



the
STATE
WATER
PROJECT



MORE THAN WATER

The California State Water Project is part of the backbone of the state's water infrastructure, serving as a multi-benefit project that delivers safe, reliable, and affordable water. Beyond its water supply function, the State Water Project protects against floods, generates clean hydropower, offers recreational opportunities, provides environmental benefits, and drives California's economy - the fifth largest in the world. The State Water Project is one of the largest water management systems in the United States, featuring a 705-mile-long interconnected network of canals, dams, reservoirs, hydropower plants, and pumping plants that supply water to over 27 million residents and irrigate 750,000 acres of farmland.

For the last 60 years the State Water Project's clean, reliable, and affordable water has fueled the rapid growth of California into the largest economy and most populous state in the nation.

California receives 75 percent of its rain and snow in the watersheds north of Sacramento. However, 80 percent of California's water demand comes from the southern two-thirds of the state. The State Water Project, together with the Central Valley Project, the Colorado River delivery systems, the Los Angeles Aqueduct, the Hetch Hetchy system, the Mokelumne Aqueduct, and others move the state's water to where it is needed. These projects can deliver over 16 million acre-feet of water each year - enough to supply 57 million average households for a year.

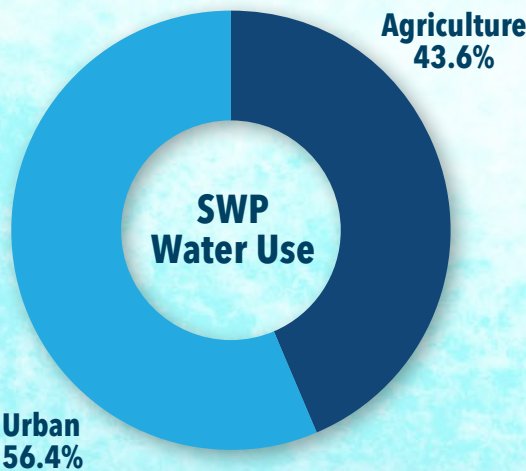
The State Water Project's sustainable supply of water will become even more crucial to California in the face of climate change impacts – according to [California's Water Supply Strategy: Adapting to a Hotter, Drier Future](#), California faces a potential loss of 10% of its water supply by 2040.



A drone provides a view of a section of the California Aqueduct within the California State Water Project, located near John R. Teerink Pumping Plant, which conveys water within Kern County.

Water Supply and Storage

- The State Water Project delivers clean, affordable water to over 27 million Californians, 750,000 acres of irrigated farmland, and 800,000 businesses throughout the state of California. The State Water Project supplies 2.5 million acre-feet annually on average and can supply up to 4.2 million acre-feet in a wet year. The State Water Project can provide enough water to supply the indoor and outdoor needs of almost 15 million households.
- The 750,000 acres of farmland irrigated by State Water Project water produce \$19 billion in crops and agricultural products each year.
- Since 1962 the State Water Project has delivered 168.4 million acre-feet of water, enough to cover the entire landmass of California with 18.5 inches of water.



The State Water Project delivers clean, affordable water to 7 out of every 10 California residents.



Watch video



- The State Water Project includes 36 storage facilities across the State, which play a critical role in maintaining regional water supplies. The State Water Project provides reliable water service by drawing down water from its local reservoirs. The State Water Project's reservoirs can store a maximum of 5.8 million acre-feet of water statewide, about 14 percent of California's total surface water capacity.

State Water Project Service Area and Facilities Map



- The State Water Project provides the infrastructure necessary to share and transfer water among local agencies to stretch the state's water supplies in dry times and move water to where it is critically needed. The State Water Project facilitates the transfer of water between local agencies amounting to an average of 102,000 acre-feet per year. This is enough water to serve the annual indoor and outdoor needs of over 360,000 average households.
- The State Water Project is working to adapt California's water supply to the impacts of climate change. This includes protecting against future water supply losses caused by climate change, sea level rise, and earthquakes by constructing the Delta Conveyance Project. The Project will ensure that the State Water Project can capture, move and store water to make the most of big, infrequent storm events.



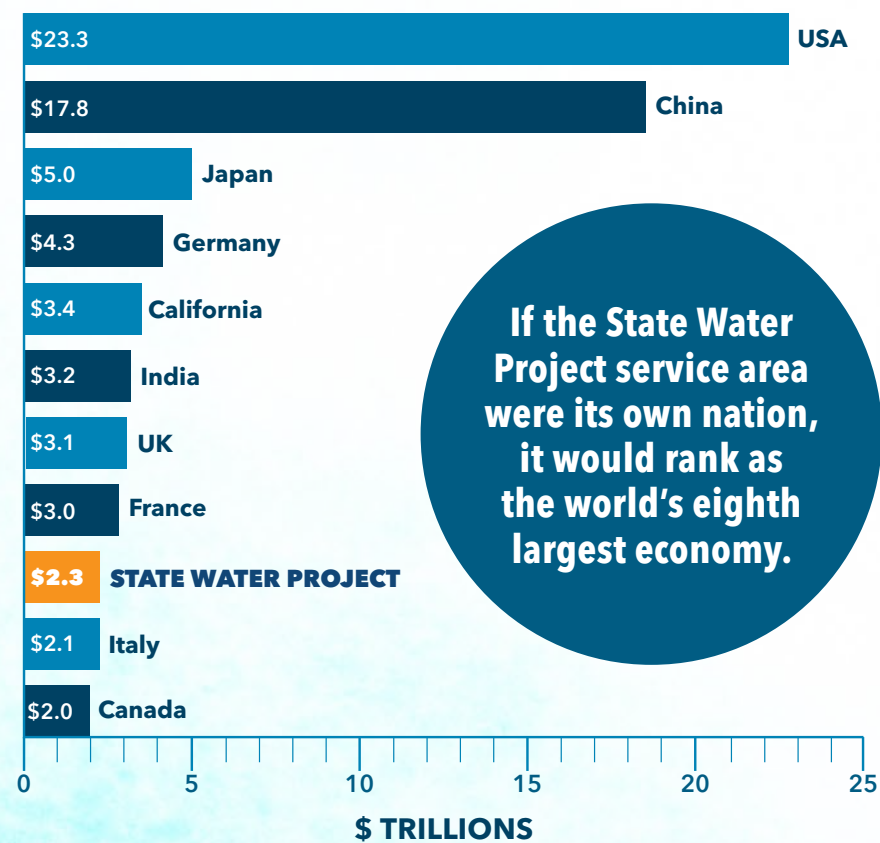
Flood Protection for Communities

- The State Water Project's reservoirs and conveyance system protect hundreds of thousands of Californians from the risk of flooding. California has experienced more than 30 major flood events in the past 60 years, resulting in over 300 lives lost and billions of dollars in damages. State Water Project dams, levees, reservoirs, and detention basins regulate flood water flows, protecting California's communities from the devastating effects of flooding, including loss of human life, property damage, and the disruption of agricultural production and water supply.
- Oroville's 770-foot-tall dam provides flood protection to the communities of Oroville, Marysville, Yuba City and many other smaller towns along the Feather River. This area includes 75,000 acres of land in Butte County with a property value of over \$700 million. The 235-foot-tall Del Valle Dam in central Alameda County similarly provides flood protection to hundreds of thousands of residents in East Bay communities including Pleasanton and Livermore from floods of Alameda Creek.
- The State Water Project works together with the US Army Corps of Engineers, the Central Valley Flood Protection Board, and local agencies to use its reservoirs, conveyance, and storage capacity to redirect and absorb excess flows during flood emergencies. In 2023, when numerous storms led to heavy flooding and the reappearance of Tulare Lake in the southern San Joaquin Valley, the State Water Project lowered flood risk for vulnerable communities by redirecting flood flows from the Kern River into the California Aqueduct.

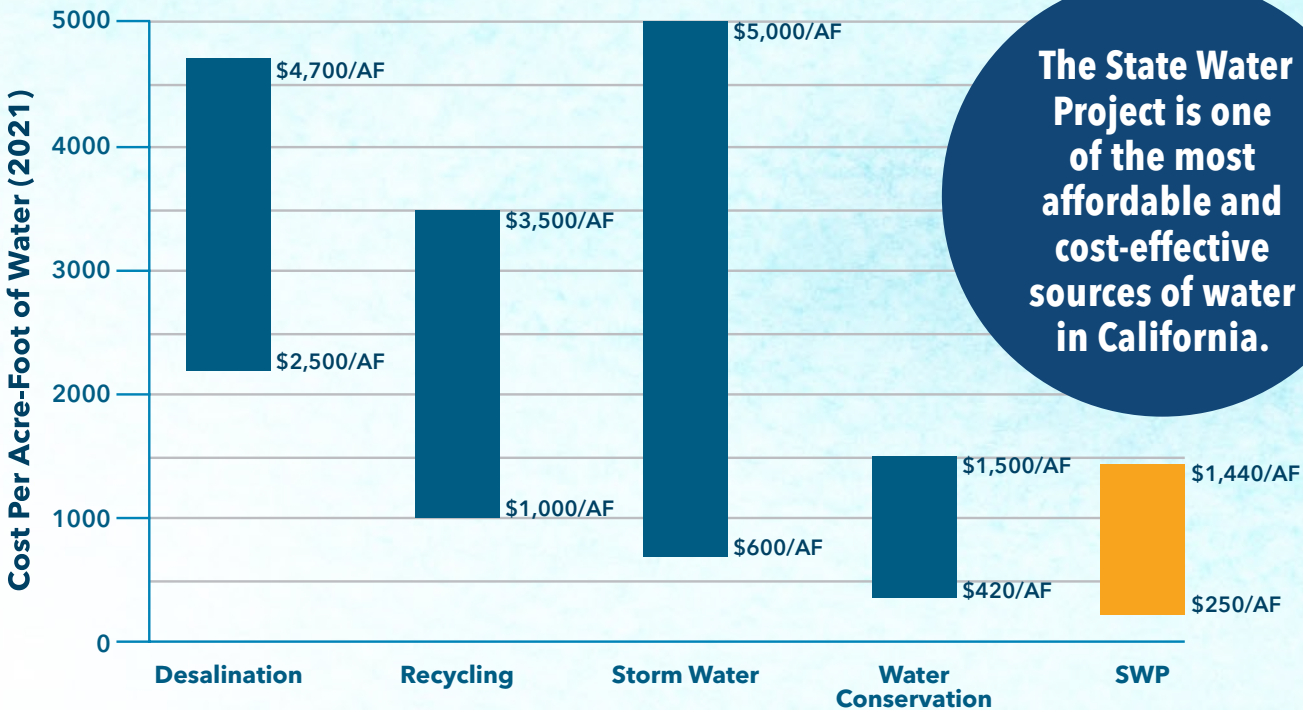
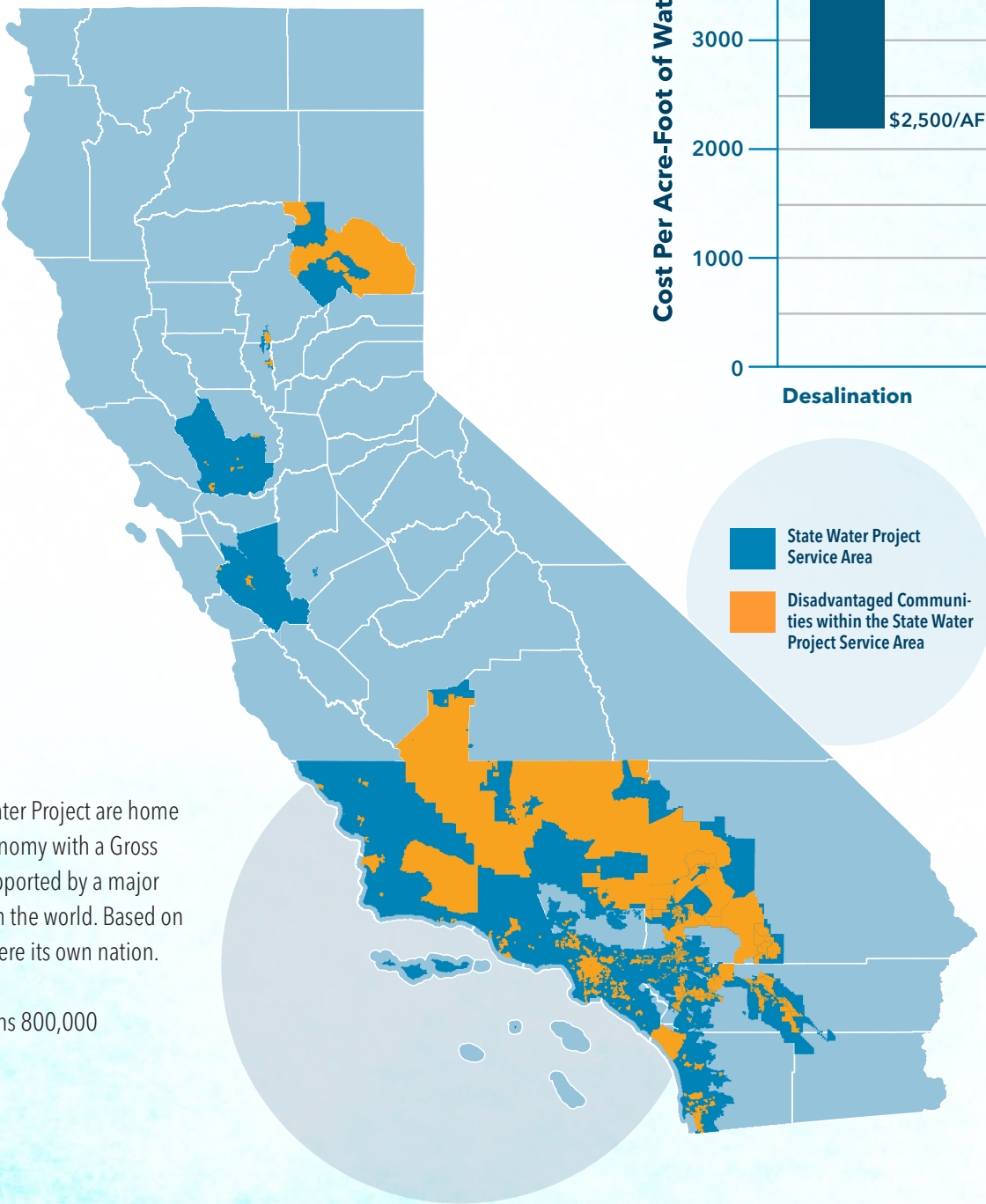
This aerial view looks northeast toward Perris Dam and Lake Perris, a terminal storage facility in Riverside County on the East Branch of the California Department of Water Resources, State Water Project.



Affordable, Reliable Water Supply



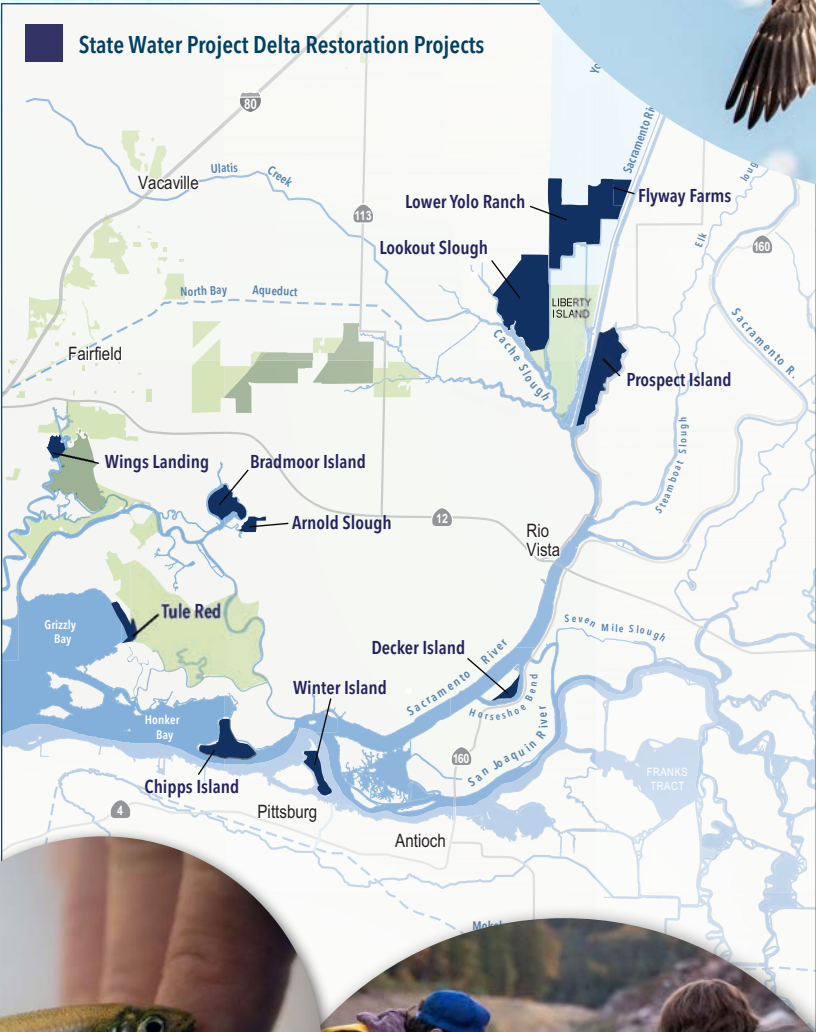
- The urban communities, rural agricultural lands, and natural habitats served by the State Water Project are home to over 27 million individuals, over two-thirds of the state's population, and make up an economy with a Gross Domestic Product (GDP) surpassing \$2.3 trillion. This service area is the largest economy supported by a major water conveyance system anywhere in the United States, and the second largest anywhere in the world. Based on GDP, the State Water Project service area would be the world's eighth largest economy if it were its own nation.
- The State Water Project supports an economy that provides 8.7 million full-time jobs, contains 800,000 businesses, and employs 160,000 farmworkers.



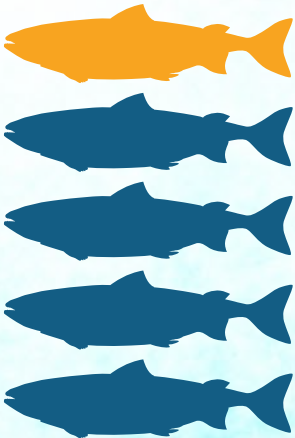
- The State Water Project is one of the most affordable sources of water in California and is more cost-effective compared to alternative sources. The average cost of delivering State Water Project water ranges between \$250 per acre-foot in the San Joaquin Valley, to \$600 per acre-foot in Southern California, and as high as \$1,440 per acre-foot on the Central Coast.
- Compared to alternatives like water recycling programs (\$2,200 per acre-foot median cost) and seawater desalination facilities (\$2,800 per acre-foot median cost), the State Water Project is a more cost-effective option. All sources of water remain essential for adapting to a hotter, drier future as outlined in the [California Water Supply Strategy](#).
- The State Water Project's affordable water plays a crucial role in access to water for disadvantaged individuals and communities. The State Water Project provides water to almost three-quarters of California's population living in disadvantaged communities – 8.2 million people. Almost one-third of the individuals living in the State Water Project's service area are residents of a disadvantaged community.

Environmental Protection and Restoration

- The State Water Project places a high priority on environmental protection, because healthy fisheries and natural ecosystems are important to water management in California.
- The State Water Project often collaborates with environmental organizations, government agencies, and local communities to restore wetlands, estuaries, and other critical ecosystems, with a focus on improving water quality, promoting biodiversity, and ensuring sustainable habitats for native species. As of 2023, the State Water Project is working to restore almost 11,000 acres in the California Bay-Delta.
- The State Water Project manages water flow to control salinity in the Sacramento-San Joaquin Delta. Salinity control is crucial to ensure that water quality in the Delta is suitable for various uses, including agricultural and human consumption, and habitat preservation.
- The State Water Project supplies water to wildlife refuges along the Pacific flyway, supporting the annual migration of over one billion birds. The State Water Project's wildlife areas, including the Oroville, San Jacinto, and White Slough Wildlife Areas also offer the public recreational opportunities to boat, hike, fish, hunt, picnic, and view wildlife in their natural habitat.



- An estimated 20 percent of the ocean sport and commercial catch comes from fish reared at the State Water Project's Feather River Fish Hatchery. Every year, hatchery staff assist with trapping and artificially spawning up to 18,000 salmon and 2,000 steelhead, a process which produces 18 to 20 million eggs which are ultimately raised for release into Northern California rivers, lakes, and bays. Fish bred at the Feather River Fish Hatchery play a crucial role in sustaining salmon and steelhead runs in the Feather and Sacramento rivers. On average, 51,000 spawning adult fish return to the hatchery annually, accounting for about 30 percent of each season's overall run.
- The State Water Project has made significant investments to improve and remove barriers to California salmon migration. The Yolo "Big Notch" Project, a 30,000-acre floodplain habitat restoration and fish passage project in the Yolo Bypass in Yolo County, is the largest floodplain salmon rearing habitat project in California history. Other major projects, including the Fremont Weir Adult Fish Passage Modification Project, the Georgiana Slough Salmonid Migratory Barrier Project, and the Feather River Salmonid Habitat Improvement Project, are significantly improving the ability of salmon to migrate and spawn in their native rivers.
- At the State Water Project, science drives decision-making. The State Water Project contributes to scientific studies through funding, collection and analysis of data, and through dedication of staff to science initiatives. In many cases, DWR scientists are lead authors on scientific publications. Since 2020, the State Water Project has contributed to over 85 peer-reviewed scientific papers in national and international-scale journal outlets, on topics including fisheries, ecology of protected species, water quality, food web, modeling tools, and harmful algal blooms.



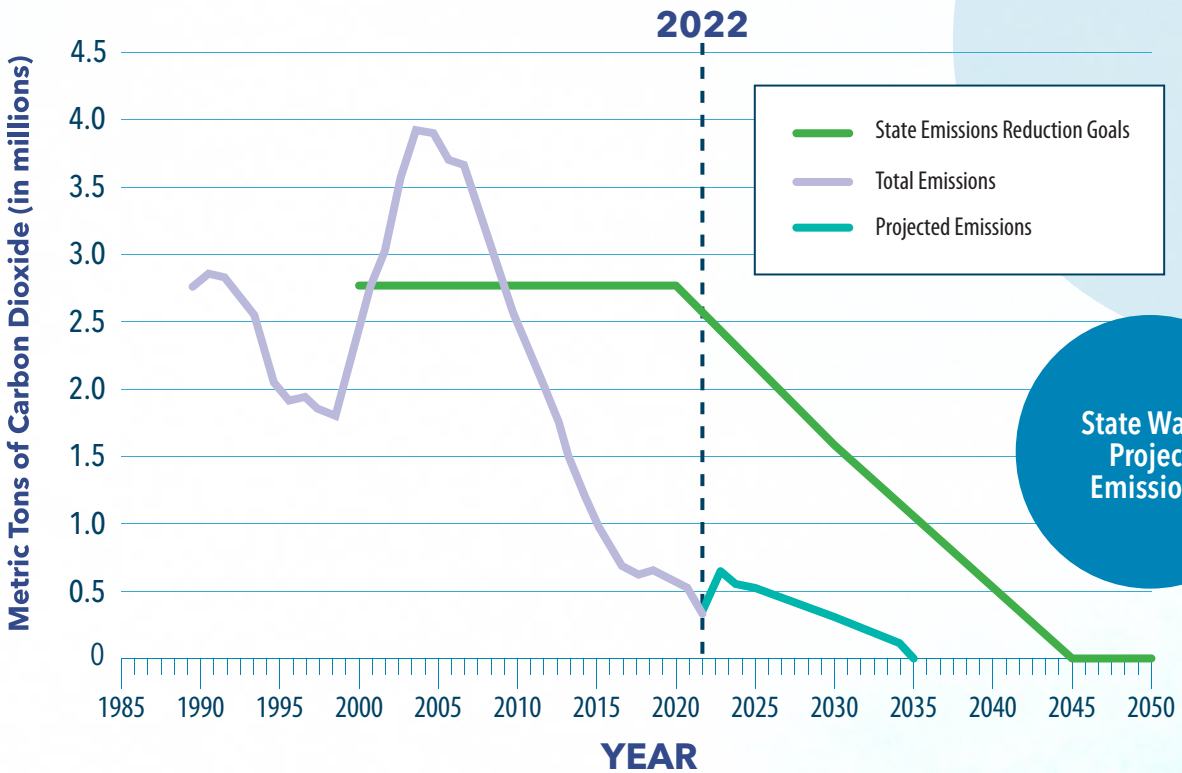
1 in 5 salmon and steelhead caught in the Pacific Ocean are fish bred at the Feather River Fish Hatchery.

Clean Energy Supply

- The State Water Project takes advantage of its water conveyance system to provide clean hydropower to power its own facilities as well as millions of California homes.
- The power produced by State Water Project facilities make the State Water Project the fourth largest zero emissions hydropower energy producer in the state. The State Water Project's four pumping-generating plants and four generating plants can potentially generate up to 1,748 megawatts, or about enough to power 1.3 million homes.
- DWR sells the excess power it generates from the State Water Project to the California Independent System Operator market during peak demand hours, and helps displace fossil generation and lower overall grid greenhouse gas emissions. The revenue from these sales keeps the cost of water deliveries more affordable.
- The State Water Project provides critical support to the electric grid during emergency shortfalls of power. During summer heatwaves in 2020, 2021, and 2022 the State Water Project flexibly reduced pumping and power use and increased power generation to provide power to hundreds of thousands of homes and avoid rolling blackouts.



The State Water Project's clean hydropower facilities can generate enough power to meet the demand of 1.2 million homes.



- The State Water Project is committed to reducing its carbon footprint by meeting its power needs with 100 percent carbon-free resources by 2035.
- 55 percent of the State Water Project's power portfolio currently consists of its own carbon-free hydroelectric generation and from renewable energy purchases like solar power. The State Water Project is on track to be carbon neutral by 2035.
- The State Water Project is also working to improve its energy efficiency to reduce greenhouse gas emissions. The State Water Project has significantly reduced its energy consumption by upgrading the indoor and outdoor lighting systems and controls at its field division sites, contributing to a 27 percent reduction in retail energy use by DWR since 2003.
- DWR is actively engaged in carbon sequestration initiatives on the State Water Project-owned portions of Sherman and Twitchell Islands in the Delta. These sustainable land management practices aim to reverse land subsidence, enhance soil fertility, foster ecosystem health, and play a key role in mitigating climate change.

Recreation and Education Opportunities

- The State Water Project uses its land and facilities to provide affordable and educational recreation opportunities for all Californians.
- State Water Project facilities, including lakes, lagoons, reservoirs, and aqueducts, offer the public opportunities to participate in a wide variety of outdoor activities, including swimming, fishing, hunting, sightseeing tours, birdwatching, picnicking, barbecuing, hiking, foot and bicycle racing, horseback riding, boating, waterskiing, and camping. These facilities receive an average of 3.7 million unique visits a year.
- The State Water Project maintains visitor centers and educational programs to inform the public about the role of water in California. The State Water Project's three Visitor Centers in Northern, Central and Southern California are staffed by knowledgeable guides and provide educational exhibits. DWR works with the Project Water Education Today Foundation to develop curricula that promote awareness, appreciation, knowledge, and stewardship of water resources.
- Many of the recreational programs hosted at State Water Project facilities are geared specifically towards underprivileged youth, residents of disadvantaged communities, and individuals with disabilities. For example, the Catch A Special Thrill program (C.A.S.T.) brings together volunteers and children with disabilities ages 7-17 for the opportunity to enjoy a quality outdoor recreational experience fishing at State Water Project reservoir sites. The low cost and local nature of these programs helps maintain access to the outdoors and recreation for many California residents who otherwise may not have the means or ability to travel.

Swimming is one of the many recreational activities at Castaic Lagoon, located at Castaic Lake State Recreation Area in Los Angeles County

