers Enterprises, Inc. of Grass Valley.

Timing of the canal realignment was coordinated with the County of Nevada road improvements in the area. This permitted NID to save about \$65,000 in pavement overlay costs.



Before (2 left): Newtown Canal is filled with debris in January 2017. And (2 right): NID crews work in late 2017.

Scotts Flat makes family memories

Bay Area family marks 50 years of camping at NID's campsite

A family that has been making a trip to Scotts Flat Lake for the past 50 years to camp at NID's campground is featured in *Destination Nevada County*, the Greater Grass Valley Chamber of Commerce's newest 216-page high-quality, glossy magazine highlighting the diverse local culture and business owners of our local communities.

The article is not only a tribute to a wonderful family it showcases how NID's recreational facilities can change lives and make memories for so many.

"NID built its first dam at Scotts Flat in 1928. It's now known as Lower Scotts Flat Diversion Dam and provides water to the D-S Canal. A second dam was built a bit upstream in 1948 and enlarged to its current size in 1964, The recreation area began development in 1965, and has become one of the two premier NID recreation areas in western Nevada County," noted the *Destination* article, written by Robin Galvan-Davies, chief operational officer of the Greater Grass Valley Chamber of Commerce.

Enter the Kaz family. For the past 50 years, Joe and Kathleen Kaz have ventured up from the Bay Area to camp under the pine trees near the lake. "As the pine trees grew, so did the family," the article noted.

These days, the camping trips can each draw up to 40 family members. One time, more than 70 Kaz' were present! Each trip takes two solid weeks of planning.

Galvan-Davies wrote: "Camping, Hiking, Riding Bikes, Exploring, Water Skiing, Conversation and Love. Youngest son, Michael Jon told me, 'When we're here at the Lake, it's just about being together. It's been the one constant in our family. As a kid camping was the biggest part of the summer for me ... camping was AWESOME!'"

"Today, though the mining camp of Scotts Flat is underwater, trees are growing up to cover the hydraulic mining scars, and Scotts Flat Lake is a recreation area ... but the water still provides for irrigation, power generation needs downstream, and family memories. Thanks NID! Your contribution to our community is unparalleled!" Galvan-Davies wrote. Scotts Flat and Rollins reservoirs in the Sierra foothills are NID's most popular public recreation facilities. Scotts Flat, with two campgrounds, two boat ramps, marina, playground, store and special events, hosts an average 105,000 visitors per year. Rollins, with four campgrounds, several boat ramps, marinas, stores and special events, hosts 160,000 annual visitors.

NID also maintains and operates higher elevation campgrounds and recreational facilities in the Jackson Meadows-Bowman Lake areas. Jackson Meadows features several campgrounds, picnic day use sites and boat ramps. Other campgrounds are located at Bowman, Canyon Creek, Sawmill and Faucherie Lakes in the Bowman corridor. Find out more [here](#).



"I LOVE it. It's to me, my heaven ... it's my happy place. It's a really, really peaceful serene place ... heaven ... I think it's heaven." Kathleen 'Mama' Kaz



NID Recreation Manager Monica Reyes (right) meets long-time campers Joe and Kathleen Kaz during the Greater Grass Valley Chamber's Annual Christmas Breakfast on Dec. 7, 2017.

