

# 2021 YEAR END REPORT



**PCWA**  
water • energy • stewardship





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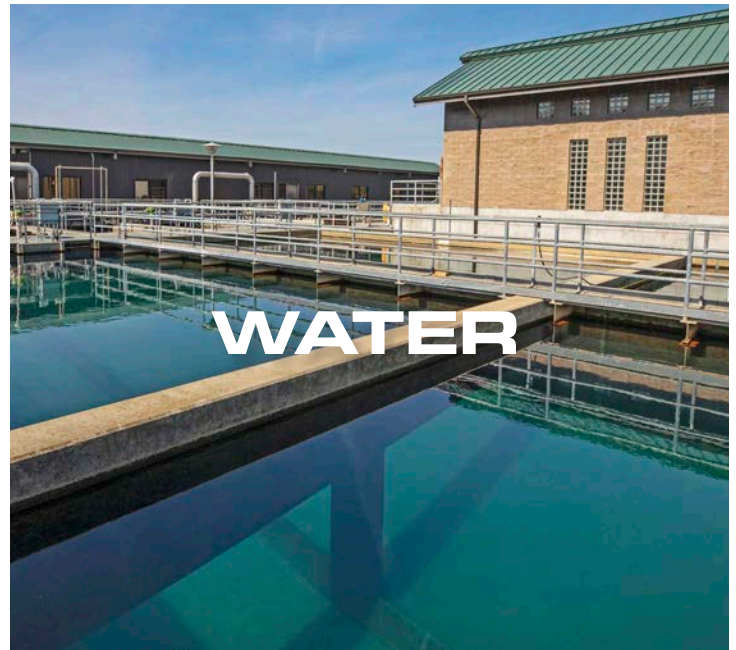
**Project Highlights**

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***“As a county-wide agency for the people of Placer County, PCWA is continually focused on stewardship over our water and energy resources and reliable service to our customers. 2021 was another successful year with the completion of important projects and significant progress in funding our county-wide masterplan. Even in drought, we were able to make full water deliveries and meet environmental commitments to the American River. We hope this report tells a clear story of the quality service our agency provides.”***

***Mike Lee,  
2022 Board Chairman***

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## BY THE NUMBERS

### PCWA Board of Directors



Gray Allen



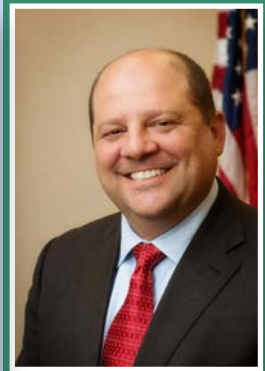
Primo Santini



Mike Lee



Robert Dugan



Joshua Alpine

 District 1

 District 2

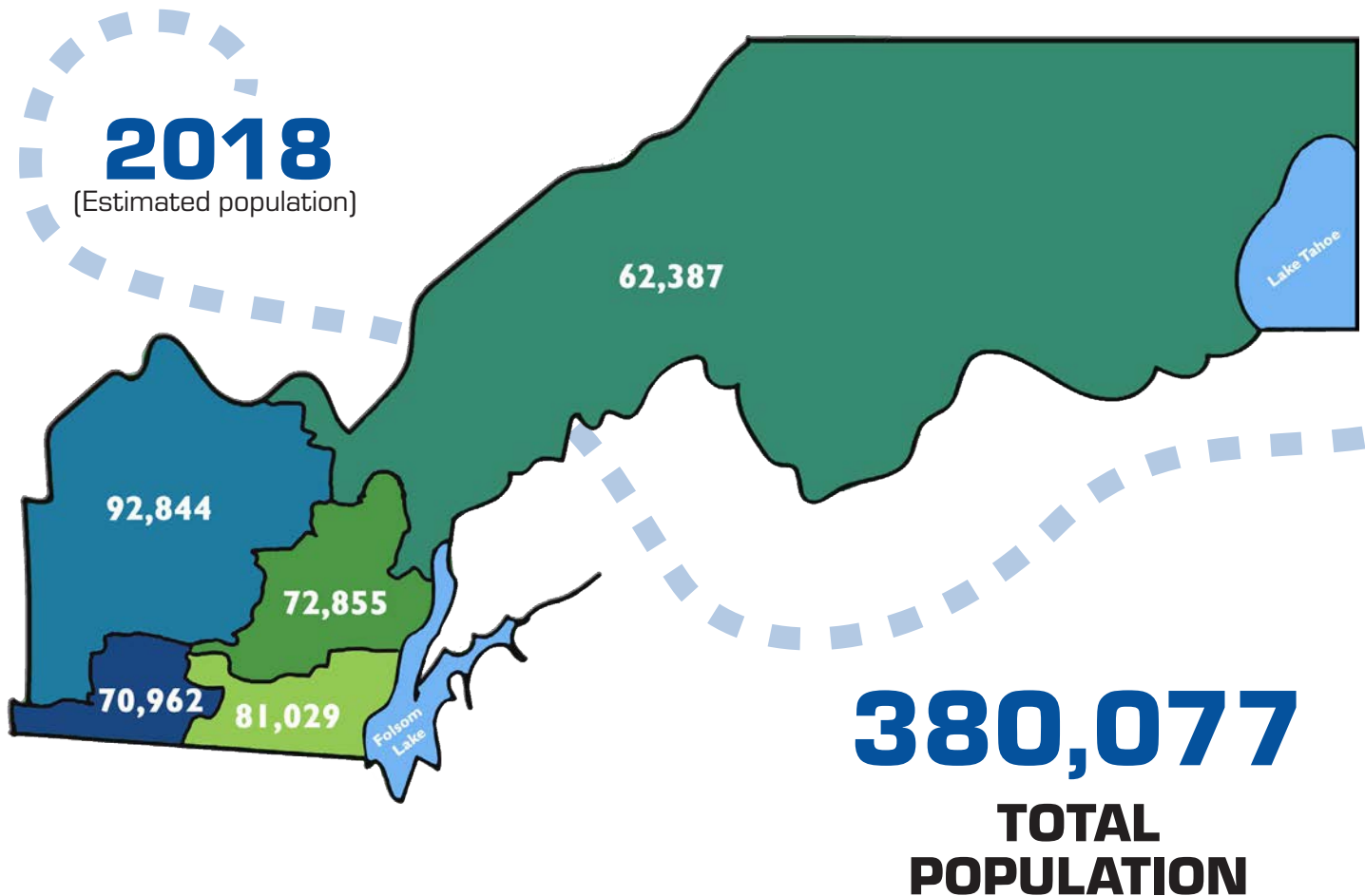
 District 3

 District 4

 District 5

### Redistricting Placer County

The map below shows district boundaries effective 2011 through 2021, based on results from the 2010 Census.



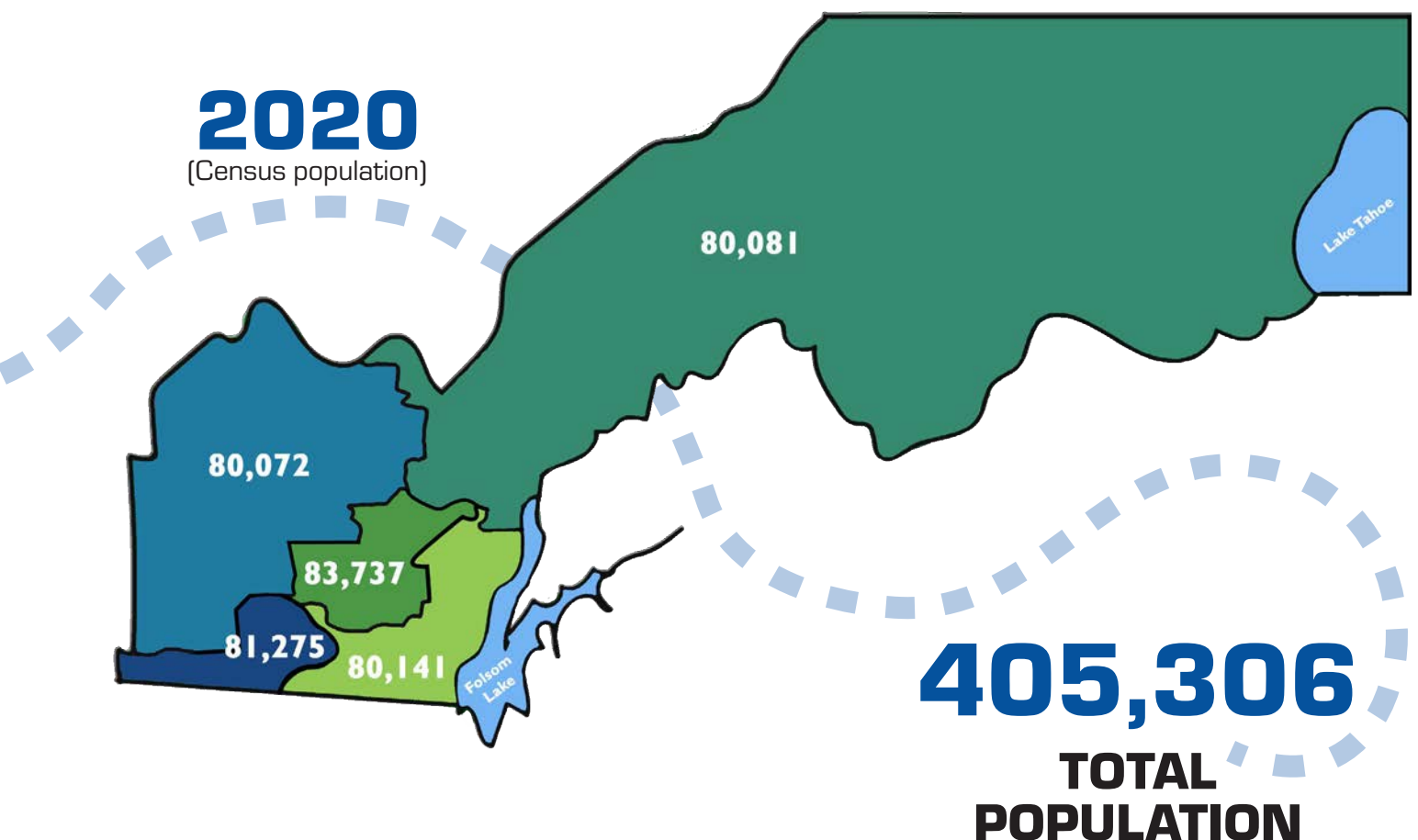


## Board of Directors' Boundaries

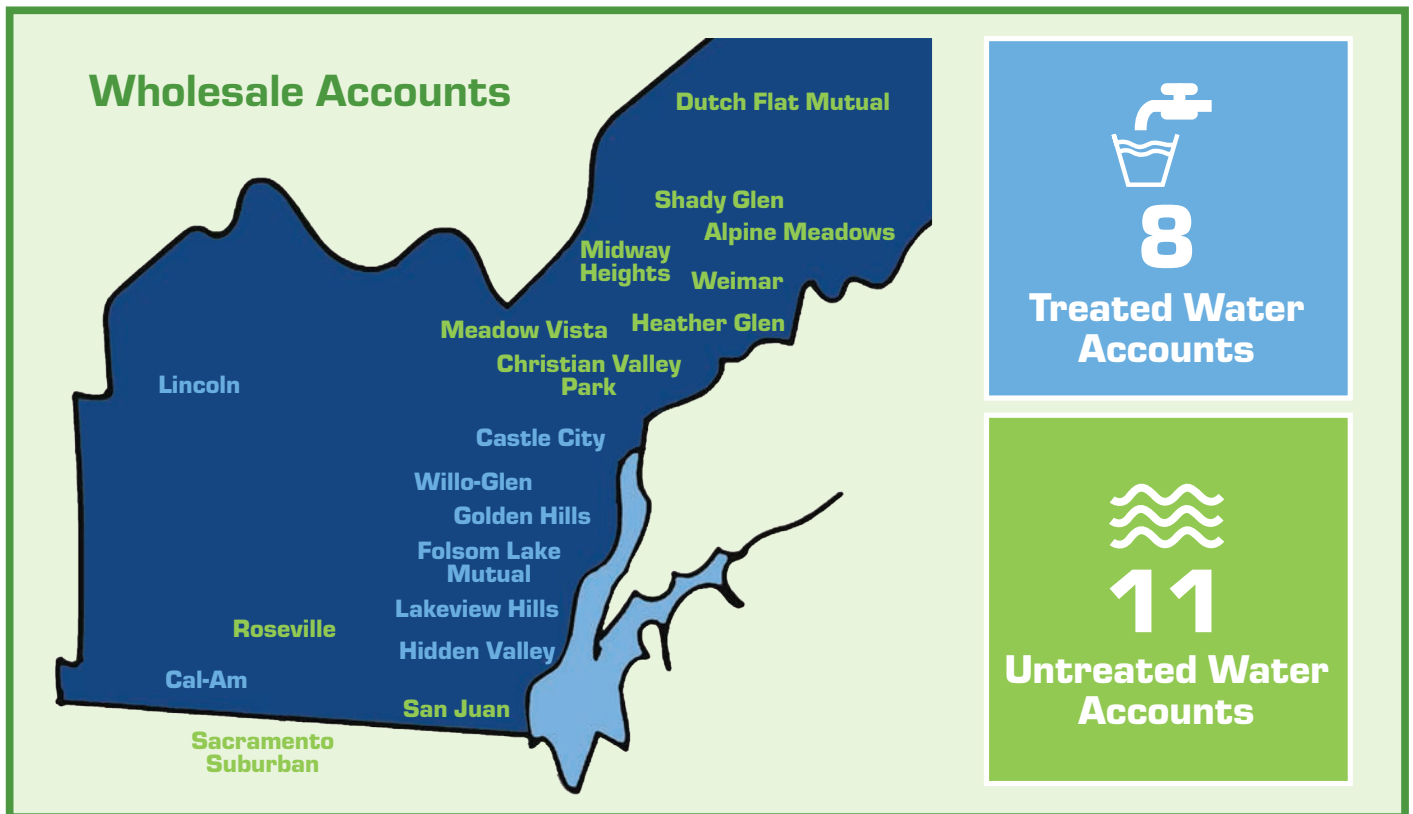
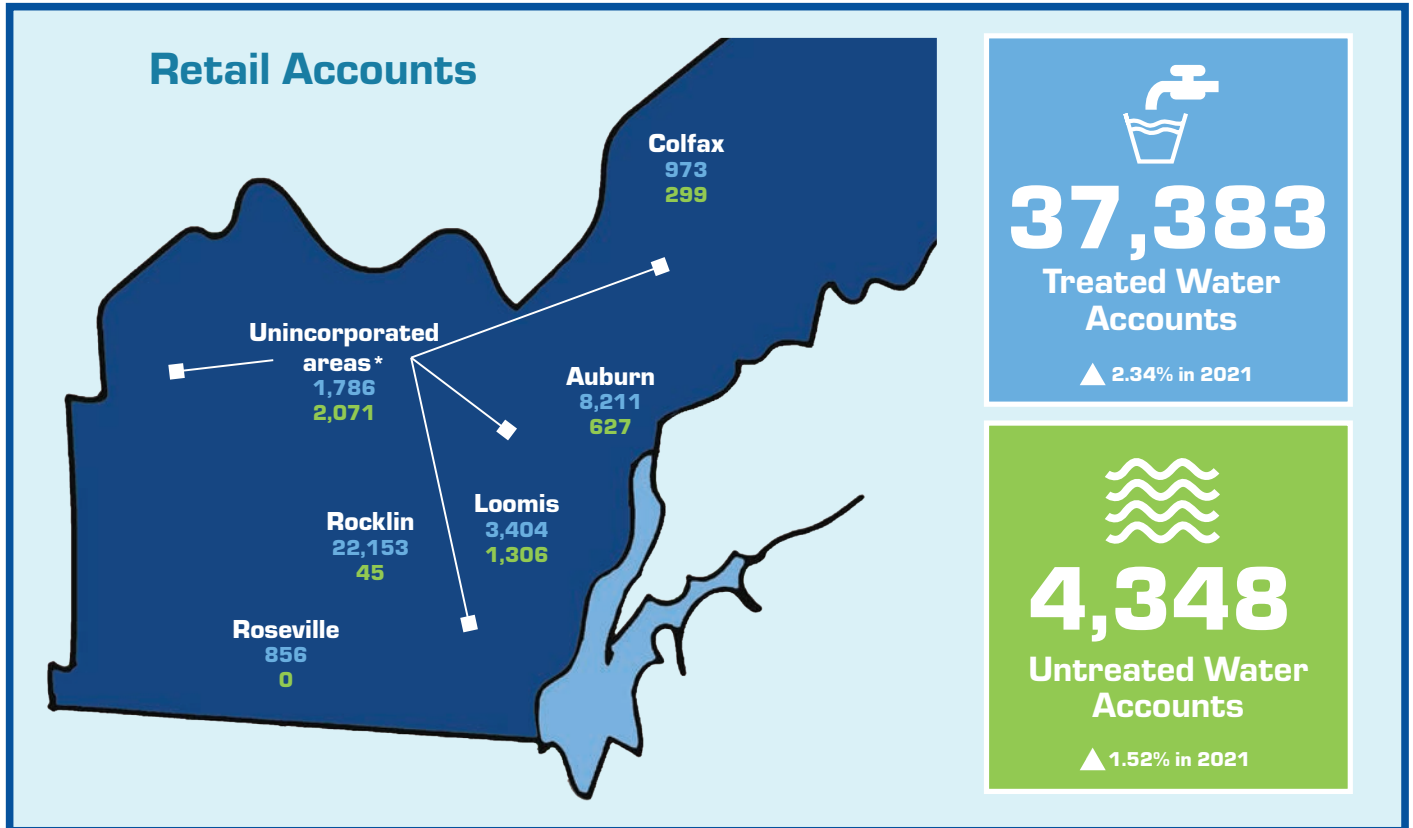
- The five-member Board of Directors comprise the governing body of Placer County Water Agency.
- Each Director is elected to a four-year term by the registered voters in five geographic districts of Placer County.
- Boundaries of each district are the same as the Placer County supervisorial districts.
- Each Director represents the members of the public within their respective district, as well as the general public within the Agency's 1,500 square-mile county-wide jurisdiction of Placer County.

## New Decade, New Boundaries

After the County completed the redistricting process in 2021, new district boundaries were adopted to reflect the changes in population as reported in the 2020 Census.



## Customer Overview



\* Unincorporated areas include:

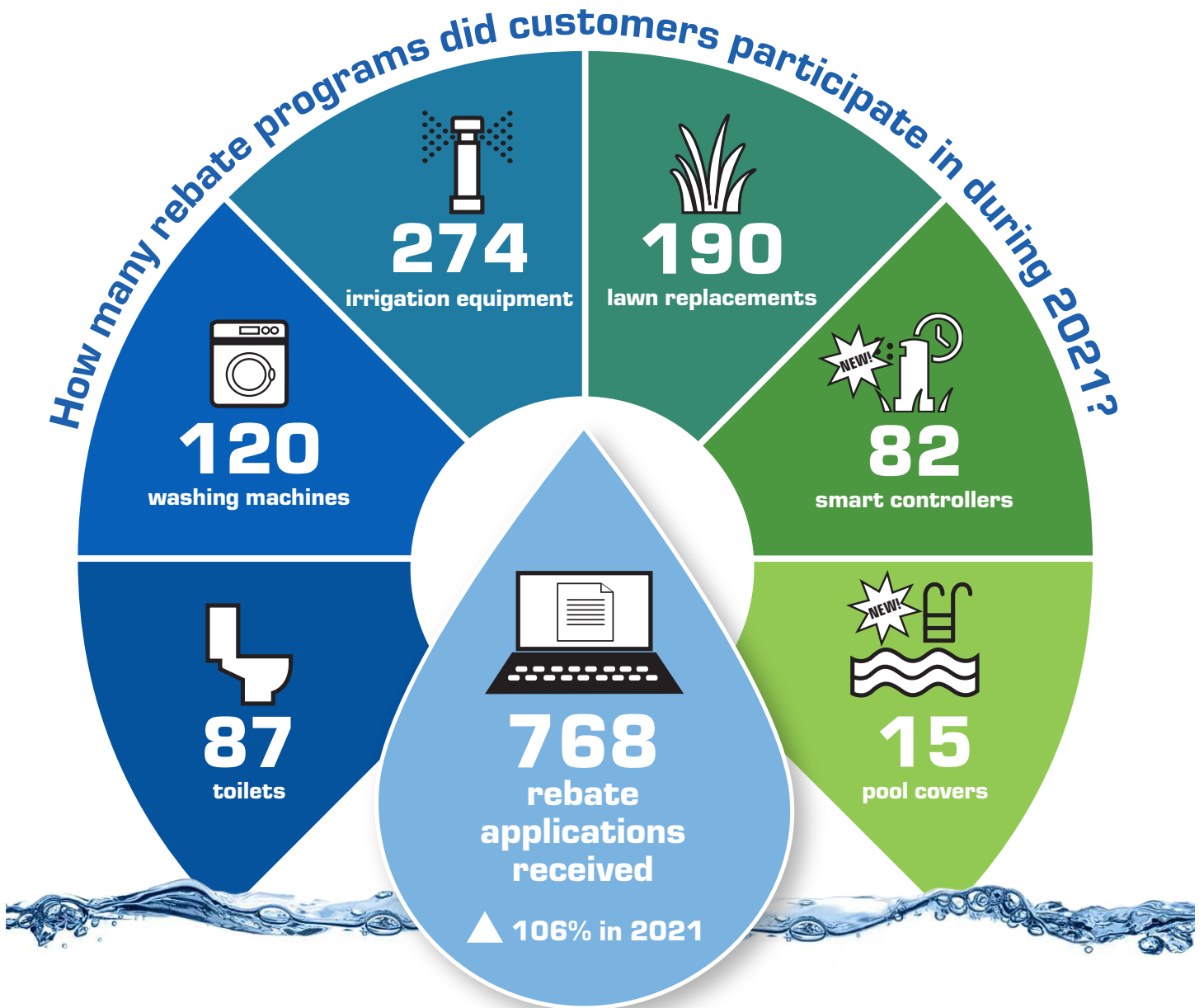
Alta	Weimar	Penryn
Dutch Flat	Applegate	Granite Bay
Gold Run	Newcastle	West Placer

■ Treated Water Customer(s)  
■ Untreated Water Customer(s)





## Water Efficiency Rebates

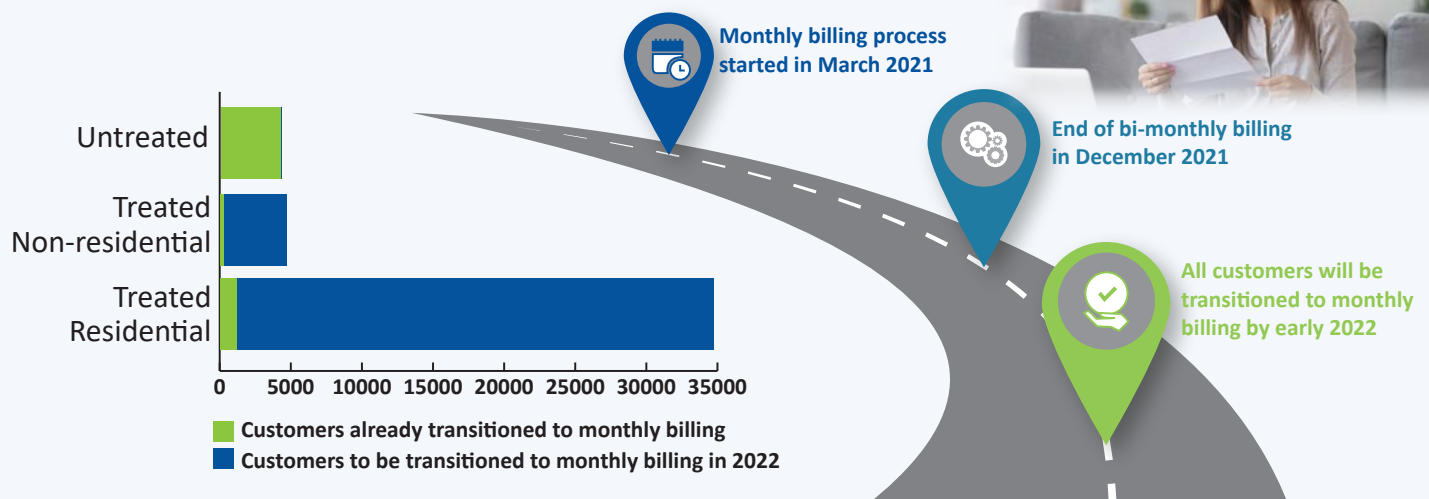


### Lawn Replacement Rebate

Converted **69,000 square feet** of lawn to water-wise landscape



## Transition to Monthly Billing



## Legislative Tracking

PCWA tracks bills introduced by the California Assembly and Senate each year that would impact our operations in the watershed, water and energy investments, and public service. PCWA uses membership organizations to advocate for the best outcomes for Placer County residents and customers.

**Total bills supported:**



**Passed:**



**Total bills tracked:**



**Total bills opposed:**



**Failed:**



Secured \$200,000,000 for investment in multi-benefit water infrastructure projects as part of a larger statewide drought package.



Defeated a package of bills that would have further restricted customers' use of indoor water and added cost to the delivery of water without a discernable benefit to consumers.



Defeated a bill that would have redefined clean energy to effectively exclude Middle Fork Project energy from that category.

\* Two bond bills which PCWA supported were converted to budget bills using state surplus.



## Community Outreach and Events

PCWA conducts an ongoing program of public outreach and community events to raise awareness about Agency initiatives and instill high customer confidence.



State Water Resources Control Board's Laurel Firestone and staff participated in a tour where they visited several small, under-served water systems who are in need of funding and seeking consolidation into PCWA's water system.



As part of PCWA's small water systems consolidation efforts, the Castle City Mobile Home Park community in Newcastle celebrated their connection into PCWA's treated water system. PCWA Board member Mike Lee and General Manager Andy Fecko, along with staff from the State of California, firefighters from local fire stations, the park owners and residents all gathered to celebrate the special occasion.

The Foothill Raw Water Pipeline Project is PCWA's "Golden Spike," connecting our Middle Fork American River Project to our south Placer water system. For the first time, PCWA can deliver water to customers completely independent of PG&E's Drum Spaulding hydroelectric project. Completion of this project represents the fulfillment of our County forefathers' vision to build greater water resilience and reliability for the people of Placer County.



The Fire-Wise, Water-Wise Landscaping webinar was a great success — 146 attended live.



Partnered with San Juan Water District to provide over 300 yards of mulch to customers.

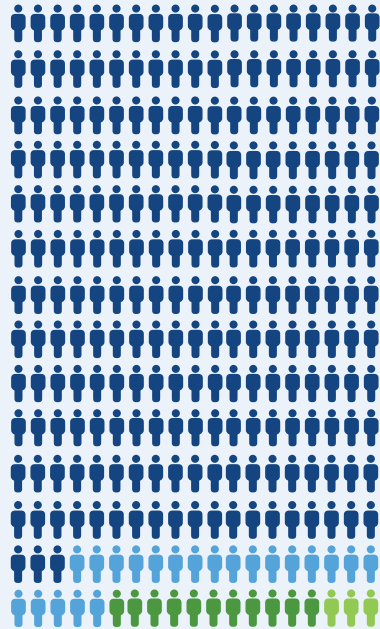


# Staffing

## Employee Classifications

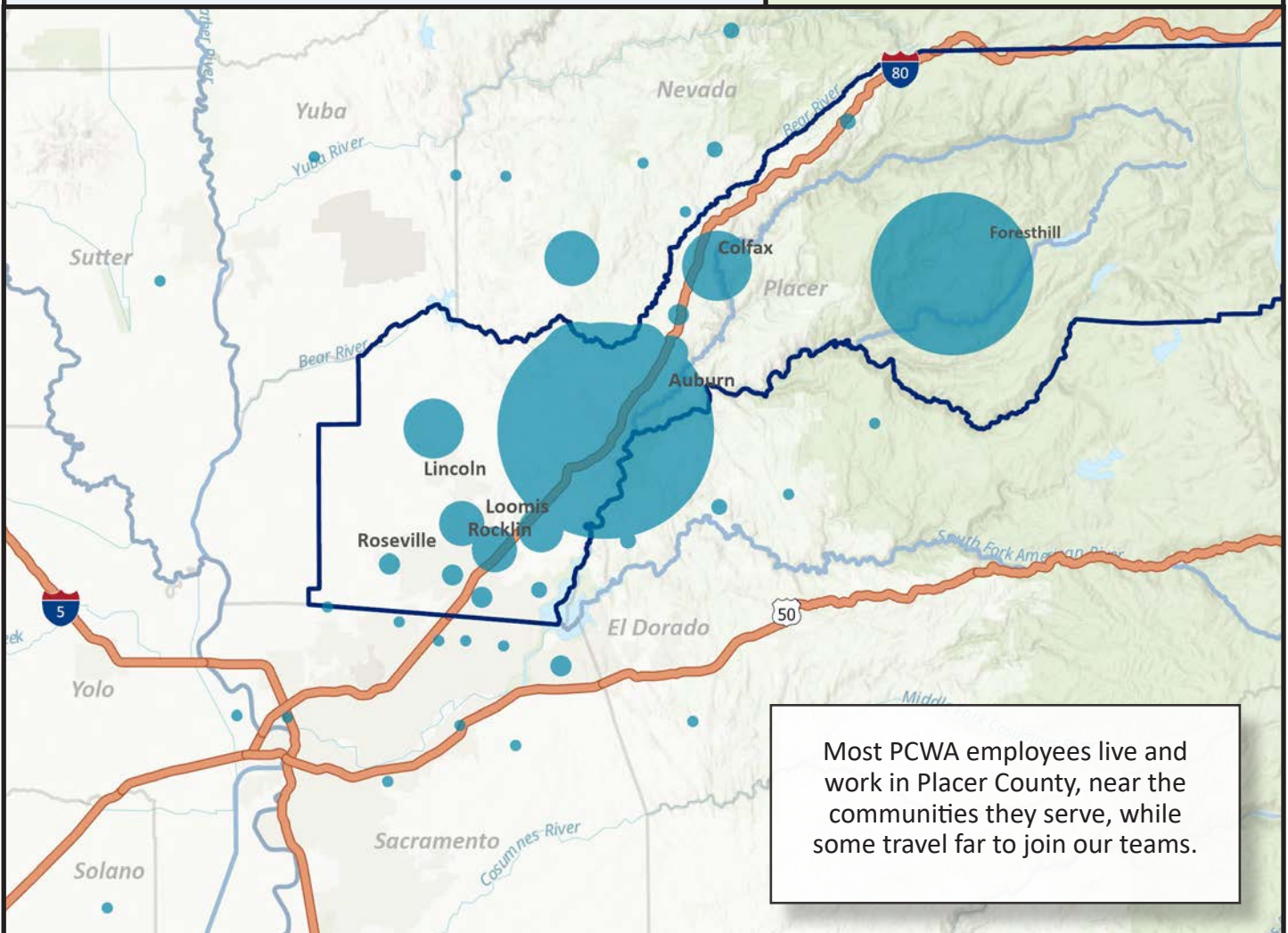
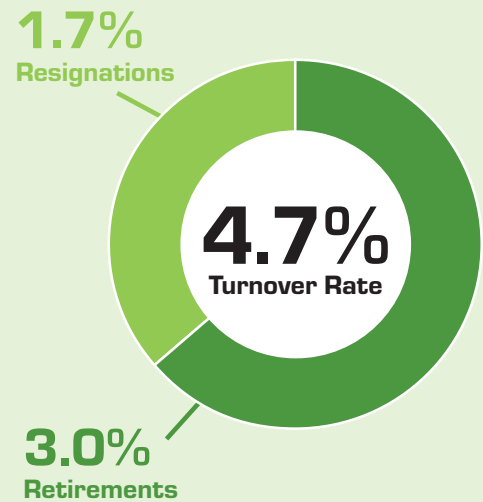


People Employed **266**



## Employee Turnover Rate

The Agency enjoys the luxury of a stable workforce as substantiated by an overall low turnover rate in 2021.





## Safety First

### Strong Safety Record



# 3.3%

The industry average for work-related injuries is 6.7 per 100 employees. PCWA reports only 3.3 injuries per 100 employees, less than half of the industry average.



Power and Field Services crews perform safety training drills to prepare for safe confined space entry operations. PCWA is one of the few Agencies in the region with a fully trained and outfitted Confined Space Rescue Team.

## Partnership Prevents Forest Fire

On July 21, six employees of Placer County Water Agency ("PCWA") helped successfully contain a small fire in the Tahoe National Forest. Nate Wood, Jordan Helm, and Josh Rodarte, of PCWA's Power Systems Division, spotted the fire around 9 a.m. near Duncan Diversion, a tributary to the Middle Fork American River. After reporting the fire to local authorities, the three employees took action to contain the fire using water and equipment from their truck. They were quickly joined by three other PCWA employees, David Barley, Jonny Anthony, and Daniel Schwall.

The actions of the six employees are emblematic of a long-established partnership of cooperation with the United States Forest Service in the footprint of PCWA's Middle Fork American River Project ("MFP"). Employees who work on the MFP receive training in wildfire mitigation and equipment for incidents like the one on July 21.

"It was a smart decision by PCWA to equip and train its employees in wildfire prevention, as they frequently travel into remote areas of the watershed" said Mary Grim, District Ranger for the Tahoe National Forest, American River District. "This proved to be a worthwhile investment this week, with the detection and suppression of the fire in Duncan Canyon. I am grateful for the partnership with PCWA and its continued commitment to the vitality of the Middle Fork American River Watershed."

PCWA General Manager Andy Fecko, stated, "I'm really proud of our crew who used their training and took quick action to make sure the fire didn't become something much bigger. The threat of wildfire remains constant, and our partnership with the Forest Service is critical to protecting our resources and investments in the watershed."

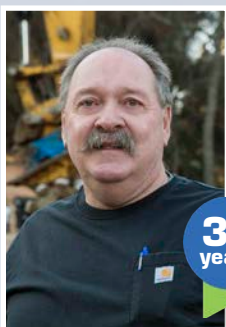


Top: Nate Wood, Jordan Helm, and Josh Rodarte

Bottom: David Barley, Jonny Anthony, and Daniel Schwall



## Celebrating Retirements



**Paul Warmuth**  
Senior Inspector

**35**  
years



**Brent Smith**  
Director of Technical Services

**33**  
years



**Shelly Mattson**  
Lead Customer Services  
Representative

**24**  
years



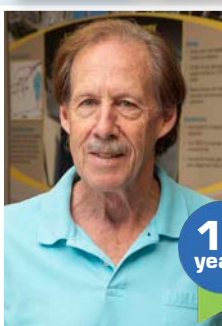
**Greg Young**  
Administrative Services Manager

**17**  
years



**Charlotte Juarez**  
Payroll/Data Technician

**17**  
years



**Ross Hooper**  
Hydro Engineer II (Civil)

**17**  
years



**Eric Ylitalo**  
Hydro Plant Mechanic

**16**  
years



**Sandra Hewston**  
Right-of-Way Technician

**13**  
years



**Mark Stuart**  
Water Quality Instrumentation  
Technician

**5**  
years



**Tara Mertz**  
Information Systems Supervisor

**4**  
years



## Social Media Stats

As a result of sustained online communications and public outreach efforts, PCWA continues to use social media as a means to communicate relevant, timely information to our audience.

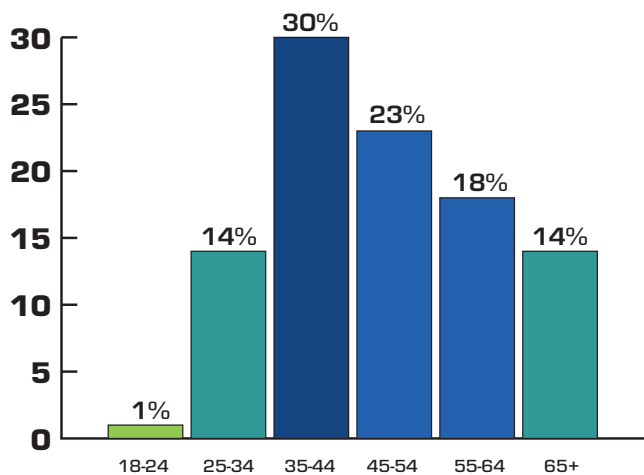
### Key Demographics

Facebook audience

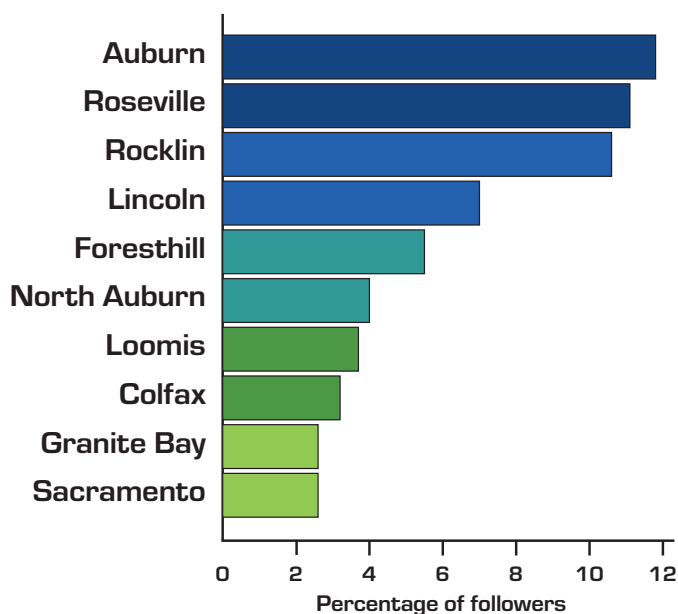
#### Gender



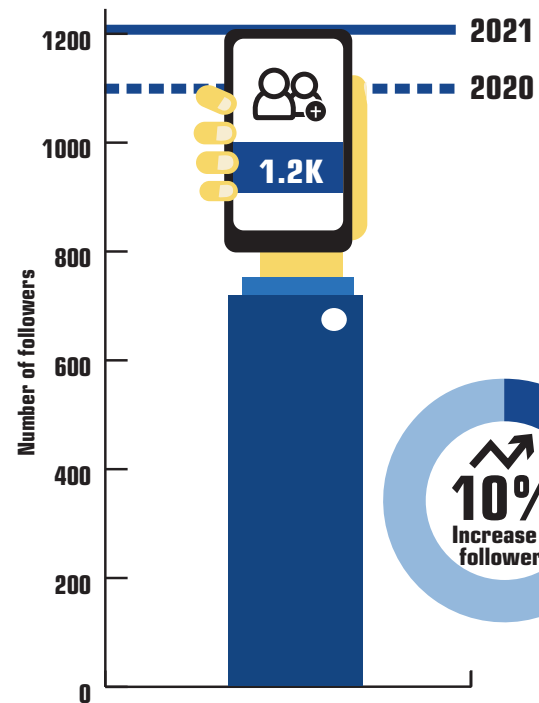
#### Age



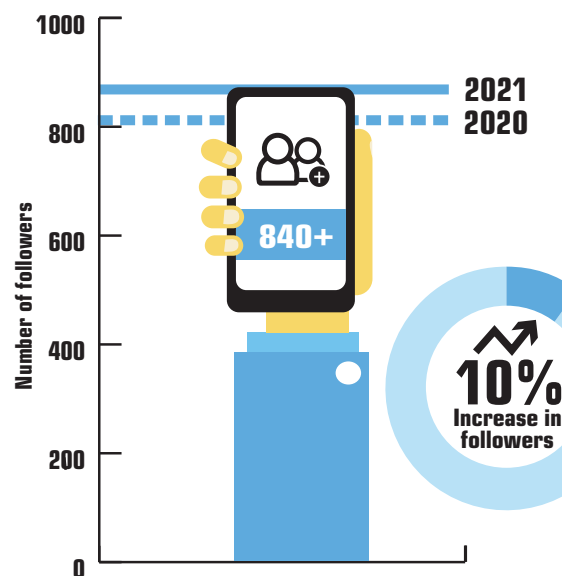
### Top 10 Cities Where Followers Reside



### Facebook



### Twitter



## 2021 Financial Snapshot

### Water Division Credit Outlook



**AAA**

Standard & Poor's rating



**4.69**

Debt service coverage ratio  
Ideal ratio = 2 or higher



**16%**

Debt ratio

### Agency Assets and Net Position



**\$677M**

Investments in  
capital assets



**\$102M**

Agency reserves



**\$202M**

Cash & investments



**\$45M**

Capital assets currently  
under construction



**\$62M**

Outstanding debt



**\$59M**

Retirement commitments

### Agency Performance



**\$129M**

Agency revenue



**5%**

Return on  
investments



**\$74M**

Operating budget

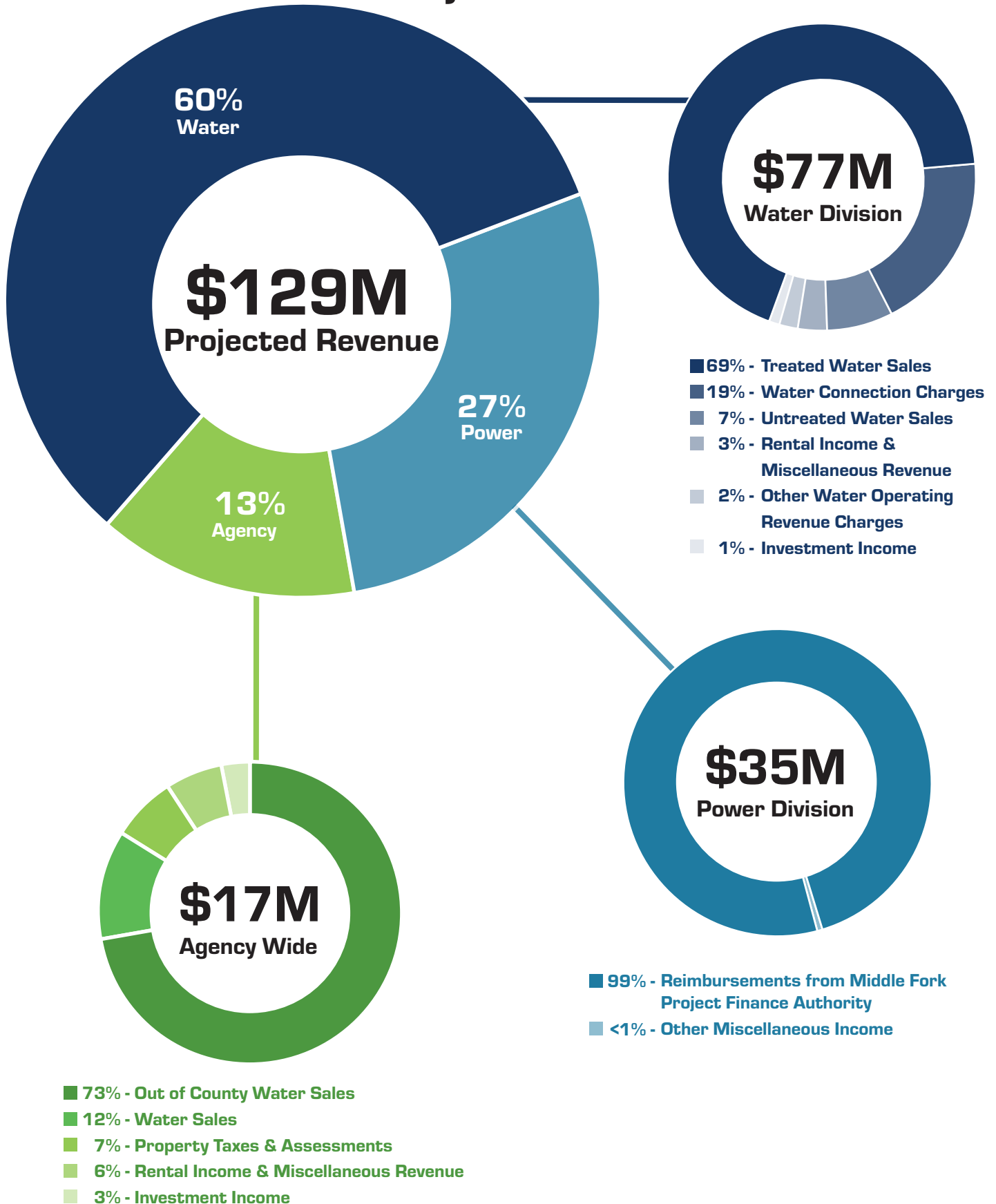


**\$38M**

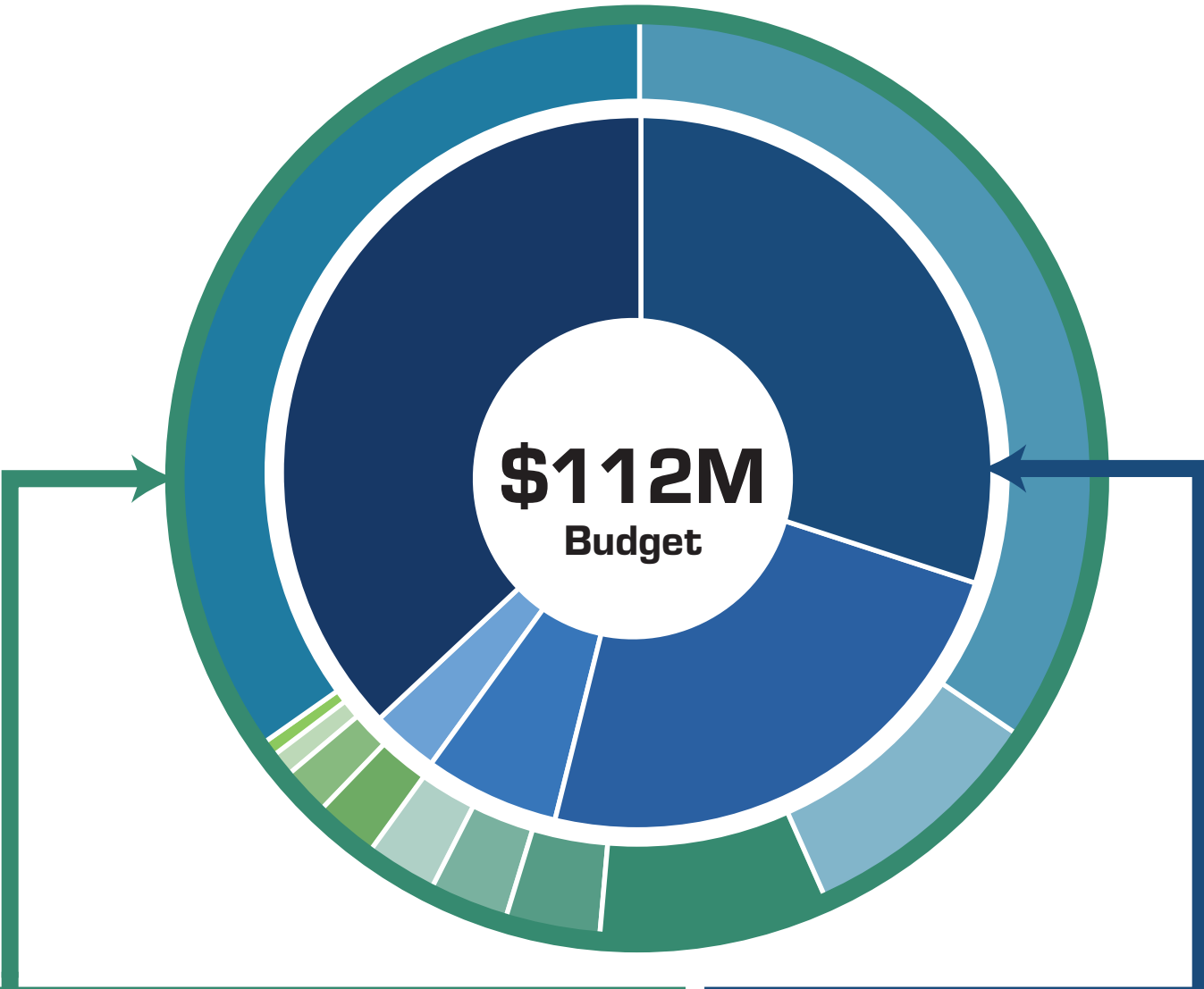
Funded 2021 Budget  
Capital Investment  
Program



## 2021 Projected Agency Revenue Sources by Division



# 2021 Adjusted Agency Budget



### Total Combined Budget

33% - Personnel Services (Salary & Benefits)	\$37.5M
33% - Capital Investment Program	\$37.0M
9% - Operating Services	\$9.6M
8% - Contracted Services	\$8.6M
4% - Water Purchases	\$4.6M
3% - Cost Share Partnership	\$3.5M
3% - Operating Supplies	\$3.1M
2% - FERC License Condition Implementation	\$2.7M
2% - Insurance	\$2.3M
2% - Routine Capital	\$1.7M
1% - Chemicals	\$0.8M
1% - Electricity - MFP Water Pumping	\$0.6M

### Total Budget

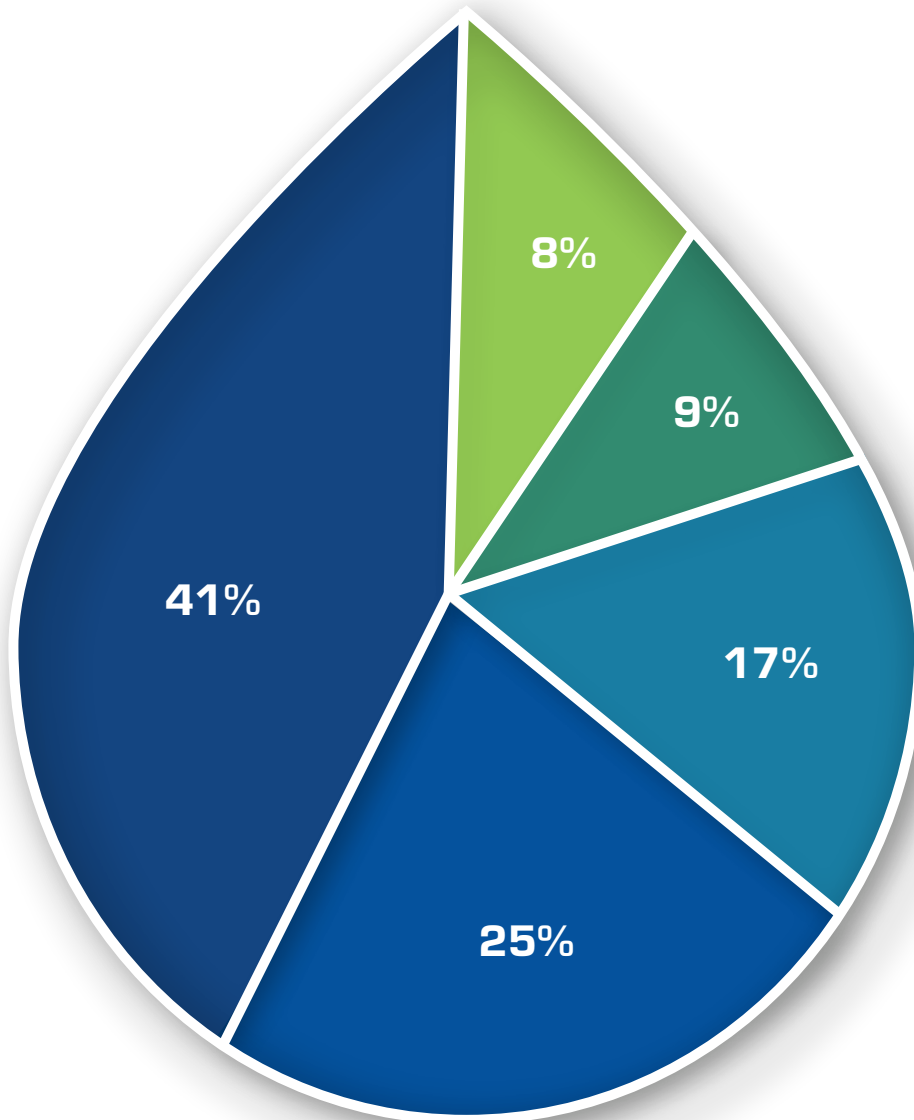
38% - Water Division	\$43.0M
28% - Capital Projects	\$30.8M
25% - Power Division	\$28.3M
6% - Debt Service	\$7.2M
2% - Agency Wide	\$2.7M



## Water Division At-a-Glance



- 8% - Customer Services
- 9% - Engineering
- 17% - Administration
- 25% - Capital Projects
- 41% - Operations & Maintenance



## 2021 was a milestone year in the County Wide Master Plan.

For the first time ever, PCWA was able to allocate net revenues from the Middle Fork American River Project in the amount of **\$6,139,407**.

### Financial Assistance Program Projects

Amount funded: **\$3,683,644**



#### Foresthill PUD

Sierra View Lane Pipeline Replacement Project

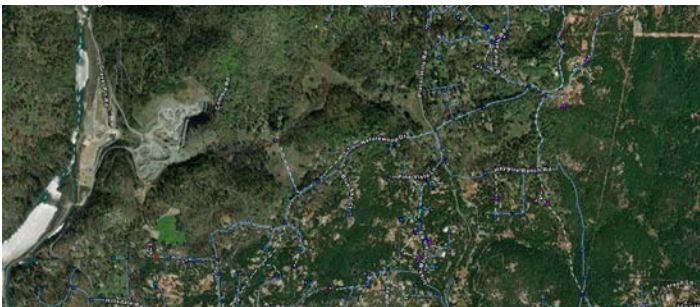
Awarded: **\$1,201,900**



#### Tahoe City PUD

West Lake Tahoe Regional Water Treatment Plant

Awarded: **\$750,000**



#### Midway Heights CWD

Irrigation line design and construction

Awarded: **\$279,619**



#### Midway Heights CWD

Recover Raw Water Storage Capacity and Operational Improvements at District's Reservoir

Awarded: **\$135,200**

### Other projects awarded funding:

Christian Valley Park CSD	Generator Replacement Project	<b>\$45,500</b>
Christian Valley Park CSD	Kenneth Loop Project	<b>\$36,200</b>
Foresthill PUD	Public Safety Power Shutdown Emergency Generator Project	<b>\$135,000</b>
Northstar CSD	Martis Valley Water System - Source Water Hydrogeologic Sustainability Study	<b>\$25,000</b>
Northstar CSD	Biomass Energy System - Design and Permitting	<b>\$250,000</b>
Olympic Valley PSD	Advanced Metering Infrastructure (AMI) Implementation and Water Meter Replacement Project	<b>\$371,600</b>
Olympic Valley PSD	OVPD/SVMWC Water System Intertie Project	<b>\$403,625</b>
Sierra Lakes CWD	Contemporary Water Quality Assessment of Serene Lakes	<b>\$50,000</b>



## PCWA-led Stewardship Projects

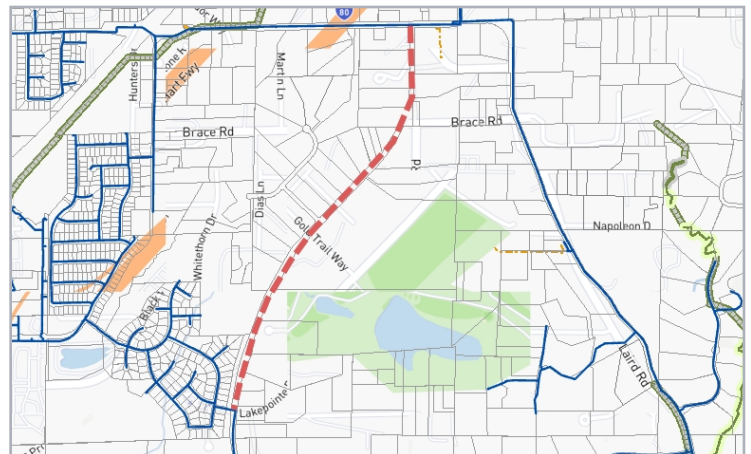
Amount funded: **\$2,455,763**



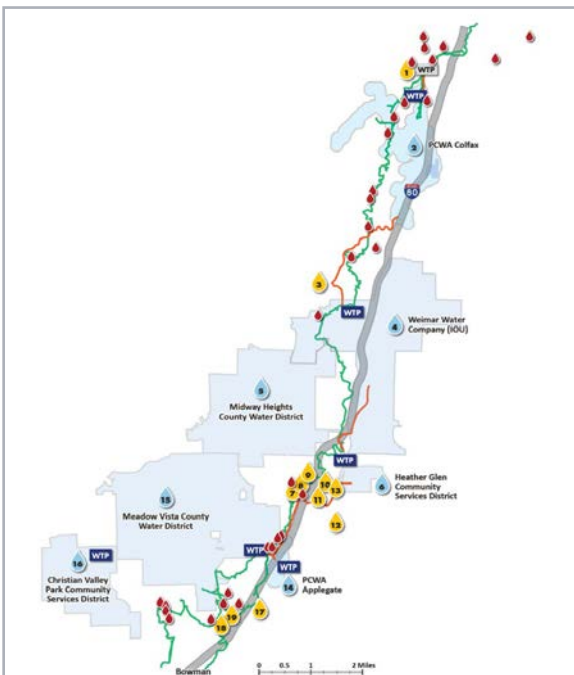
**Duncan Hill Treated Water Improvements Project**  
**\$450,000**



**Colfax Water Treatment Plant**  
 (In support of Regionalization Study)  
**\$1,285,763**



**Barton Road Pipeline - La Vista to Brace Road**  
**\$450,000**



**Colfax to Applegate Regionalization Study**  
**\$150,000**



**West Placer Canal Environmental Permitting and Monitoring**  
**\$120,000**



## Canal System Improvements



**328** linear  
feet  
flume tin replaced



**482** linear  
feet  
flume understructure replaced



**9** automated  
gates  
currently in operation



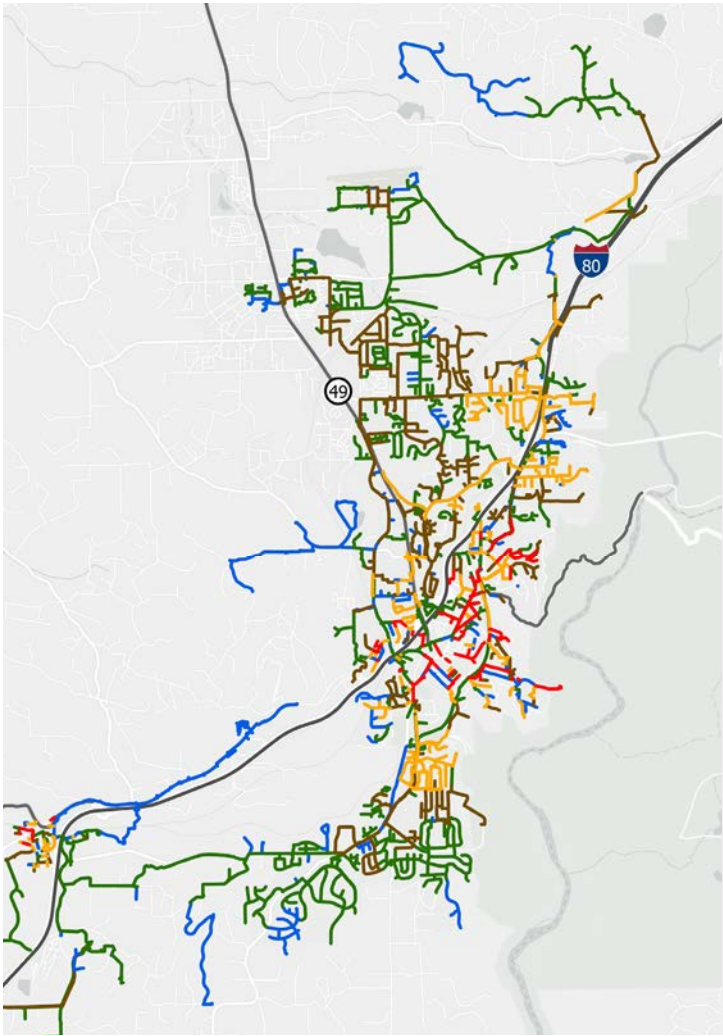
**11,589** linear  
feet  
canal lined with gunite



**240** linear  
feet  
canal piped

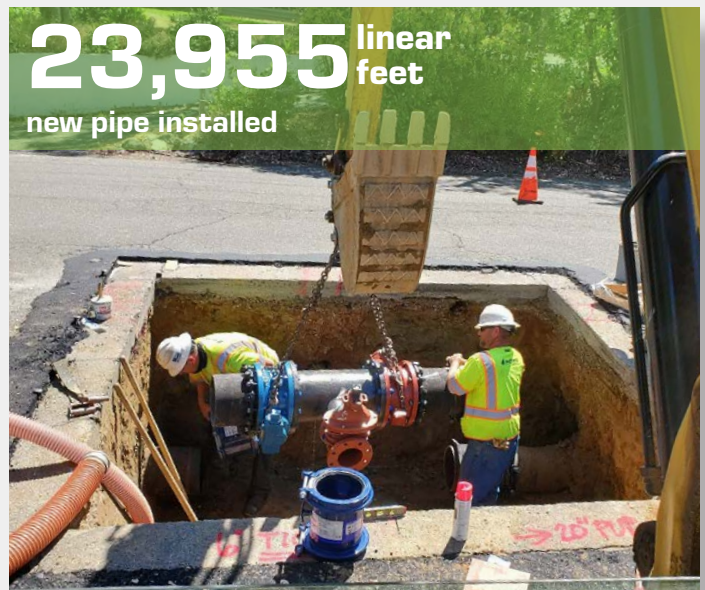


## Treated Water System Improvements



### Ages of pipe

0 - 20 years	=	215 miles
21 - 40 years	=	267 miles
41 - 60 years	=	91 miles
61 - 80 years	=	33 miles
Over 80 years	=	12 miles
<b>TOTAL</b>	=	<b>618 miles</b>



Replacing old water mains, service laterals, and other treated water infrastructure reduces water loss, improves water quality, lowers future maintenance and labor costs, improves firefighting capabilities, and increases overall system reliability.

**4,010** linear feet  
80+ year-old steel water  
mains decommissioned

**318**  
leaks repaired on water  
mains and service laterals

**250**  
service laterals  
repaired or replaced

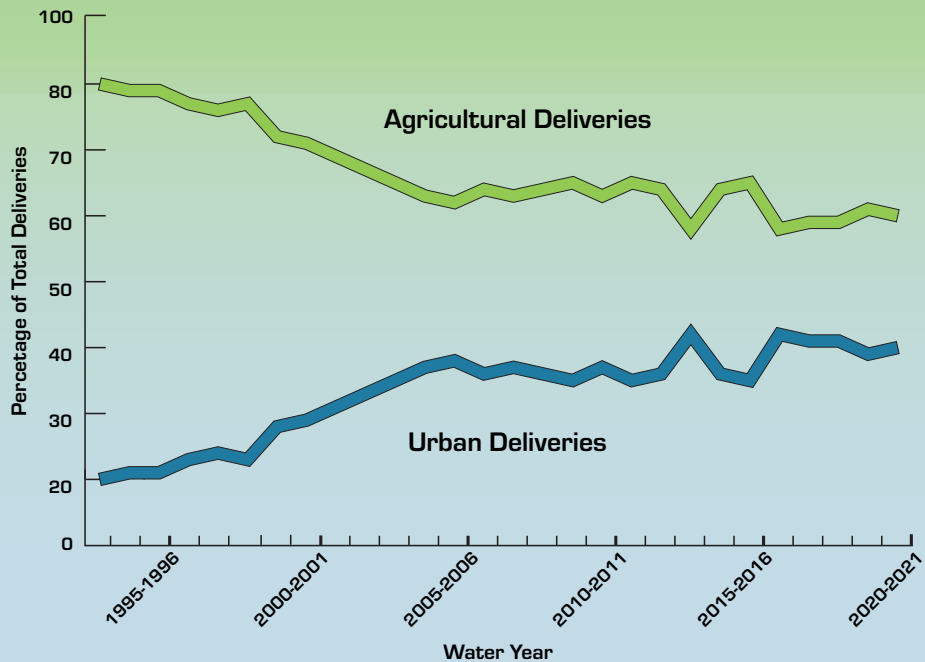


# Our Water System

Where does our water come from?...



...and where does it go?



# 2021 Drought Efforts

In response to the critically dry year experienced in 2021, PCWA took actions to address water supply and environmental concerns and encouraged customers to continue using water efficiently.

## Ways to Save

### PCWA Actions

- Operated PCWA's western Placer groundwater wells to reduce surface water demands.
- Shifted a portion of wholesale demands to groundwater.
- Enhanced water efficiency rebate programs.
- Expanded canal operation hours to monitor for and minimize water losses.
- Met our Water Forum commitment to the lower American River by releasing extra water from our reservoirs for fishery benefits.

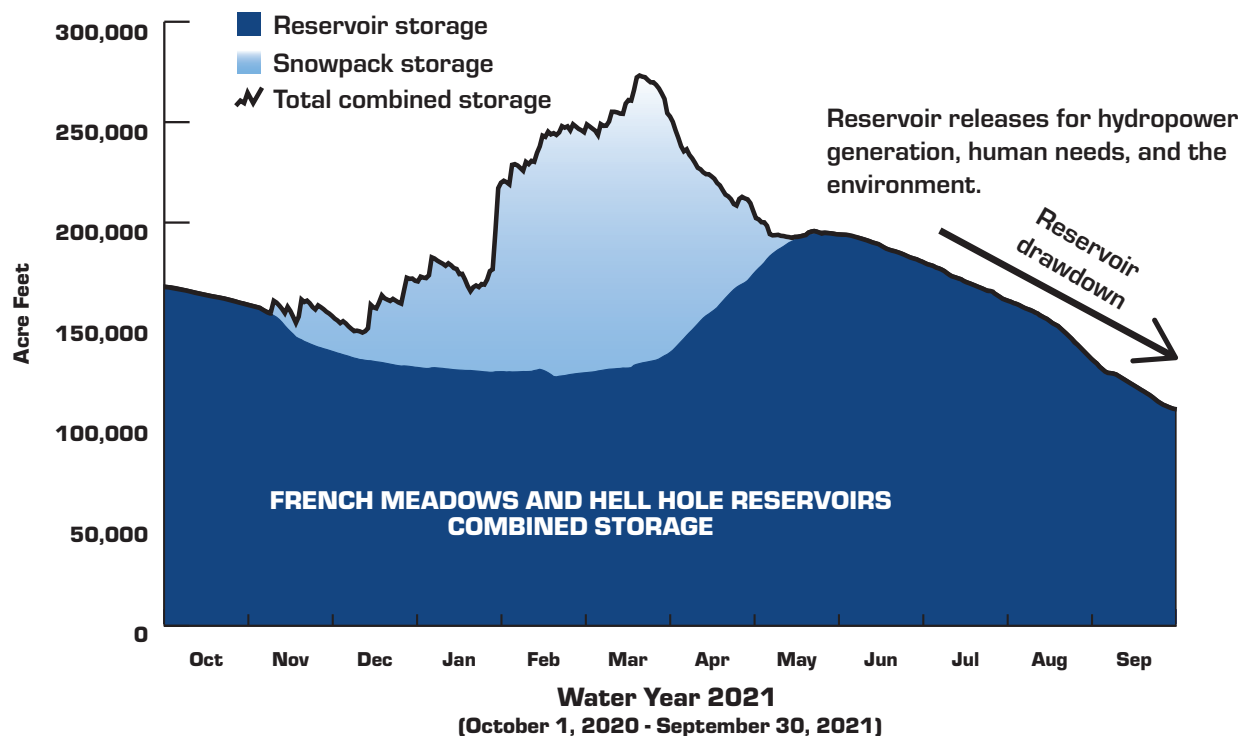
### Customer Actions

- Stress your lawn, but take special care of your trees.
- Check soil moisture before turning on sprinklers.
- Replace older sprinklers with more efficient nozzles.
- Upgrade to a WaterSense-labeled, weather-based sprinkler timer.
- Water plants early in the morning to reduce evaporation.
- Check for and fix leaks.
- Add a layer of mulch on top of soil, 2-3 inches thick.
- Cycle and soak to prevent runoff.
- Adjust sprinklers to reduce overspray.



## Water Year 2021 Middle Fork Project Reservoir and Snowpack Storage

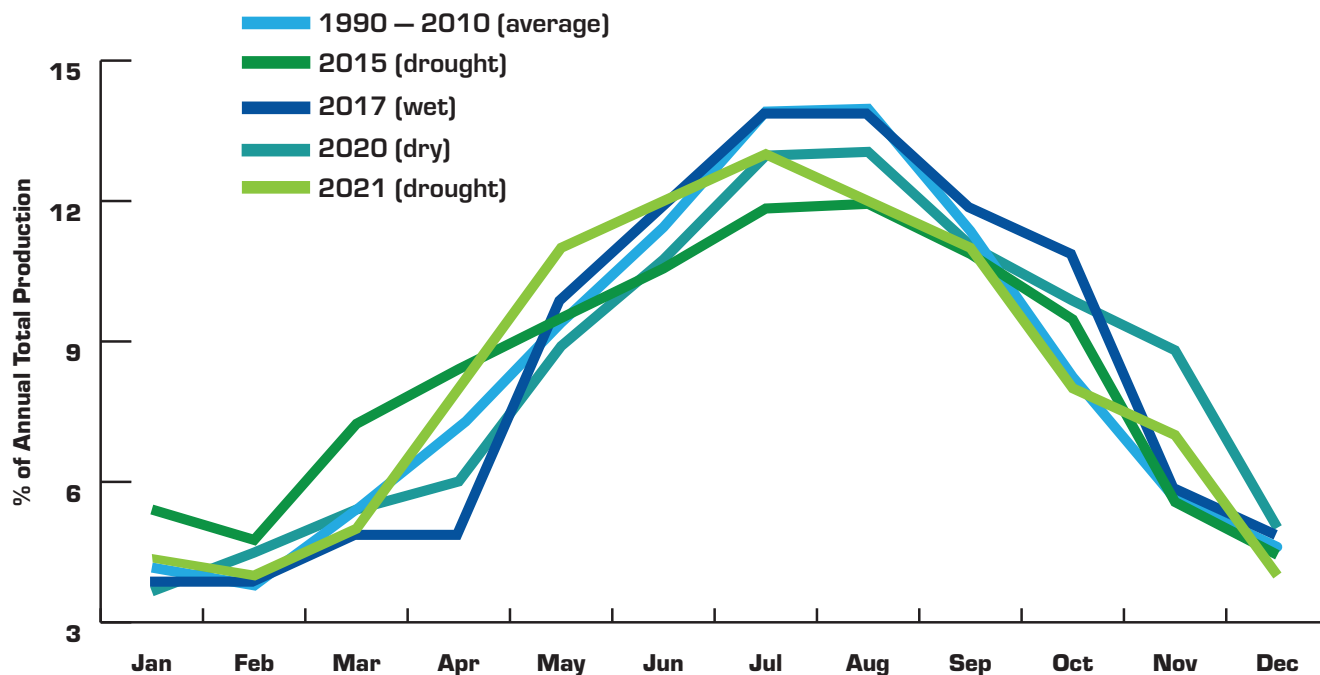
During these last two dry years, we have prudently managed our limited runoff and have been able to provide full supplies for our customers demands, meet regulatory and recreation commitments, and release additional water from storage to meet our Water Forum commitments to Folsom Reservoir and the lower American River, all while maintaining storage reserves to meet our customers' demands in case of future dry years.



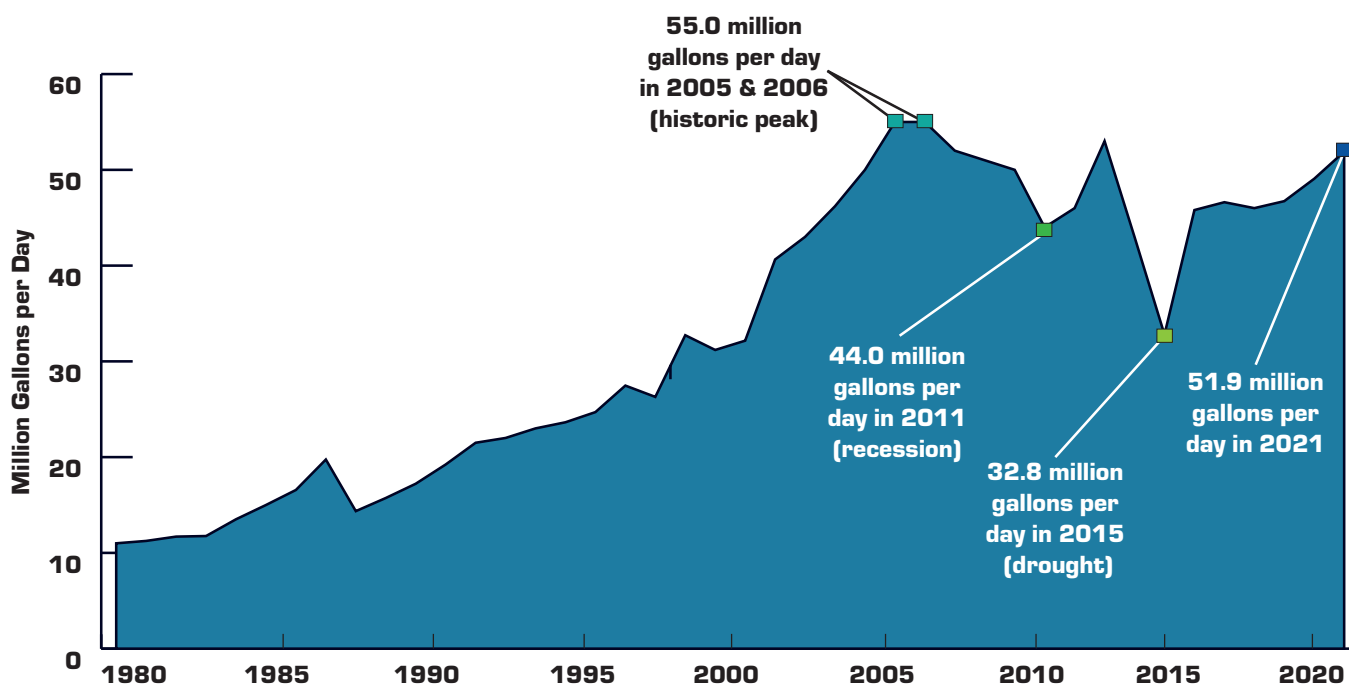
# Drinking Water - Supply and Demand

## Monthly Drinking Water Production

Although spring water use was up from 2020, our customers achieved 2015 levels of drought conservation by late summer of 2021, in response to statewide call to action.



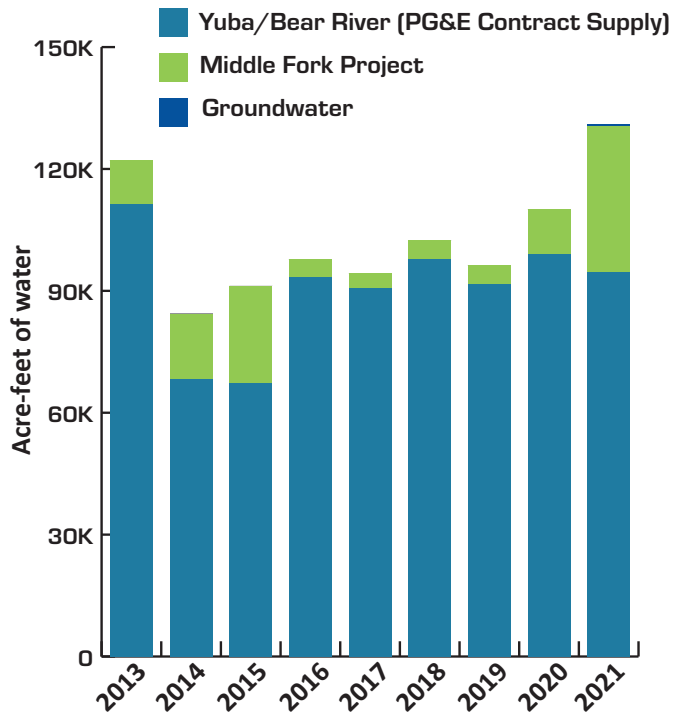
## Peak Summer Demand 1980 to 2021



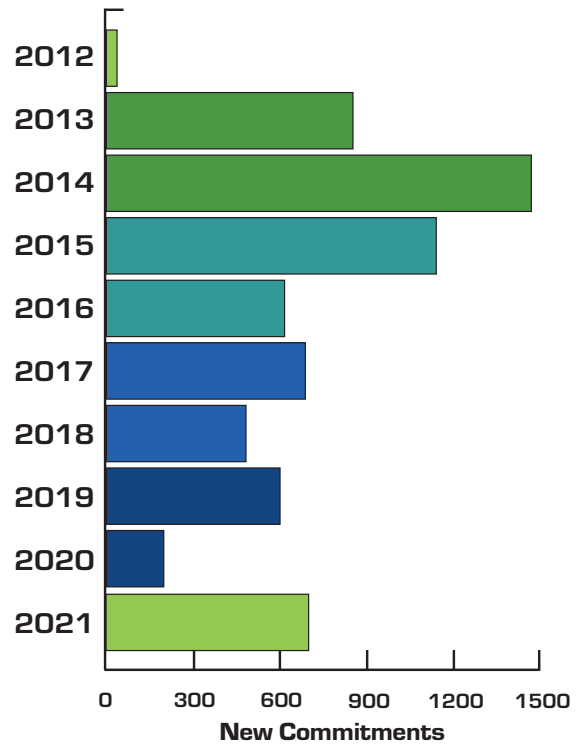


### Water Supply Resiliency

Hydrologic Variability and Utilization of Multiple Water Supply Sources

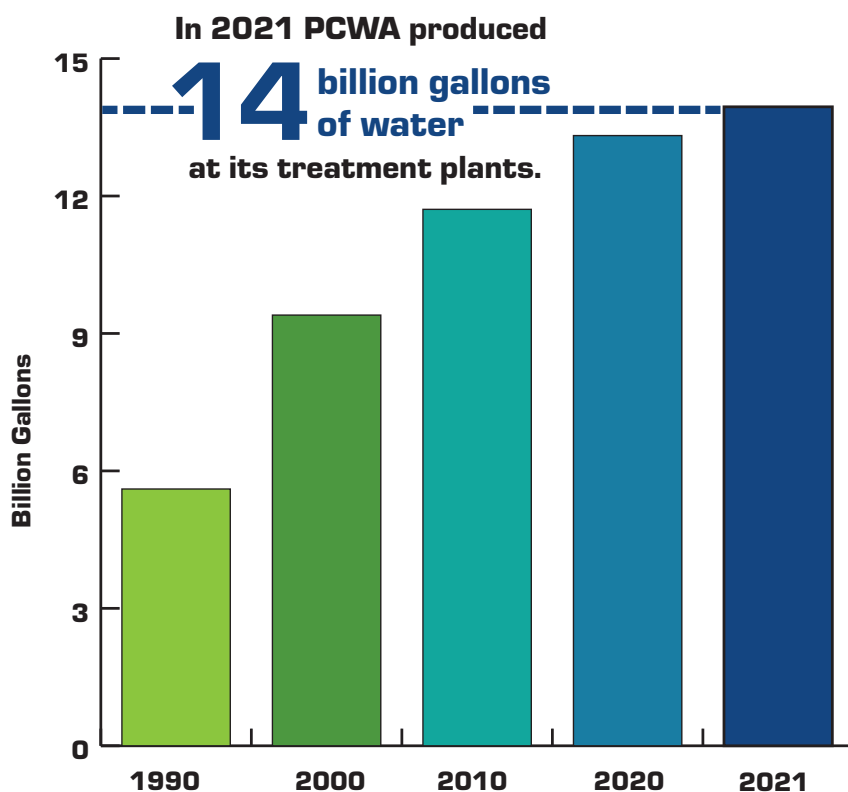


### Yearly Commitments to New Treated Water Services



\* Expressed as household equivalent water use

### Drinking Water Production per Year



Decade over decade, annual drinking water production has increased to meet the demands of Placer County's growing population.

Year	Population Served by Retail Water System
1990	49,391
2000	67,321
2010	91,648
2020	108,225
2021	110,812

## Middle Fork Project Benefits

Clean, affordable, and reliable energy



Enabling solar, wind and other renewables



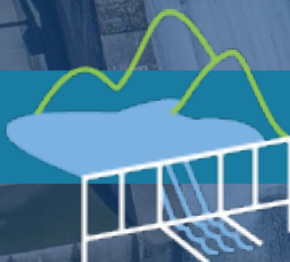
Water supply for the citizens of Placer County



Community investments in rural areas



Responsibly managed water supply



Boost to economic growth and jobs

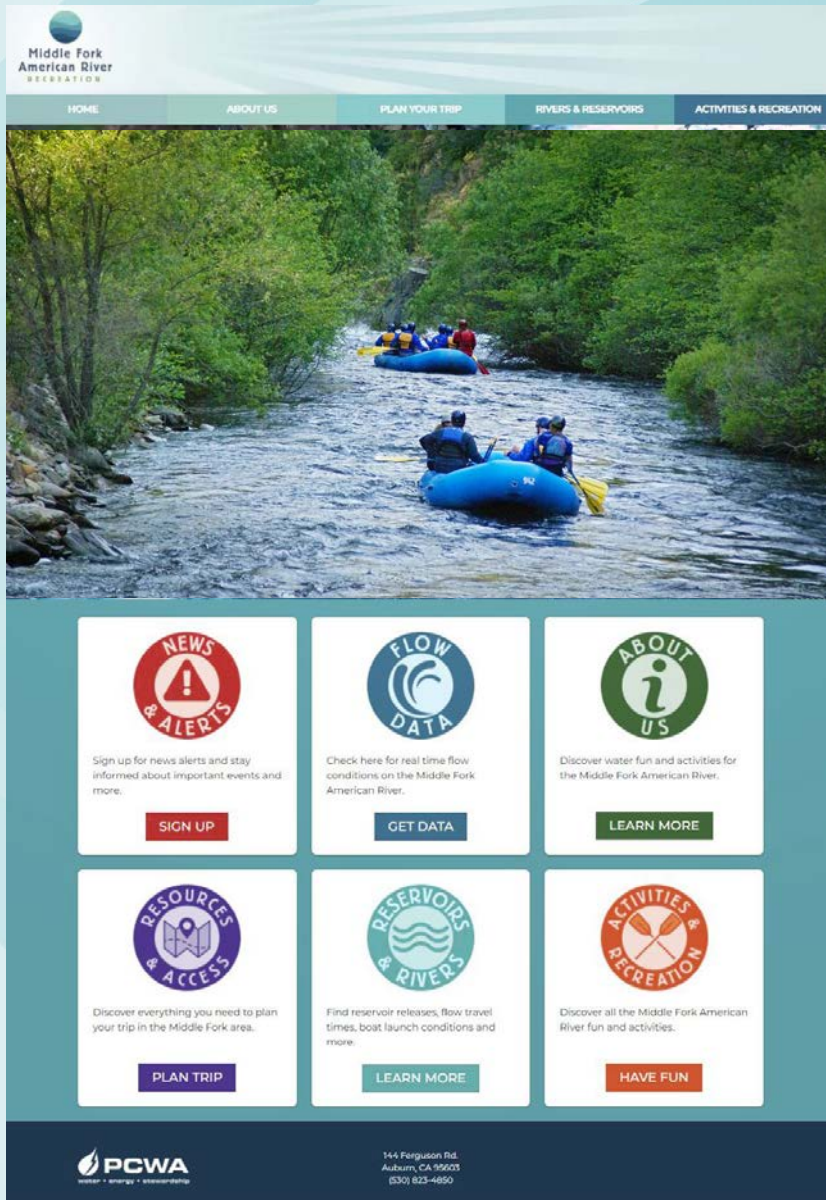


Recreational activities and tourism





# Middle Fork American River Recreation Website



PCWA's Middle Fork American River Project offers a variety of recreation opportunities. [MiddleForkFun.com](https://MiddleForkFun.com) was launched to help visitors learn more and find resources to help plan their trip.



## French Meadows Forest Restoration Project Story Map

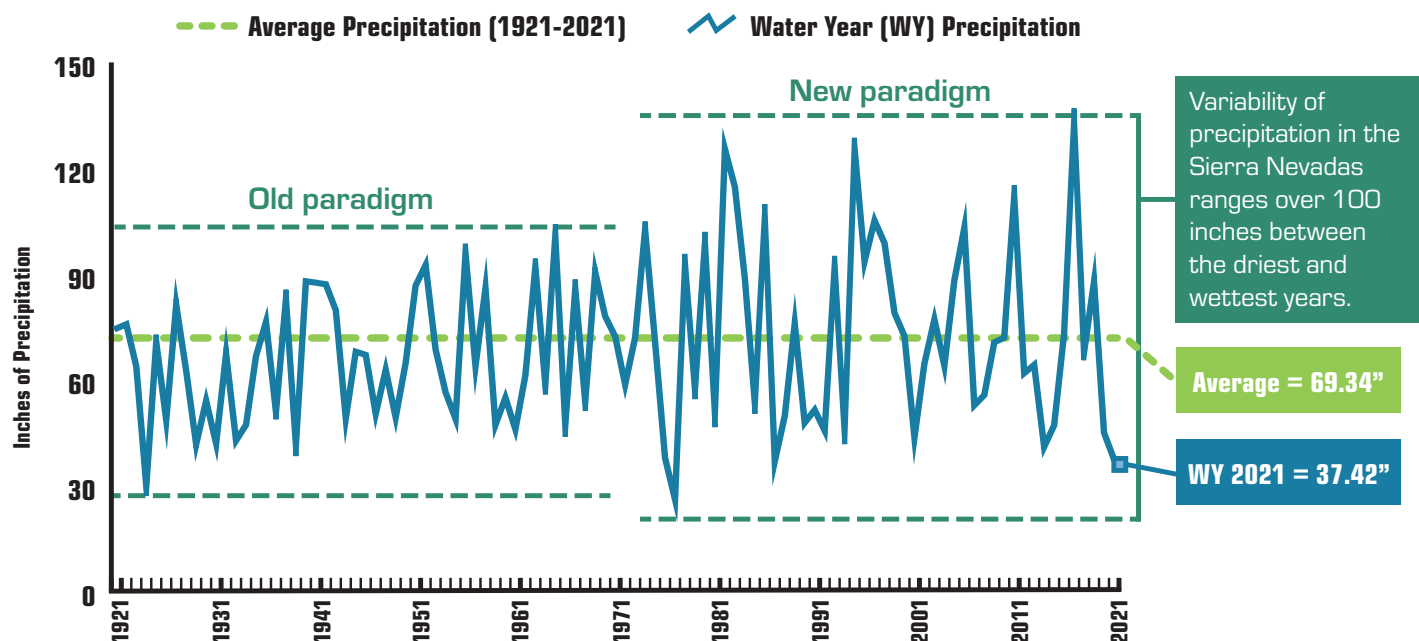


The French Meadows Partnership launched an interactive Story Map about the French Meadows Forest Restoration Project. Visitors can explore the story map to learn about this innovative project aimed at restoring forest health and reducing the risk of high-severity wildfire in the headwaters of the Middle Fork American River.

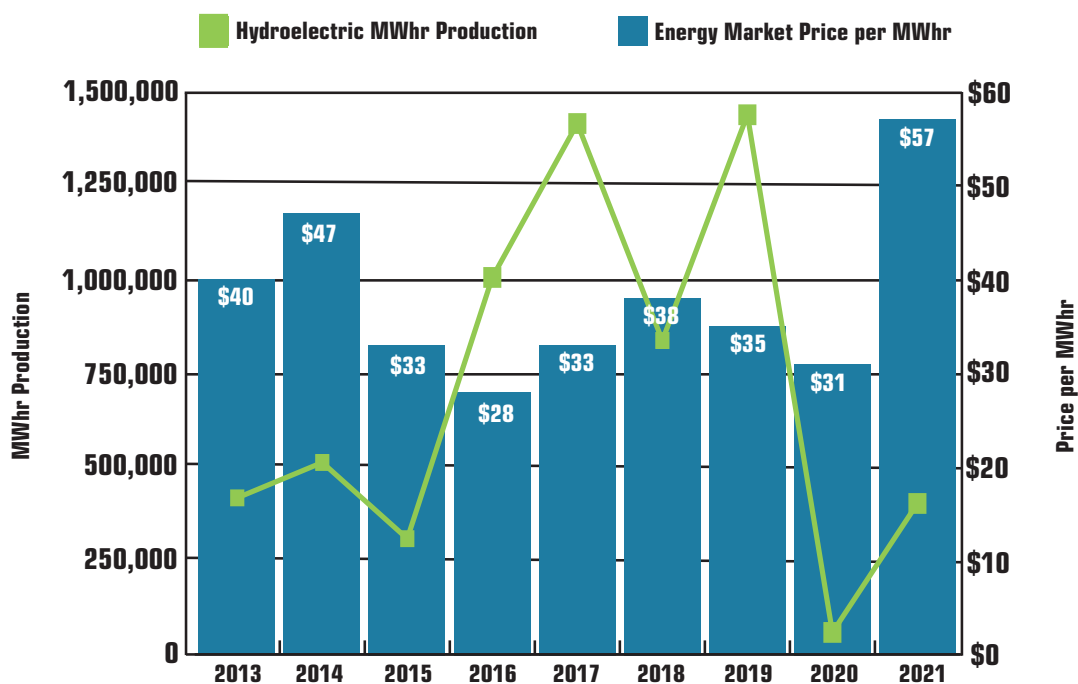
Visit [pcwa.net](https://pcwa.net) and take the tour today!



## Variability of Annual Precipitation



## Middle Fork Project Energy Production & Market Prices



Even in dry years, PCWA's Energy Marketing team optimizes energy revenue.

## Middle Fork Project Energy Production

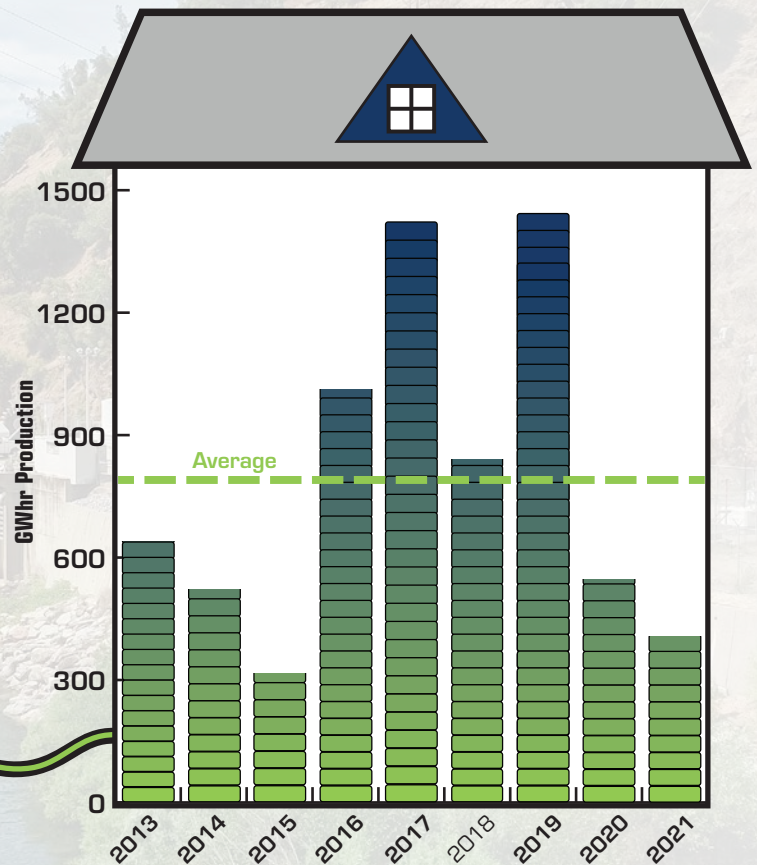
Since 2013 the Middle Fork American River Project has produced an average of

**790,300 MWhrs**  
of clean  
hydroelectric  
energy

per year...

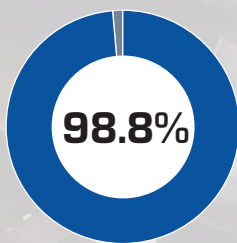
That's enough energy to  
power more than

**118,000 homes.**

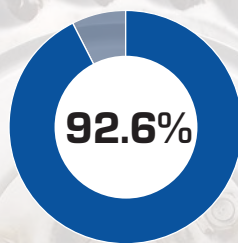


### Reliable Energy

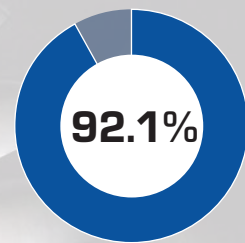
Percentage of hours hydroelectric generating units were available to be connected to California's energy grid:



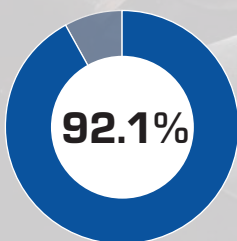
Hell Hole



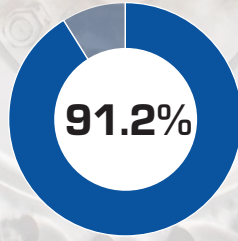
French Meadows



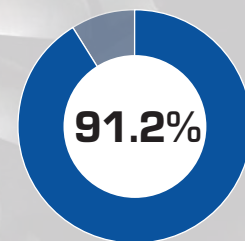
Middle Fork #1



Middle Fork #2



Oxbow



Ralston

Unavailable hours include preventive and corrective maintenance, and capital improvement projects.



# DEPARTMENTAL ACHIEVEMENTS

## GENERAL MANAGER'S OFFICE



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**By Andrew Fecko,  
General Manager**

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At the end of every year, I try to take some time to reflect on PCWA's mission and how we help keep Placer County one of the best places to live in California. There is no doubt that the people of Placer make our communities great and make them some of the most desirable places to live in California. Placer County communities continue to grow and develop dynamic economies that ensure the next generation of residents have places to live and work.

This County is also blessed to have reliable and dependable utilities to help our communities grow and thrive; transportation, wastewater, electric and water service are all vital to community health. As the County's largest water purveyor for homes, businesses, and farms as well as a steward of water resources throughout the County, PCWA staff takes our mission very seriously. It is why I am so proud to help the finest group of water and energy

professionals in the state deliver clean water to our customers and renewable energy to the California electric grid.

2021 was not an easy year for PCWA operations. Confusing state and federal mandates related to the COVID-19 pandemic meant our staff had to remain flexible while maintaining a high level of service. In addition, we had a unique and dry water year, as the little snowpack that did develop was absorbed into very dry soils as it melted in early spring. Still, through a combination of prudent management and conservation measures, we were able to meet all our customers' needs and our environmental commitments.

2021 was also a year of reorganization for several PCWA business units. With the retirement of Brent Smith, Director of Technical Services, Jeremy Shepard and Aaron Sullivan advanced to Director and Deputy Director respectively. In addition, we formed a new, dedicated Information Technologies Department to



keep up with the exponential growth of technology in our industry. Mr. David Russell was promoted from within Technical Services to lead the new department. In addition, we were able to hire a new deputy staff counsel, Elise Nelson, to expand our in-house legal department. In my view, developing staff internally and advancing them to leadership positions has been a tremendous success for the Agency through the years. Strong succession planning, supported by our talented Administrative Services staff, will continue to serve us well.

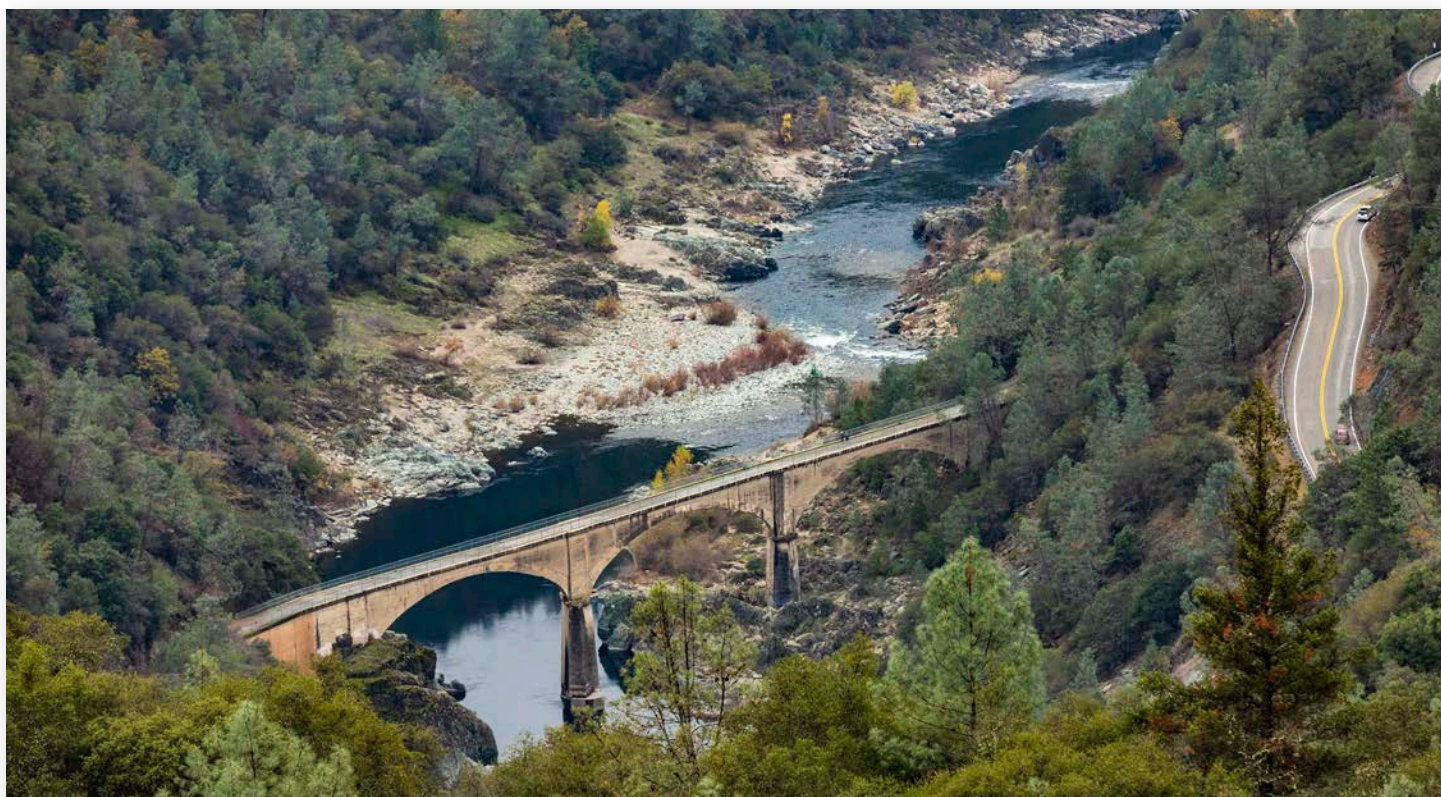
As you will see in the following pages, our front-line staff in Water, Field, and Power continue to be best in class. Despite challenging conditions, they continue to build significant construction projects in-house as well as manage a bevy of contractors and consultants that help the Agency maintain and expand our water and energy systems. For a small agency with less than 240 regular employees, we accomplish a tremendous amount of on-the-ground work every year while keeping our facilities operational to meet our customers' needs.

First and foremost, my job as General Manager is to anticipate the financial needs of our enterprises and produce a budget that meets our operation

and maintenance needs while keeping water rates affordable for our customers. I could not accomplish this task without the team working in Financial Services. They have transformed our public budgeting processes over the last decade to be accurate, transparent, and understandable for our customers while carrying out the Board's policy direction.

Finally, I believe our most important communications are with our customers. Our Customer Services team is integral to the success of our water system, whether helping existing customers with their bills, setting up new services, or assisting with agricultural water deliveries. Throughout the year, I received accolades from customers whose problems the PCWA team solved with energy and compassion.

As the County's economy continues to grow, the Agency is preparing to serve new residents and businesses. While we are fortunate to have abundant water resources, major new infrastructure is required to deliver water to the farthest reaches of the County. Major pieces of this puzzle, including the Ophir Road Pipeline in 2021, are coming into place every year. I feel confident that the Agency, with our talented and dedicated team leading the way, is positioned well to deal with the challenges ahead.





## ADMINISTRATIVE SERVICES DEPARTMENT



**By Michael Willihnganz,  
Director of Administrative Services**

The year 2021 can be characterized as a time of change and challenge for the Administrative Services Department. Specifically, departmental staffing changes and the challenges associated with the ongoing COVID-19 pandemic were the most significant issues of 2021, with two noteworthy accomplishments to be reported as well.

The magnitude of change within the Administrative Services Department is readily apparent by comparing the organizational charts from 2020 and 2021. Only four of the eight employees who began the year with the department completed the year. Retirement is the predominant explanation underlying this turnover rate of 50 percent, with three departing employees choosing to close out their careers during the year. On a more somber note, in October of 2021, Human Resources Technician, Gina Lambeth, unexpectedly passed away following a brief battle with COVID-19.

Despite the staffing turmoil encountered by the department in 2021, Administrative Services still managed to enjoy a productive and successful year. Two notable accomplishments include reaching five-year labor agreements with the bargaining units, and the implementation of the Agency's completely redesigned, cutting-edge onboarding program for new hires.

The Memorandums of Understanding (MOUs) between the Agency and the International Union of Operating Engineers, Stationary Engineers, Local 39, representing the Water Systems Bargaining Unit and the Power System Bargaining Unit, expired on December 31, 2020. Administrative Services successfully negotiated new five-year MOUs with the effective dates of January 1, 2021 through December 31, 2025. Thus, with all labor agreements and compensation plans in

effect through 2025, the Agency has achieved labor tranquility, certainty and consistency for the next five years.

The other notable project completed by Administrative Services in 2021 was the development and implementation of a redesigned, innovative onboarding program for individuals joining the Agency. As a means to streamline the onboarding process and place relevant information into the hands of new hires before their actual start date, a new online Welcome Center portal was created. New hires are able to access the Welcome Center from the convenience of their homes prior to beginning their Agency employment. The Welcome Center allows new hires to complete the necessary employment enrollment forms, review health benefits options, familiarize themselves with Agency policies, and preview the workplace culture at PCWA. Leveraging technology to facilitate the completion of many onboarding requirements prior to the new hire's arrival makes the entire onboarding process incredibly more efficient.

## CUSTOMER SERVICES DEPARTMENT



**By Matt Young,  
Director of Customer Services**

Customer Services welcomed 2021 hopeful for fewer virtual meetings and more in-person interactions between staff and customers. Although a portion of our team worked from home, in early March, staff returned to the office and the PCWA lobby re-opened. Most of our customer outreach this year centered on water use efficiency. In a first for the agency, Water Efficiency partnered with the City of Auburn - Fire, Yamasaki Landscaping, Placer County Master Gardeners, and Green Acres Nursery, to host a Fire-Wise Water-Wise Landscaping Webinar. The webinar was a huge success with 146 attendees. Thanks to the Board's support, we also launched our "Summer of Savings" campaign, which enhanced our existing customer rebates and added a new pool cover rebate. As a result of robust and creative messaging during the "Summer of Savings" campaign, the number of rebate applications climbed by nearly 600% during the summer and fall months, compared to 2020! Mindful that dry conditions may extend into next year, Customer Services will continue the enhanced rebate program and in 2022 we plan to also develop

a new tank rebate for untreated water customers. Other outreach included the return of several of our traditional community events such as Mulch Mayhem and our participation in the Mandarin Festival.

In addition to reestablishing a personal connection with our customers, Customer Services also began its transition to Monthly Billing, which the Board of Directors identified as a priority for 2021. Our 4,300 untreated water customers moved to monthly billing in May, and we completed final testing of our reading equipment to transition our treated water customers in the coming months. To prepare for this transition, our Metering and Billing teams worked together to balance billing cycle and meter routes, while our Water Efficiency and Public Affairs teams collaborated on messaging to customers. I am very proud of the efforts by staff and for their many hours spent scrutinizing numerous details in preparation of this transition.

2021 also brought organizational changes as we said "goodbye" to our Facilities Maintenance Coordinators who now report to the Field Services Department. We will certainly miss having them a part of the Customer Services Department, but we are also confident



that they will maintain their hallmark - exemplary customer service.

As we wrap up 2021, Customer Services will be looking to implement a one-time arrearage program, with funding assistance from the state. We are hopeful that the approval of our application will assist many of our customers impacted by COVID-19.

As we move into 2022 much of staff's time will be dedicated to laying the groundwork for the agency's new Enterprise Resource Planning system (ERP). This multiyear undertaking relies heavily upon several

dedicated teams who are fully engaged in the selection and implementation processes. This type of project is both exciting and daunting, but with a solid ERP, customers can expect an improved level of service that will benefit the Agency and its customers for many years.

On behalf of the Customer Services Department, I'd like to thank our General Manager and colleagues here at PCWA, our Board of Directors, and our customers for a successful 2021.

### Customer compliment!

***"I called yesterday to report a problem. First of all the agent knew who I was without my even having to give her my name or address. But even better, with no questions asked, she said someone would be out right away. And they were, as the problem was quickly fixed. I just want to compliment you on how efficiently and quickly this problem was resolved. Compliments to PCWA and your employees!!"***

***Jim,  
Customer in Rocklin***



## FIELD SERVICES DEPARTMENT



**By Daryl Hensler,  
Director of Field Services**

The Field services Department is making strides to foster innovation, to promote improved communication strategies, and to increase opportunities to experiment with new techniques and technologies. We completed an employee satisfaction survey to make sure staff is engaged and to eliminate obstacles to clear, bi-directional communications. Staff has worked to find new and efficient products and tools to allow the modernization of the Agency's water system by the largest amounts possible within the current budgets. My goal is to ensure these efforts will continue for many years to come. This productivity was definitely evident in the 2021 Capital Improvement Program with the elimination of a record amount of steel water main from our treated water distribution system, as well as the hardening completed in the raw water canals.

As one of the most at-risk departments in the Agency, safety in the workplace is the top priority of Field Services and the Agency in general. The current centralization effort of the safety program demonstrates this commitment from the top down,

and I appreciate all the work being done by this department to support that noble effort.

The Department assisted in the response to the late notice of a water supply shortage from the PG&E system with a record level of pumping from the American River Pump Station, working through PG&E canal utilization agreements and coordination with multiple Agency departments to ensure full water allocations were available to our customers.

This year Field Services welcomed Facilities Maintenance to the Department, this small but robust staff quietly manages the behind-the-scenes duties at over 40 facilities spread across a large portion of the county. This group demonstrates pride of ownership in keeping these facilities safe and operational.

Teamwork throughout the Field Services Department really shined in 2021 as mentioned above, also addressing challenges like COVID-19, unplanned inflation affecting our budgets, and supply chain issues delaying projects and warehousing operations. I cannot imagine a better response to this year's issues and am glad to be part of such a capable team.



## FINANCIAL SERVICES DEPARTMENT



**By Joe Parker,  
Director of Financial Services**

I am very proud of all Finance Department team members' productivity and collaboration throughout the year to strive to work effectively and efficiently in support of Agency matters. With the effects of COVID-19 continuing to impact the work environment, 2021 started with a full agenda. All Finance Team employees are dedicated professionals performing the Agency's and Middle Fork Project Finance Authority's (Authority) numerous financial functions. The Finance Team had a number of significant accomplishments during 2021 with a few detailed as follows:

Strategies for funding the Agency's unfunded pension liability (UAL) was championed by Deputy Director Carrie Parks. During the second half of 2020, Carrie provided the Agency's Finance Committee with understanding, analysis, and funding scenarios of alternatives for funding the Agency's UAL, which resulted in the January 2021

Board consideration and approval of the use of \$27.6 million in reserves to pay CalPERS pension liability for the Agency Wide and Water Division to the planned 90% funding target. Then in May, after first seeking approval of the Authority, the Agency Board approved another \$3.2 million payment to paydown the Power Division portion of the unfunded pension liability. These actions helped the Agency's three divisions achieve a combined approximate 80+% funding ratio, thereby reducing the Agency's combined liability and associated interest cost.

Record low interest rates created an opportunity for the Agency to borrow for Water Division renewal and replacement capital projects. Financial Analyst Melissa Cope supported this effort by compiling and evaluating the required information to assemble the voluminous debt related documents prior to obtaining the Board's authorization in March for the sale of Water Revenue Certificates of Participation for the renewal and replacement projects totaling \$18.4 million. This action allowed the Agency to fund Water



Division renewal and replacement capital projects with debt and to economically rebuild cash reserves, which could be used for significant future capital resource needs on the horizon such as the new Colfax Water Treatment Plant.

As the new Federal Energy Regulatory Commission (FERC) License was received in June 2020, in the development of the Power Division 2022 5-year Capital Plan, it became apparent that appropriations for certain FERC License Implementation capital projects needed to be shifted up to ensure funding availability was timely to meet the completion deadlines required by new FERC License timing. Deputy Director Jannet Hendrix and Financial Analyst John Coulter worked many hours with the Power Division project managers to shift the capital projects ensuring appropriated funding would be available early in 2022 and throughout the 5-year Capital Plan.

A project that has been on my agenda for many years is the development of a long-term financial plan. This effort was truly a team effort as Deputy Directors Jannet Hendrix and Carrie Parks along with Financial Analysts John Coulter and Melissa Cope and other Finance team members worked collaboratively with other Agency department personnel to obtain needed information for the development of this long-term financial plan. The financial plan is being used to determine annual revenue requirements to meet multiple strategic goals of the Agency over the next 10 years, primarily the renewal and replacement of the Agency's aging infrastructure and the implementation

of zero emission vehicles. This financial plan is a foundation for the just commenced cost-of-service and water rate study and is scheduled to be presented to the Board for consideration early in 2022. The long-term financial plan will become a working document and incorporated into future cost studies.

To enhance transparency and to formalize an existing process, Finance staff drafted a revised Reserve Policy, which was reviewed by the Finance Committee and approved by the Board in August. The revised Reserve Policy requires the Director of Financial Services to annually report to the Finance Committee, during the budget process, the reserve activity, recommend annual reserve funding and funding targets amounts. Starting with the 2022 Budget the reserve schedule has been expanded to include the description of the reserve accounts, funding target methodologies and funding targets for the Board's consideration.

I am proud of the strong team of finance professionals, both those mentioned as well as Lance, Todd, Marco, Tracey, Dave, Jen, Jon, Chris and Carlie, who provide exceptional quality work supporting the other departments and the Board of Directors while making my job much easier. The team proactively seeks opportunities to improve and be forward thinking on the Agency's financial matters, as well as adapting to the continuing challenges and opportunities that arise, which include those near-term related to supply chain constraints, inflation, and the Enterprise Resource Planning project selection and implementation.





TECHNICAL SERVICES DEPARTMENT





**By Brent Smith,  
Director of Technical Services**

What an incredible honor it has been to serve the public alongside my PCWA colleagues. It is inspiring to see their dedication and professionalism as they complete the important work of PCWA in support of public service across water systems, power systems, and county-wide stewardship.

During 2021, the Information Technology Division successfully migrated all employees to a new Office 365 platform and our SharePoint application to cloud-based technology. Relative to cyber security, an enormous step forward was taken during the first quarter of 2021 when PCWA recruited and onboarded a new Information Security Manager. Under a new branch within this division, our cyber security team implemented multi-factor authentication and upgraded all mobile devices to a new mobile device management system. And finally, the IT Division made steady progress forward on our Enterprise Resource Planning project.

Within our Drinking Water Operations Division, our dedicated team of professionals continued to do all that is necessary to provide the highest quality drinking water possible to our customers 24-7-365. Due to a cut back in our PG&E water supply this year, our water operations team utilized the American River Pump Station and the Ophir Road Pump Station to deliver more Middle Fork Project water to our customers than any year in PCWA's history.

Many capital improvement projects were completed during 2021. The largest was the Foothill Raw Water Pipeline which was fully operational by early October. Also completed in advance of the annual PG&E outage was our Backup Power Supply project which now allows PCWA to operate both the American River Pump Station and the Ophir Road Pump Station during power outages. Completion of this project represents an enormous increase in the reliability of our water system. Other projects completed during 2021 include the Urban Water Management Plan, a 25-year Renewal and Replacement Assessment Study that will be incorporated into a Cost-of-Service Study, the Antelope Canal Automation project, and the American Water Infrastructure Act Risk Assessment and Emergency Response Plan project. Many land development projects were active during

2021 requiring support from our staff in reviewing development plans, preparing Facility Agreements, and inspecting construction of new water infrastructure.

Significant progress was made on our efforts to support small water systems and consolidations during 2021. The Castle City Mobile Home Park was consolidated into PCWA and our Colfax to Applegate Regionalization Study was completed. Our efforts to support small water systems was highlighted during a November 9th tour with State Water Resources Control Board (SWRCB) Member Laurel Firestone and several staff members from the State Division of Drinking Water and Division of Financial Assistance. During the tour, SWRCB officials were able to visit several small water systems and talk with representatives of each, including the Dutch Flat Mutual Water Company, the Shady Glen Community Water System, the Heather Glen Community Services District, and the PCWA Colfax Water Treatment Plant.

2021 was marked as the year in which several important organizational changes were made. During December, our Information Technology Division transitioned into a new independent department, lead by a newly created Director of Information Technologies position. Operational technology professionals from our Power System and Drinking Water Operations Division were integrated into this new IT Department in order to create greater operational efficiencies.

And lastly, during the final month of the year, I will step down from my role as Director and a new Director and Deputy Director will begin their roles leading the Department forward into the new year and beyond. As I reflect upon the work accomplished during the year, what I am most proud of is how the 81 employees that make up the Technical Services Department across three separate divisions, Engineering, Drinking Water Operations, and Information Technology, worked together as a united team in support of PCWA's mission and dedication to providing the highest level of public service possible. It has been the honor of my life to be part of this amazing work.

## ENERGY MARKETING DEPARTMENT



**By Ryan Cline,**  
**Director of Energy Marketing**

2021 has been, hands down, the most challenging year yet for the PCWA Energy Marketing Department. Faced with the second consecutive year of extreme California drought, which included the second driest back-to-back water years on record, the Energy Marketing team persevered to achieve all their goals this past year.

After 20 years with drought conditions encompassing portions of the western United States, the western power grid and associated reservoirs have been pushed to their functional limits, causing unprecedented power outages and energy shortages. Reservoir levels dropped to near-record levels statewide in 2021, resulting in reduced hydroelectric generation capacity, thus California's hydropower production reached all-time lows. By early August, conditions were so dire that Hyatt Powerplant at Lake Oroville was taken offline for the first time ever, while PCWA's Middle Fork American River Project (MFP) reached a mere 46 percent of its average peak storage capacity with the second lowest runoff since the MFP was constructed.

Compounding the energy crisis, raging wildfires wreaked havoc on the stability of power grids in the western United States. In July, the Bootleg Fire in Southern Oregon crippled a key transmission system, which significantly restricted California's ability to import power, causing the state to declare an "Energy Emergency". Imported power from other states

became unavailable due to the transmission curtailments of the Bootleg fire, further threatening the stability of the state's power grids.

Further complicating the complex and unstable environment, PG&E Transmission Outages presented an additional hurdle for delivering MFP resources to a grid that desperately needed them.

Despite the unprecedented challenges faced in 2021, the Energy Marketing team achieved beneficial results attributed to outstanding intra-agency communications and coordination with outside agencies and stakeholder groups. In the face of critical water shortages, heightened regulatory oversight,

and the Ralston Powerhouse transformer outage, the team was able to successfully navigate and execute a highly complex water sale to Westlands Water District. The stellar teamwork and coordination between the Power System and Energy Marketing Departments allowed the Agency to meet its Water Forum Agreement commitments providing environmental benefit to the lower American River, while successfully navigating the first full year of the new MFP FERC License.

The abundant rain in October was a welcome start to the 2022 water year; however, with another La Nina year ahead of us, precipitation will be feast or famine. Power shortages will continue in 2022, and good communication will continue to be essential to success.

I am thrilled with my team's performance in 2021. Through all challenges this year—extreme drought, an energy crisis, and constant adaption to changes brought on by COVID-19—the Agency continued to provide clean energy from the MFP to the California energy grid. This achievement was made while optimizing revenues with a limited water supply, maintaining a robust, pristine water supply for the residents of Placer County, and meeting all environmental goals and objectives for the MFP – highlighting the Agency's mission statement: Water, Energy, and Stewardship. The Energy Marketing Department will no doubt face many challenges in 2022, but I am confident we are up to the challenge.



## POWER SYSTEM DEPARTMENT



**By Jay L'Estrange,**  
**Director of Power Generation Services**

As anyone who watches *This Old House* will tell you, the work never ends to rehab an old house. This past year, in PCWA's version of *This Old Powerhouse*, Power System Department employees continued to fix, rehab, upgrade, and replace equipment to keep the 66-year-old Middle Fork American River Project (MFARP) running smoothly.

At French Meadows Powerhouse, Power System employees removed and replaced the manually operated plant cooling water system with an automated one. The cooling water system is critical to the efficient and safe operation of the hydroelectric generating unit. Employees have also upgraded all 12 river gaging stations. These remote solar powered stations measure and transmit, via radio, river flow data for both operations and compliance.

Every five years the Federal Energy Regulatory Commission (FERC) requires PCWA to hire an independent consulting engineer to perform a safety inspection of MFARP dams. This year LL Anderson (aka French Meadows) and Hell Hole dams both passed inspection with only minor corrective actions to take care of. The water storage behind these dams is water supply for Placer County.

Our new FERC license was issued in 2020. In the license are a number of required infrastructure and recreation improvements. One improvement is modification of the Low Level Outlet Works at LL Anderson Dam to pass higher minimum and pulse flows to the Middle Fork American River. Under this construction contract a micro hydrogenator was also added to supply power not only to the low level outlet station, but also to the dam's spillway gates and communications building. In the past the only source of power there was a propane powered engine generator.

The upper end of the MFARP is remote. As the crow flies, Hell Hole Reservoir is only 10 miles from the western shore of Lake Tahoe. Power System employees regularly help out stranded visitors, stray dogs, etc. In addition to their primary jobs, these employees are all trained in initial attack of wildland fire, and on July 21, six employees came across and extinguished a small, human-caused fire near Duncan Creek (a few miles from French Meadows), thus averting potentially catastrophic wildfire. Stewardship is in PCWA's logo, and we take it seriously.

The employees of the Power System Department are talented and dedicated. I am proud to work with them, as their everyday efforts insure water and power supply for the citizens of Placer County.



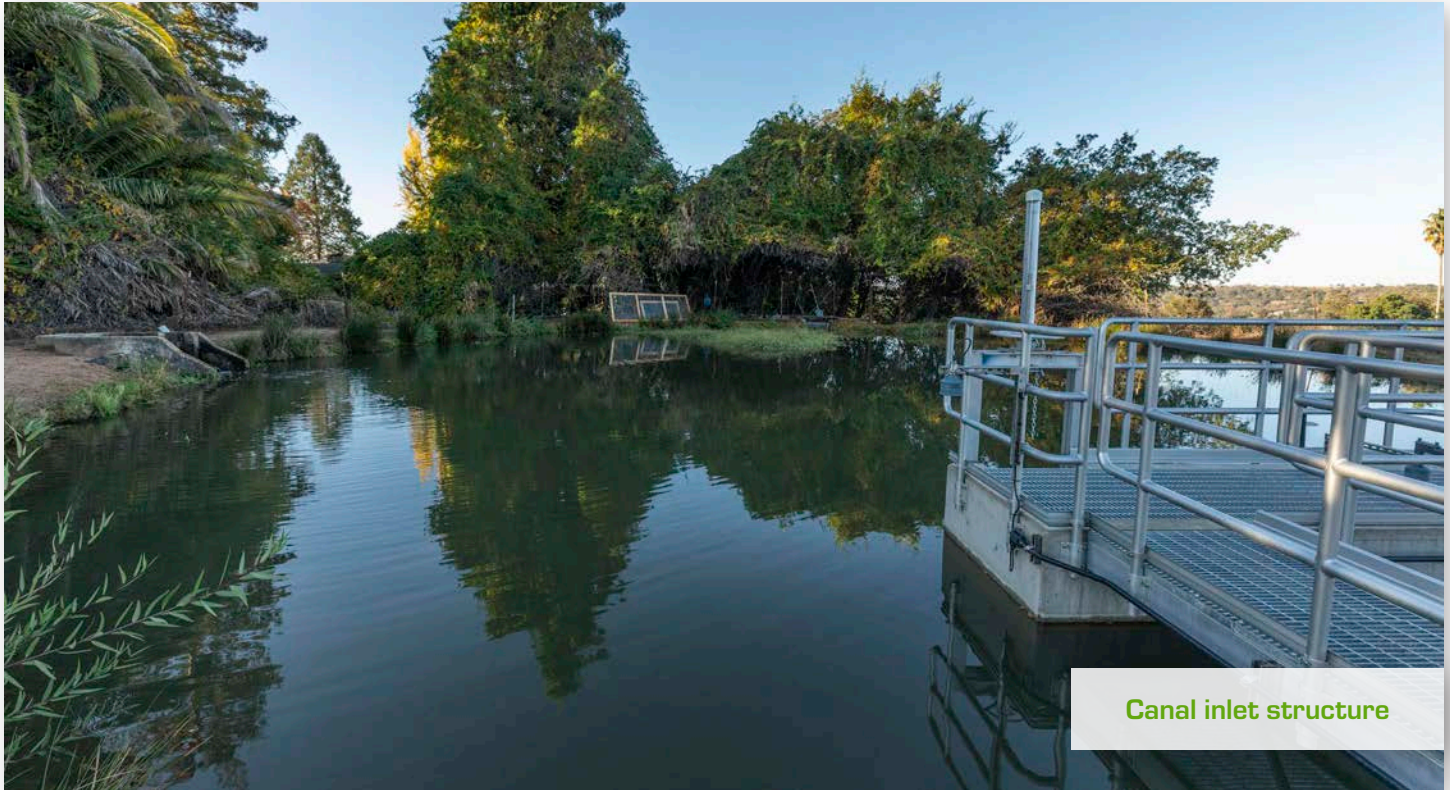
## PROJECT HIGHLIGHTS

### Antelope - Ben Franklin Canal Automation

**Purpose:** To install various gates, flow monitoring, and control equipment along the Antelope and Ben Franklin Canals to reduce water losses, thereby improving water efficiency.

**Cost:** \$485,000

**Project dates:** March 1, 2021 — January 6, 2022



Canal inlet structure



Ultrasonic level sensor  
measuring flow



New flow measuring structure with  
customer service connections



## Lower Banvard Pipeline Replacement

**Purpose:** To replace the original steel carrier pipe with fused PVC pipe for the Lower Banvard Canal pipeline under Interstate-80 in Newcastle.

**Cost:** \$1,420,000

**Project dates:** March 1, 2021 — December 16, 2021



Pipe ends being prepared for fusing



Installation of carrier pipe supports prior to insertion into carrier pipe under Interstate-80



Fused carrier pipe being pushed into casing pipe

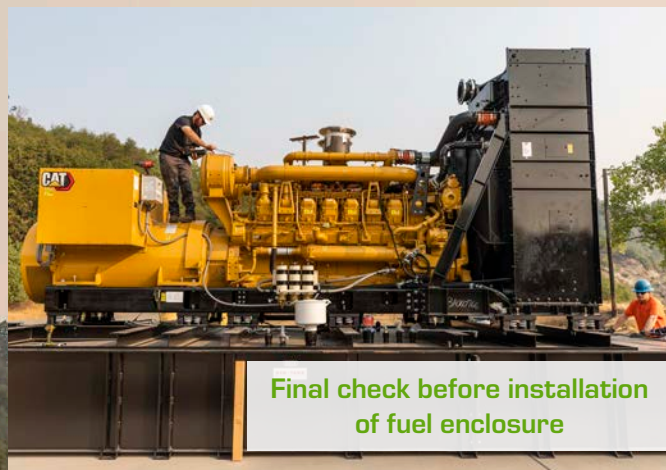


## Standby Generator Projects

**Purpose:** : Installation of 2.5 megawatt generators at two important pump stations (American River and Ophir Road) to provide standby power in the event of electric utility power interruptions.

**Cost:** \$9,270,000

**Project dates:** April 27, 2021 — February 3, 2022 (Projected)



Final check before installation of fuel enclosure



Installation of noise reduction enclosure

Craning generator into place



## Foothill Raw Water Pipeline Project

**Purpose:** Complete pipeline between the Ophir Road Pump Station and the Foothill Water Treatment Plant to provide water during an interruption of the Agency's other supply sources.

**Cost:** \$20,160,000

**Project dates:** November 25, 2019 — February 3, 2022 (Projected)



Energy dissipation station foundation reinforcement prior to concrete placement



Completed interior of the energy dissipation station



Agency staff testing the pipeline and pumping system



Hydraulic control structure tank atop Indian Hill



## French Meadows Powerhouse Plant Cooling Water Upgrade

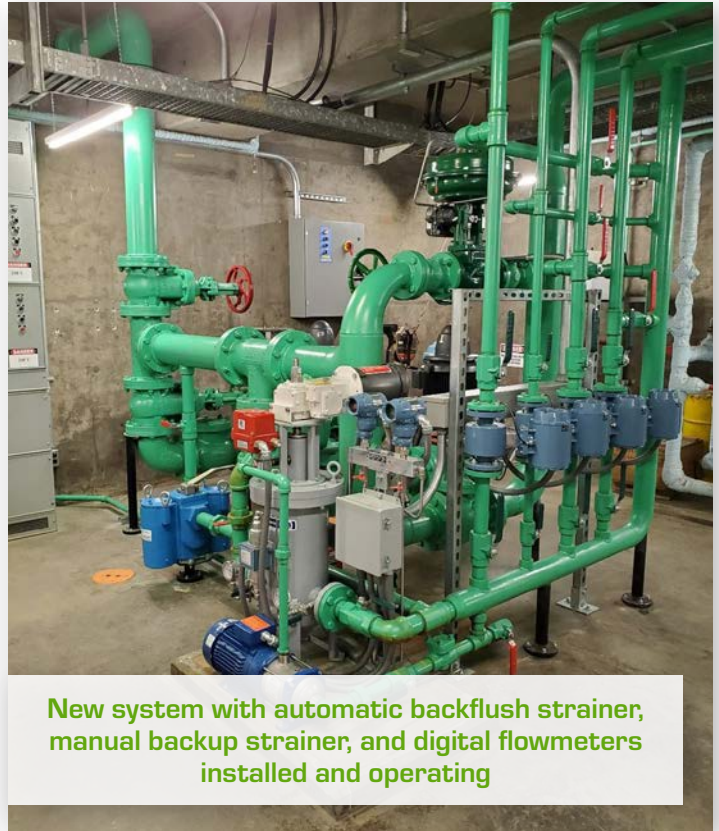
**Purpose:** Upgrade the powerhouse plant cooling water intake system. The system's 55 year old manually operated cooling water strainers were replaced with an automatic backflush strainer and associated instrumentation to keep cooling water piping debris free for efficient cooling of hydroelectric generator heat loads.

**Cost:** \$582,503

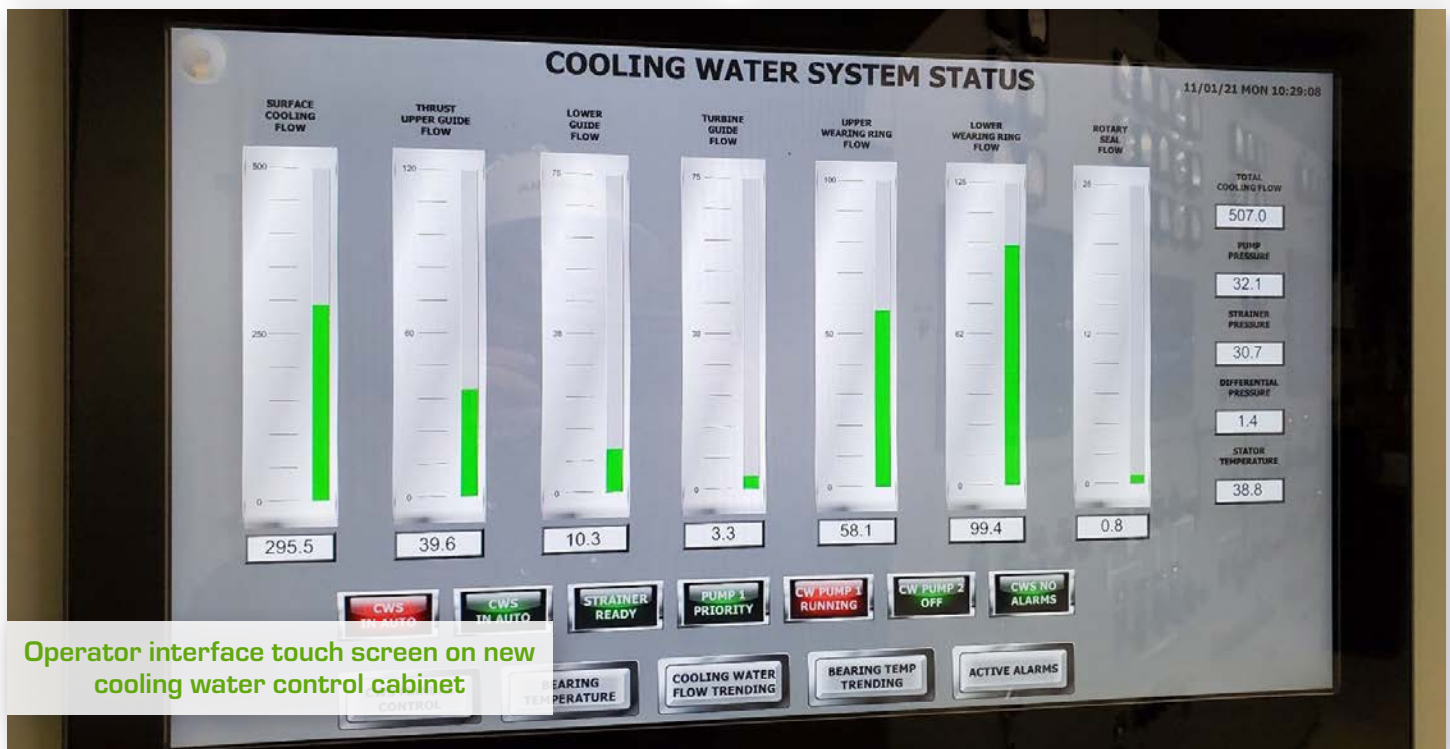
**Project dates:** May 3 — May 28, 2021



Original system



New system with automatic backflush strainer, manual backup strainer, and digital flowmeters installed and operating



Operator interface touch screen on new cooling water control cabinet

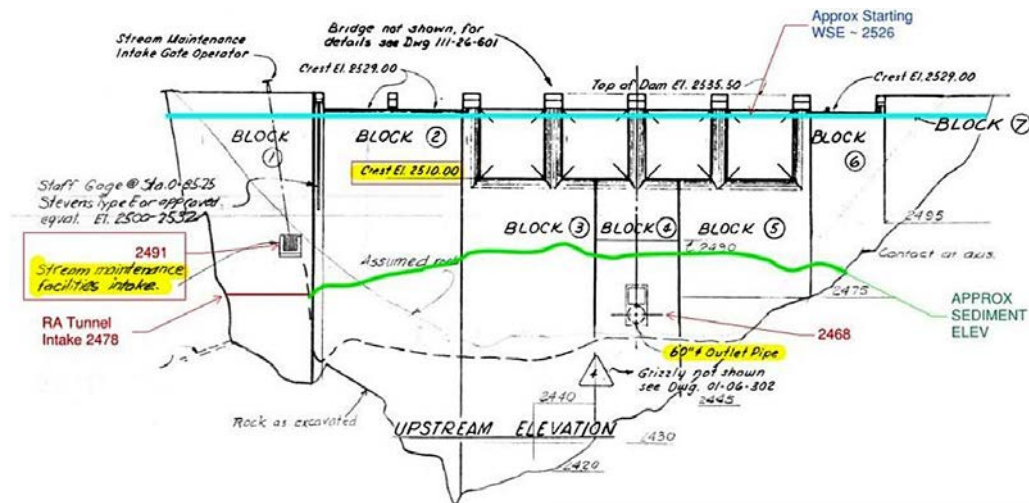


## Middle Fork Interbay Sediment Removal Project

**Purpose:** To remove accumulated sediment from the reservoir to uncover the dam's low level outlet, and stop encroachment into the dam's stream maintenance valve and the Ralston Tunnel intake structure.

**Cost:** \$5,402,760

**Project dates:** October 1 – October 22, 2021



**Bypass pipe pumping station**



**Sediment removal at Ralston Tunnel intake**



**Temporary cofferdam**



**Sediment removal**





## Penryn Flume No. 2 to Pipe Project

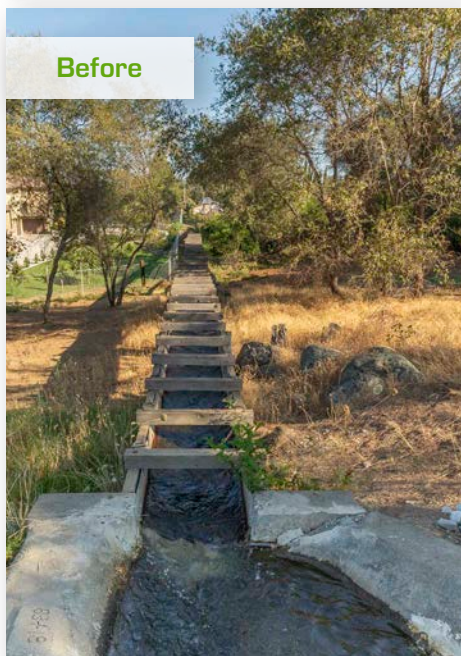
**Purpose:** To replace an aging, 180-foot wooden flume with underground pipe, which will harden our water conveyance system against fire danger and reduce maintenance costs.

**Cost:** \$115,000

**Project dates:** September 7 — October 6, 2021



Installation of 24-inch pipe next to flume



Before



During



After



### Freeman Pipe Cure-in-Place Project

**Purpose:** To repair a 460-foot section of leaking pipe by installing the Agency's first cure-in-place pipe or CIPP liner to a section of pipe which runs through several private properties.

**Cost:** \$105,000

**Project dates:** November 23 – 24, 2021





## *In Loving Memory*



*Gina Lambeth*  
1965 - 2021

In October of 2021, Gina Lambeth unexpectedly passed away following a brief battle with COVID-19. Gina touched almost all of us during her brief tenure with the Agency. She joined us in July of 2017 as an Office Assistant supporting Administrative Services and Financial Services. In 2019, she was promoted to Human Resources Technician and assumed responsibility for the Agency's health benefits program, a role she absolutely relished and excelled in. Gina's personality was perfectly suited for this role. She thought of herself as the Agency's "mom." Many employees interacted with Gina in that capacity. If employees didn't cross paths with Gina over health benefits, they most certainly interacted with her through one of the many committees that she was actively involved in. Gina was very gracious in volunteering her time for the good of the Agency and others. She was a true leader in the C.A.R.E. Committee, the Community Giveback Committee, and the Exemplary Performance Award Committee.

In the few years she was with us, Gina's character, contributions and involvement in Agency activities had a profound impact on our workplace culture. She truly helped make the Agency a better place to work. Gina left an indelible impression on everyone who knew her. Her compassionate, helpful and caring personality, along with her radiant smile, will very much be missed and will long be remembered. We reflect on Gina for the legacy she leaves behind – a selfless and kindhearted individual who was never too busy to lend a helping hand to anyone in need.



*Bill K. "Nubs" Williams*  
1959 - 2021

Bill "Nubs" Williams passed away unexpectedly in December of 2021. He joined the Agency in 1992 and served our customers admirably for nearly 30 years as a Maintenance Worker in the Field Services Department. Known for his impassioned work ethic, Bill epitomized those traits and characteristics that are often associated with truly exemplary performers. He carried out his craft on behalf of the Field Services Department with considerable precision and consistency. Affectionately referred to by his work colleagues as "by the book Billy," he took great pride in ensuring that his work tasks and assignments were always completed in accordance with the highest quality standards. Furthermore, dependability and reliability were hallmarks of his character and his reputation.

Bill Williams was far more than an outstanding Agency employee, however. He was also a consummate gentleman, with a one-of-a-kind personality. Anyone who spent any time with Bill immediately became his new friend. His infectious laughter, spirited sense of humor and witty personality made him an absolute delight to be around. Although he could be quite entertaining, he was also a very caring and loving individual, and one of the most generous people anyone could ever know.

Bill's work colleagues in the Field Services Department were like his family. Over a thirty-year period of time, he established numerous close, life-long friendships. Bill's many "family members" at the Agency will certainly remember him for the professionalism with which he approached his job, but more importantly, for being a truly remarkable human being. He was a real gentleman with a magnanimous heart and a warm personality. The Field Services Department, and the Agency as a whole, will find it difficult to fill the void that has been created by the passing of Bill Williams.





