

Meeting Minutes

Meeting of the California Water Commission

Wednesday, July 16, 2014

State of California, Resources Building
1416 Ninth Street, First Floor Auditorium
Sacramento, California 95814
Beginning at 9:30 a.m.

1. Call to Order

The meeting was called to order at 9:30 a.m.

2. Roll Call

Executive Officer Sue Sims called roll. Commission members Andy Ball, Joe Byrne, Danny Curtin, Joe Del Bosque, Kim Delfino, Lu Hintz, David Orth, Armando Quintero, and Anthony Saracino were present, constituting a quorum.

Chairman Byrne welcomed the Commission members who were recently reappointed and recognized new member Armando Quintero.

3. Approval of June 2014 Meeting Minutes

A motion was made and seconded to approve the June 18, 2014 meeting minutes. A vote was taken and the motion passed unanimously.

4. Executive Officer's Report

Sue Sims provided the Executive Officer's Report. Assistant Executive Officer Rachel Ballanti and Ms. Sims recently visited the Farm and Food Lab in Orange County and toured the newly expanded Michelson Water Recycling Plant at the Irvine Ranch Water District. Ms. Sims went on a tour with the Central Valley Flood Protection Board and was updated on Sacramento-area flood protection projects, including a new setback levee in West Sacramento and work along the American River near Watt Avenue. Last month, Danielle Blacet of the Association of California Water Agencies (ACWA) discussed the results of the water project survey on which ACWA and the Commission collaborated. At that time, the inventory from the survey contained roughly 200 projects. Since then, Commission staff has reviewed about 1,000 additional projects from Integrated Water Management Plan project lists and added about 60 of those projects to the inventory. In lieu of a September meeting, the Commission will conduct its annual inspection of the State Water Project (SWP) and tour facilities that are part of the SWP's East Branch Extension

Spencer Kenner, Department of Water Resources (DWR) Staff Counsel, provided an update on litigation against DWR regarding claims that scientific investigations amount to legal takings. The 3rd District Court of Appeal ruled in March 2014 that the state did not have a pre-condemnation right to enter private properties in the Delta without the permission of the landowners. DWR has

appealed the decision which will be heard by the California Supreme Court. DWR will provide a full briefing on this issue at a future meeting.

5. Public Comments

There were no public comments.

6. Update from DWR on Organizational Changes to Support BDCP Activities

Laura King Moon, Chief Deputy Director of DWR, briefed the Commission on organizational changes made within DWR in anticipation of completion of the Bay Delta Conservation Plan (BDCP). The BDCP planning process has been underway since 2006. DWR is still in the planning process; a draft plan and a draft Environmental Impact Report (EIR) and Environmental Impact Statement (EIS) are currently available for public review and comment. The deadline for public comment, which has been extended several times, is July 29, 2014. DWR is continuing to revise the plan in response to comments. The plan may be finalized as early as next year. In anticipation of proceeding with the plan, two new organizations have been formed within DWR: the BDCP Office, and the Delta Conveyance Facilities Design and Construction Enterprise (DCE). The BDCP Office is a consolidated office within the Executive Division of DWR consisting of key staff that have been involved in the development of the plan; it is focused primarily on the plan's 21 non-conveyance conservation measures. The office will not be the implementing entity for BDCP though. The DCE is a new program to support the design and construction of the new facilities associated with BDCP. The DCE will be managed by a program manager contracted to DWR and staffed by a mix of DWR employees, employees of other water agencies, and outside consultants. No final decisions have been made about the BDCP, but DWR is preparing for implementation.

Commissioner Delfino asked who is supervising the BDCP Office. Ms. Moon said it is temporarily under her direction with the assistance of Assistant Deputy Director Russ Stein. Ms. Delfino asked what will happen to the BDCP Office once the implementing entity is created. Ms. Moon said the office could eventually be incorporated into the implementing entity, or it could remain at DWR for support. Ms. Delfino asked how the BDCP Office and DCE are being funded. Ms. Moon said they are funded through a combination SWP funds, Delta Habitat Conservation and Conveyance Program funds, and some general overhead.

Mr. Saracino thanked Ms. Moon for her continued efforts on the program. Mr. Byrne asked at what point DWR expects to have final permits. Ms. Moon said DWR's goal is to finalize the plan, EIR, and EIS, and get associated permits within the next year or two. DWR assumes there will be litigation but will move forward with portions of the plan. Once the permit is issued, there will be a significant amount of work will be required before breaking ground. Ms. Delfino asked if Ms. Moon was including U.S. Army Corps of Engineers permits in her time estimate. Ms. Moon said DWR is focused on finishing the plan and getting a U.S. Army Corps of Engineers Section 10 permit and other permits may take longer. Ms. Delfino requested an update on the process at a future meeting and said she would like to know how the current litigation Mr. Kenner discussed is impacting the BDCP schedule.

7. Legislative Update

Rachel Ballanti, Assistant Executive Officer, updated the Commission on current state legislation, including water bond bills. There have not been many changes since the last meeting because the legislature is on summer recess. The legislature will return on August 4 and the deadline for bills to be passed is August 31. There are bills on Integrated Water Management (IRWM), Urban Water Management Plans, and a few other topics. The two major issues are still the water bond and groundwater. Since last month, Senator Wolk's water bond bill (SB 848) has been reduced from \$10.5 billion to \$7.5 billion. For the most part, the reductions were made across the board. Shortly after the Commission's June meeting, it was reported that the Governor supports a \$6 billion bond which includes \$2 billion for the public benefits of water storage projects.

8. Update on State Water Action Plan Implementation

Kris Tjernell, California Natural Resources Agency (CNRA) Special Assistant for Water Policy, updated the Commission on implementation of the California Water Action Plan. Sustainable water management is the overarching goal for water policy in California. There are many definitions of sustainable water management, but there are common themes between many of those visions. Common themes include public health and safety factors, economic growth, agricultural productivity, and watershed and ecosystem vitality. California has unique challenges to sustainable water management, including uncertain water supplies, drought, declining groundwater supplies, floods, and shifting hydrologic patterns due to climate change. The current drought exacerbates many issues California already faces, such as wildfires and water quality concerns. The Water Action Plan was developed to address ongoing challenges and lay the foundations for sustainable water management. It is a five-year plan, but recognizes that sustainable water management is a long term objective. The Water Action Plan has three overarching goals: reliability, restoration, and resilience. The plan has 10 broad actions with specific sub-actions. Not all of the actions are new ideas, but the plan reflects an integration of necessary actions and the state's commitment to collaboration.

The first year of Water Action Plan implementation was largely driven by the extreme drought California is experiencing. In December 2013, the Governor convened an interagency drought task force that continues to meet regularly. In January, the Water Action Plan was released, the Governor declared a drought emergency, and the Governor's proposed budget was released. Drought legislation, SB 103 and SB 104 were passed in February and March to fund drought relief and set the foundation for longer term water management. In June, the FY2014-15 state budget was signed into law that contains additional drought relief funding. Ongoing efforts include community assistance, expenditure of drought funds, water bond negotiations, groundwater policy, and planning for the second year of Water Action Plan implementation. Implementation is shifting from drought reaction and response to future water management activities.

Ms. Delfino requested more detail regarding planning for the second year of implementation, particularly given projections for continued drought next year. She also asked if Bulletin 118 is being updated. She requested an update from the California Department of Fish and Wildlife on how they have been responding to the drought. Additionally, she requested an update on the water transfer program and how it intersects with curtailments and vegetation management

issues. Mr. Tjernell offered to assist in providing those updates and added that the existence of such a collaborative Water Action Plan is significant.

Mr. Byrne asked if someone is monitoring all implementation activities as the state enters the second year of the plan. Mr. Tjernell said there are multiple agencies and departments working on the plan. CNRA will play a strong role in the overall oversight and implementation.

9. Update on North-of-the-Delta Offstream Storage Project

Jim Wieking, from DWR's Statewide Infrastructure Investigation Branch, discussed DWR's investigation of North-of-the-Delta Offstream Storage (NODOS). In May, DWR released a NODOS Investigation highlights document, a Preliminary Administrative Draft EIR, and a Preliminary Engineering Design and Cost Estimate. At the end of 2013, DWR and the U.S. Bureau of Reclamation (Reclamation) released a progress report on NODOS. DWR has also utilized some analyses supported by the Sites Reservoir Joint Powers Authority (JPA). DWR identified primary and secondary objectives for the projects based on needs. The primary objectives are water supply, ecosystem restoration, and water quality improvement. Additional benefits include flexible power generation, flood protection, and emergency response. The flexibility of California's water system has significantly diminished over time as Trinity, Shasta, Oroville, and Folsom Reservoirs have been called upon to respond increased water supply demands, in-stream flow requirements, and water quality standards in the Delta. NODOS would help improve system-wide flexibility.

The planning process was extensive and eventually examined three alternative configurations of Sites Reservoir. The major differences between the three are diversion and release capabilities and size. Alternative A features a 1.2 million acre foot (MAF) reservoir, ability to divert 2,000 cubic feet per second (cfs) from the Sacramento River through a new diversion in addition to diversion from existing canals, and a 1,500 cfs release capacity. Alternative B is a 1.8 MAF reservoir. It would only divert from the existing Tehama-Colusa and Glenn Colusa Irrigation District (GCID) canals rather than through the new pipeline, but it would maintain 1,500 cfs release capability. Alternative C features the larger 1.8 MAF reservoir and both diversion and release through the new pipeline. Water must be released back into the river to provide statewide benefits. NODOS would increase yield for water supply, water quality, and ecosystem restoration. During the investigation, DWR found that the average yield across the alternatives would be 400 to 500 thousand acre-feet (TAF) per year. In dry and critical years, yield would be 500 to 600 TAF per year. Construction of Sites Reservoir would improve storage conditions in the upstream reservoirs. On average, storage north of the Delta would be improved by nearly 1 to 1.4 MAF. In the driest periods, the improvement in system-wide storage is diminished compared to average years, but there would be more water in the existing reservoirs. The main reason for this is that one goal of the project is to increase the cold water pool at existing reservoirs.

Commissioner Curtin asked how the addition of Sites Reservoir would allow the four existing upstream reservoirs to store more water. Mr. Wieking said Sites would allow the use of water from a fifth location. The additional storage in the system could provide water for some existing uses and some additional uses. Sites would be integrated with operations throughout the system. Stress on critical upstream reservoirs could be reduced by shifting that stress to Sites. Thad Bettner, General Manager of GCID, provided examples. Folsom Reservoir is used to respond to

water quality issues in the Delta by increasing flows. If Sites were built, water could instead be taken from Sites to provide fresh water for the Delta. Mr. Curtin asked if it would be easier to restore water to Sites than other reservoirs. Mr. Bettner said it is easier because Sites is on the Sacramento River, which is a much larger watershed than the American River. Also, because the Sacramento River system is fed more by rain than snow, runoff is expected to remain about the same despite climate change. With integrated operations, water from Sites Reservoir rather than Shasta Reservoir could be used for water service deliveries. Mr. Wieking added that supplies from Sites could be used for SWP deliveries instead of water from Lake Oroville.

Ms. Delfino asked what assumptions were used in the benefits analyses. Mr. Wieking said the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) require analysis of the reasonably foreseeable future and existing conditions. Biological opinions from 2008 and 2009 were included in the operations model. It is described in much greater detail in the draft EIR. Mr. Curtin asked if system integration would add almost the total capacity of Sites Reservoir into the system. Mr. Wieking pointed out that there would be roughly 1 MAF of storage improvement; however, this is not the system yield. Sites would improve storage in the system by 13 to 19% during average conditions and 17 to 23% during drought conditions. Commissioner Del Bosque asked what the benefits would be from the added diversion capabilities in Alternatives A and C. Mr. Wieking said the diversion would allow for more frequent filling of the reservoir when diversions are permitted.

Mr. Wieking discussed ecosystem restoration benefits which would include cold water pool improvement at the existing upstream reservoirs, supplemental temperature releases on the Sacramento River, stabilizing flows on both the American and Sacramento Rivers, and increasing flows downstream by reducing existing diversions. NODOS would be resilient to potential future changes including BDCP and climate change. Alternative C would have the largest effect on the system. Diversion capabilities would decrease with BDCP, but increase with climate change. Diversion capabilities would be slightly reduced with both BDCP and climate change. The project would cost \$3.6 to \$4.1 billion with a benefit-cost ratio of 1.3 to 1.4. The Water Action Plan has directed DWR to work with various bodies to develop a funding partnership for a financeable and multi-benefit storage project, and DWR is currently working with Sites JPA and others to advance that goal.

Mr. Curtin pointed out that the only difference between Alternatives B and C is the diversion canal, so the cost of the diversion is about \$500 million. Mr. Wieking said the canal cost stems from a pumping facility that would pump water about 13 miles. Conveyance is the most expensive element of the project. Mr. Curtin asked if DWR examined the smaller reservoir without a new diversion. Mr. Wieking said Mr. Bettner would address a potential fourth alternative.

Mr. Bettner discussed financing and the perspective of Sites JPA. Sites JPA would like to build Sites Reservoir in five years. The JPA includes Glenn County, Colusa County, six water agencies, and DWR as a non-voting member. The JPA was authorized in the original 2009 water bond, so the JPA could be eligible for funding for a project that provides public benefits. More recently, Congressmen LaMalfa and Garamendi wrote H.R. 4300, a bill authorizing the Sites Reservoir project. There are three main components of the project: dams, pumping plants, and a pipeline. Sites JPA is in the process of determining how to vary the three main components to optimize the

benefits, cost, and affordability. The JPA is examining the previously discussed alternatives and several other alternatives. Additional alternatives being considered include a 1.8 MAF reservoir re-operated for a 543 TAF per year yield. The JPA is trying to design the project so 50% of the public benefits are ecosystem benefits. This alternative would cost about \$3.4 billion. The lowest cost alternative is a 1.3 MAF reservoir with a 422 TAF yield. This reservoir would provide 0.8 MAF of increased upstream storage and cost \$2.9 billion for construction. The JPA is currently working on affordability issues and funding options, conducting public outreach, and identifying beneficiaries. There are some political issues influencing project development including issues related to counties and landowners; the water bond's impact on potential funding; the Commission's regulations for quantifying public benefits; and state discussions on groundwater. New surface storage may have to help meet demands that are currently met by groundwater. The next steps for Sites JPA include an evaluation of the alternatives by the JPA Board, establishing clear roles with DWR and Reclamation, engagement with non-governmental organizations (NGOs), public outreach, and identification of repayment methods.

Commissioner Saracino asked what the cost per acre foot (AF) would be, who the water supply beneficiaries would be, and if those beneficiaries are willing to fund those benefits. Mr. Bettner said who will pay for the project is the key issue and said the Commission should be part of that discussion. The cost per AF depends on the size of the project and how and when funding is provided. Depending on those factors, the price could be \$400 to \$800 per AF.

Mr. Curtin said he was disappointed that the scaled down version of the reservoir would not have the capability to generate electricity. If real water will be added to other reservoirs, money should be generated from the sale of water. Mr. Bettner said it has been difficult to determine the value of water that will be left upstream and who would pay for it. The JPA is not opposed to power generation, but waiting for Federal Energy Regulatory Committee (FERC) permits could cause a long delay in building the project. It could be built and expanded for power generation later. Mr. Curtin asked if the cost of pumping water was included in the total cost. Mr. Bettner said it was not; operations and maintenance costs will be additional. He also noted that most of the energy used in pumping is recoverable. Mr. Wieking added that DWR included a power analysis in the NODOS feasibility report. The costs Mr. Wieking cited in his presentation include energy costs.

Mr. Byrne said that from a statewide perspective he would like to see the project provide the most flexibility and asked what role the state should play. Mr. Bettner said it is important to ensure that public benefits are provided if the public assists in funding the project. Mr. Del Bosque asked if the price per AF provided was calculated assuming that funding for public benefits will pay for a portion of the project. Mr. Bettner said that cost will vary because water yield and revenue are variable. Any public funding will discount the cost of the project. Mr. Wieking added that the NODOS feasibility process includes a cost allocation that describes who will pay and what benefits they will receive. There will ultimately be an updated cost allocation.

10. Briefing on Water Storage Integration and Delta Vision Foundation Policy Paper

Charles Gardiner, Executive Director of the Delta Vision Foundation, introduced the topic. The Delta Vision Foundation was urged to help foster a conversation about an integrated approach to the Delta. Delta Vision convened a number of workgroups on some of the topics that affect the Delta, including water storage. The workgroups examined how to increase the flexibility of the

system. The fundamental focus of the water storage group was how to implement surface storage projects. The storage group examined three areas: integration of storage projects, institutional challenges, and funding. California needs a more integrated view of surface and groundwater storage in order to understand how to maximize benefits. It is also vital to make projects viable so local and regional water interests can understand the benefits, projects are cost effective, and projects can be funded. Projects must be implemented as a partnership between the state and federal governments and local water interests. Improvements can be made in the planning and design phase to improve coordination. The group also discussed near term funding needs. There is an immediate need for funding to analyze system wide integration of surface and groundwater storage. The workgroup developed a draft policy paper on water storage integration and Delta Vision recently began briefing stakeholders.

Ron Jacobsma, General Manager of Friant Water Authority, provided an update on Temperance Flat Reservoir. A draft EIS is being developed. DWR is not currently participating as the lead agency for CEQA due to a lack of funding, but there may still be opportunities for the state to participate in some studies. In 2008, Reclamation released a Plan Formulation Report. The report focuses on how Temperance Flat could be integrated with the Delta while returning diversions' higher levels in an environmentally sustainable way. If Temperance Flat can provide environmental public benefits and be funded through partnerships, the project will be viable. In Reclamation's report, they want to maximize the public benefits and sought to integrate the project but did so by sharing the water among interests who can pay for the project. This optimized the project but made it less locally viable, so Reclamation was asked to consider an alternative with greater local water supply benefits within the San Joaquin Valley. Friant also wants to look at supplemental information about different levels of exports from the Delta, how to integrate Temperance Flat with the Delta, and who additional beneficiaries would be. Depending on how the project is operated, public benefits can be increased. A water bond will help with funding and implementation of the California Water Action Plan. Mr. Jacobsma noted that different groups have different abilities to pay, so Reclamation's report features different prices per AF for different sectors.

Marguerite Patil, Special Assistant to the General Manager of Contra Costa Water District (CCWD), discussed Los Vaqueros Reservoir. CCWD completed the first phase of expansion of Los Vaqueros Reservoir. The effects of the drought were felt soon after the expanded reservoir began operation, so it has already been put to the test and has delivered water to severely impacted areas. In the next phase, the reservoir will likely be expanded to 275,000 AF. The dam is relatively inexpensive, but conveyance is expensive. CCWD is determining where money can be saved with intakes, conveyance, and connections to fellow agencies. CCWD has been working with Reclamation and DWR. If the water bond moves forward CCWD will be prepared to apply for funding for further expansion. Other water agencies are currently renting storage space in Los Vaqueros, the current cost for renting storage and conveyance is about \$200 per AF. The cost is low because it is not a long term commitment. Pricing is based on the actual costs to store and deliver the water.

Maurice Hall, Water Program Director at the Nature Conservancy (TNC), briefed the Commission on opportunities for storage integration. California has a severely modified water system, and must explicitly build ecosystem needs into the water system to ensure those needs are met

alongside the needs of cities and farms. California should proactively shape storage that is cost effective, meets multiple needs, and is beneficial for nature. The current drought awareness is further shaping the discussion. TNC chartered a cooperative study to explore some of these issues. The purposes of the study were to provide basic clarity on how storage works in California, develop an analytic method that evaluates storage as part of an integrated system, and conduct a pilot analysis to test that methodology. A pilot study was conducted with four storage projects: one groundwater and one surface water project each in the San Joaquin and Sacramento Valleys. There were simple water supply and environmental objectives. The CalLite screening model was used for evaluation. The results show that improving conveyance and integrating groundwater and surface water storage would increase water deliveries. The general trend is that integration improves the value and availability of storage projects. To maximize water supply and environmental objectives, surface and groundwater storage should be formally integrated. A systems-based analytical approach should be used to identify the most promising projects for meeting multiple objectives. Water infrastructure studies should explicitly consider integrating surface and groundwater storage, conveyance improvement, and water demand management. Water management analysis should more explicitly consider ecological benefits.

Mr. Gardiner said California needs leadership to pursue water storage and integration. At the state level, leadership is needed to move forward to view storage from a system wide perspective. Mr. Gardiner requested feedback on the suggested approach to move forward. The Commission could become a champion for storage and funding. Water storage must be a state priority to turn the contents of the Water Action Plan into action.

Mr. Saracino asked Mr. Jacobsma if integration with groundwater is being considered for Temperance Flat and asked Mr. Gardiner the Delta Vision Foundation will develop a plan for how to move forward. Mr. Jacobsma said almost all of the yield generated locally would be used for groundwater recharge. Broader integration occurs through groundwater exchange. A bidirectional canal connecting the California Aqueduct to the Friant system would add tremendous flexibility. Mr. Gardiner said there is interest in moving forward to make the TNC study more specific. Performing that analysis is the most immediate need, but resources are needed. Ms. Patil said there is value to independent analysis and a broad perspective. It was suggested that interregional drought funding could be used for this purpose. State cost share for an independent study would be helpful. Mr. Gardiner suggested that state and federal agencies should be involved early in the planning stages of storage projects. This would provide better public benefits assurances on all sides, but those agencies require resources and funding.

Ms. Delfino asked if integration of surface and groundwater also involves reoperation of the entire system. Mr. Hall said reoperation of the existing system needs to be evaluated, but there are many constraints on our storage system. There is certainly potential for reoperation, particularly if groundwater storage is included. Mr. Gardiner added that the system wide perspective is not well articulated and there are limitations on existing decision-making processes. Specific operating rules for new storage and integration will need to be determined in the future. Mr. Jacobsma said each individual storage project is already so complicated that it is difficult to add additional complexities. Integration of water storage facilities could add value to both surface and groundwater storage.

Commissioner Orth stated that this is a critical issue; people at the local and regional level know the importance of integrated planning, yet there is a gap between that knowledge and actual practices. He suggested the Commission could provide clarification in its guidelines for quantifying the public benefits of water storage or encouragement for integration in California Water Plan implementation.

11. Consideration of Items for Next California Water Commission Meeting

Items for the next meeting will include an update on SWP issues, a presentation from the Executive Officer of the Board of Forestry, a briefing on work by the Pacific Institute on water conservation, follow-up on issues raised during Mr. Tjernell's presentation, and a briefing on a DWR contract with the Delta Stewardship Council to prioritize Delta island projects.

Mr. Saracino requested to expand the item on work by the Pacific Institute and NRDC to set up a panel discussion on how much water can truly be gained from water conservation and water use efficiency. Mr. Quintero suggested inviting Jeffrey Mount for that discussion and Dr. Roger Bales for the discussion on forestry and water. Ms. Delfino requested a future presentation on controversy regarding the completion of Agricultural Water Management Plans.

Commissioner Ball said he calculated significantly higher costs per AF than were presented for each alternative of Sites and Temperance Flat Reservoirs. There is not enough money in the water bond to fund these projects. Storage projects will not move forward if sufficient funding cannot be found. California's water system is overextended and snowpack is being reduced by climate change. There must be more discussion of how water storage projects will be paid for in California. Mr. Curtin agreed that there is not enough funding and projects may need to leverage funding from other sources. Ms. Delfino said \$3 billion is a small portion of what is needed. In addition to public benefits, the Commission has a responsibility to also consider the cost effectiveness of funding provided to storage projects. One or two large projects may not be the best investment of the funding. Mr. Saracino said the regulations will have to be considered carefully because there will not be enough funding, but the Commission can facilitate improvements through funding. Mr. Del Bosque said water supply reliability is vital and the Commission has a responsibility to try to achieve that goal. Mr. Curtin said there may be other sources of funding in the forestry and energy sectors. Large projects are critical and integration with groundwater is fundamental, but it may be possible to leverage more funding through connections with other sectors.

Mr. Byrne said he is concerned with integration and ensuring that the intended benefits are provided. Mr. Ball said it would be helpful to have a discussion on different financing alternatives. Mr. Curtin said alternative funding sources may be determined if the Commission distributes less funding to the large projects than is expected. Energy can be used when costs are low and sold when costs are high to offset project costs. Mr. Quintero said that this discussion is referring to cost-of-service models. There are not good cost-of-service models and agencies have lost lawsuits because they cannot justify their water rates. This discussion is fundamental to the Commission's work.

Mr. Byrne adjourned the meeting at 12:22 p.m.