California
WATER COMMISSION

Meeting Minutes
Meeting of the California Water Commission
Wednesday, March 17, 2021
Remote Meeting
Beginning at 9:30 a.m.

1. Call to Order
Chairperson Alvarado called the meeting to order at 9:30 a.m.

2. Roll Call
Assistant Executive Officer Laura Jensen called the roll. Commissioners Alvarado, Arthur, Cordalis, Curtin, Gallagher, Makler, Steiner and Swanson were present, constituting a quorum.

3. Closed Session
The Commission did not hold a closed session.

4. Approval of February 17, 2021 Meeting Minutes
Commissioner Curtin motioned to approve the February 17, 2021, meeting minutes. Commissioner Cordalis seconded the motion. All Commission members present voted in favor.

5. Executive Officer's Report
Executive Officer Yun said staff will bring the preliminary recommendations for regional conveyance to the Commission next month, when the final expert panel is scheduled. Staff is planning two Q&A sessions to address questions from those interested in the Water Storage Investment Program (WSIP) new project screening. Staff continues to work with applicants on continuing eligibility. A letter from the secretaries of California Natural Resources Agency, California Environmental Protection Agency, and California Department of Food and Agriculture was sent to all Commissioners asking to assist with Water Resilience Portfolio item 3.6 regarding water trading and the elements of a well-designed trading program. Staff will revisit that topic next month and explain how it affects the 2021 work plan.

6. Commission Member Reports
Chair Alvarado attended a virtual panel discussion hosted by Maven's Notebook called Water Wars, What Are They Good For?

7. Public Testimony
There was no public testimony.

8. Action Item: 2020 Annual Review of the State Water Project
Assistant Executive Officer Laura Jensen presented the draft 2020 report on the construction and operation of the State Water Project for the Commission's review and possible approval. Highlighting the 2020 report was the release of the Governor's Water Resilience Portfolio, Delta conveyance, and Covid-19 and the pandemic. The Commission heard seven SWP briefings in

2020. Findings included that the Department of Water Resources (DWR) kept the Commission informed of its plans for a single tunnel, continued to take significant steps to reduce greenhouse gas emissions, advanced a process for the renewal of hydropower facility licensing, implemented a 10-year incidental take permit to ensure robust environmental safeguards, continues its work to mitigate the effect on numerous federally and state protected species, developed short- and long-term objectives to deal with subsidence in the valley, kept the Commission apprised of progress on its construction projects, and continued to operate during the pandemic, adopting special measures to ensure workers could safely carry out their service to the public.

Recommendations include that DWR consider the beneficiaries of the multiple benefits the SWP provides, keep the Commission apprised of their ongoing efforts to repair and modify aging infrastructure and how it plans to adapt to and mitigate the expected effects of climate change, update the Commission on watershed planning and green infrastructure projects, keep the Commission apprised of their role in supporting groundwater sustainability plans, and provide information on how the SWP is promoting the human right to water.

Commissioner Curtin asked if any preparation of a potential budget for the infrastructure package was being discussed in Washington D.C. Executive Officer Yun said that California Natural Resources Agency is coordinating conversations with the Federal government.

Chair Alvarado said that it was a clear, concise, and informative report.

Commissioner Makler motioned to approve the report. Commissioner Steiner seconded the motion. Motion passed unanimously.

9. State Water Project Briefing: Aging Infrastructure and Climate Change

DWR Director Karla Nemeth offered opening remarks on creating a resilient State Water Project (SWP) by addressing climate change and aging infrastructure to provide multiple benefits for Californians. Director Nemeth said we need to ask ourselves, how do we prepare the SWP to meet the challenges of 21st century? The SWP is the nation's largest state-built conveyance system, providing flood control, recreation, and wildlife and fish habitat protection, and supplies water to 27 million Californians, including six million of those in under-represented communities. It is the fourth largest power generator in the State, and it seeks equity through inclusive outreach with a diverse population. More than 60 years old, the SWP requires maintenance and innovative solutions, and more conveyance projects are needed for reliability. An aging workforce is expected to have impacts on DWR's technical expertise, and a succession plan is in place to ensure knowledge transfers, with 150 new positions being pursued. Creative solutions include grid stabilization, forecast-informed reservoir operations, an improved water transfer process, habitat restoration and voluntary agreements. A climate action plan is complete and by 2045 the SWP will be 100% zero emissions. A climate action coordinator was hired, and near-term actions and long-term feasibility studies on subsidence-related damage to the aqueduct are being conducted.

Commissioner Steiner asked if long-term transfer agreements were solely between state water contractors or can they work with other agencies. Director Nemeth said they are solely between state water contractors.

Commissioner Curtin asked if groundwater capture, desalination, and pump storage for energy are part of the SWP portfolio. Director Nemeth said we need to articulate how reinvestment in the SWP fits with local water supply plans, and lay out what we need to do to make this water supply source more reliable, especially how it operates in more extreme scenarios. Water is managed at the local level, and it is incumbent upon the SWP to be connected to all of these water supply sources.

Commissioner Makler asked if 150 new positions are enough, and with the massive infrastructure build out over the next 20 to 30 years, will DWR have the hiring capacity to bring in and develop new talent? Director Nemeth said 150 is a reasonable front-end investment. In addition, partnerships with water contractors and water districts is helping to address this. Multiple strategies include moving the engineer exams online, a focus on reaching the younger generation, and reaching a broader geographic area because of teleworking.

Commissioner Cordalis encouraged DWR to consider all of the ecological water needs of the state and lead us toward the path of true sustainable water use while also preserving the state's rich natural resources.

Ted Craddock, DWR Deputy Director for the State Water Project, presented an overview of the SWP strategic plan, which includes the mission to supply quality water for all Californians and the environment, and the Department's vision to develop innovative solutions to modernize, maintain and operate the SWP while being good stewards and building partnerships. Challenges include aging infrastructure, safety and security and emergency response, subsidence, climate change, natural disasters, increasing demand due to population growth, long term affordability, and regulatory compliance. He also talked about workforce initiatives, the need for continued investment, asset management, water transfers, the climate action plan, environmental restoration, and DWR's involvement with the WSIP.

Commissioner Steiner asked if the ability for smaller agencies to pay for these projects is being addressed in advance of building. Mr. Craddock responded that DWR is getting out ahead on the extension of contracts, and by 2024 providing the mechanism to spread out payments over a longer period, which should help smaller agencies.

Commissioner Makler asked if the $7.6 billion spent on capital investment was from 2016 to date, and what is the per year capital investment going forward. Mr. Craddock responded that the $7.6 billion was from the 1960s to 2016, and that DWR currently spends around $150 million a year, expecting an increase over the next contract to around $200 million per year.

Commissioner Curtin said fires had a profound impact on water supply and quality and asked, how do we coordinate water system needs with forestry needs and what is the impact to water quality from last two forest fires? Mr. Craddock said that a fuel load reduction plan near Lake Oroville was instrumental in protecting the state facilities and provided a fire buffer for surrounding communities and noted that there is a need to look more holistically at how these

issues are connected. Commissioner Curtin asked how the Commission can help the state think through these problems. Mr. Craddock responded that the SWP appreciates its partnership with the Commission.

Commissioner Cordalis asked about sustainability and climate change and the anticipated rates of return on investment. Mr. Craddock responded that SWP deliveries have remained pretty stable over the past 10 to 15 years. With climate change and potential for sea level rise, the Department is focused on Delta conveyance and forecast informed reservoir operations as adaptive measures.

DWR Assistant Deputy Director John Andrew presented an update on the Climate Change Vulnerability Assessment. Vulnerability categories include wildfire, extreme heat, sea level rise, hydrological changes, habitat, and ecosystem services impacts. The scope of the assessment covers 2030 to 2070 and included infrastructure facilities and land, state activities, and SWP operations. The Department did not assess Delta levees, subsidence, electrical grid, or sedimentation, focusing instead on linking adaptation planning to things that it can control. DWR identified the vulnerabilities to climate change by assessing the level of exposure and sensitivity to determine overall risk, then considered adaptive capacity. DWR's comprehensive response to climate change is being used as an example by other state agencies.

Commission Legal Counsel Holly Stout interjected that the chat comment received during the meeting will be treated as correspondence and attached to a meeting record.

Behzad Soltanzadeh, Assistant Division Chief within the Division of Operations and Maintenance, presented an update on DWR's efforts to address issues related to aging infrastructure. He described risks and challenges, including infrastructure that has reached the end of its useful life, is obsolete, does not meet current standards and needs to be replaced. Responses include the asset management and maintenance management programs, and the refurbishment, replacement, and modernization of projects based on risk informed asset management. Enhanced maintenance activities include a climate change analysis.

Commissioner Makler asked how many substantial projects the Division works on each year, how many project managers it has, and if he can hear about Division safety protocols. Mr. Soltanzadeh explained that DWR has 150 to 250 medium to large projects a year, though some are multi-year; 10 or 15 dedicated project managers for large projects; and DWR and the SWP have a robust safety program.

Chair Alvarado asked how the Division incorporates new technology into aging infrastructure and continues to train staff on those innovations. Mr. Soltanzadeh responded that asset plans include strategies to inform decision making and minimize outages.

The Commission took a half-hour lunch break.

Valerie Pryor, General Manager for the Alameda County Flood Control and Water Conservation District, Zone 7, said that SWP infrastructure is vitally important to the quality of life in the Tri-Valley area. The aqueduct is key to Bay Area regional partnerships. Climate change and sea

level rise will have an impact. More opportunities for transfers and exchanges with the Central Valley will also help with storage.

Kathy Cortner, General Manager for the Mojave Water Agency, said that as the population is being pushed inland, the SWP is key to support future development. They are looking to expand recharge capacity to take advantage of extremes and are seeking partnerships to store water. They are supportive of all DWR is doing to ensure reliability and sustainability of the SWP.

Commissioner Curtin asked if they have a cooperative arrangement with Lancaster and other surrounding water districts as they expect to see an enormous amount of growth in that area.

Stephen N. Arakawa, Manager of Bay Delta Initiatives for the Metropolitan Water District of Southern California, said they are in the process of supply strategy planning, looking at scenarios for future population supply and demand. The key to success is capturing water from the SWP in wet years, and getting the most out of the infrastructure. They support the SWP being reliable, operated safely, and affordable to their community.

Commissioner Arthur asked how they plan for climate change, how it relates to the SWP, and if they rely on DWR for information. Mr. Arakawa said they rely on DWR's technical expertise. Ms. Cortner said they are trying to develop strategies that adapt to sea level rise, extremes in hydrology and catastrophic events in the Delta. Ms. Pryor said DWR's technical expertise and continued research and modeling helps inform their decisions on future investments.

Commissioner Makler said the state has gotten a tremendous benefit from the SWP and a case can be made for under investment in its ongoing maintenance, asking, are rate payers ready to spend more to invest in this asset? Mr. Arakawa said rate payers understand the need for investment and how it fits into the bigger picture. Stable rates with a reliable system is best for all rate payers. Ms. Pryor said there is more public acceptance for a raise in rates in times of drought, but the difficulty is that rate payers do not physically see the aging infrastructure.

Commissioner Gallagher asked if their agencies could use a connection with DWR, be it staffing or funding, to help with things they are required to do now that they were not in the past. Mr. Arakawa said that customers do take advantage of the support the state provides with water conservation and efficiency. Ms. Pryor said local agencies and DWR work well together and share information and challenges; it is hard to see where one ends and the other begins.

Commissioner Cordalis asked if public campaigns and programs that incentivize reducing demand at a domestic level have been helpful. Ms. Cortner said her agency's conservation awareness efforts have far exceeded goals. Grants help for turf removal programs. Mr. Arakawa's agency has seen transformative changes. The key is education programs in schools, opportunities for incentives to replace devices and irrigation systems, and educating people about how much water is used with certain behaviors. Ms. Pryor said they have had a number of robust campaigns on water conservation and efficiency, met their target, and never went back to pre-drought levels.

10. State Water Project Flexible Resources Study

Ghassan ALQaser, Chief of DWR's Power and Risk Office, provided an overview of the Flexible Resources Study currently underway to assess the SWP's potential to support the clean energy policy, as required by SB 49, Energy: appliance standards and State Water Project assessment. There has been an evolution in the state's power market because of California's ambitious targets relative to the rest of the country. SWP must adopt new operational strategies, make physical changes to owned facilities, and deploy new technologies to sustain reliable water deliveries and to meet future power market opportunities, challenges, and obligations. Mr. ALQaser outlined the scope of work and the schedule for the Flexible Resources Study, and showed the evolution of the renewables market and emerging trends, and identified improvements needed to operate the SWP in a more responsive profile, which included shaping SWP load and generation, reoperation and retrofit of select pumping plants, pumped storage, integrating battery storage with renewable resources, hydraulic and transient modeling and aqueduct stability, real-time market load bidding, adding pockets of storage at strategic locations, and the integration of on-site solar generation at pumping plants. Next steps for the study include a complete analytics phase, viability assessment, and developing preliminary alternatives and assessment report.

Commissioner Makler asked how many megawatts of installed capacity the system would be capable of providing to the overall electric system and if the SWP has the ability to sell the latent capacity to electric customers. He was told the load was tied to how much water on the system can be moved, and they do not have the authority to go beyond what the SWP needs.

Commissioner Swanson asked how broad variable speed motor power technology could be used in the system and how much power could it save. Mr. ALQaser responded that it is possible to have variable frequency to help start and stop motors without damaging them. Variable speed pumps are expensive and not a product in today's market design that they could use.

Commissioner Curtin asked about the status of developing technology for large scale battery storage to help meet SWP energy needs and supply 100 percent of SWP energy. Mr. ALQaser said that the technology is here, and they anticipate going forward, but need partnerships to be able to secure investment. He explained that the SWP currently has shortfalls in reserve margins going into the next few years and it will be five years from now before that balances.

11. Sustainable Groundwater Management Act Implementation Update

Steven Springhorn, DWR Acting Deputy Director for Statewide Groundwater Management, presented an update on the state's Sustainable Groundwater Management Act (SGMA). Sixty percent of California's water supply comes from groundwater. The state's 515 groundwater basins include 94 high- and medium-priority basins and 21 critically over-drafted basins, and the Groundwater Sustainability Agencies (GSAs) for these basins are required to develop and implement a Groundwater Sustainability Plan (GSP) in coordination with DWR, the State Water Resources Control Board (SWRCB) and the communities impacted by SGMA. The Commission approved basin boundary regulations in 2015 and GSP regulations in 2016. To achieve sustainability, GSPs include measures to avoid the following undesirable results: lowering of groundwater levels, reduction of groundwater storage, seawater intrusion, degraded water

quality, subsidence and depletion of interconnected streams. The four components of a GSP are: administrative information, basin setting description, sustainable management criteria and monitoring network, and project and management actions. Forty-six GSPs were submitted to DWR in 2020. DWR will complete initial assessments for those GSPs this year. A second round of GSP submittals will occur in 2022.

Craig Altare, DWR Section Chief for Groundwater Sustainability Plan Review, explained regulatory pathways for GSP evaluation and what happens when they are approved, incomplete or inadequate. If proposals are inadequate, SWRCB will intervene to get the locals back on track as efficiently and expeditiously as possible; SWRCB intervention is not long-term groundwater management. 2021-2022 is a critical decision-making year for the first round of submitted GSPs.

Keith Wallace, Section Chief for Outreach and Engagement, explained that DWR has provided $180 million in SGMA assistance to date for planning, technical assistance, and financing. Planning includes dedicated points of contact, facilitation support, and written translation services. Technical assistance is support services, data, and tools. Financial assistance includes the planning grant program which has awarded $150 million to date. An additional $200 million is anticipated to be provided over the next four years; these funds will be responsive to local needs.

Commissioner Steiner asked if any basin could apply for assistance and was told the focus is

on high- and medium-priority basins because they have that statutory requirements, but that others can benefit from technical assistance, like the statewide data sets.

Commissioner Curtin said not to forget the need for conveyance in groundwater recharge.

Commissioner Swanson asked if the assessments will be released all at once or in stages and was told they will be released periodically, but to expect that most will be released closer to the January 2022 deadline. He then asked how a steep drought or record rainfall will affect what the assessments tell us. DWR staff responded that SGMA is set up to be adaptively managed and used in a strategic way.

Commissioner Gallagher said that good engagement at the local level has helped move things along, and asked if Covid-19 has affected GSPs. DWR staff responded that rural communities have been impacted due to lack of internet access, but where there is reliable internet there has been an increase in participation because it is easier to log in to a meeting.

Commissioner Arthur asked to highlight the opportunities for public engagement. DWR staff said that they continue to have an open comment period. They have received more than 500 comments and will take comments at any time and post them for the public to see.

Commissioner Cordalis asked how plans will be enforced, and was told that an enforcement structure is in place if needed. With state intervention, SWRCB would put the plan on probation to get it back on track.

Commissioner Alvarado asked if there were any surprises in the data gathering process, what was the model for California's approach, and has there been conflict over basin jurisdiction. She was told they were surprised at how quickly the SGMA community has moved. GSAs are brand new agencies tasked with developing plans and then submitting them. Academia, NGOs and others provided tremendous value, information, and guidance to help facilitate implementation. On the data side, DWR was surprised at how interconnected everything is, how groundwater connects with surface water and intersects with drinking water, agriculture uses and the environment. Texas had similar comprehensive groundwater management, and they have seen reconfigurations of their management agencies where folks are understanding they can pool assets and resources to help implement plans to their benefit.

The Commission received public comment from Reid Bryson, who asked for presenters to explain the approach DWR is using when interpreting the reasonableness and feasibility of the core GSP components. DWR staff responded that the regulations lay out the process but, because SGMA can never be one size fits all, evaluating success will need to be outcome-based. DWR uses best available information to inform its review and analyzes where sustainability is defined, how it may or may not affect beneficial uses and users, and what monitoring aspects will be used to track performance. They ask, was that process followed? Were there data gaps that should be filled?

12. Consideration of Items for Next California Water Commission Meeting
At the April 21, 2021 meeting the Commission will continue its work on resilient conveyance with a panel discussion on water rights, Delta reliance, groundwater recharge, green infrastructure, and partnership; and will also hear a briefing on the Division of Safety of Dams enforcement regulations, and consider any WSIP early funding requests received by the Commission.

13. Adjourn
The Commission adjourned at 3:37 p.m.