"For the first time, abundant water from the mountains will be brought to the land under the complete direction and control of the land owners."

FRED TIBBETTS, 1927

CHAPTER 7

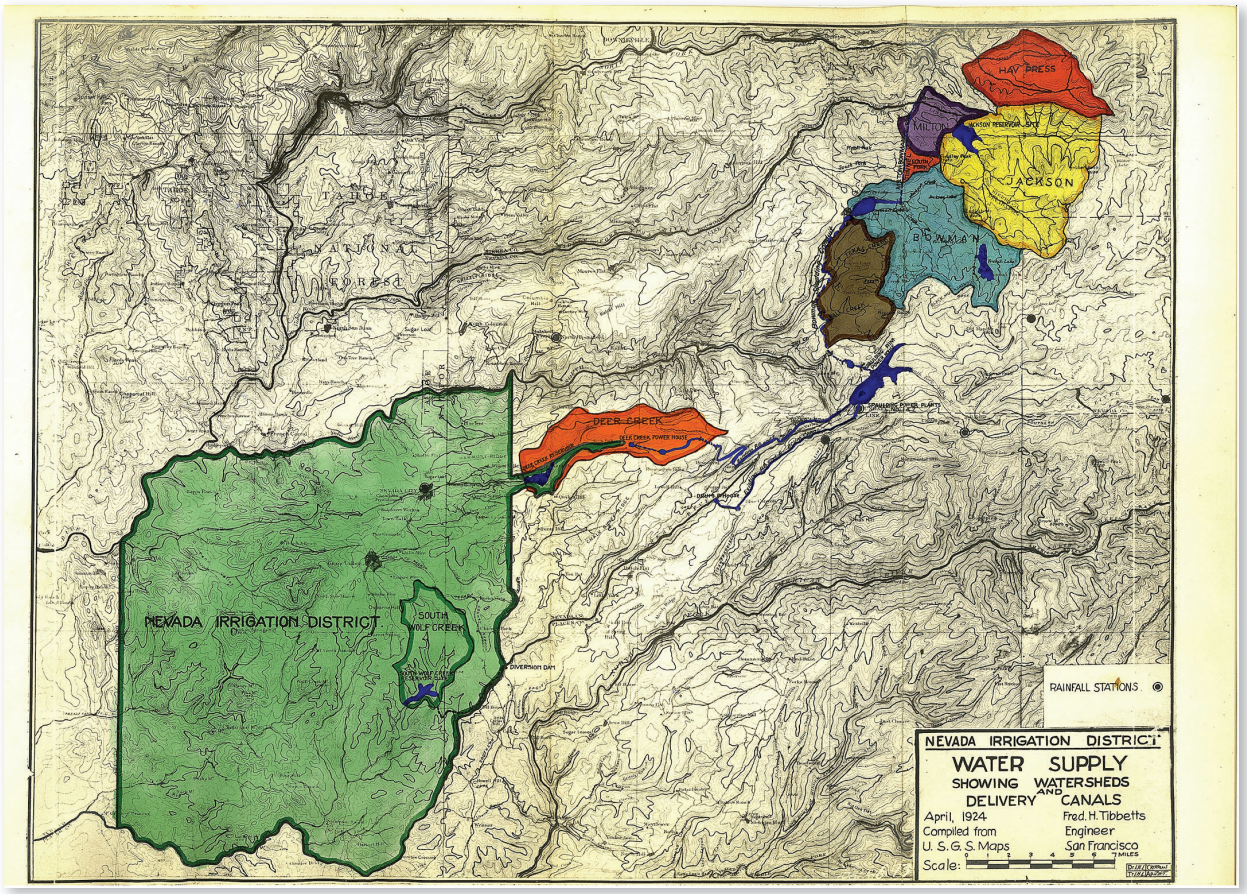
The First Water Flows to Customers

Fred Tibbetts addresses the crowd during the Van Giesen Dam dedication on May 12, 1928.

In 1927, NID was able to begin water deliveries with its own crews. Irrigation water was sold for $2 per acre-foot, about 10 cents per day. The year also brought acquisition of the Upper Deer Creek system and water rights from PG&E on January 1, 1927, for $350,000. After ensuring acquisition and development of the water systems needed to supply the community, Aubrey Wisker was at the helm in 1927 when NID became a functioning organization.

Fred Tibbetts discussed NID's progress during an April 19, 1927, speech to the American Society of Civil Engineers, San Francisco Section. He detailed three basic requirements for the District. These were: Free water at the head, reservation storage of sufficient water by allocation from the state and acquisition of established water rights, and a progressive scheme of development.

Tibbetts noted that early in its formation, NID contracted to supply water to Grass Valley and Nevada City, and that the 1926 addition to the District of 66,500 acres in Placer County would soon lead to an extension of water supplies into the Lincoln area.



Fred Tibbetts presented his watershed map during the April 1927 presentation to the American Society of Civil Engineers.

He defined NID as "a composite project for the development of a high mountain water supply for irrigation, the manufacture of hydro-electric power, domestic use, hydraulic mining and industrial power for quartz mining." He said total costs for building the District would total some $50 million.

"The Nevada Irrigation District was organized with a determination to secure free water at the head of its distribution system by selling its potential power resources for sufficient amounts to pay for the mountain developments necessary to reservoir the spring runoff and regulate the stream flow for irrigation," he said.

In his speech, Tibbetts also noted that by 1927 construction of the mountain division was about 87 percent complete, and NID had purchased or constructed about 275 miles of irrigation canals and laterals for distribution of irrigation water to District customers.

"Prosperity and progress are coming …"

Grass Valley's daily newspaper, The Morning Union, celebrated the completion of NID's mountain water works in a special 28-page Commemorative Edition on July 1, 1927. NID Chief Engineer Fred Tibbetts wrote an introduction to the edition, painting a picture of the area as "a rugged region of great scenic beauty and historic interest." He paid tribute to the workers who built roads, operated equipment and provided labor.

Tibbetts described Bowman Dam, the centerpiece of the water system network, as "the largest in California and probably the second largest artificial rockpile in the world after Dix Dam in Kentucky." The dam, he said, was built at the site of the old Bowman Dam (1872-76) that first served the mines of the San Juan Ridge. He said the old mining company records were invaluable in his studies and forecasts.

"For the first time, abundant water from the mountains will be brought to the land under the complete direction and control of the land owners," he wrote.

The special newspaper section also included several articles about the attractions of the region, including good roads, hunting and fishing, golf,

homes, banks and historic spots. Congressman H.L. Englebright, who was born in Nevada City in 1884 and was the son of W.F. Englebright, also penned a congratulatory message.

The coverage also spotlighted a new irrigation law, adopted May 21, 1919, that allowed irrigation districts to develop electrical power. This legislation enabled NID to move forward to become, at the time, the third largest irrigation district in the state, after the Imperial and Madera irrigation districts.

In his contribution, California State Senator Thomas Ingram lauded the practical combination of water and power, of agriculture and industry. "The economic principle involved is, in the opinion of the writer, destined to be far reaching and to play an important part in the development of the West," Ingram wrote.

After the aggressive push by the early officials at NID, the District had developed solid water storage infrastructure in the mountains, diversions and a means of conveying the water to the foothills. It also had secured a long-term contract for sale of the energy content of the moving water on such a basis as to amortize the full cost of the mountain works, thereby giving the agricultural lands at lower elevation what amounted to a free water supply. The mountain works included a 4-mile diversion tunnel, 85,000 acre-feet of storage, and an 11-mile conduit in rough terrain that required numerous flumes and tunnels. The irrigation distribution system included two large concrete diversion dams as well as many miles of canals and numerous structures. Total construction costs amounted to about $7 million.

In 1928, to further expand its distribution system in Nevada County, NID began construction of the Deer Creek Diversion Dam and the D-S Canal. The canal, with its various distribution laterals, supplies water for irrigation, domestic and stockwatering uses in the Deer Creek and Wolf Creek areas, as well as supplying water to the City of Grass Valley and a portion of Nevada City. The principal lateral from the D-S Canal was the Grass Valley Ditch, which supplied Allison Ranch Ditch and its laterals, the Cory, James and Lafayette ditches. Portions of the water diverted through D-S Canal were released for supplemental supply to other NID facilities. At the terminus of Grass Valley Ditch, water was released to Rough and Ready Ditch. At the ends of the Cory, James and Allison Ranch ditches, water was released to French Ravine and Wolf Creek for re-diversion by the Tarr and French Ravine ditches. The D-S Canal terminated at and released excess water into Little Greenhorn Creek, a tributary of the Bear River, for use in the Placer Division. This water was normally re-diverted from the Bear River through the Bear River Canal for use in PG&E's power system, and then returned to NID at several locations in the Placer Division.

NID Hydrographer Paul Wheatley depended on skis to take a snow measurement in 1926.

Snow surveys assist in predicting water availability

With infrastructure in place, the District began to monitor its water supply, beginning with the source of Sierra snowmelt. During the late winter and spring, every month a surveyor would ski or snowshoe to a site and measure the amount of snow. NID first began taking snow surveys on Findley Peak (elevation 6,500 feet) in April of 1927. Within a couple of years, surveyors also were trekking to Bowman Reservoir (elevation 5,650 feet) to measure snow accumulation. Bowman historically receives an average of 69.2 inches of precipitation annually. By comparison, the average in Nevada City (elevation 2,700 feet) is 56 inches and in Grass Valley (elevation 2,400 feet) is 52 inches.

Fred Miller

Say Combie as in "comb," not Combie as in "common"

Is it Combie as in "comb?" Or Combie as in "common?"

Most of the veterans around NID pronounce it Combie as in "comb," and it appears they are correct.

According to the authoritative guide, California Place Names by the late Edwin G. Gudde, the lake is named after a Frenchman named Combie (or Coombe) who reached the Bear River in mining days. Combie Crossing and Combie Ranch were named for him, but they were later inundated by the reservoir. On a side note, Combie is credited with introducing alfalfa to California.

A spokeswoman for the French consulate in San Francisco said Combie most likely pronounced his name as in "comb." She also pointed out that "comb" and "combe" are in the French dictionary, defined as valley, dale or dell.

The dam at Combie was built in 1928, and is one of NID's oldest. Its official name, however, is Van Giesen Dam (for the record that's "geese-en").

The compiled data has helped NID early managers and today's leaders predict runoff and water availability, and accurately plan water supply deliveries during the summer and fall months.

The District joined with State efforts when the California Cooperative Snow Survey Project was established in 1929. Today, the program includes more than 50 agencies, which collect, analyze and share snow data from more than 265 snow courses and 130 snow sensors located throughout the Sierra Nevada and Shasta-Trinity mountains. The findings help forecast seasonal and water year runoff for local areas and the state.

Looking to the South – the vision of Parker Reservoir and the construction of Combie Dam

In his earliest studies, Tibbetts identified a future Parker Reservoir site at the Parker Ranch on the Bear River downstream from today's Rollins Reservoir. The Parker dam was to have dual purposes: capture mining debris and store water for irrigation of additional lands either in Placer or Yuba counties.

As early as May 1924, NID's development plan of the Bear River included a diversion dam on the Bear River below Greenhorn River (Rollins), a dam on South Wolf Creek, and a diversion canal between the two. This initial plan was flawed because of the prohibitive cost to construct the South Wolf Creek Reservoir. In 1926, the District's Bear River Reconnaissance Project considered alternative dam sites to replace the proposed South Wolf Creek Reservoir. Four potential dam sites were investigated: Rollins, Combie Crossing, Dog Bar and Parker.

The California Debris Commission issued a report about the leftover mining debris lodged in the canyons of the Yuba and Bear rivers that signaled a substantial problem. NID was determined to find a solution to the issue of the leftover debris deposited by the hydraulic mines.

The Reconnaissance Project resulted in firm conclusions: The Rollins Dam site was not favorable because of the relatively steeper channel gradient compared with the other sites, and it would quickly fill with mining debris. The Combie Dam site was determined adequate, but the streambed was at an elevation of 1,500 feet, which is less than the optimal 1,700-foot elevation required to serve Penn Valley. The Dog Bar Dam site was adequate, but it was wider than the dam site at Parker, making it a more expensive option compared to Parker. Also, Dog Bar Reservoir storage relative to the dam height would be less than for Parker Reservoir storage.

The Reconnaissance Project declared the Parker Reservoir site the best and most economical reservoir site for storage of water on the Bear River. Based on its findings the project included results of a topographical survey of the potential inundation area and a cost estimate for a rockfill dam of various heights, ranging from 130 feet to 330 feet. In addition, a diversion tunnel was proposed from Parker Reservoir to serve Penn Valley.

Having expanded into Placer County and acquired the Parker Reservoir site in 1926, the

District waited for the proper timing and finances to pursue that large project. Yet the District continued to move forward with infrastructure to serve its new Placer County customers. As part of the expansion, construction began on the first dam on the Bear River, near Meadow Vista. NID purchased the water rights in what was then prime ranch land with homes nestled in the oak woodlands. The historic problem in the area was that the Bear River would flood and swamp the land, devastating agricultural enterprises.

With Tibbetts at the helm as Chief Engineer, construction of the Combie Dam began in October 1927. The contractor was the Morrison-Knudsen Corporation, a civil engineering and construction company that later was among the consortium of firms that built Hoover Dam, the San Francisco–Oakland Bay Bridge and the Trans-Alaska Pipeline. The dam was completed in May the following year, with the Board of Directors accepting the completed work during its May 10, 1928 meeting.

When the concrete dam was constructed and the reservoir created, the names of the two families with bordering properties stuck. The Van Giesen family owned the property on the south side of the Bear River, while the Combie family operated a ranch along the Nevada County side to the north. Ultimately the reservoir became known as Combie, and the 87-foot-high arch dam took on the Van Giesen name.

The dedication of the infrastructure took place on May 12, 1928, at the Woerner Ranch, two miles north of the Bear River in Nevada County. Tibbetts assured the large gathering of people that the reservoir would be a reliable supply of water for ranchers and farmers in its southern boundaries.

On a side note, the NID May 10, 1928, Board of Directors meeting minutes reflect that Manager Wisker had requested PG&E "to spill the maximum quantity of water into Bear River in order that Van Giesen Dam might fill as rapidly as possible" and look impressive for the dedication ceremony.

NID was on a roll. The District was taking shape, the water was flowing to farms and ranches, but 1928 also brought the resignation of District Manager Aubrey Wisker.

Much like today's snow surveys, the snow in 1929 was weighed to determine the water content.

Wisker was facing increasing political pressures, a growing community and an increasing demand to acquire property and water rights without proper compensation. He was paid $1 per month until the bonds were issued in 1925. The NID Board minutes of April 22, 1927, stated: "Wisker never got $1,000 per month. He was paid $833.33 per month for the 25 months after the bonds were issued. So, for the five years and eight months he served his pay averaged $306.80 per month."

He hit a breaking point. Wisker submitted his resignation several times. After his second letter, the Board minutes for July 6, 1928, read: "A Great Man Makes His Exit from the Stage of His Triumphs, Trials and Tribulations." The letter, dated July 5, 1928, read in part: "You have my best wishes in the solution of all problems relating to the District, and if there is any way in which I can in the future assist you in safeguarding the best interest of the people, I shall be happy to cooperate with you."

On August 3, 1928, Directors accepted Wisker's resignation, and released the official from his duties. In the absence of the first manager, NID continued to refine its practices, secure its water delivery system and increase the number of its customers. The tenured Board of Directors continued strengthening the new District, with Wisker's Assistant Manager Fred Miller now at the helm until 1929. ■