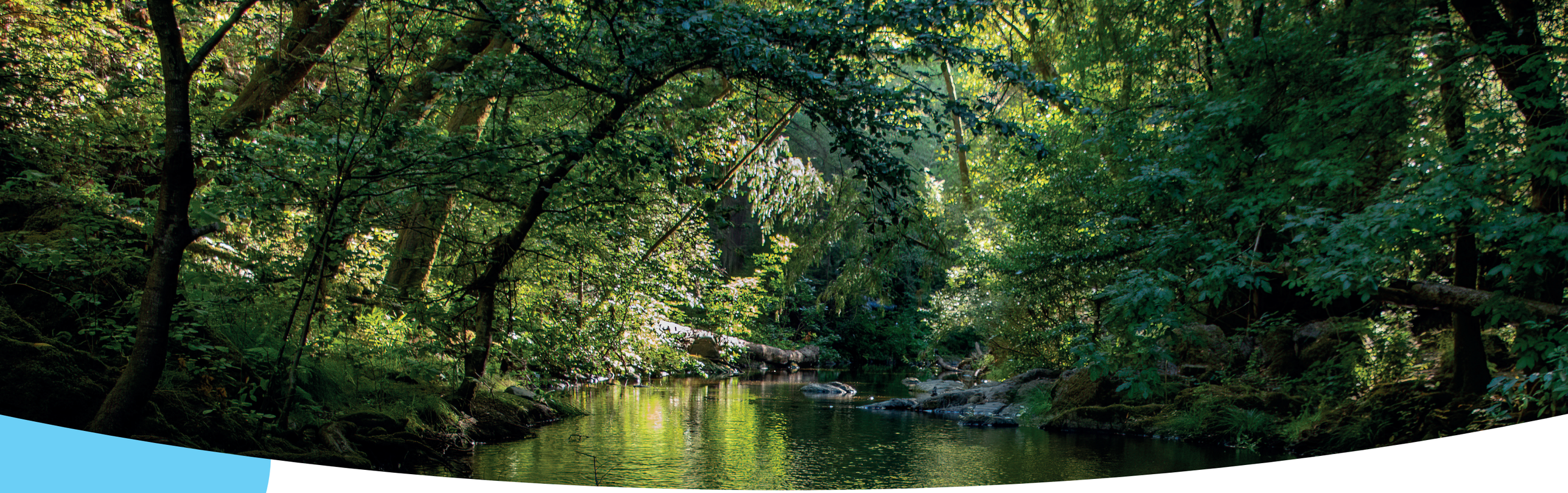
West Marin Water Factsheet

NORTH MARIN WATER DISTRICT



The history of North Marin Water District's West Marin Water System began in the 1970s when voters approved the creation of improvement districts to acquire and upgrade several failing private water systems. Today, the system primarily serves the communities of Point Reyes Station, Olema, Bear Valley, Inverness Park, and Paradise Ranch Estates, covering about 24 square miles within North Marin Water District's West Marin service area.

Water supply and treatment

North Marin Water District supplies water to the West Marin area using groundwater from two sources:

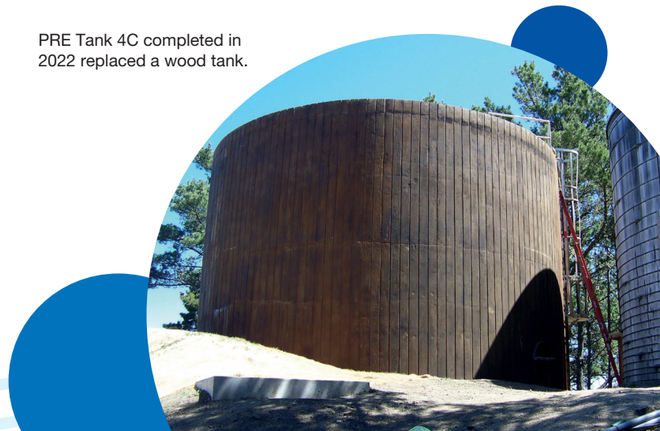
- Coast Guard Wells (Wells 2 and 4) in Point Reyes Station,
- Gallagher Wells (Wells 1 and 2) located at Gallagher Family Ranch near Lagunitas Creek.

The Coast Guard Wells can be affected by salinity and flooding due to their location near Lagunitas Creek's tidal area, while the Gallagher Wells are not.

Gallagher Well No. 1 was initially built in 1993 as an emergency source but wasn't connected to the water system until 2014 when a new pipeline was installed to connect it to the Point Reyes Treatment Plant. In 2022, Gallagher Well No. 2 was completed and connected to the same system.

A stream gauging station, managed by the U.S. Geological Survey, is located near the Gallagher Ranch and helps monitor water levels. North Marin Water District and Marin Municipal Water District share the costs of its operation.

All groundwater in the West Marin Water System is treated at the District's Point Reyes Treatment Plant (PRTP). While the water quality is excellent, it requires treatment to remove iron and manganese, which can affect water color and cause staining. The process involves adding an oxidant to make the iron and manganese form particles, which are then filtered out. After filtration, a small amount of chlorine is added to ensure the water stays clean as it moves through the pipeline.



PRE Tank 4C completed in 2022 replaced a wood tank.

Brief history & timeline

1970-1975
Various Improvement Districts were created, leading to the study, design, and construction of new infrastructure.

1981
Two new storage tanks were added, increasing water storage by 400,000 gallons, along with the installation of 18,865 feet of new distribution pipelines.

1993
Gallagher Well No. 1 was built to serve as an emergency water source.

1995
The Mount Vision Fire destroyed 42 homes within the District's boundaries.

2015
A new pipeline was installed, connecting Gallagher Well No. 1 to the Point Reyes Treatment Plant.

2016
All improvement districts were consolidated into the "West Marin Service Area."

2022
Gallagher Well No. 2 was completed and brought online with the help of $676,402 in state grant funding.

Water distribution system

The water is delivered through a network of pipelines ranging in size from 2 to 12 inches in diameter. The system includes a main 8-inch pipeline connecting the treatment plant to storage tanks, and another 8-inch line along Sir Francis Drake Boulevard that delivers water to Inverness Park and Bear Valley. A smaller, 4-inch pipeline serves the Olema area.

Most of the pipes are made of Asbestos Cement (AC) or PVC, although some older 2-inch galvanized pipes still exist in the Paradise Ranch Estates (PRE) zone, left over from before the District took over the system from a private company in the 1970s. In total, the distribution system covers about 27 miles of pipeline.

Each area has water stored in one or more tanks, with a total of 13 storage tanks throughout the West Marin Water System that can store up to 1.035 million gallons. Six booster pump stations move water from lower to higher zones, ensuring that all service areas, including Olema, Bear Valley, Inverness Park, and PRE, get a steady supply. The pumps in the PRE zone work in sequence, with each pumping water to the next higher-level storage tank.

Special joints at water tanks prevent pipe breaks during an earthquake.

Water demand and usage

Water production has fluctuated in recent years (2021-2023) due to drought conditions and mandatory conservation measures. However, the 10-year average consumption from 2014 to 2024 is around 62 million gallons (MG), with a peak of 72 MG in 2019-2020. Most of the water (90%) is used by residential customers, while the remaining 10% is used by commercial and government customers.

Water demand is highest in July and August, with the maximum daily usage recorded in July 2012, when 399,000 gallons were used in a single day. The Point Reyes Station (PRS) zone accounts for about 65% of the total water usage in the system.

Infrastructure improvements needed

The West Marin Water System is aging, with much of it nearing or surpassing the end of its useful design life. Many parts of the system are at risk due to natural hazards and the impacts of climate change. For example, two wooden storage tanks (PRE-1 and 1) are vulnerable to wildfires and need to be replaced with steel or concrete tanks for improved safety. The Point Reyes Treatment Plant requires significant upgrades and may need to be relocated to ensure it continues to provide reliable and sustainable water treatment.

Additionally, the Coast Guard Wells, though highly productive, face threats from saltwater intrusion and flooding. Gallagher Well No. 1 is no longer functioning as it should and must be replaced.

Several upcoming projects planned by other agencies, such as the replacement of the Highway 1 bridge by Caltrans and the replacement of the Sir Francis Drake levee road culvert by the County of Marin, will require the North Marin Water District to upgrade or replace sections of its distribution pipeline. Delaying necessary improvements can lead to even higher replacement costs as the infrastructure continues to age beyond its useful life.

Capital asset summary

4 water supply wells
2 "Coast guard wells" and
2 "Gallagher wells"

13 water storage tanks
Total capacity of 1.1 million gallons

6 pump stations

175+ fire hydrants

28 miles of water pipelines

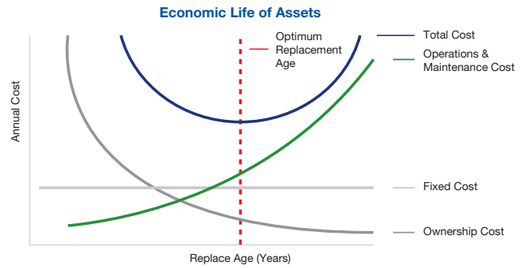
1 water treatment plant

Fiscal responsibility and challenges

North Marin Water District is dedicated to long-term financial planning, ensuring that reserve levels are properly maintained and employing sound governance, management, and budgeting practices. To safeguard against unexpected costs or emergencies, the District maintains “Minimum Reserves,” which include both an operating reserve and a liability contingency reserve, currently set at $400,000 per year.

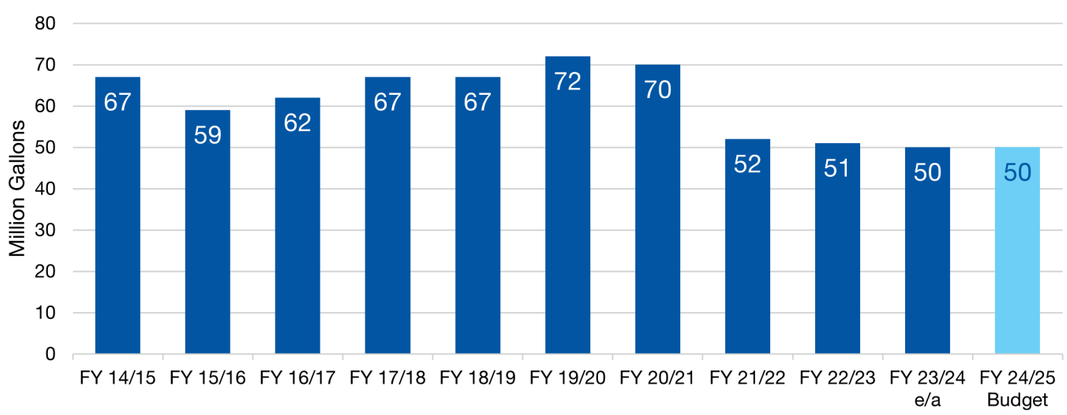
In addition to this, the District aims to build a “Reserve Target” of $380,000 to help balance fluctuations in capital spending and maintenance costs.

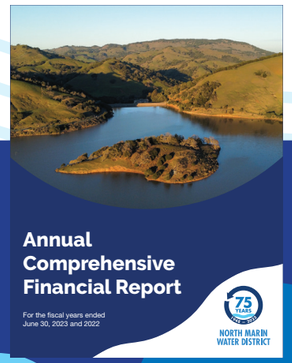
For the fiscal year 2023-24, operating revenue for the West Marin System was approximately $1 million, a slight increase from just over $900,000 the previous year. However, the long-term capital improvement and replacement needs of the system are estimated to cost in excess of $10 million. Currently, the District allocates $390,000 annually toward these projects, aligning with its financial goals and policies.



The West Marin System has traditionally relied on external funding sources, such as bonds, grants, loans, and interfund loans. These interfund loans are provided by the District’s Novato Water System enterprise. The District’s policy is to protect ratepayers by using conservative financing methods to secure the best possible credit rating—targeting a rating of at least AA—to minimize borrowing costs. To support this, the District aims to maintain an average debt service coverage ratio of 1.5.

West Marin Water Billed Consumption





More information

For more detailed financial information, please read our annual audited financial report at **nmwd.com/about/documents**

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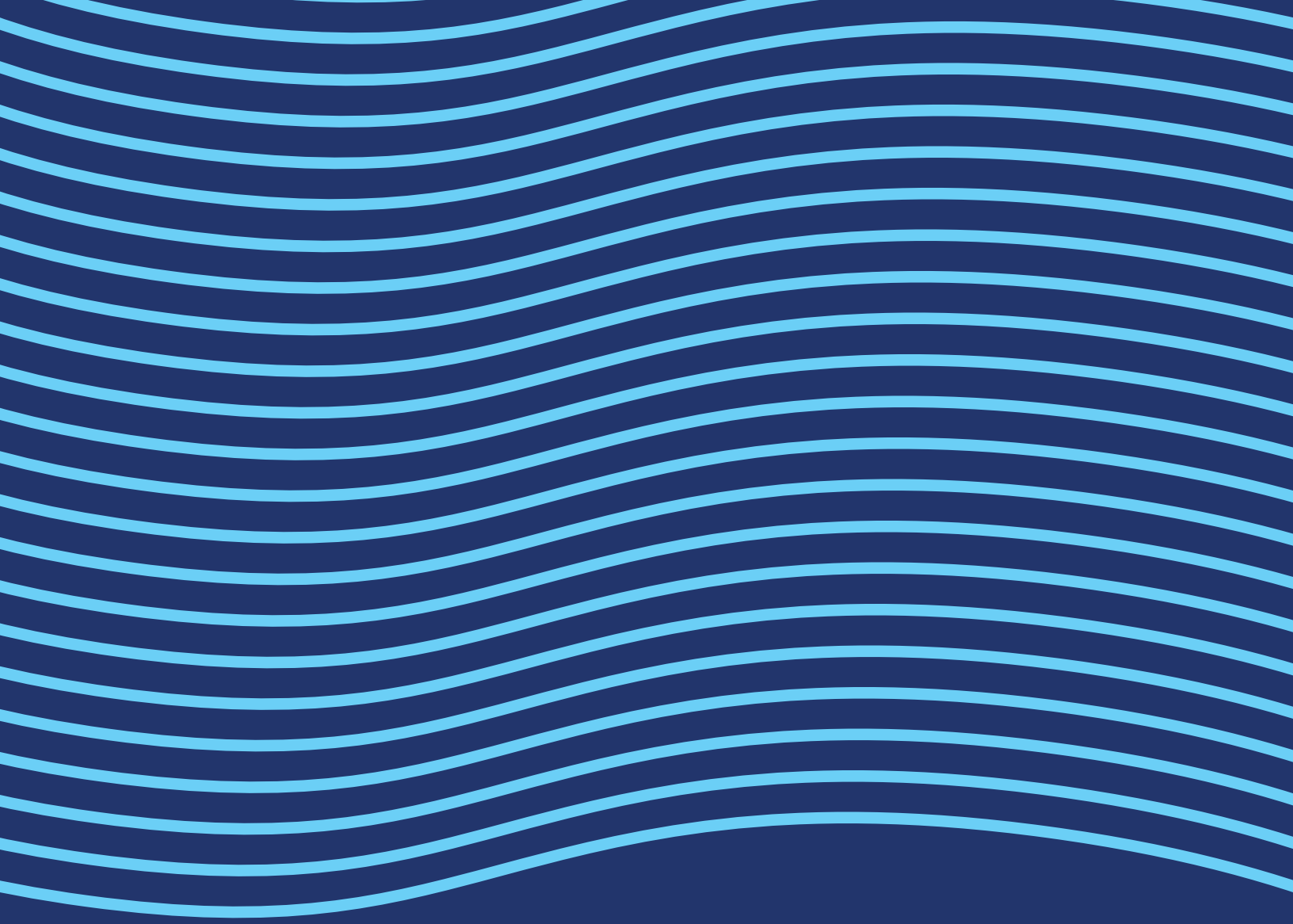

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