PCWA UPDATE
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PLACER COUNTY WATER AGENCY VOL. 41 | NO. 1 JANUARY / FEBRUARY 2026

General Manager's Report

By Andrew Fecko

Forecasting the Melt: How PCWA Plans for the Water Year Ahead

As water managers, our job is to understand what's coming and prepare our systems to meet the needs of our communities, no matter what the year brings. And in California, that means watching the snowpack — closely.

Each January, we begin our annual snow survey season. Nearly 90% of PCWA's surface water supply originates as snow in the Sierra Nevada mountains. The winter snowpack that accumulates in the Middle Fork American River Watershed—particularly in the high elevation wilderness areas above French Meadows and Hell Hole Reservoirs, feeds the rivers and reservoirs that sustain Placer County throughout the year.

High-elevation snow tube readings help translate Sierra snowpack into the water forecasts that guide PCWA's year-round supply planning.

As a participating agency in the California Cooperative Snow Survey Program, our experienced team conducts four to five surveys each year between late January and early June, with April typically being the most critical. That's when the snowpack usually reaches its peak, giving us the clearest picture of what to expect for the melt and runoff period.

Measurement of the snowpack is done by using a standardized snow tube to capture both the depth of the snow and the weight of the snow-filled tube to determine its mass and associated water content — known as snow water equivalent, or how much water is contained in the snow. These readings, taken across multiple sites in the watershed, called snow courses, help us estimate the total volume of water stored in the snowpack across the entire basin.

We combine these traditional, manual surveys with advanced technologies to further refine that data. The Airborne Snow Observatories, Inc. uses lidar and imaging technology developed with NASA's Jet Propulsion Laboratory to map snowpack with unprecedented geographic resolution, giving us a far more detailed and accurate, real-time view of snow distribution and density at the watershed scale. Looking ahead, we're exploring drone-based surveys and AI-enhanced forecasting to further refine our forecasting models.

To forecast when that water will reach our system depends on several factors — temperature trends, storm patterns (especially rain-on-snow events), snow line elevation, and soil saturation, among many other environmental factors. Together, these tools help us anticipate both the volume and timing of runoff, which is critical for managing reservoir storage for water supply, meeting environmental flow requirements, and planning for recreational releases on the Middle Fork American River.

The PCWA survey crew is transported by helicopter to reach our four remote snow courses in the Sierra Nevada mountains.

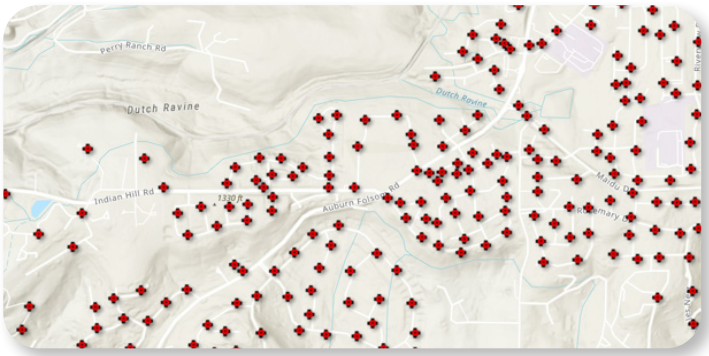
All in all, the information we gain from these surveys allows us to strategically plan—to manage reservoirs efficiently, and prepare for dry years, all while maintaining a reliable water supply for our customers — today, tomorrow, and for generations to come. As conditions and technologies evolve, PCWA continues to adapt and invest in the science that helps protect and sustain Placer County's water future.

Mapping, Monitoring, and Moving Water

PCWA continually invests in technology to deliver water to customers in a sustainable and efficient manner. Several systems are helping us improve canal operations, enhance staff efficiency, and maintain our infrastructure for the future.

Geographic Information Systems

PCWA manages an extensive water system that includes 170 miles of canals, 664 miles of mains and pipelines, 5,803 fire hydrants, water treatment facilities, and nearly 41,000 metered connections. PCWA uses a Geographic Information System (GIS) to track all these assets. GIS is an integrated hard-



PCWA's public-facing GIS tools, like this interactive hydrant locator map, allow the community to access water system information.

ware-and-software system that monitors, analyzes, and maps all of our infrastructure. It contains information about the location, age, features, and other vital details of each asset. PCWA's GIS is constantly updated as new connections are made, infrastructure is upgraded, and new facilities come online. It supports all of PCWA's operations, from engineering and field services to customer services.

Remote Monitoring and Control System

We use a remote monitoring and control system to oversee canal flows and other critical infrastructure, allowing staff to manage operations more efficiently. By integrating sensors and automated controls, this system helps staff respond quickly to changing conditions, reduce water loss, and improve reliability across the system and for customers.

Treatment plant operators use remote monitoring and control to manage treatment processes.

Automated Canal Gates

PCWA has installed a series of gates on its canals that can be operated through our remote monitoring and control system. These gates control and measure the level and flow of water in the canals, reducing water loss and the time staff spends driving out to monitor and manually adjust the gates.

Automated canal gates, or "Rubicon Gates," reduce water loss and increase efficiency.

Mobile Computing Tools

Field staff use mobile devices and applications to access GIS maps, work orders, and system data while in the field. This technology reduces paperwork, speeds up response times, and ensures accurate information is available wherever staff are working. Mobile computing strengthens communication between teams and supports faster service for customers.

Together, these technologies are helping PCWA improve canal efficiency, reduce water loss, and strengthen the reliability of our water system. But their value depends on the people who use them. Behind every one of these tools is a team of professionals applying their experience, judgment, and hands-on skills to keep things running smoothly. Their work ensures that every system delivers the right results, at the right time, in the right place—so we can continue delivering water not just today, but for the future.

Staff uses mobile computing tools to record data and respond to work service requests while in the field.

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ThePCWA
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Board of Directors

PCWA is an independent public agency governed by an elected Board of Directors. Directors represent each of five districts in Placer County and are elected by voters to four-year terms.

Your PCWA Board of Directors:

DISTRICT 1: Gray Allen
DISTRICT 2: Primo Santini
DISTRICT 3: Chris Wilson
DISTRICT 4: Robert Dugan *(2026 Chair)*
DISTRICT 5: Joshua Alpine *(2026 Vice Chair)*

Public Meetings

The Placer County Water Agency Board of Directors meets regularly the first and third Thursdays of each month at 2:00 p.m. at the Placer County Water Agency Business Center at 144 Ferguson Road in Auburn.