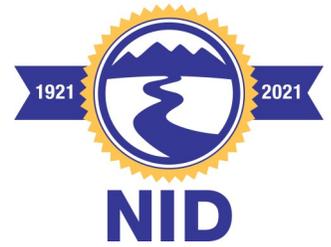




# THEN & NOW

*told in photos*



NID is celebrating 100 years in operation. A lot has changed since the early days. And yet, some things remain the same. We dusted off our photo album and compared historic snapshots with newer ones. Scroll to enjoy the journey down NID's memory lane.

## Picnic at the Lake



A family enjoys a picnic at Bowman Lake in 1897.



The blue water still calls! Scotts Flat Lake is an ideal site to celebrate with family and friends.

## Bowman-Spauding Flume



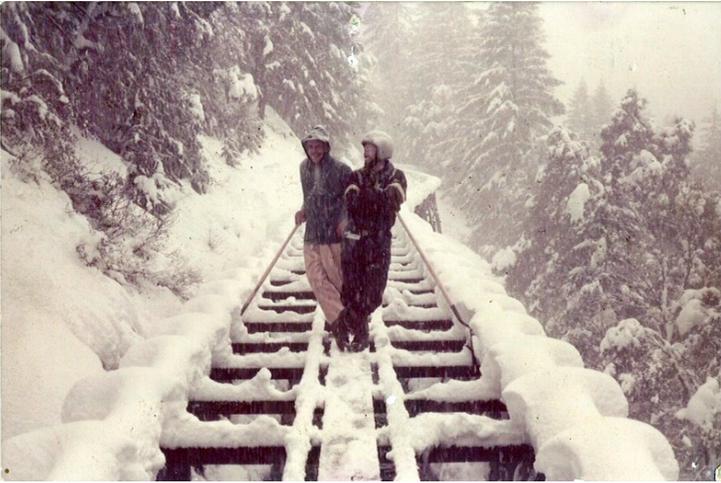
Workers construct the flume on the Bowman-Spauding Canal. Begun in 1926, the waterway carries water 11 miles to PG&E's Spaulding Reservoir on the South Yuba River watershed.



In 2015, the Bowman-Spauding Canal was relined. The new smooth surface would allow for a better flow rate and reduce the amount of seepage.

## In the Cold Weather, Duty Calls

There has been no escaping inclement weather that clogs NID waterways. You might say, "Neither rain nor snow, nor sleet, nor hail shall keep the NID crews from their appointed duties".



NID workers clear the snow on a flume in the 1970s.



A District crew breaks the snow and ice to keep the Cascade Canal water flowing in 2017.

## The Bierwagen Family's Long Connection with NID



Johann Ludwig and Anna Elizabeth Bierwagen were advocates of forming an irrigation district prior to 1921. As an adult, Ernst Bierwagen (with his grandmother) went on to serve 25 years as a District director once NID was formed.



Today, Chris Bierwagen, son of Ernie, is the President of the NID Board of Directors. He also heads up the Bierwagen family farm, on the same property that his great grandfather purchased in 1902. The farm specializes in pears, peaches, apples, as well as garden-type fruits and vegetables.

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## Ditch Tenders



Left: NID Ditch tender Nick Nicholson was assigned winter maintenance duties to help repair or replace the pipelines, canals and flumes. He would leave the house in late October, with his 12-foot skis and pike pole, to walk or ski along the Cascade Canal. He stayed at the ditch camps along the canal, including at Norton's Camp located about one mile from Scotts Flat. On a daily basis, he would patrol the canal, using his pike pole to break the ice and snow in the canal in order to keep the water flowing.

Today NID employs skilled workers to patrol and maintain the vital ditches. The ditch tenders have evolved into multi-tasked Water Distribution Operators (WDOs). Yet ensuring the District's conduits are clear and flowing is as vital today as in the early days.

Now, besides raw water, WDOs have the added task to care for treated water. On a daily basis, they patrol, regulate, and document the flow of water.

## Canals



The more things change, the more they stay the same. Check out the Lone Star canal today (left) versus the typical NID canal from 1922-1927 (above).

## Snow Surveys



Above: NID Hydrographer Paul Wheatley depended on skis to get to a snow course for a measurement in 1926. The early employees would journey up to the mountains on an extended trip via car, horse carriage and skis to get to the snow courses. It was quite the trek!

Today, NID hydrographers are much more efficient with their time. They conduct snow surveys during two days, using a helicopter to get to five snow courses during the winter – no skiing or wagon rides required.

### Fun Snow Survey Fact:

A “stick in the snow” to measure depth is the method used for more than 100 years. In 1908 James Church, a professor of Classics at the University of Nevada, Reno, created the snow tube measurement system. In 1926, that was the method that NID Hydrographer Paul Wheatley depended upon. Here’s the thing; it’s pretty much the same method that District hydrographers use today.



Right: the snow in 1929 was weighed to determine the water content. By weighing a snow sample, surveyors were able to determine the inches of water content that’s basically the amount of water that would run off if the entire snowpack melted instantly.

Left: today, NID hydrographers conduct the same method of weighing snow. The measurement helps the District know how much water the snowpack will yield when it melts. And that’s what determines the water availability for the year.



### THEN & NOW



## Inspections



Above: in 1964 NID workers inspected a mainstay of the system -- a segment of the old Bowman-Spaulling wood flume.



Above Right: in 2020, an NID crew inspected reinforced concrete pipe that measured an 8-foot diameter. That was one segment of 1.7 miles-worth used to deliver water to customers in southern Nevada and western Placer counties. More than half of the water delivered by the District flows through that pipeline.

## NID Trucks



While the models and styles may have changed, the white NID truck has been a mainstay.

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## Van Giesen Dam



Above Left: the upstream face of the Van Giesen Dam showed the massiveness of the construction in 1928.

The 87-foot-high arch dam at Combie Reservoir was officially named Van Giesen in honor of the family that owned the property on the south side of the Bear River.

## Combie Reservoir



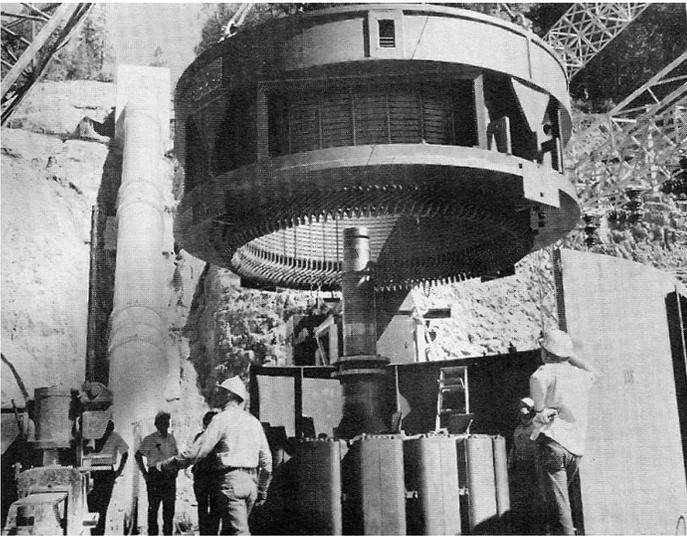
The Combie family lived across from the Van Giesens. They operated a ranch along the Nevada County side of the Bear River to the north. Ultimately, the reservoir became known as Combie.

Be sure to say Combie correctly. The O is pronounced like “comb” not “common.”

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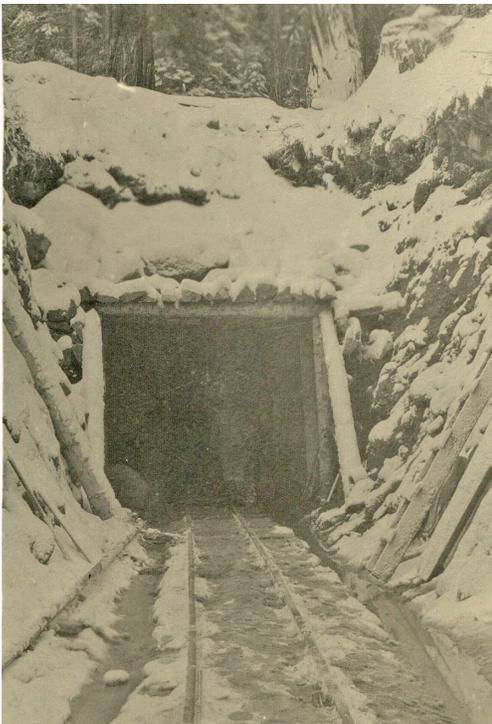
## Dutch Flat Powerhouse



The Dutch Flat #2 Powerhouse was part of the Yuba-Bear Hydroelectric Project. In 1965, the new outdoor power plant was constructed on the right bank of the Bear River with a generating capacity of 23,400 kilowatts. The five-mile long Dutch Flat Canal services this plant.

The Dutch Flat #2 Powerhouse still is an important plant. Today, it generates nearly 30 percent of NID's hydropower.

## Milton-Bowman Tunnel



Left: the entrance of the Milton-Bowman Tunnel on July 12, 1926



Above: the outlet of the Milton-Bowman Tunnel in the 1960s.



**NID THEN & NOW**