BAY AREA WATER SUPPLY AND CONSERVATION AGENCY
BOARD POLICY COMMITTEE MEETING

June 5, 2020

Correspondence and media coverage of interest between May 21, 2020 and June 4, 2020

Correspondence

To: SFPUC Commissioners
From: Steven R. Ritchie, Assistant General Manager, Water
Tim Ramirez, Division Manager, Natural Resources and Lands Management (NRLM)
Date: June 9, 2020
Subject: Bay Area Watershed and Rights of Way (ROW) Lands Wildfire Preparedness Update

Media Coverage

Water Supply Conditions:

Date: June 3, 2020
Source: WeatherNation
Article: Drought Emerges Across the Pacific Northwest

Date: May 23, 2020
Source: South Tahoe Now.com
Article: Drought conditions for Northern California and Northern Nevada

Infrastructure:

Date: June 2, 2020
Source: California Department of Water Resources
Article: DWR Awards $65.8 Million in Grants to Support Local Water Resilience Projects Around the State

Date: May 29, 2020
Source: E&E News
Article: Utilities ramp up lobbying for relief, broader reforms

Date: May 21, 2020
Source: Maven
Article: Feinstein Introduces Bill To Restore San Joaquin Valley Canals, Improve Water Supply

Water Policy:

Date: June 4, 2020
Source: Western Farm Press
Article: State, feds in talks over water

Date: June 2, 2020
Source: PPIC
Article: Commentary: Competing Narratives on Delta Outflow Fuel Water Conflict

Date: May 24, 2020
Source: California Water Blog
Article: An Introduction to State Water Project Deliveries

Date: May 22, 2020
Source: California Department of Water Resources
Article: State Water Project Allocation Increases to 20 Percent

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June 9, 2020

TO: Commissioner Ann Moller Caen, President
Commissioner Francesca Vietor, Vice-President
Commissioner Anson Moran
Commissioner Sophie Maxwell
Commissioner Tim Paulson

THRU: Harlan L. Kelly, Jr., General Manager

FROM: Steven R. Ritchie, Assistant General Manager, Water
Tim Ramirez, Division Manager, Natural Resources and Lands Management (NRLM)

SUBJECT: Bay Area Watershed and Rights of Way (ROW) Lands Wildfire Preparedness Update

During the January 2020 Budget Workshops the Commission was provided an overview of SFPUC wildfire risk management activities with a particular focus on SFPUC Alameda and Peninsula watershed lands. This report provides an update on the status of the annual fire guarding work being done in the Bay Area on SFPUC watershed and ROW lands.

Alameda Watershed

The California Department of Forestry and Fire Protection (CAL FIRE) has designated the 38,306-acre Alameda Watershed as moderate to high fire hazard severity. Annual fire guarding work started in April and is nearly complete. The Water Supply and Treatment (WST) crews have mowed approximately 24 miles along the edges of roadways, and disced approximately 15 miles along the perimeter fence line.

NRLM staff assess conditions each day based on the National Weather Service forecasts (wind, humidity, and temperature) to determine if there are restrictions on operations. Restricted operations are triggered if two of these three criteria are met:

- Average wind over 10 mph
- Humidity less than 20%
- Temperature over 80F

Restricted operations include:

- All vehicles must stay on designated vegetation-free roadways.
- All potential spark generating operations must cease by 12 noon.
- All potential spark generating operations must have pumper/water tenders on site.
- Anyone working on the watershed must have communication capability with Millbrae dispatch/emergency response agencies at all times.

If the National Weather Service determines conditions meet a Red Flag Warning, then no spark generating activities are allowed on the watershed, and the watersheds are closed to all non-essential activity.

The first day of restricted operations based on weather conditions was Memorial Day, May 25th, and continued for four consecutive days.

The annual First Responder Liaison meeting hosted by the NRLM Alameda Watershed team in coordination with CAL FIRE will be conducted remotely via BlueJeans on Thursday, June 4th. The watersheds are State Responsibility Areas and communication with CAL FIRE is ongoing throughout the year, and these annual meetings are important to convene all of the first responders to emergencies on the watersheds. Participants will also include County Sheriff's Offices, local fire departments, and adjacent landowners, and meeting topics will cover scheduling field training events, updating contact information, and distributing NRLM watershed "fire defense maps" which are used by all first responders to the watersheds.

<u>Peninsula Watershed</u>

The 22,854-acre Peninsula Watershed is a Hazardous Fire Area in the California Public Resources Code, and CAL FIRE has designated the watershed as moderate to very high fire hazard severity. Fire guarding work started in in late May and is ongoing. The WST crews will mow approximately 40% of the 90 total miles along the edges of roadways, and the remaining 60% will be done under a contract which was just awarded. We are now waiting for the Notice to Proceed (NTP). The annual vegetation management within the 47 miles of fuel breaks (approximately 16 miles each year) is also being done under contract which was also just awarded and will begin once we have the NTP. The 6.5 miles of discing along the perimeter fence line will begin in June, and this work will be done by WST crews.

The annual First Responder Liaison meeting hosted by the NRLM Peninsula Watershed team in coordination with CAL FIRE was held remotely via BlueJeans on Thursday, May 28th. This was our first attempt using this virtual platform to hold this important meeting, and we were assisted by SFPUC IT staff who served as the moderator. Attendees included San Mateo County Parks, San Mateo

County Office of Emergency Services, and local fire departments. Follow up to this gathering will include scheduling field trainings, updating and distributing contact information, and distributing the NRLM watershed “fire defense maps” which are used by all first responders to the watersheds.

One of these field training events will hopefully include a prescribed burn of San Andreas and/or Pilarcitos Dam faces. These are conducted under an agreement with CAL FIRE, which expires June 22, 2020, and are dependent on weather conditions and the availability of CAL FIRE staff. We are working on a new multi-year agreement so that these annual trainings can continue. We have been able to burn the San Andreas Dam face two of the last three years.

This year we have been able to work with CAL FIRE crews during the winter months to complete three fuel reduction projects in the Peninsula Watershed. The first one was at Windmere and included pine tree removal and chipping (see photo below). The second was within the Southern fuel break, and included pile burning of the dead tan oak vegetation. The third was along Cahill Ridge near Cemetery Gate and also included pile burning.

Rights of Way

Fire guarding work by the WST crews is ongoing along the 20 miles of ROW lands. The east bay section is on its second pass, and the west bay section is on its first pass. Based on conditions, we generally mow these sections at least twice

– on occasion three times in the East Bay – to comply with State weed abatement requirements. The annual contract for goats to "mow" approximately 1 mile of ROW was issued NTP, and this work started in late May and is scheduled to go through June. Fuel reduction is also contracted for the Silva Tract in Millbrae (approximately 2 acres), and we just received NTP. This work includes brush and ladder fuel removal and will be done in June.

This year we have also been able to work with CAL FIRE crews during the winter months to complete two fuel reduction projects along ROW lands. The project near Pulgas Valve Lot along the access road and trail (eastern boundary of the Peninsula Watershed) included 4 acres of brush and ladder fuel removal. The Polhemus Road project also included brush removal which was then piled and burned (see photo below).

Planning and Future Work

The SFPUC Wildfire Mitigation Plan (Plan), which focuses on SFPUC power lines, was approved by the Commission in December 2019. As required, that plan has been independently reviewed, and this report and the updated Plan are scheduled for Commission consideration at the June 9th meeting. Work under this Plan on the approximately 10 miles of power lines within the watersheds performed by the NRLM tree crew, WST crews, and contractors in the Bay Area watersheds is ongoing.

We also continue to work on the environmental documents to have CAL FIRE conduct additional prescribed burns on the Peninsula Watershed. We have confirmed CEQA coverage with SF Planning for a pilot project within one of the Bioregional Habitat Restoration program sites and are now working to acquire the federal/state permits. For other sites on the watershed, CAL FIRE will be the CEQA lead agency, and completion of this document is scheduled for Fall 2020. Once we have the required environmental documents, CAL FIRE will schedule the prescribed burns based on weather conditions and the availability of their crews.

NRLM staff also continue to work on updating Watershed Management Plan Fire Management Elements (1996) to prioritize fuel management projects and acquire contractor support for hazardous tree removal to supplement the important and hard work being done by the NRLM tree crew.

The NRLM Planning and Compliance section is responsible for managing the Watershed and ROW Project Review Process, which all projects must go through to confirm consistency with SFPUC plans and policies, including measures to minimize wildfire risk. NRLM staff work closely with PG&E to assure their projects are prioritized and include these measures so that PG&E can safely conduct their wildfire mitigation plan work as the owners and operators of power lines on SFPUC property.

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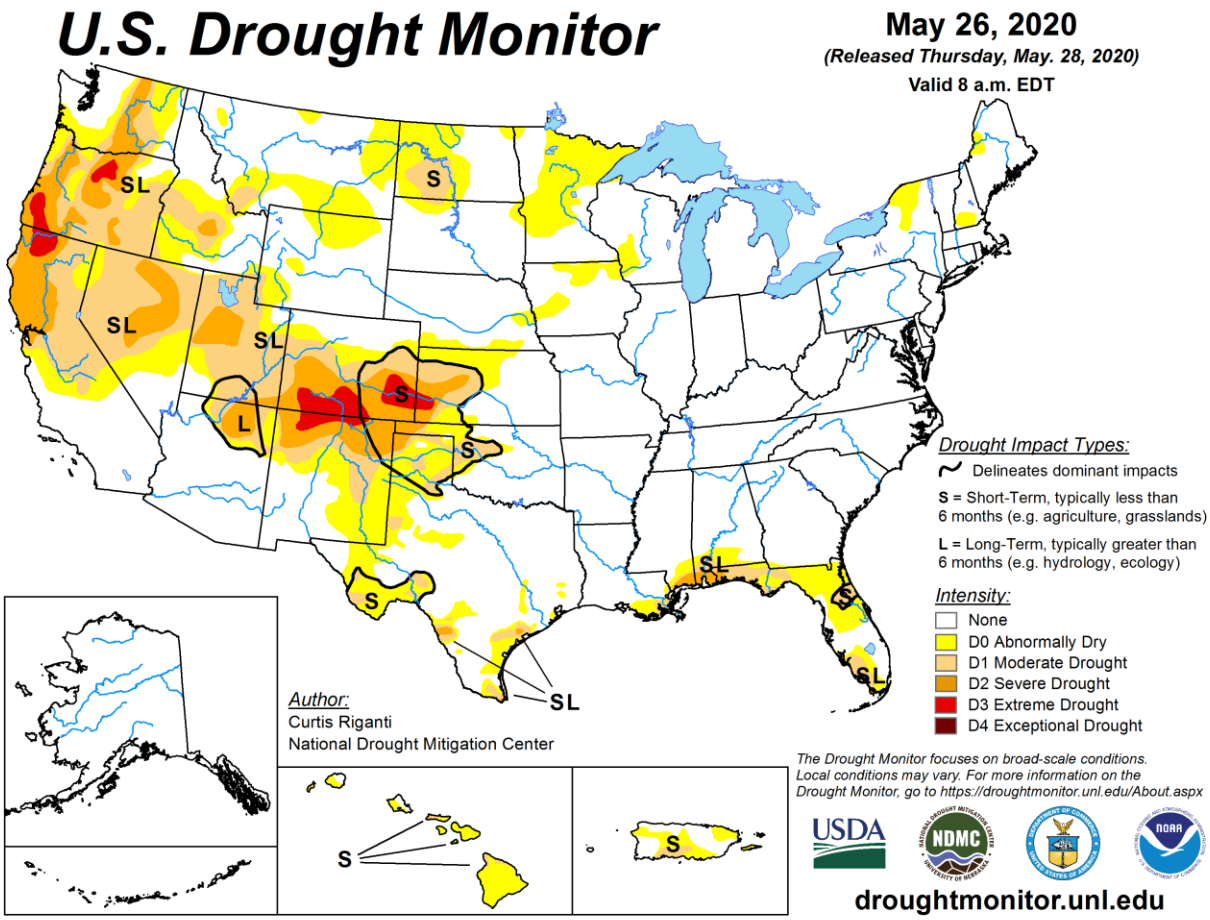
Drought Emerges Across the Pacific Northwest
WeatherNation | June 3, 2020 | Mace Michaels



[Latest US Drought monitor report from the National Drought Mitigation Center]

[From NOAA written by Rebecca Lindsey] Several months in a row of below-average precipitation have brought drought to the Pacific Northwest in spring 2020, with only the northwestern corner of Washington, around Seattle, free of any kind of drought or abnormal dryness as of the May 19 update from the U.S. Drought Monitor. As the region's dry summer approaches, the winter and spring precipitation deficits pose a threat to livestock operators, farmers, and fish, and heighten the risk of wildfires.

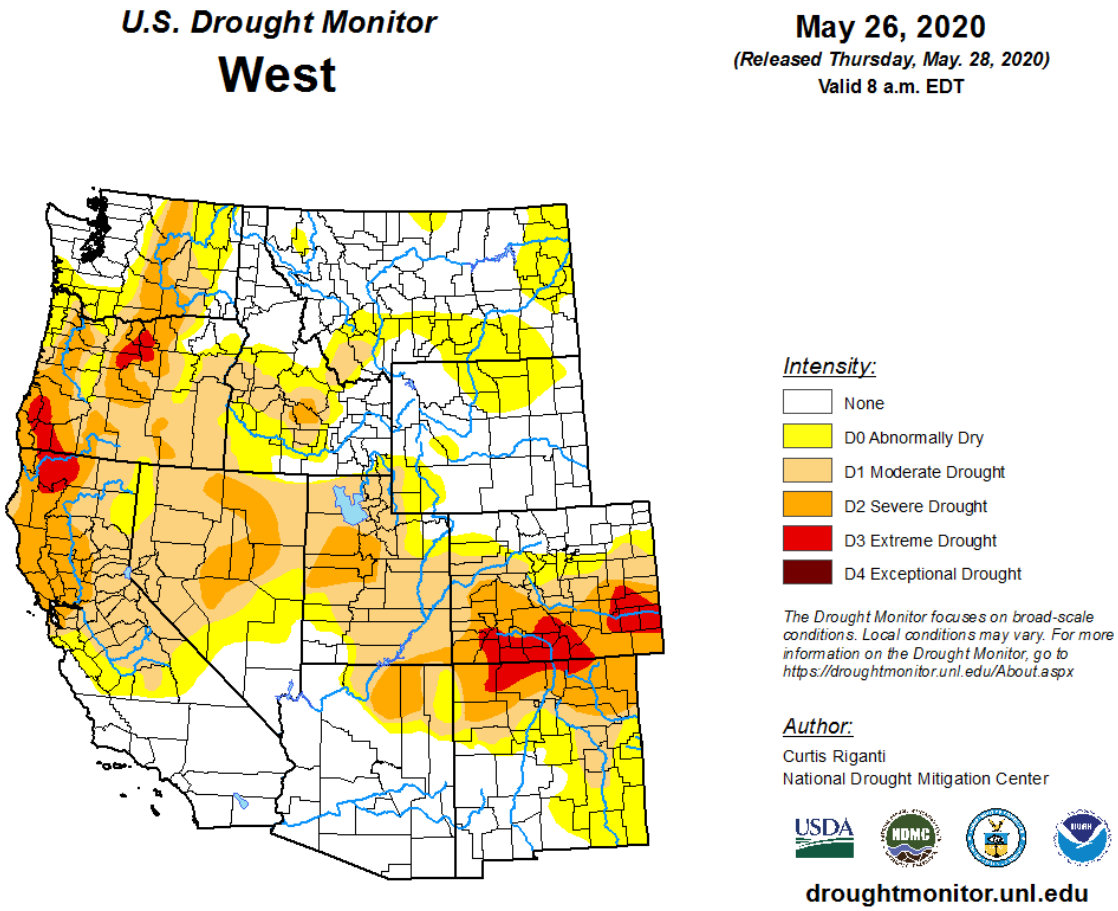
For many of us, the backdrop of our mental image of Washington and Oregon is the dripping, moss-covered forests of the Coast and Cascade Range Mountains. But a significant portion of each state lies inland of the mountains on a high, dry plateau. Lying in the rain shadow of the mountains, these areas are dominated by public and private rangeland and farms, and their water supply is largely dependent on the mountain snowpack.

When it comes to this winter's snowpack, says Oregon State Climatologist Larry O'Neill, the concern is less about how little there was and more about how quickly it is melting. Snow totals

in several of the state's mountain ranges, including the North Cascades and the Blue mountains were actually pretty good, and even in the Southeast, where they were below normal, they weren't record-low. But it is all melting lightning fast.

"Statewide, surface water supplies and streamflows don't look that bad at the moment, especially because some of the mountain areas have continued to get some rain in the past few weeks," he explained. "But with the warm temperatures we've been having, that snowpack is likely to disappear in a matter of weeks, rather than gradually melting out through June, and those flows are going to crash."

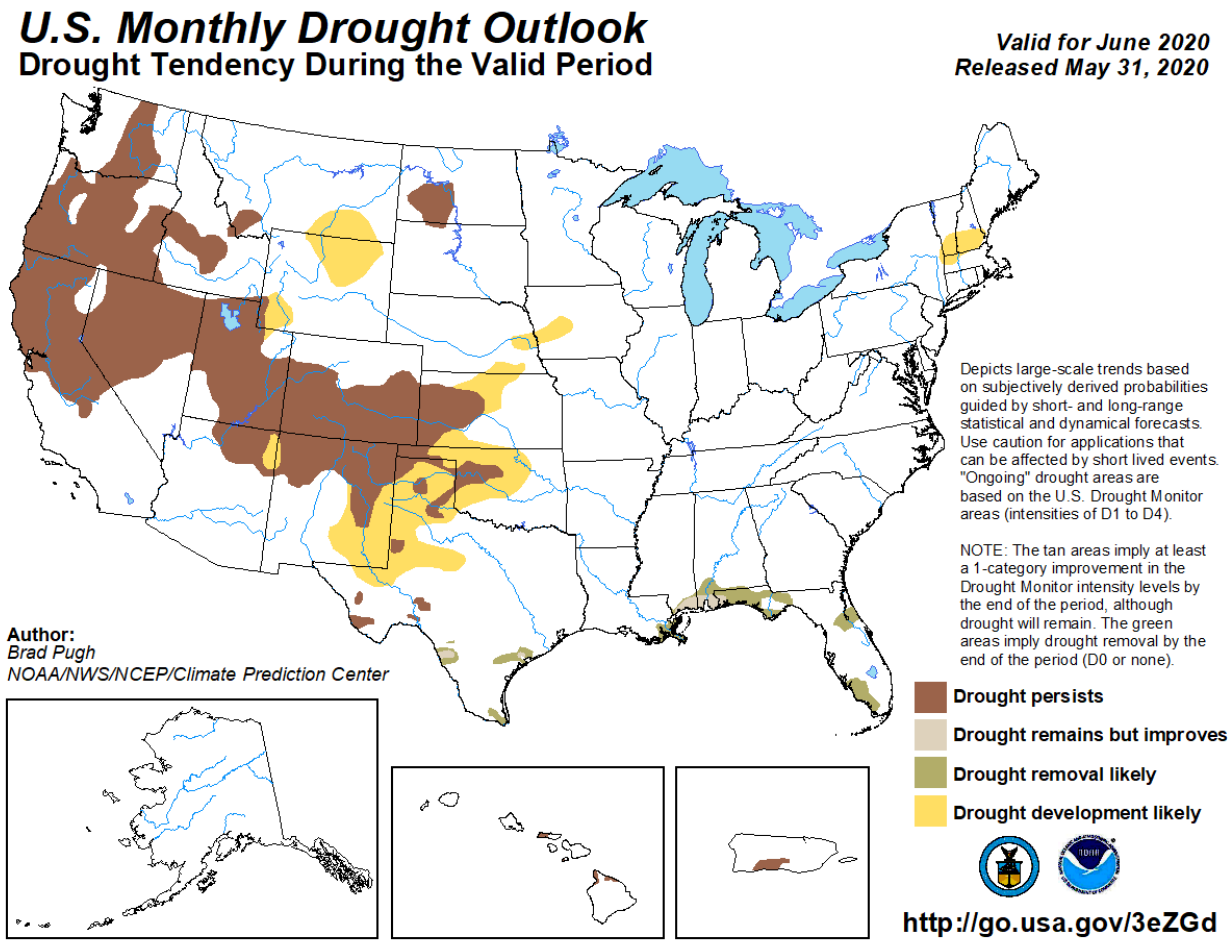
Once that happens, the foothills and the plateau regions may be facing more serious water shortages. According to the Drought Monitor, when drought reaches "severe" status in Oregon, pastures are often dry, and livestock producers wind up being forced to sell cattle earlier than planned; marshes dry up, impacting waterfowl and other wildlife—including forcing bears into urban areas. In those areas designated extreme drought, the drought is likely to cause planting delays for growers, cut backs in irrigation water, and falling groundwater levels in wells.



In some the state's most heavily regulated water districts, including the Klamath River district that straddles southern Oregon and Northern California, even the recent rains some parts of the state have experienced may not do much good.

“The picture near the end of April for many areas was really bleak, and that led water managers to slash growers’ allocation for spring planting,” O’Neill explained. In what is essentially a high-altitude desert, all crops depend on irrigation or groundwater supplementation. Faced with extreme cutbacks, many growers simply leave fields fallow. “Even if the surface water outlook improves in late spring, like it has in some places this year, it’s often too late for farmers.”

Farmers can’t just start their planting later; even in a good water year, streamflows decline significantly in summer as the snowpack melts, drawing a firm end to the growing season in the absence of private wells. In a year like this one, where the snowmelt is early and rapid, the season is shorter still.



[This map shows where drought is expected to develop, worsen, or improve across the contiguous U.S. during June 2020. Map from NOAA’s Climate Prediction Center.]

“This situation is a preview of a challenge that we are probably going to see more often in the next 20 to 30 years, “says O’Neill. Even if winter snowpack doesn’t change significantly as a result of global warming, warmer springs and summers will shift the timing and duration of the melt season, and the runoff will come earlier and be over more quickly. If summer temperatures are hot enough, drought may develop even if precipitation isn’t below average, due solely to extremely high rates of soil moisture evaporation.

Across both Washington and Oregon and down into Northern California, current drought conditions are also elevating fire risk. Already, some private timberlands in western Oregon that normally open to the public for recreation have been closed in anticipation of a bad fire season, according to news reports. In the Southwest corner of the state, the Department of Forestry has started the fire season a month earlier than usual, with all backyard burning prohibited.

# # #

Drought conditions for Northern California and Northern Nevada
South Tahoe Now.com | May 23, 2020 | Paula Peterson

SOUTH LAKE TAHOE, Calif. - This week's Drought Monitor shows much of the West in some level of drought. Lake Tahoe, the Sierra, and Western Nevada are all in a "moderate drought" stage with no end in the immediate future.

The 90-day outlook shows higher than average temperatures and lower than average precipitation, neither of which is good to break out of a drought.

Following below-average precipitation most of the winter, May storms delivered 181 percent of average in the Northern Sierra for this time of year, but the results aren't showing enough to remove the area from drought.

This year's snowpack is the 11th driest on record since 1950 while precipitation stands as the 7th driest on record since 1977. Thirty percent of California's annual water supply comes from snowpack.

South Tahoe Public Utility District supplies much of the water to South Lake Tahoe. All drinking water in South Lake Tahoe is pumped from underground aquifers through an intricate system of wells and water booster stations interspersed through the service area. No water is taken from Lake Tahoe. In order to conserve water and meet the state's goals, there are permanent water restrictions. Properties with street addresses ending with an even number can irrigate on Monday, Wednesday, and Friday; properties with street addresses ending with an odd number can irrigate on Sunday, Tuesday, and Thursday. No irrigation permitted on Saturday. (those on a drip system are exempt from watering day restrictions)

The State Water Project (SWP) now expects to deliver 20 percent of requested supplies in 2020 thanks to that above-average precipitation in May, the California Department of Water Resources (DWR) announced Friday. An initial allocation of 10 percent was announced in December and increased to 15 percent in January. Today's announcement will likely be the final allocation update of 2020.

"May storms gave us a boost following a very dry winter and allowed us to increase allocations for communities and agriculture in California," said DWR Director Karla Nemeth. "It's another example of our state's unpredictable precipitation that has been compounded by our changing climate. We must manage our water supply responsibly to not only deliver water now but ensure we have enough in reserves to protect us from future dry years."

A 20 percent allocation amounts to 843,696 acre-feet of water. The SWP provides water to 29 SWP contractors who supply water to more than 27 million Californians and 750,000 acres of farmland.

# # #

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DWR Awards $65.8 Million in Grants to Support Local Water Resilience Projects Around the State

California Department of Water Resources | June 02, 2020

SACRAMENTO, Calif. – A water treatment expansion project that will serve more than 1 million Californians is just one of the many projects to receive grant funding from the Department of Water Resources (DWR) as part of a continued effort to support local agencies in building long-term water resilience for their communities.

The $65.8 million in grants awarded today will help fund projects such as groundwater replenishment and habitat restoration within the Colorado River, Lahontan, San Francisco Bay Area and Santa Ana Proposition 1 funding areas. More than $12 million of this amount targets projects that also help disadvantaged and underrepresented communities, including Tribal governments.

“In the face of a changing climate, it is imperative that we continue to invest in projects that will help California achieve a more sustainable, climate-resilient future,” said DWR Director Karla Nemeth. “These funds provide the resources needed by local agencies to not only address but overcome the water challenges in their communities.”

Among the funding awards is a $1 million grant to the city of Coachella to consolidate the Castro Mobile Home Park with the Coachella Water Authority potable water system. This project will provide access to a more reliable water supply and affordable water rates for customers in this severely disadvantaged community. In doing so, this effort will also alleviate health and safety concerns after unsafe levels of bacteria and other contaminants were identified in the community’s only drinking water well.

The Big Pine Community Services District was awarded $140,000 to improve its almost 50-year-old wastewater treatment plant. This project will construct an evaporation and percolation pond that will provide additional treated wastewater storage capacity and protect the quality of the local disadvantaged community's groundwater resources.

A $3.6 million grant was awarded to the Orange County Water District to construct the final phase of its Groundwater Replenishment System. Building on a grant provided by the Department under Proposition 13 in 2002, these funds will help deliver high quality water into an underlying groundwater aquifer for potable use by more than 1 million county residents.

A grant of over $1.4 million was awarded to the Contra Costa County Flood Control and Water Conservation District to enhance 196 acres of coastal wetlands along the Lower Walnut and Pacheco creeks. This project will restore proper ecological function by enhancing wildlife populations and biodiversity in the lower portion of the Walnut Creek Watershed, and will help to reduce flood risk for local communities.

These grant awards were made possible by Proposition 1, the $7.5 billion water bond approved by California voters in 2014. Approximately $220 million is being awarded in phases, with about $130 million left to be awarded in the coming months.

This grant program empowers local agencies to address the water resource challenges in their communities using integrated regional water management, a collaborative approach aimed at improving regional self-reliance and helping water infrastructure systems adapt to climate change.

# # #

Utilities ramp up lobbying for relief, broader reforms
E&E News | May 29, 2020 | Hannah Northey

Rep. Grace Napolitano (D-Calif.), chairwoman of the Transportation and Infrastructure Subcommittee on Water Resources and Environment, during a hearing this year. Francis Chung/E&E News

The nation's water utilities, facing more than $27 billion in lost revenue from the pandemic, are ramping up their outreach to Congress as lawmakers prepare to act on infrastructure legislation and additional relief in the face of a historic pandemic.

In addition to a flurry of letters and meetings, advocacy groups and lobbyists with congressional expertise are pushing for provisions in both Water Resources Development Act bills moving through the House and Senate, and the next round of COVID-19 stimulus funds.

In the near term, the bills could be a lifeline for both residents and utilities reeling from the economic fallout of the pandemic.

Over the longer term, some hope the bills could provide a pathway for revamping a highly fractured, aging water system — old lead pipes, vulnerable dams and 1,500 drinking water systems in violation of the Safe Drinking Water Act, said Robert Powelson, CEO of the National Association of Water Companies.

"We need not talk about the horrific events of Flint, Mich., as we approach the five-year anniversary, the dam breaks in Michigan; Newark, N.J.; Baltimore; Pittsburgh — I can go on and on and on," Powelson said. "This is going to require investment in the water grid."

To deploy that capital, Powelson said, NAWC is pushing for lawmakers crafting both the coronavirus relief funds and WRDA bills to include language from S. 2596, a bill from Sens.

Tammy Duckworth (D-Ill.) and Mike Braun (R-Ind.) that would amend the Safe Drinking Water Act to allow community water systems to enter into partnerships to improve infrastructure.

The group is also pushing for rate-regulated water companies engaged in wastewater treatment to be eligible for the State Revolving Fund program.

That's a step, Powelson said, that would begin to address the massive amount of capital needed to upgrade the nation's aging water system.

"It sets up an unbelievable opportunity for us as an industry to go out and deploy capital and fix a lot of these infrastructure problems," he said, "and Congress doesn't have to allocate one dollar to do that."

NAWC is working with the lobbying shop Lot Sixteen on these issues, including Colin Hayes, the group's co-founder and a former Senate Energy and Natural Resources Committee staff director, and Joseph Eaves, a former legislative director for Rep. Paul Tonko (D-N.Y.), according to lobbying disclosure forms.

LIHEAP for water?

Former Federal Energy Regulatory Commission member Robert Powelson, now CEO of the National Association of Water Companies, on Capitol Hill. FERC

While states have the means to help consumers struggling to pay energy bills, no such program exists for water or wastewater assistance, Powelson said.

That hole has prompted a push among a broad coalition of more than a dozen water groups for the creation of a program that would set aside $1.5 billion for grants to states, territories and Indian tribes for low-income household drinking water and wastewater assistance.

Such a provision appeared in the House Democrats' $3 trillion pandemic aid bill, known as the "Health and Economic Recovery Omnibus Emergency Solutions (HEROES) Act," which passed the lower chamber earlier this month.

The language was championed by House Transportation and Infrastructure Chairman Peter DeFazio (D-Ore.) and Subcommittee on Water Resources and Environment Chairwoman Grace Napolitano (D-Calif.).

While Senate Republicans have called for a pause on legislating more relief until the effects of the trillions of dollars enacted so far have been assessed, House Democrats say they're ready to again launch talks — and proponents of the federal water aid program say that element must be included as the economy recovers (E&E Daily, May 27).

The idea is to create a program along the lines of the Low Income Home Energy Assistance Program (LIHEAP), which is focused on energy, but for water and wastewater.

The program, established in 1981 and funded annually through the appropriations process, aims to help low-income households meet their immediate home energy needs.

"This whole push for water/wastewater, LIHEAP eligibility, that's a good thing," said Powelson. "If, in the midst of this pandemic, that's an outcome, it's an outcome we would support."

NAWC and other groups earlier this month called on Senate and House leaders to include language authorizing drinking water and wastewater ratepayer assistance in the next COVID-19 package with as strong funding as possible.

David Springe, executive director of the National Association of State Utility Consumer Advocates, in a letter also called for the program.

"Consumers that are not able to pay their electric utility bill or natural gas utility bill during the current crisis are likely also not able to pay their water and wastewater bill," he wrote.

"Yet there is no LIHEAP type federal assistance program to support low-income water and wastewater consumers," said Springe. "Congress should create and fund a LIHEAP type program to address the needs of low-income water and wastewater consumers."

'Super public utility commission'
Other provisions in the "HEROES Act" are drawing backlash.

State regulators, consumer advocates and regulated utilities are pushing lawmakers to leave out language included in House Democrats' most recent COVID-19 bill that would require any states or utilities receiving federal emergency funds to adopt a moratorium on energy and water shut-offs during the pandemic.

As states prepare to open, critics of that language say states — and not Congress — are best positioned to oversee those decisions.

"The concern in all this is Congress kind of acting like a super public utility commission," said Powelson. "Congress needs to respect state jurisdictional decisionmaking that's best handled at the state level."

The House bill requiring the adoption of a moratorium arrived after months of lawmakers calling for a nationwide solution to utility shut-offs (Greenwire, March 13).

States and private companies have taken the lead in announcing and tracking moratoriums.

Springe in his letter reiterated that Congress should respect state jurisdictional and decisionmaking authority to determine the extent and duration of any shut-off moratoriums and to control any rules related to disconnections and reconnections, utility communications, payment programs, and revenue collection activities.

He also highlighted a letter the National Association of Regulatory Utility Commissioners sent to lawmakers last month warning against the use of "prescriptive federal mandates" on state-regulated utilities.

"A 'one-sized-fits-all' approach does not recognize the on-the-ground differences among the many states," he wrote. "Congress should not impose requirements or restrictions that impede state authority to craft the solutions necessary to address state needs."

# # #

Feinstein Introduces Bill To Restore San Joaquin Valley Canals, Improve Water Supply
Maven | May 21, 2020 | From Senator Dianne Feinstein's office:

Senator Dianne Feinstein (D-Calif.) today introduced the Restoration of Essential Conveyance Act, a bill to authorize $800 million in federal funding to repair critical canals in the San Joaquin Valley damaged by land sinking from overpumping of groundwater, known as subsidence, and for environmental restoration.

If the canals are not restored to their original capacity, 20 percent of the farmland – approximately 1 million acres – might have to be retired in a region that produces $36 billion in crops annually, including a third of the nation's produce.

Representatives Jim Costa and TJ Cox (both D-Calif.) have introduced similar legislation in the House.

"We have to find better ways to use the water we have," said Senator Feinstein. "Restoring the San Joaquin Valley's canals is one of the most efficient ways to improve the sustainability of California's water supply. It would allow us to capture more winter storm floodwaters and use that extra water to offset necessary reductions in groundwater pumping. This bill would give our farmers a fighting chance."

Decades of overpumping groundwater has caused land beneath the canals to sink by more than 20 feet in some areas. Damage caused by this subsidence has caused the valley's canals to lose up to 60 percent of their capacity.

Without new water sources, farmers could be forced to retire as much as one-sixth of the valley's farmland to meet reductions in groundwater pumping required by California's Sustainable Groundwater Management Act. A coalition of water users known as the Water Blueprint for the San Joaquin Valley estimates that as many as 85,000 jobs could be lost statewide if that farmland is fallowed.

Restoring canal capacity would allow farmers to offset reductions in groundwater pumping by capturing more water from winter storms and use it for groundwater recharge projects.

The bill would authorize $800 million for the federal cost-share of three major canal repair projects and a major habitat restoration project:

- $200 million for California Aqueduct repairs, which would move an additional 205,000 acre-feet per year on average.

- $200 million for the Friant-Kern Canal, which would move an additional 100,000 acre-feet per year on average.

- $200 million for the Delta Mendota Canal, which would move an additional 62,000 acre-feet per year on average.

- $200 million for the San Joaquin River Restoration Settlement to help restore salmon populations in the river.

# # #

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State, feds in talks over water

The parties are trying to agree on management of their respective water projects.

Western Farm Press | June 4, 2020 | Tim Hearden

California and federal water regulators are trying to quickly resolve their legal dispute over competing biological opinions governing the management of their respective water projects, a top state official says.

The talks are proceeding after Gov. Gavin Newsom filed suit in February to nullify new federal opinions that would ease restrictions on surface water for San Joaquin Valley growers.

State officials argue the new federal conclusions affecting water operations in the Sacramento-San Joaquin River Delta are not scientifically adequate and fall short of protecting species and the state's interests.

"I actually think there is strong potential" for finding common ground, California Natural Resources Secretary Wade Crowfoot said this week. "There are some clear differences … in state and federal approach, but the men and women that do the work operating the system work really closely together. They all wake up every morning wanting to maximize water reliability but also to avoid extinction of fish."

Pushing for compromise

Farm groups have been pushing for Newsom to work with the federal government on water deliveries after President Donald Trump visited Bakersfield in February to sign a record of decision that seeks to coordinate the federal Central Valley Project and State Water Project.

The dispute arose when the U.S. Fish and Wildlife Service in October issued opinions that will affect water operations in the Delta and were three years in the making, as federal officials sought to update analyses of Delta smelt and other imperiled fish that were more than a decade old.

California water regulators in November announced plans to use their own data to operate the SWP rather than rely on the new federal opinions.

"I know it's been discouraging to many in the agricultural community to witness all this litigation and, in some cases, name-calling," Crowfoot told the State Board of Food and Agriculture on Tuesday. "Our focus remains very clear – ensuring state law is complied with.

"We retain a line of communication with our partners at the federal agency and with the state water contractors as well as the litigants who are suing us and the federal agencies on behalf of the environment," he said. "We actually feel conditions are right to see if we can settle out these issues."

Voluntary agreements

A settlement would remove a key obstacle to enacting voluntary agreements with water agencies in the Central Valley that Crowfoot says would provide more reliability in water

allocations for growers while improving conditions in the Delta, which suffers from numerous environmental challenges.

California's Natural Resources and Environmental Protection agencies in February proposed a framework for the agreements. The framework includes a 15-year program to provide new flows for fish recovery, create 60,000 acres of new and restored habitat, and generate more than $5 billion in new funding for environmental improvements and science, according to news releases.

"More work remains," Crowfoot said. "We have to turn that framework into a legally enforceable agreement."

Farm groups urged Newsom's administration to work with the federal government on water deliveries after state Attorney General Xavier Becerra filed suit in federal court in San Francisco on behalf of the state regulatory agencies, claiming the federal opinions "run counter to the scientific evidence that was before the agencies" and failed to analyze the potential harm to the species, according to the Bay City News Service.

A U.S. district court judge in May issued a preliminary, limited injunction against the federal opinions while holding some aspects in abeyance. An injunction would effectively revert Delta pump operations back to the more restrictive biological opinions developed during then-President Barack Obama's administration.

"We have to get off the merry-go-round of endless litigation," California Farm Bureau Federation president Jamie Johansson said in February. "No one benefits from that. Fisheries continue to suffer. Productive farmland goes unused. It's not a sustainable path for anyone."

Moving beyond lawsuits

At issue is whether the Trump administration's new guidelines adequately protect species, Crowfoot told the board. He said the agencies' goal is to "move beyond that process as quickly as possible" and "resolve the legal disputes," which would "allow the parties to get to the table on the voluntary agreements."

In other matters, Crowfoot defended the SWP's decision to keep water allocations at 20 percent of contracted supplies even though Lake Oroville – the project's chief reservoir – is at more than 80 percent of normal levels for this time of year.

He said the agency learned during the 2012-2016 drought to manage its supplies carefully in a dry year.

"Hopefully next year we'll return to a normal year," he said. "But it's also possible this winter is the beginning of a drought. We need to be prepared if that's the case."

# # #

Commentary: Competing Narratives on Delta Outflow Fuel Water Conflict
PPIC | June 2, 2020 | Jeffrey Mount and Greg Gartrell

Photo of an aeriel view of the Sacramento San Joaquin River Delta
This commentary was published in CalMatters on May 28, 2020.

In a February CalMatters commentary Dan Walters noted that California's water wars had reignited. The latest dustup revolves principally around the federal government's efforts to increase the amount of water supplied to farms and cities by the Central Valley Project, and a breakdown in cooperation between the state and federal government. It seems like everyone is suing each other. But what are they really fighting over?

To the uninitiated, the details of this conflict are hard to follow (a good summary can be found in Western Water). This is made more confusing by an array of contradictory narratives.

At the heart of the controversy is "Delta outflow." This is the volume of water that flows from the Sacramento-San Joaquin watershed, through the Delta and into San Francisco Bay.

Regulatory changes in required Delta outflow are a big deal because they come with potential trade-offs between supplying water for farms and cities or for the ecosystems that support endangered species, recreation and other uses of the Delta.

We conducted a study in 2017 of the destination of water once it enters the Delta. About a quarter of it is either pumped from the Delta by the state and federal projects or used within the Delta. The rest becomes fought over and misunderstood outflow into San Francisco Bay.

One common narrative is that outflow is water "wasted to the sea." Closer examination shows that most outflow either cannot be used or is needed to maintain water quality for water supply. The portion fought over—water allocated to protect the ecosystem– is surprisingly small.

Most Delta outflow is water that can't be captured because it's simply too costly to store, divert, and use (capturing it would require new expensive reservoirs and aqueducts). These uncapturable flows come during winter storms or periods of very high snowmelt runoff, occurring even in dry years. And this outflow is not "wasted" since it plays a vital role in the health of San Francisco Bay.

Additionally, to keep the Delta fresh enough to use for farms and cities, a large amount of water must flow into the bay year-round. If outflow drops too low—especially when export pumps are operating—the Delta gets too salty. The amount of this outflow is large—roughly four times the amount of water exported to southern California cities.

The big fights are over the third category: the outflow allocated to protect the Delta ecosystem and fishes protected by state and federal Endangered Species Acts. This is the volume of outflow over and above that required to keep the Delta fresh enough for water supply.

Environmentalists have claimed that ecological outflow is insufficient, and that it has remained largely unchanged despite 40 years of regulation. For the former claim, the uncertainties are large, but more water for the environment–more effectively allocated and paired with habitat improvements–is likely needed to improve the health of the Delta ecosystem. But for the latter claim, they are wrong. Since 1995 the amount of water dedicated by regulation to the ecosystem has grown significantly from virtually nothing in 1980 to about 12% of average inflow today (except during dry years when the proportion is much lower).

Water user interests, for their part, emphasize the cost to water supplies from increased ecological outflow to support fish. But again, this claim is often overstated. At times, natural runoff is sufficient to meet ecological standards with no net cost to water supply. We estimate that since 2008, when the most stringent regulations were enacted, roughly half of the ecological outflow has come at the expense of supply. That is still a lot of water—enough to support more than 400,000 acres of farmland or more than two million households—but far less than commonly claimed. And focusing solely on water supply costs ignores the broader benefits of a healthy Delta ecosystem.

These facts don't change the roots of the disagreement. The various interests are fighting over real trade-offs between water supply for farms and cities, and Delta outflow to protect the ecosystem. But both sides tend to talk past each other and overstate their cases. The numerous lawsuits are also a high-risk, low-reward strategy for addressing this problem, because the solution involves much more than a judge changing the Delta outflow equation. Instead, the answer lies in getting back to the table and negotiating a comprehensive agreement—with more on the table than just outflow—that most parties can live with, even if they don't like everything about it.

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An Introduction to State Water Project Deliveries
California Water Blog | May 24, 2020 | Nicole Osorio

Most people in California receive some of their drinking water supply from the State Water Project (SWP). The SWP also supplies water to over 10% of California's irrigated agriculture. The SWP and its service area span much of California, delivering water to 29 wholesale contractors shown in Figure 1.

Each year, the Department of Water Resources announces SWP Table A allocations which inform water contractors' SWP deliveries: "Table A", "Carryover", and "Article 21." What are these different SWP delivery categories and how do they work?

Figure 1: State Water Contractors (SWC) of California by Region ("Update on Delta Conveyance" 2019)

Table A, Carryover, and Article 21 are three types of SWP deliveries described in this post. Some additional, more minor, deliveries are made as: transfer and exchange Table A, and Pool Water deliveries.

The 2020 water year is dry, but the recent May storms led to the increased 2020 SWP Allocation from 15% to 20% of SWP contractors requested "Table A" delivery amounts. Figure

2 compares the initial and final SWP allocations from 1996-2020. Some lessons from this graph include:

- 2006 was the last 100% allocation year, 14 years ago.
- Final allocations usually increase significantly from the initial allocation estimate, usually sent to SWP contractors by end of October. However, final allocations could be less than initial allocation estimates in extreme dry years.
- Drought years tend to have little or no increases from initial to final SWP allocations (such as 2007-2009 and 2012-2015).
- It is likely that 2020's final allocation will be 20%. The last 20% final allocation year was in 2015, one of the driest years on record.

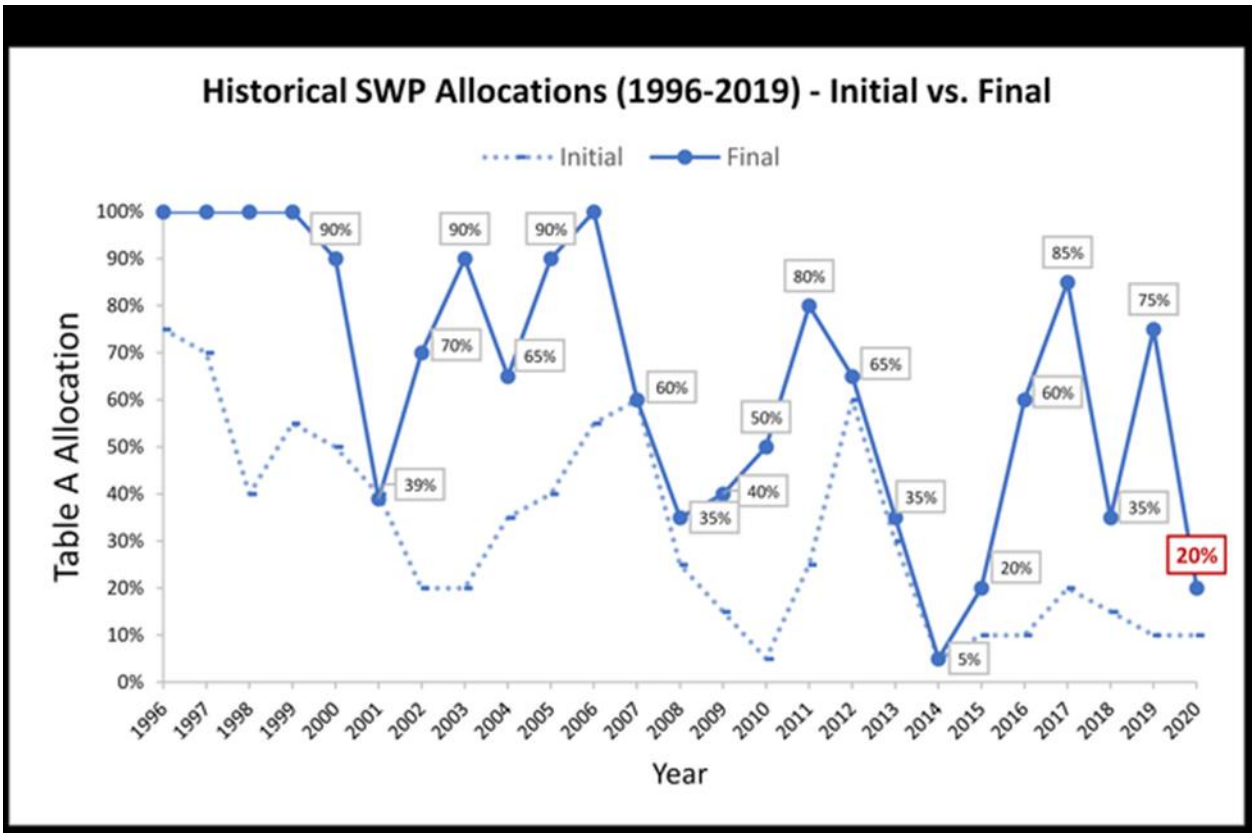

Figure 2: Historical SWP Initial and Final Allocations (1996-2020) (CA DWR 2020b). May 2020 allocation seems likely to become the 2020 final.

Figure 3 shows Table A, Carryover, and Article 21 deliveries from 2000-2017. Minimum, average, and Maximum Table A and carryover statistics were combined because both are categorized under Table A water while Article 21 deliveries are made above the approved Table A amounts. 2014 had the least Table A and carryover deliveries at 475 TAF while 2003 contained the most at 3202 TAF.

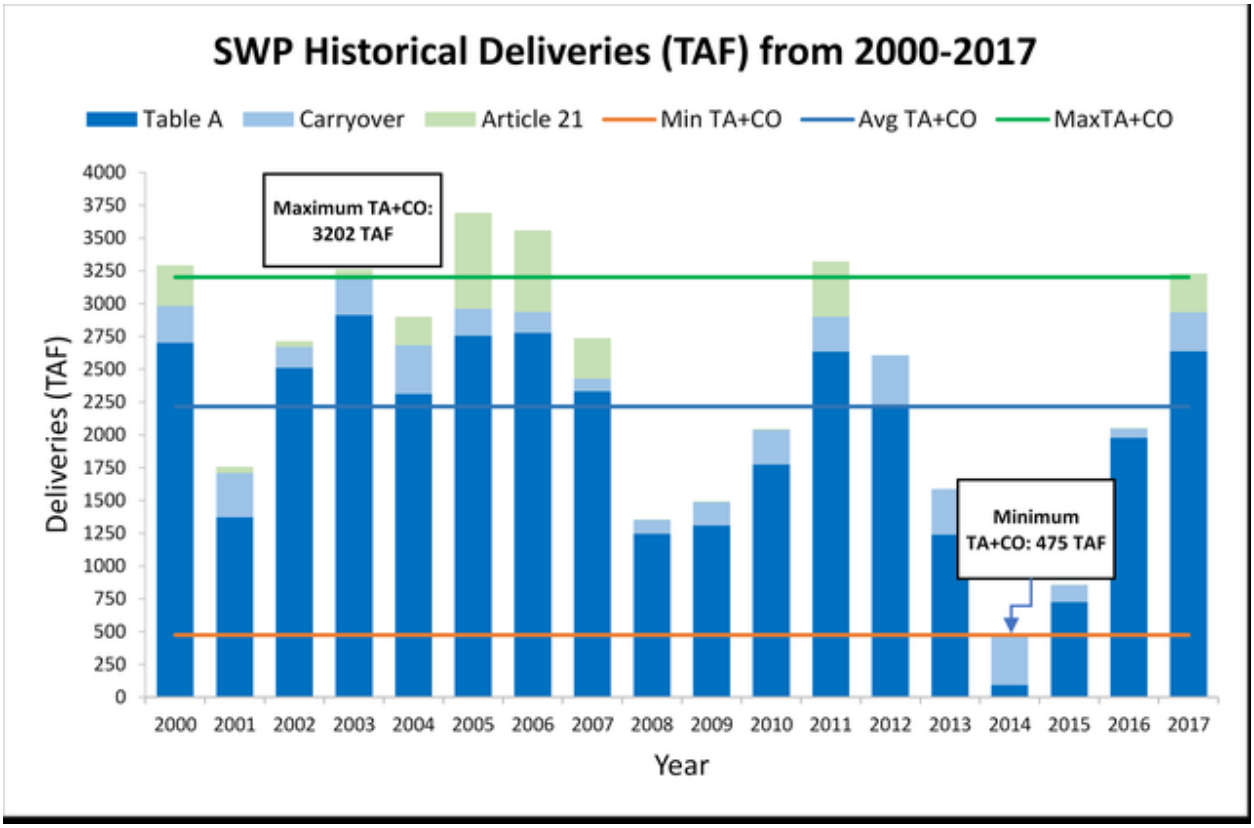

Figure 3: Historical SWP Deliveries (TAF) by category from 2000-2017 (Data from CA DWR 2009, 2012, and 2018).

What is Table A?

Table A allocations represent “a portion or all of the annual Table A amount requested by SWP water contractors and approved for delivery by DWR (CA DWR 2019).” DWR and the public water agencies and local water districts developed the SWP’s long-term water supply contracts in the 1960s. Table A contract amounts originated from these long-term contracts and have been amended. The 1994 Monterey Agreements significantly revised the long-term water supply contracts. Table 1 presents each contractor’s maximum Table A contract delivery amount, adding up to 4.17 million AF, anticipated to be the SWP’s ultimate delivery capability in the 1960s (an amount rarely actually available). As a wet year example, the last column indicates how much each water contractor utilized their Max Table A amount in 2006, a 100% allocation year. San Joaquin contractors were more likely to take their full Table A and supplement water supplies with Article 21 water, described later.

SWP Contractor	Max Table A Delivery Amounts (acre-feet) (2020)	% Of Total Max Table A	Max Table A Delivery Amounts (acre-feet) (2006)	% of Total SWP deliveries to Max Table A amounts at 100% Allocation (2006)
Feather River				
Butte	27,500	0.7%	1,200	39.0%
Yuba City	9,600	0.2%	9,600	55.6%
Plumas	2,700	0.1%	324	0.0%
North Bay				
Napa	29,025	0.7%	22,550	34.5%
Solano	47,756	1.1%	47,306	64.8%
South Bay				
Alameda Zone-7	80,619	1.9%	80,619	66.4%
Alameda County	42,000	1.0%	42,000	102.6%
Santa Clara	100,000	2.4%	100,000	74.6%
San Joaquin Valley				
Dudley Ridge	41,350	1.0%	57,343	130.5%
Empire	3,000	0.1%	3,000	109.4%
Kern	982,730	23.6%	998,730	124.4%
Kings	9,305	0.2%	9,305	102.4%
Oak Flat	5,700	0.1%	5,700	74.4%
Tulare Lake	87,471	2.1%	95,922	112.8%
Central Coastal				
San Luis Obispo	25,000	0.6%	25,000	16.8%
Santa Barbara	45,486	1.1%	45,486	51.2%
Southern California				
Antelope Valley-East Kern	144,844	3.5%	141,400	56.8%
Castaic Lake	95,200	2.3%	95,200	65.9%
Coachella Valley	138,350	3.3%	121,100	100.0%
Crestline-Lake Arrowhead	5,800	0.1%	5,800	11.1%
Desert	55,750	1.3%	50,000	100.0%
Littlerock Creek	2,300	0.1%	2,300	0.0%
Metropolitan	1,911,500	45.8%	1,911,500	79.1%
Mojave	89,800	2.2%	75,800	44.9%
Palmdale	21,300	0.5%	21,300	58.6%
San Bernardino Valley	102,600	2.5%	102,600	34.4%
San Gabriel Valley	28,800	0.7%	28,800	47.0%
San Gorgonio Pass	17,300	0.4%	7,000	61.1%
Ventura	20,000	0.5%	20,000	9.3%
TOTAL TABLE A	**4,172,786**	**100%**	**4,126,885**	

Table 1: Share of total Maximum Table A amount (4.17 MAF) between all 29 SWP Contractors at Calendar Year 2020 (CA DWR 2019) and % Utilization of Table A deliveries at 100% Allocation year in 2006 (CA DWR 2015). Largest Table A contract holders and highest 100% allocation utilizers highlighted. 2006 total deliveries also include turnback pool water.

What is Carryover water?

Carryover water is a portion of Table A water that contractors may save for next year's delivery. Carryover requests allow SWP contractors to store some of their annual allocation for the next year, and not lose undelivered allocation at the end of the SWP contract year, December 31. When contractors request carryover for next year's delivery, that water is stored in the SWP's share of San Luis reservoir in Merced County.

However, storing carryover water in San Luis reservoir has a low operating priority and so brings a risk. SWP contractors can lose this stored carryover water when San Luis Reservoir fills. In the 2017 wet year, some contractors (Santa Barbara County , Crestline Lake Arrowhead Water Agency and San Gorgonio Pass Water Agency) needed to transfer their carryover water from San Luis to another non-SWP facility to prevent losing their carryover storage. Figure 4 shows how San Luis filled in 2017 for the first time since 2011, following the 2012-2016 drought.

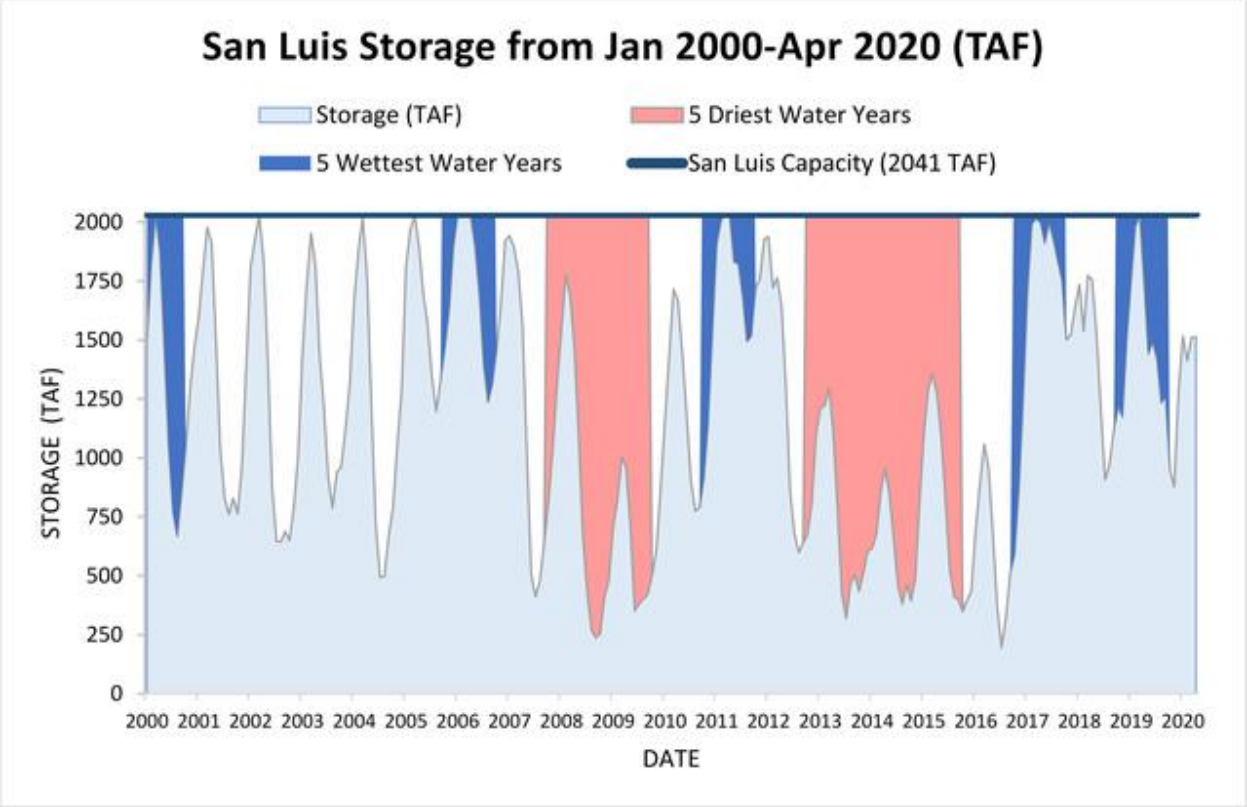

Figure 4: San Luis reservoir levels (TAF) from January 2000 to April 2020 with wettest and driest water year designations using the Sacramento Valley Index (CA DWR 2020a; c).

Overall, San Luis carryover water provides water contractors with a safety net in dry years, like 2020. During the 2012-2016 drought, contractors almost exclusively relied on only Table A and carryover. 2014 was the only year when carryover deliveries (383 TAF) exceeded those of Table A (92 TAF) (Figure 3). Carryover storage acts as a "savings bank account" which water agencies can draw on in dry conditions, but at some risk in very wet years.

What is Article 21 water?

Article 21 (described in water contracts) allows water contractors to take deliveries above approved and scheduled Table A amounts (CA DWR 2019). Article 21 is sometimes called interruptible, unscheduled, or surplus water. It is offered predominantly in wet years (2005, 2006, 2011, and 2017) (Figure 5).

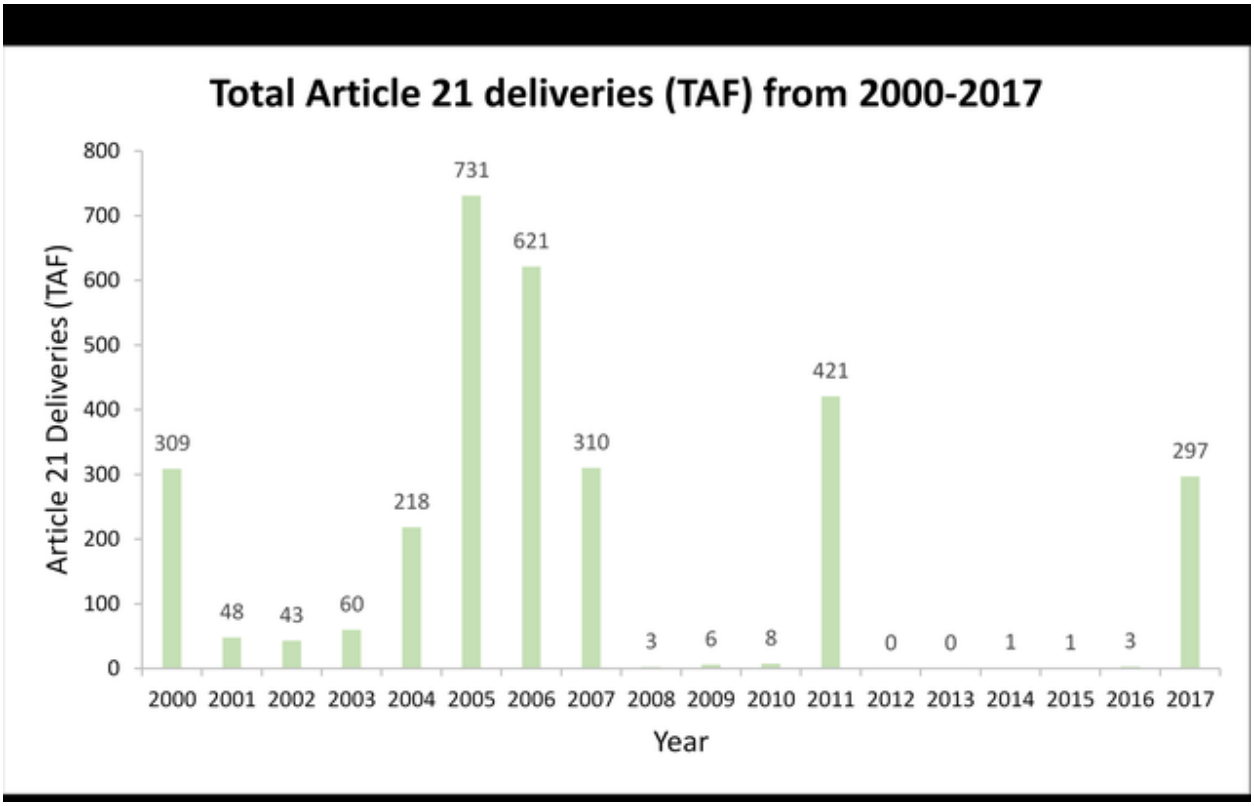

Figure 5: Historical Article 21 deliveries from 2000-2017 (Maven's Notebook, 2018)

As an ephemeral surplus supply, contractors cannot "request" and schedule Article 21 deliveries in advance. DWR can only offer Article 21 deliveries when (CA DWR 2018, 2019; CA WATER COMMISSION: Article 21 water, explained):

1. Article 21 deliveries do not interfere with SWP allocations.
2. Excess water is available in the Delta.
3. Conveyance is not being used for SWP purposes or scheduled SWP deliveries.
4. Article 21 water may not become Carryover water, stored in SWP facilities.

The different types of SWP deliveries are akin to managing household finances. Table A deliveries are like a monthly paycheck for fixed recurring expenses. Carryover requests let you save part of your "Table A paycheck" for the future. Lastly, Article 21 deliveries are like an unusual annual bonus. You could splurge your "Article 21 water" bonus for direct retail delivery, or save it in an aquifer or reservoir outside the SWP.

In California's highly variable climate, each water contractor must match these SWP water supplies, other local and regional water resources, and water demands for this year's water use

and in preparing for future droughts. In this dry 2020 year, SWP contractors are likely aware that the next drought could be just around the corner.

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State Water Project Allocation Increases to 20 Percent
California Department of Water Resources | May 22, 2020

A drone provides a view of the Harvey O. Banks Delta Pumping Plant, the first major plant designed and constructed within the California State Water Project.
A drone provides a view of the Harvey O. Banks Delta Pumping Plant, the first major plant designed and constructed within the California State Water Project. DWR/2018

SACRAMENTO, Calif. – The State Water Project (SWP) now expects to deliver 20 percent of requested supplies in 2020 thanks to above-average precipitation in May, the California Department of Water Resources (DWR) announced today. An initial allocation of 10 percent was announced in December and increased to 15 percent in January. Today's announcement will likely be the final allocation update of 2020.

"May storms gave us a boost following a very dry winter and allowed us to increase allocations for communities and agriculture in California," said DWR Director Karla Nemeth. "It's another example of our state's unpredictable precipitation that has been compounded by our changing climate. We must manage our water supply responsibly to not only deliver water now but ensure we have enough in reserves to protect us from future dry years."

Following below-average precipitation most of the winter, May storms delivered 181 percent of average in the Northern Sierra for this time of year.

This year's snowpack is the 11th driest on record since 1950 while precipitation stands as the 7thdriest on record since 1977. Thirty percent of California's annual water supply comes from snowpack.

A 20 percent allocation amounts to 843,696 acre-feet of water. The SWP provides water to 29 SWP contractors who supply water to more than 27 million Californians and 750,000 acres of farmland.

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