GM Newsletter

February 2023

From The Desk of Jennifer Hanson, General Manager

Water For Life

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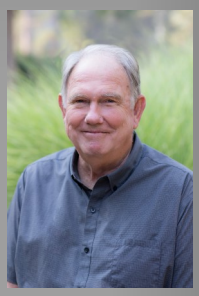
BOARD OF DIRECTORS

Karen Hull
President
Division III



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Division II

Trevor Caulder
Division IV

Message from the General Manager

What a winter we're having. Before the late February snow storms, at Bowman Lake, nearly 61 inches of snow and rain have fallen; that's 133 percent of average. This amount of precipitation has been seen throughout the District; it is substantial, important, and bodes well for our upcoming needs later in the year.

As no surprise, the NID Board of Directors has declared a surplus supply for the water year. That means the District can provide water to its 35 out-of-district customers. See Page 4 for more information.

What may seem strange, but is so true, water conservation is still a must-do. The question we hear is, "if we have so much water this year, why must I conserve?"

There are many reasons. Water is a finite resource. Every drop of water we save today means we will have it tomorrow. It also means water is available to support the environment, wildlife habitats, and the fabulous Sierra and its foothills, in which we live.

As a community, we are aware of the importance of water conservation and are integrating it into our daily lives. For example, most of us have learned to reduce the time for showers and turn off the faucet during teeth-brushing. But what else can we do, especially during the winter and early-spring months?

Simply said, fix our leaks! The average household's leaks can account for nearly 10,000 gallons of water wasted every year and 10 percent of homes have leaks that waste 90 gallons or more per day. During March the federal Environmental Protection Agency is sponsoring "Fix a Leak Week." See Page 9 for more information.

Do you have questions about conservation and water topics? Please visit the NID website. We have much information about how you use water wisely, as well as interesting facts about District history and happenings. And be sure to check out our informative videos on YouTube.

Jackson Meadows campground

NID Op-ed: Results from upcoming U.S. Supreme Court petition could impact NID operations, water supply and customer costs; seeks to clarify federal law

Karen Hull

Results from upcoming U.S. Supreme Court petition could impact NID operations, water supply and customer costs; seeks to clarify federal law As President of the Nevada Irrigation District's (NID) Board of Directors, I am reaching out to inform you about a legal petition pending before the U.S. Supreme Court that could have severe impacts to NID and our community.

As background, in 1963 the Federal Energy Regulatory Commission (FERC) issued a license for NID to start generating renewable hydroelectric energy through powerhouses at its major reservoirs.

The Yuba-Bear Hydroelectric Project (Project) was, and is, vital to the District. The combined gross water storage capacity of the Project is about 208,000 acre-feet of water with an electric generation capacity of 79 megawatts, enough clean renewable energy to power more than 60,000 homes every year. It also contributes millions of dollars annually to offset NID's cost of providing water thus keeping raw and treated water rates as low as possible.

Simply put, this Project is the heart and soul of NID and the community we serve.

As the Project approached the end of the initial 50-year FERC license, NID, state and federal agencies, environmental groups, and interested stakeholders spent more than a decade extensively analyzing the terms under which NID's Project would be relicensed. The collaborative relicensing process involved an exhaustive and careful evaluation and balancing of multiple different needs from water supply, recreation, hydroelectric generation, upland habitat, instream flows, and many other considerations through an extensive public process.

So you ask, what is the issue that NID is asking the U.S. Supreme Court to review? The fundamental question is whether the State Water Resources Control Board was required to act on NID's Water Quality Certification Application within one year of its submittal, plain and simple.

Chicago Park Powerhouse

Now, NID and two other similarly situated FERC licensees are asking the Supreme Court to interpret the federal requirements of the Clean Water Act.

This issue is important because the certification that was issued was done so outside of the normal public process, and neither the public nor NID were able to participate in the development of the conditions included in the certification. Further, the state certification included a condition that would allow the State Water Board to modify the operating requirements of the hydropower project administratively and at any time during the license period through the issuance of new conditions.

Continue reading on Page 3

NID Op-ed: Results from upcoming U.S. Supreme Court petition could impact NID operations, water supply and customer costs; seeks to clarify federal law

Continued from Page 2

Karen Hull

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This is problematic for NID rate payers because of the uncertainty it creates related to future water supply and the long-term cost to operate the hydropower project. Without having a clear understanding of the conditions that will be required to operate the hydropower project, NID will not be able to adequately plan for future water supply and the District's financial needs.

We have advanced this Petition to the Supreme Court along with the Yuba Water Agency and Merced Irrigation District. The Supreme Court's ruling will finally resolve whether the State Water Board had the authority to issue the onerous water quality certification, or whether it had waived that authority.

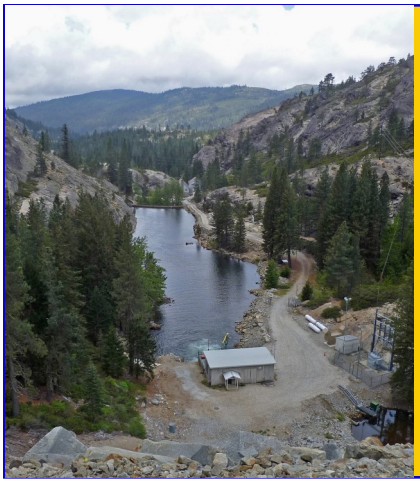
I want our customers and community to understand the implications of this complex issue. Please visit the NID webpage at https://www.nidwater.com/state-water-boardwater-quality-certification for details, fact sheet and more information about this important issue.

NID management and Board are working to protect our community's water supply and financial viability for decades to come while also complying with applicable federal and state environmental laws.

Regards,

Karen Hull

Karen Hull, President of the Nevada Irrigation District Board of Directors



NID is in the process of renewing its license to operate its Yuba-Bear Hydroelectric Project, one of most complex hydropower systems in the state. The Project is the cornerstone of the District's operations, providing vital benefits to customers, the community, and the environment.

NID has filed a petition asking the U.S. Supreme Court to intervene and provide clarity about the state's ability to issue a water quality certification.

READ MORE

NID declares surplus water

Drought Contingency Plan rescinded—20% conservation mandate lifted

Confirming that the winter storms have had a positive impact on NID's water supply, the Board of Directors supported a declaration for surplus water during its Feb. 8 meeting.

"Surplus means the District has more water than we anticipate utilizing for the entire summer season," said NID Operation Director Chip Close.

The surplus declaration is important as it allows NID to provide water service to roughly 35 outside-district customers per an annual contract. The cities of Grass Valley and Nevada City are included customers supplied via long-term surplus water.

The Board also rescinded the 2022 Drought Contingency Plan measures, which lifts the mandate to achieve water savings of up to 20 percent.

Last year, the severity of drought led to Governor Newsom's enactment of a number of Emergency Orders that required implementation of the drought contingency plan at a level to achieve savings of up to 20 percent as compared to 2020.

Read the Water Operations staff report here.

Above: Faucherie Lake

NID February snow survey: snowpack is 184% of average

The series of January storms delivered a hefty amount of snow on NID snow courses that provide water to raw- and treated water customers. In fact, the amount of snow water equivalent was the third highest ever recorded for a February snow survey.

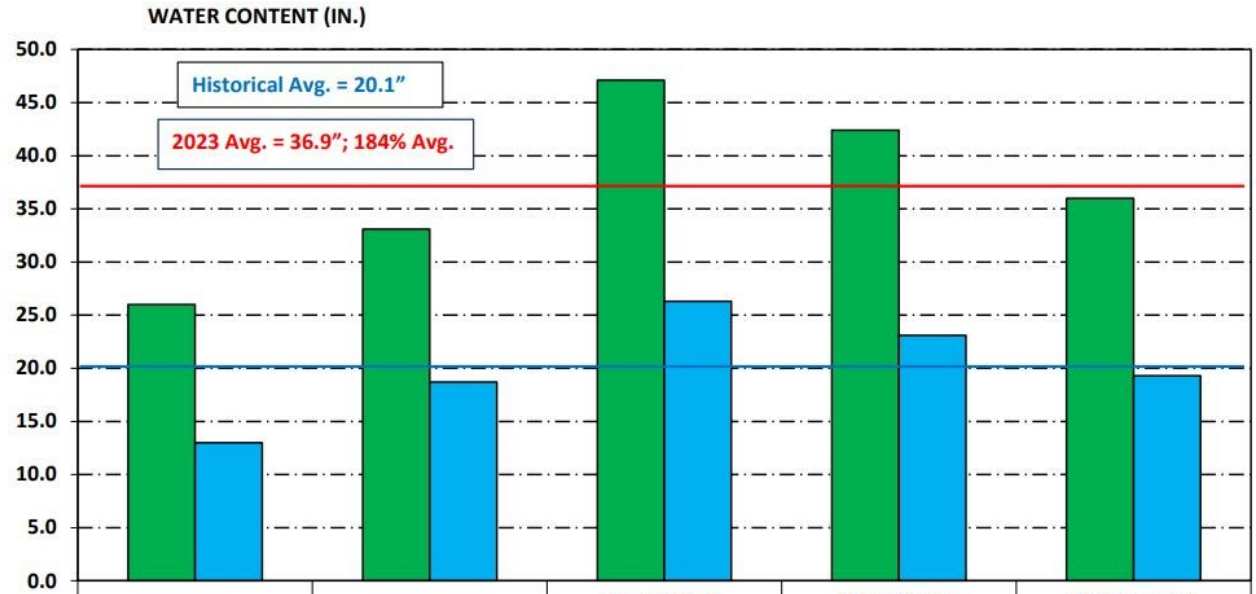
During the survey, NID hydrographers found the average water content in the snowpack was 36.9 inches, which is 184 percent of the 20.1-inch average for this time of year at the District's five high-elevation snow courses.

Cumulative precipitation at Bowman Reservoir was 57.32 inches, which is 156 percent of average. District reservoir storage is also well above average. NID's nine reservoirs are currently storing 230,543 acre-feet of water, which is 85 percent of capacity and 120 percent of average. In total, January precipitation was 21.8 inches, 156 percent of average.

See the specifics for each of the five snow courses, next page

NID Hydrographer Mitch Krieger measures snowpack during the February survey.

NID SNOW SURVEY
FEBRUARY 1, 2023 WATER CONTENT



	BOWMAN LK.	FINDLEY PK.	ENGLISH MTN.	WEBBER PEAK	WEBBER LAKE
2023	26	33.1	47.1	42.4	36
AVERAGE	13	18.7	26.3	23.1	19.3

Here are the specifics of the recent snow survey:

- NID's highest course, Webber Peak, at 7,800 feet, had 115.3 inches of snow with a water content of 42.4 inches
- English Mountain snow course (7,100 ft.) had 110.6 inches of snow with a water content of 47.1 inches
- Webber Lake (7,000 ft.) had 100.1 inches of snow with a water content of 36 inches
- Findley Peak (6,500 ft.) had a snowpack of 93.2 inches and a 33.1-inch water content
- Bowman Reservoir (5,650 ft.) had 67.2 inches of snow and a 26-inch water content
- At the lower Chalk Bluff snow course (4,850 ft.) on the Deer Creek watershed, the survey showed 31.6 inches of snow with 12.3 inches of water content (the Chalk Bluff numbers are not included in the total average).

The surveys were conducted from Jan. 25-27.

NID is a member of the California Cooperative Snow Survey. The District conducts three official snow surveys each year in February, March and April. Results of the snow surveys are used to predict water availability locally and statewide.

Book your summer campsite today

The 2023 camping reservation period began on January 3, and campsites are going fast. Secure your site by phone or online.

Scotts Flat Campground: Phone (530) 265-5302 or in-person at our Scotts Flat Office located at 23333 Scotts Flat Road, Nevada City, CA 95959. Hours: 7:30 a.m. to 4:00 p.m. Monday - Fri-day. Reservations can also be made online at the Scotts Flat webpage.

Faucherie, Aspen, and Silvertip Groups: Phone (530) 265 - 5302 or in person at our Scotts Flat Office located at 23333 Scotts Flat Road, Nevada City, CA 95959. Hours: 7:30 a.m. to 4:00 p.m. Monday - Friday. When leaving a message, please tell us the campground you want to book.

Orchard Springs Campground: Phone (530) 346-0073 or in per-son at our Orchard Springs Gate House located at 19085 Larsen Road, Grass Valley. Hours: 7:30 a.m. to 4:00 p.m. Monday - Friday.

Long Ravine Campground: (530) 346-6166 or in person at our Long Ravine Gate House located at 26909 Rollins lake Road, Colfax. Hours: 7:30 a.m. to 4:00 p.m. Monday - Friday

Peninsula Campground: Phone (530) 477-9413 or online on our Peninsula webpage.

Reservations are being taken now for foothill and upper division campsites

Click here to go to the NID Camping Reservation webpage

Note: scroll to the precise campground location for access to online registra-tion

Plan for Water

Models simulate reservoir operations

The Feb. 21 Plan for Water workshop featured HEC-ResSim model, which simulates reservoir operations at reservoirs based on operational goals and constraints. The software simulates reservoir operations for flood management, low flow augmentation and water supply for planning studies.

The area included in the model is Jackson Meadows Reservoir, Bowman Lake, Lake Spaulding, Scotts Flat Reservoir, Rollins Reservoir and Lake Combie. In addition to the reservoirs, the ResSim model includes streams and creeks, and canals.

Join us!

The Plan for Water is a public collaboration process to determine the best ways to meet the community's demand for water over the coming decades.

The process includes a review of NID's available water supply and the long-term impacts on varying water demands. When complete, the Plan will show how future supply and demand scenarios may be integrated into the District's water management practices to ensure the community enjoys the same high-quality water and reliable water system it has now and for the past 100 years.

Workshops to come will continue with modeling and a focus on demand. These include:

- HMS model - simulation of the complete hydrologic processes of watershed systems
- Hydrology and Climate Change discussion

Workshops are held in person at the NID main office at 1036 W. Main Street in Grass Valley and via Zoom.

Sign up to get direct emails from NID with Plan for Water information and meeting reminders

Visit nidwater.com for more information.

Leaks Can Run, but They Can't Hide

Are you ready to chase down leaks? Household leaks can waste nearly 1 trillion gallons of water annually nationwide, so each year we hunt down the drips during Fix a Leak Week. Mark your calendars for Environmental Protection Agency's annual Fix a Leak Week, March 20 through 26, 2023—but remember that you can find and fix leaks inside and outside your home to save valuable water and money all year long.

Checking for Leaks

The average household's leaks can account for nearly 10,000 gallons of water wasted every year and 10 percent of homes have leaks that waste 90 gallons or more per day. Common types of leaks found in the home are worn toilet flappers, dripping faucets, and other leaking valves. These types of leaks are often easy to fix, requiring only a few tools and hardware that can pay for themselves in water savings. Fixing easily corrected household water leaks can save homeowners about 10 percent on their water bills.

To check for leaks in your home, you first need to determine whether you're wasting water and then identify the source of the leak. Here are some tips for finding leaks:

- Take a look at your water usage during a colder month. If a family of four exceeds 12,000 gallons per month, there are serious leaks.
- Check your water meter before and after a two-hour period when no water is being used. If the meter changes at all, you probably have a leak.
- Identify toilet leaks by placing a drop of food coloring in the toilet tank. If any color shows up in the bowl after 10 minutes, you have a leak. (Be sure to flush immediately after the experiment to avoid staining the tank.)
- Examine faucet gaskets and pipe fittings for any water on the outside of the pipe to check for surface leaks.

Use the EPA's checklist to keep track of your search for leaks: Detect and Chase Down Leaks at Home Checklist

NID.com for more tips and hints to conserve water

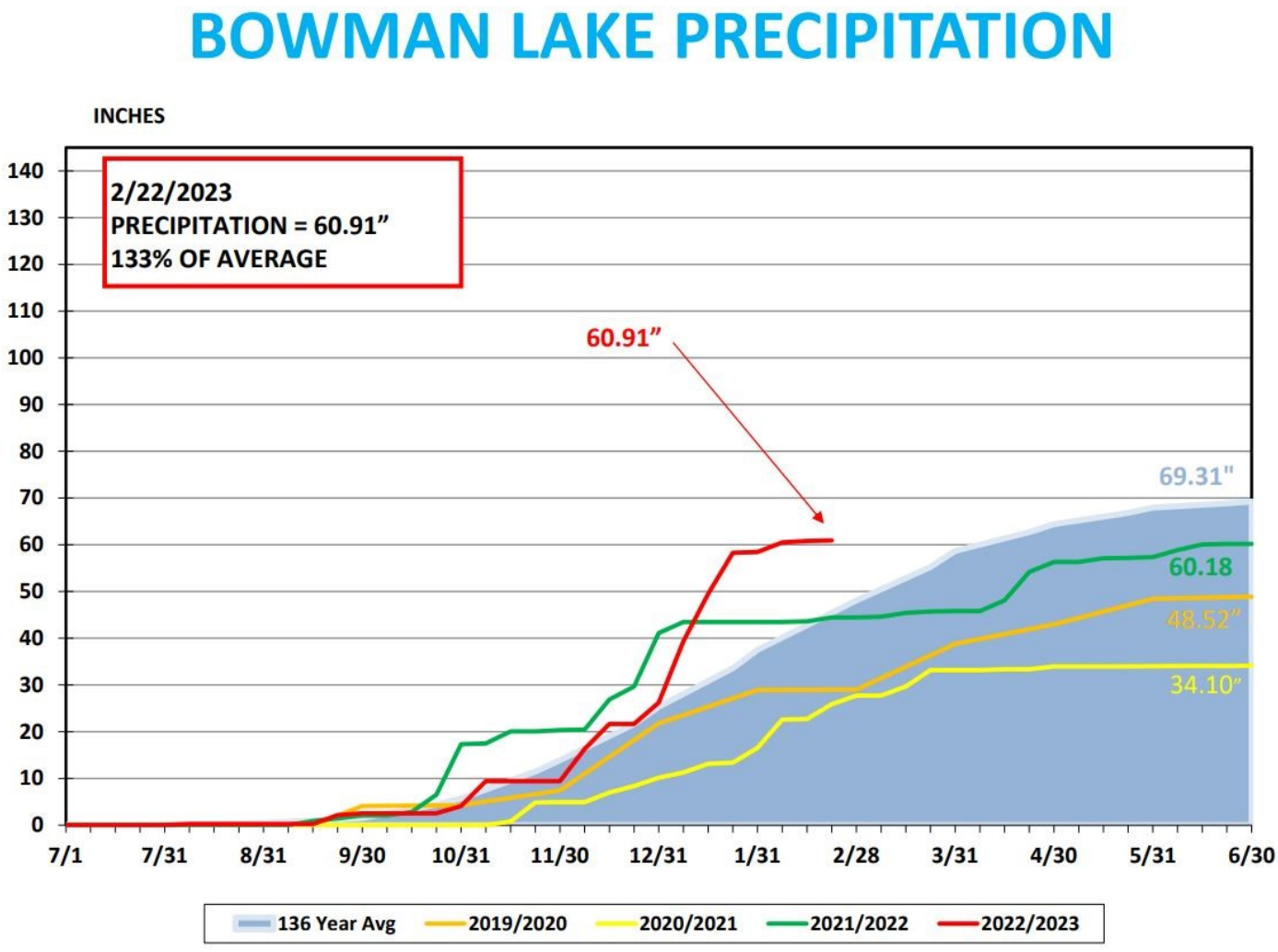
Bowman Lake

NID has been keeping weather records for Bowman Reservoir (elevation 5,650 ft.) since 1929.

The 69.2-inch annual average precipitation at Bowman compares to an annual average of 56 inches at 2,700 feet near Nevada City and 52 inches at 2,400 feet in Grass Valley.

Precipitation is measured for the 12-month period beginning July 1 and ending June 30.

As of Feb. 22, nearly 61 inches of precipitation have fallen. That is 133 percent of average.

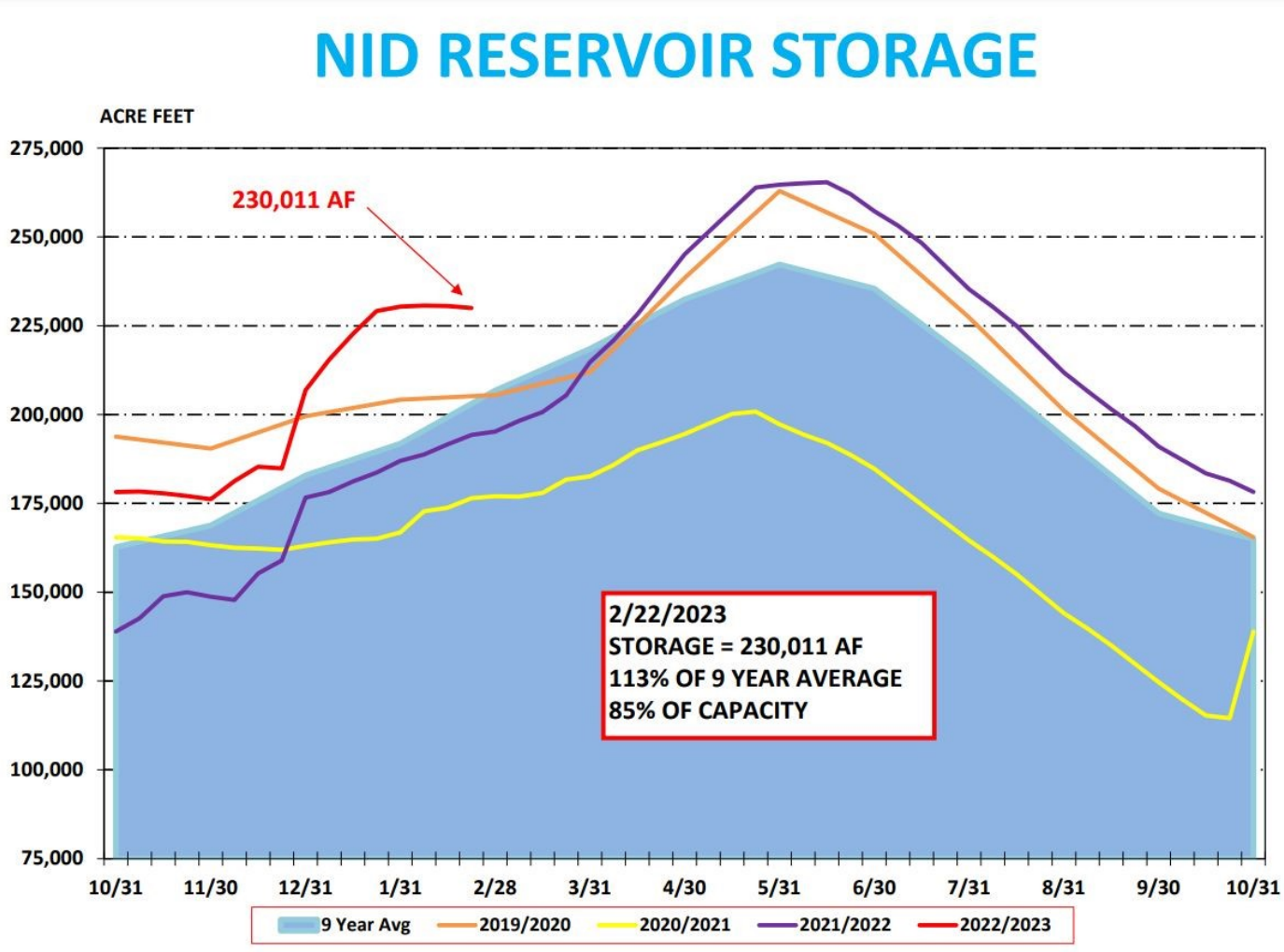


Reservoir storage is 113% of average

Reservoir storage is 230,011 acre-feet as of Feb. 22. That is 113 percent of average and 85 percent of capacity.

NID's water managers regularly post updates of local reservoir levels. You can see how water levels fluctuate in easy-to-read charts.

It's all just a click away on the NID website under River & Reservoir Data.

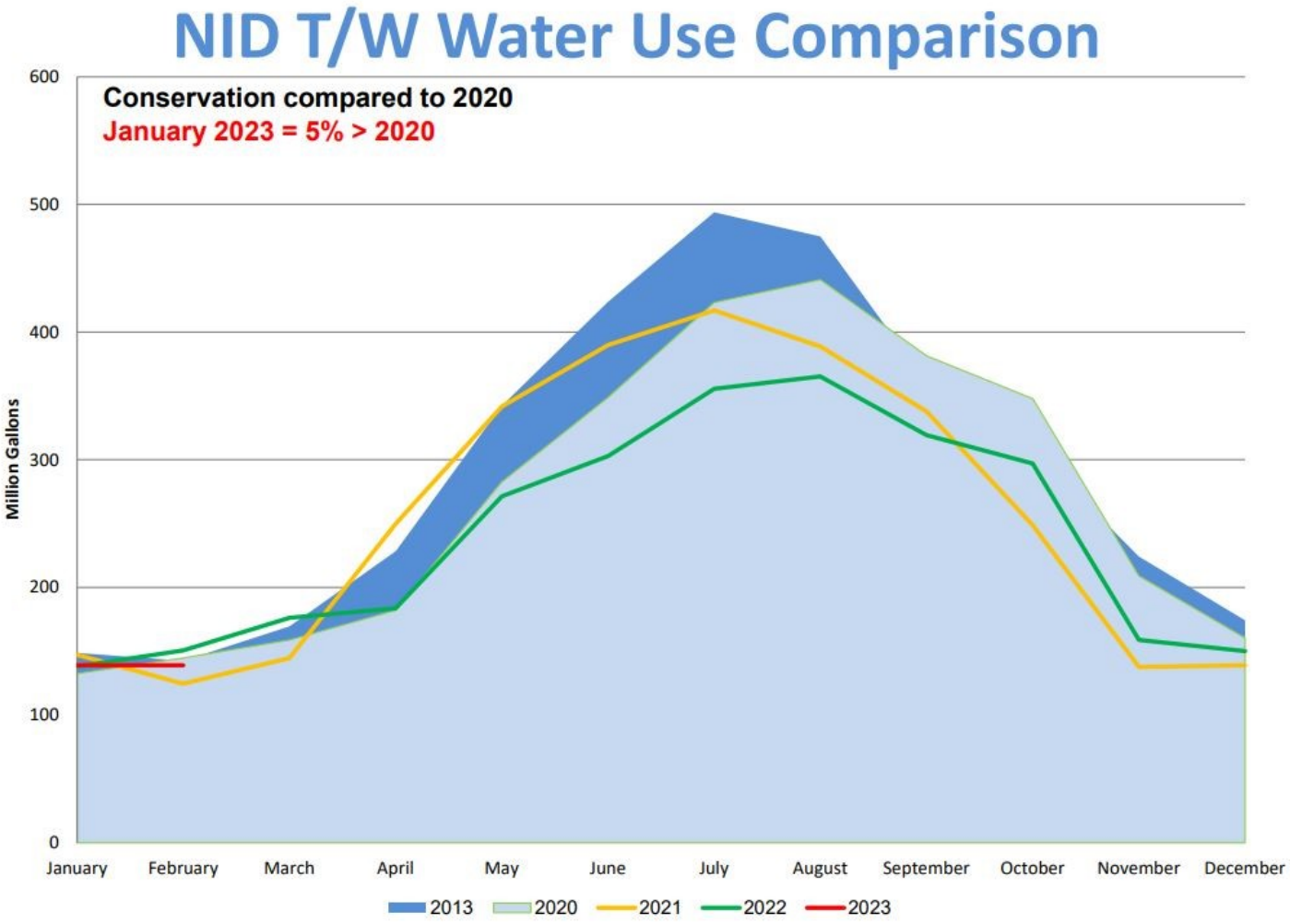


Water conservation — treated water use down 5%

In January, treated water usage was down 5 percent, compared to January 2020. For 2022, total treated water usage was 11 percent less than in 2020.

Let's continue the good efforts. How much water do you use?

Measure Your Water Use Calculator



The above graph shows the overall water usage and effectiveness of conservation within the District's treated water customer base.

Project Updates—Engineering and Hydropower

The NID Engineering Department has a number of projects in various phases of construction. Read about the projects on our website, and sign up for email alerts for news about a specific project.

Updated Project Status Reports are now available on the District's Projects webpage. This report provides project information, planner information, and a brief project description.

Engineering Department Project Status Report

Alta Sierra Reservoir Replacement Project

The project involves removing the existing liner, grading the interior of the reservoir to raise the bottom elevation 6 feet, and constructing a 3 MG concrete tank that is centered in the existing reservoir. Learn more, click on the Project Description.

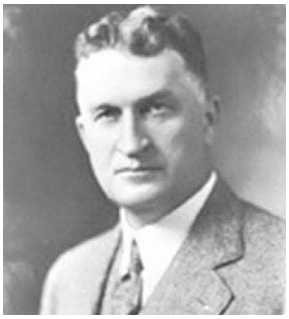
Hemphill Diversion Fish Passage Project

The project will remove the existing diversion structure and construct a roughen-rock ramp fish passage in its place. Improvements to the Hemphill Canal will include a fish screen to prevent fish entrapment while maintaining water deliveries to NID raw water customers. Learn more, click on the Project Description.

David Way Pump Station

The project entails replacing the pump station and generator with a pre-manufactured pump station that includes two standard flow pumps and a separate fire flow pump. The new pump station and generator will provide system redundancy and better system reliability. Project Description.

Fred H. Tibbetts – a visionary guide in a new frontier



San Francisco-based civil engineer Fred H. Tibbetts was named NID's first District Engineer in 1921. Few engineers in the history of California have contributed so extensively to the development of its agricultural lands and the control and conservation of its waters.

Within a year of NID's formation, on February 10, 1922, Tibbetts submitted his final engineering report, which identified mountain water sources and the infrastructure needed to carry the water to the farms and ranches of Nevada County.

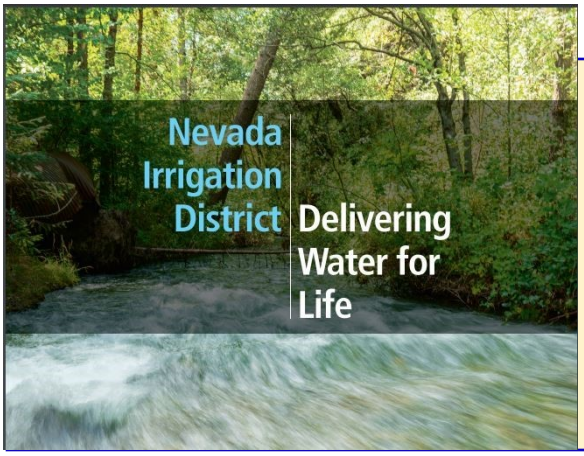
The report described the elevations, topography, geography, and irrigable and non-irrigable lands of the District. "Because of the favorable climate conditions this district should ultimately develop into one of the best fruit districts in the state," he predicted.

Fred Tibbetts inspects the old Bowman Lake Spillway Dam

Tibbetts outlined the framework of an irrigation district that would collect water from two primary mountain watersheds and include sources for Bowman Reservoir, Jackson Meadows, the Bear River, Deer Creek and South Wolf Creek. He envisioned the District would collect most of its water from a 71-square-mile watershed, ranging in elevation from 5,400 feet to 8,500 feet. Central to the system would be the existing Bowman Reservoir, which had been built on Canyon Creek in 1872-1876 to supply hydraulic gold mines on the San Juan Ridge.

The mountain water system first described in the Tibbetts report is remarkably similar to the system that supplies NID water users today.

The NID Board of Directors approved Tibbett's report and set out to acquire water rights, secure properties, negotiate a contract with PG&E and issue a bond to generate revenue.



Learn more about NID's history

"Delivering Water for Life" chronicles the District's history from its origins to operations of today.

Read individual chapters and/or download the entire digital book. Click here

It's FREE!

Meetings & Events

NID Regular Board of Directors Meeting
Wednesday, March 8
NID Office, Grass Valley
9 AM

NID Regular Board of Directors Meeting
Wednesday, March 22
NID Office, Grass Valley
9 AM

Nidwater.com for more information

Texas Creek