## MEETING SUMMARY Oroville Dam Citizens Advisory Commission Meeting #13: February 24, 2023 10:00 a.m. – 12:00 p.m. Southside Community Center, Oroville, CA

This meeting summary provides an overview of the February 24, 2023 Oroville Dam Citizens Advisory Commission (OCAC) meeting and focuses primarily on capturing the comments and questions posed by Commissioners and members of the public. It is organized by agenda topic to assist readers in cross-referencing the meeting materials. This document is not intended to serve as minutes of the meeting or a transcript of the discussion. A transcript and materials from the meeting are available on the Oroville Dam OCAC website:

https://resources.ca.gov/Initiatives/Oroville-Dam-Citizens-Advisory-Commission

# **MEETING AGENDA**

- Welcome and Opening Remarks
- Update on Commission Report
- January Storms Update
- Reservoir Debris Maintenance and Spillway Capacity
- Public Comment and Questions
- Adjourn

# **ACTION ITEMS**

## Action Items from Meeting 13

- CNRA to email Commissioners with site visit invitation
- DWR will work with Sutter Butte Flood Control Agency to schedule a meeting on inundation maps and plan to report on outcomes during Meeting 14 (June)
  - Meeting schedules have been delayed by winter storm emergency responses
- CNRA to address request for formation of Steering Committee (SC)
  - Proposal for SC that would consider process recommendations (such as those submitted as public comment to the Three -ear OCAC Report) and future agenda topics
  - Vice Chair indicated motion to create SC should be considered for Meeting 14, as appropriate after Commissioner Bateman speaks with Nancy Vogel, CNRA, on next steps
- OCAC consultant to document Commissioner suggestions for the next Three-Year OCAC Report, including
  - Considering creation of an appendix with images showing facility, completed work and key infrastructure, construction and analyses that have been done since 2017
- OCAC consultant to add the following as suggested <u>future agenda items</u> to the action item tracker:
  - Status of the Oroville levee discussed during Meeting 13
  - Dam inundation maps at different flow levels
  - Water Control Manual process update (i.e., where is the Corps in that process?)
    Updates on forecast informed reservoir operations and local coordination efforts

- Update on remaining analyses to evaluate the safe capacity and performance of emergency spillway at new Probable Maximum Flood
- Recreation update, including understanding if there will be a need to revisit Recreation Plan if debris becomes an increased problem

As mandated by the requirements set forth in Senate Bill 955 (2018, Nielsen), the Commission comprises representatives from the following agencies and public bodies. Attendance at Meeting 13 on February 24, 2023 is noted in the table below.

Agency or Public Body	Commissioner (or Alternate)	Present
California Natural Resources Agency	(Chair) Secretary Wade Crowfoot (represented by Assistant Secretary Brian Cash)	Х
California State Senate	Senator Brian Dahle	
California State Assembly	(Vice Chair) Assemblymember James Gallagher	х
Department of Parks and	Director Armando Quintero (represented by	Х
Recreation (DPR)	Superintendent Matt Teague)	
Department of Water Resources (DWR)	Director Karla Nemeth (DWR Deputy Director Ted Craddock)	х
California Governor's Office of Emergency Services (Cal OES)	Chief Deputy Director Tina Curry (represented by Deputy Director Lori Nezurah)	Х
Oroville City Council	Mayor David Pittman	Х
Oroville City Council	Vice Mayor Eric Smith	Х
Butte County Board of Supervisors	Supervisor Tod Kimmelshue	Х
Butte County Board of Supervisors	Supervisor Bill Connelly	
Representative on behalf of Butte County Board of Supervisors	Robert Bateman	Х
Yuba County Board of Supervisors	Supervisor Seth Fuhrer	Х
Yuba Office of Emergency Services	Oscar Marin	
Sutter County Board of Supervisors	Supervisor Mat Conant	Х
Sutter County Board of Supervisors	Supervisor Dan Flores	
California Highway Patrol	Lieutenant Commander Marc Stokes (Mark McNabb)	Х
Butte County Sheriff's Office	Sergeant Brian Evans	Х
Yuba County Sheriff's Office	Lieutenant Brandon Spear	Х
Sutter County Sheriff's Office	Deputy Andre Licon	Х

## \*Member present for majority of the official meeting but not present during roll call.

## WELCOME AND OPENING REMARKS

Commission Vice Chair and Assemblymember James Gallagher welcomed commissioners, presenters and the public to the thirteenth meeting of the Oroville Dam Citizens Advisory Commission. He provided an overview of the meeting agenda and introduced Assistant Secretary Bryan Cash, who attended on behalf of Chair and California Secretary for Natural Resources Wade Crowfoot. Mr. Cash said he was pleased to participate in the Commission; in his role as Assistant Secretary, he addresses both finance and emergency operations. Mr. Cash acknowledged the State Office of Emergency Services' impressive work in handling and responding to the severe storm events Californians had just experienced in January.

Ted Craddock, Deputy Director of the State Water Project (SWP), provided opening remarks on behalf of California Department of Water Resources (DWR) Director Karla Nemeth. He invited commissioners to a site visit of Oroville Dam in the Spring of 2023.

Assemblymember Gallagher acknowledged the presence of Valerie Pryor and Jonathan Young, representing State Water Contractors, as well as the state and local partners who worked together closely during the unprecedented January storms. He noted the local Offices of Emergency Services' diligent efforts to staff emergency operation centers around the clock, and said he looked forward to their presentations today. In addition, Assemblymember Gallagher acknowledged Commissioners Butte County Supervisor Bill Connelly and Robert Bateman for their contributions to shaping the discussions at the Commission meetings around community safety. Lastly, Assemblymember Gallagher noted that the follow-up discussion from a meeting between the Sutter Butte Flood Control Agency (SBFCA) and DWR had been postponed due to the recent January storms and that an update will be given at a future meeting.

#### **COMMISSION REPORT UPDATE**

Eva Spiegel of Kearns & West provided Commissioners with a final update on the first legislative report of the Oroville Dam Citizens Advisory Commission. She began by stating that the report is part of the requirements of Senate Bill (SB) 955, which mandated a Commission report be produced every three years. The report encapsulates the first eleven meetings over the first three years of the Commission.

Preparation of the report began in 2021 and a final version has been posted to the Commission website as a downloadable PDF and distributed to the Governor's Office, legislative leaders, and chairs of the Senate Natural Resources Committee and the Assembly Water, Parks, and Wildlife Committee.

Commissioner Bateman inquired how the comments and recommendations found in the report's appendices would be addressed. Ms. Spiegel reiterated that the comments and recommendations have all been read by DWR and the Commission staff and will be addressed through ongoing conversations between agencies and staff; as appropriate, they will guide future agenda items at Commission meetings. He requested explicit follow-up to the recommendations.

In response, Assemblymember Gallagher stated that the intent of the Commission is to make sure that all topic items are thoroughly discussed, including ensuring the Oroville Water Control Manual is up to date and a broad understanding of inundation maps, which will be addressed at future Commission meetings.

Commissioner Bateman requested the creation of a separate committee coordinated by California of Natural Resources Agency Deputy Secretary for Water Nancy Vogel to address some of the comments, concerns, and recommendations made in the report. He suggested that this would also help ensure regular follow-up to tracked action items. He also suggested that the main proposals from the action items tracker could be summarized in the three-year report.

Assemblyman Gallagher expressed openness to the possibility of a steering committee.

Terra Alpaugh of Kearns & West, explained that it would be possible to form a subcommittee, but under Bagley-Keene rules, taking a vote on this motion would need to be added to the agenda and be noticed for the public in advance. Ms. Alpaugh said that this request will be brought to Secretary Wade Crowfoot and Nancy Vogel who were not at the meeting, and they can reach out to Commissioner Bateman to discuss whether adding a motion to the June agenda is an appropriate next step. She reminded Commissioners that the inundation map topic from the action item tracker will be on the Meeting 14 agenda.

Commissioner and Butte County Supervisor Tod Kimmelshue then asked whether the report is the first one and who has access to it. Ms. Spiegel replied that yes, since the legislation was passed in 2018 and the Commission started meeting in 2019, this report covers the first three-year period of the Commission. The next report will be produced in 2025.

Commissioner City of Oroville Mayor David Pittman requested a moment to welcome meeting participants to Oroville. Mayor Pittman asked if the next report could have more visual elements such as pictures and diagrams to ensure it is accessible and understandable to the general public. Mayor Pittman suggested that these elements could be added to the first report in an appendix.

## JANUARY STORMS UPDATE

John Yarbrough, Assistant Deputy Director of SWP, provided a presentation on the recent storms and how they impacted reservoir operations and response at the county level.

Mr. Yarbrough discussed the winter storms that occurred over three weeks between December 2022 and January 2023. The nine total atmospheric rivers (ARs) were categorized based on storm duration and intensity: one as "exceptional," four as "strong," and another four as "moderate." This is compared to only three "strong" ARs in water year 2020 and water year 2021 combined.

Mr. Yarbrough provided an overview of Lake Oroville facility operations during the storm events. Mr. Yarbrough noted that the reservoir still has room to capture more inflow before.

He showed two different possible scenarios of Lake Oroville storage: dry conditions and wet conditions. With dry conditions water supply conditions would persist where under wet conditions Oroville could need to make flood control releases. He explained that a lot of uncertainty remains at this point in the water year.

Supervisor Tod Kimmelshue asked whether operations managers have considered a "pineapple express" situation like what occurred in 1997-98 because of the abundant snowpack this year. Mr. Yarbrough responded that this type of situation is being considered. With space currently available in the reservoir a series storms would have to happen to create a situation similar to 1997. However, he said, operations managers are considering all possibilities due to the inherent uncertainty.

Assemblymember Gallagher inquired about the latest information and conditions of the State's snowpack, and if there was any concern about runoff into the watershed systems. Mr. Yarbrough responded that the statewide snowpack is at about 140 percent of average and that the watershed number is roughly about the same. Mr. Yarbrough commented that this year's wet watershed is not too concerning based on observations from previous years when high snowpack did not translate to high runoff.

Commissioner and Sutter County Supervisor Matt Conant clarified for the audience that figure presented indicate the possibility of flood releases starting in March in the wetter scenario. Supervisor Conant asked what DWR anticipates the snowpack will be in two weeks to a month, given that the incoming storms are colder than the last.

Mike Mierzwa, Division of Flood Management at DWR, responded that the next snow surveys will be conducted in March across California and that information will be included in DWR's updated water supply forecast (Bulletin 120).

Mayor David Pittman asked if it is possible to analyze the different forks of the Feather River and their influence on upstream and downstream operations and coordination with non-Stateoperated reservoirs., Mr. Yarbrough explained that modeling analyzes snowpack and watersheds on a granular level, including sub-watersheds.

Superintendent Matt Teague added that the end of the wet season allows for more control and less risk of spillway releases compared to the beginning of the wet season. Mr. Yarbrough confirmed that uncertainty declines as summer approaches.

Commissioner and Oroville Vice Mayor Eric Smith asked if there has been any discussion around the Oroville-Thermalito Complex and the possibility of lowering the forebay to prepare for more water capture. Mr. Yarbrough said DWR coordinates with the USACE on space for flood control on a situational basis, and that the forebay is not large enough to make a significant difference in flood operations.

Vice Mayor Smith asked if there is a way to divert more water through the Oroville-Thermalito Complex to avoid significant damage to downstream portions of town in the case of a flood event. Mr. Yarbrough said that conservation is happening right now, and releases are set by environmental drivers and fisheries requirements for minimum releases on the Feather River. Mr. Leahigh said that water is routed through Thermalito as much as possible to recover power. If larger flood flows exceed the capacity of the Thermalito channel, then those flows must go through the low-flow section of that channel.

Assemblymember Gallagher asked how much flood space is reserved at the Oroville facility. Mr. Leahigh said there is roughly 498,000 acre-feet right now of available space.

Supervisor Kimmelshue asked if DWR expects the spillway to be used this year, and that if it was an anticipated option, it would be a good idea to test it. Mr. Leahigh responded that the spillway was used in 2019 and its performance met and exceeded all expectations. Mr. Leahigh noted that if there were a series of storms, water can be moved through Hyatt Powerplant before using the spillway if it needs to be used.

Assemblymember Gallagher introduced Joshua Jimmerfield, Deputy County Administrative Officer at Butte County Office of Emergency Management (OEM). Mr. Jimmerfield provided an

overview of Butte County response during emergency events such as the recent January storms.

Mr. Jimmerfield began by describing the locally-focused response used by Butte County OEM, which relies on weather forecasts and outreach to local jurisdictions (Oroville, Chico, etc.) to address impacts such as localized flooding, downed trees, and potential debris flows from recent fires. As impacts grow, OEM initiates an Operational Area Coordination Call and sends briefs to other agencies and departments as appropriate; these calls and emails provide jurisdictional and state updates while seeking updates and information on unmet needs from partners.

During the recent January storms, operations remained virtual with the Emergency Operations Center (EOC) through the Operational Area Coordination Call. Although there was not elevated concern about significant water releases from Lake Oroville because of the large amount of storage space left in the reservoir, Butte County OEM was prepared for an emergency because of the established lines of communication. Mr. Jimmerfield explained that OEM also works closely with counties downstream of Lake Oroville to gather updates, address concerns, and ensure community safety.

Mr. Jimmerfield described how OEM works closely with the Sheriff's Office to coordinate any potential evacuation notices or warnings downstream. OEM also relies heavily on the Oroville Dam Emergency Action Plan and inundation maps. Mr. Jimmerfield noted that most monitoring occurs hourly during a big storm event, and that the California Data Exchange Center is a useful resource to get real-time updates on lake levels, downstream levels, as well as coordination with USACE and the Flood Operations Center.

To mitigate potential local flooding, Mr. Jimmerfield explained that OEM measures include road closures, provision of sandbags to the public, and public service announcements (PSAs) and website updates to keep local community members informed.

He also presented on behalf of Yuba County Office of Emergency Services because Oscar Marin was unable to attend the meeting. He said that although it is in a different watershed, Yuba County Office of Emergency Services also focuses on strong communication between municipal agencies, reclamation districts, PG&E, and USACE. Mr. Jimmerfield noted the situational reports and briefings conducted by Yuba County also include local agencies outside of the watershed to assess all the possible information. During the January storms, Butte County provided one report per day. Yuba County provided two reports per day. Both counties establish a "Duty Officer" who serves as a person on call during a designated period.

Mr. Jimmerfield concluded by reinforcing the importance of consistent communication and coordination, assessing internal resources, being proactive before an event happens, and building strong relationships.

Assemblymember Gallagher asked if there was any room for improvement based on OEM's response in January. Mr. Jimmerfield responded that anytime there is an emergency event, it is crucial to ensure that the names and contact information of the appropriate staff are up-to-date due to high turnover. Lists are updated annually. However, they determined during the storms that some names and contact information need to be updated. The County will review contact lists during the preseason to fill in any gaps or incorrect information; they also plan to proactively review annual levee reports from downstream reclamation districts and other partners.

Vice Mayor Smith mentioned the levee located in the low-flow channel mentioned by SBFCA, which was discussed during the last Commission meeting. He said this is a serious concern and requested that conversations around the management and maintenance of this levee continue.

Mr. Jimmerfield acknowledged the complex issue of this levee, explaining that he is in conversation with the Oroville City Administrator and SBFCA about an emergency operations plan related to this levee. This plan will bring awareness to the citizens who live in the protection area of the levee and designate an evacuation plan. While there are solutions on the table, Mr. Jimmerfield noted that it might take some time to implement them.

Michael Bessette, Executive Director of SBFCA, remarked that the presentation about the levee at the last Commission meeting was not meant to come off as alarmist, but simply aimed at bringing the levee to the City of Oroville's attention. The issue of the levee is one of certification and not imminent failure. SBFCA has offered assistance to the City in addressing the levee.

Lori Nezhura then asked if Butte County OEM has shared their contact lists with the dam owners so their Emergency Action Plans can be updated accordingly. Mr. Jimmerfield replied that they had, having ensured that all new staff were added to the roster.

Mayor Pittman shared his observations about how emergency response and operations have changed since the 1970s, including the use of virtual emergency operations centers (EOCs). He recommended that this system provide confirmation that messages were received.

Mr. Jimmerfield explained that Butte County OEM deploys the system called "positive contacts," which requires getting a response or confirming every mechanism to reach a person is exhausted before moving on to contacting the next person on the list.

Supervisor Kimmelshue raised the topic of improving inundation maps and building greater understanding around them. He noted that the topic could be discussed during this agenda item or later during public comment. Mr. Jimmerfield commented that Butte County OEM relies on the EAP's inundation maps for the purpose of evacuations; they are looking at other maps that may provide additional relevant information and are working to determine what the impacts of those details might be on evacuation modeling.

Assemblymember Gallagher stated that this could be a topic for the possible steering committee and anticipated it will be added to the action item tracker as a future agenda item. Ms. Alpaugh confirmed that this will be covered during Meeting 14 after a separately scheduled SBFCA meeting with several Commissioners.

Commissioner. Bateman reiterated his interest in updating the inundation maps to be more accurate and creating additional maps that evaluate elevated releases. He asked that this issue be resolved over the next few months, including the upcoming presentation during Meeting 14. Supervisor Conant also mentioned how data from the past shows the inadequacy and inaccuracy of the inundation maps.

Mr. Yarbrough explained that DWR's evaluation is that the current dam breach inundation maps are fully adequate for their intended purposes. He acknowledged requests for additional modeling to create additional inundation maps focusing on the flood risk during releases that would occur during events greater than what Oroville is designed to protect against.

Assemblymember Gallagher concluded by noting the importance of this topic to Commissioners and how it should be a priority at a future Commission meeting.

#### **RESERVOIR DEBRIS MAINTENANCE AND SPILLWAY CAPACITY**

David Sarkisian, Principal Engineer, DWR State Water Project Dam Safety Program, gave an overview of debris management on Lake Oroville. Mr. Sarkisian observed that civil maintenance crews' ability to plan maintenance activities across the lake despite uncertainty year-to-year has improved because of greater understanding of where material congregates and accumulates.

Debris in the far regions of the reservoir are trapped with log booms and buoy lines. The debris is moved across the lake in what are called pods, and then the debris is ultimately beached and disposed of later in the year. These activities, which were necessary in 2017, were managed successfully by the Oroville Field Division.

This year, while inflows are moderate in a historical perspective, DWR has observed that burned debris is entering the watershed. Management strategies have been implemented accordingly, including establishing an on-call contract for an additional debris removal vessel, increasing surveillance and documentation of woody debris, and identifying additional resources and backup contacts.

Mr. Sarkisian discussed the recent completion of a woody debris modeling pilot study, aimed to help predict the amount of woody debris coming off the burned watershed in the future under various hydrologic scenarios. While only 18 of 480 square miles of burned watershed were studied, results were extrapolated to determine large woody debris volume estimates for all burned watersheds. Mr. Sarkisian noted that there is significantly more debris volume between the one-year event and the five-year event, than even further to the 25-year event. The results of this pilot study are consistent with the results of similar research studies.

Matt Teague of the Department of Parks and Recreation asked if post-fire vegetation regrowth was included as a factor in this study. Mr. Sarkisian replied that it was not. The expectation, though, is that the watershed would heal over time and that regrowth may stop some debris in the coming years.

Mr. Teague said that it requires balance to manage the lake for flood control, recreation, and the beauty of high water. He acknowledged the significant effort that DWR dedicates to debris removal.

Vice Mayor Smith mentioned the environmental considerations associated with burning the collected debris must be balanced with the practical challenge with moving it somewhere else. He asked if DWR had considered finding another solution for disposing of the collected debris. Mr. Sarkisian confirmed that DWR is interested in alternative disposal methods and is still considering the options.

Mayor Pittman asked if DWR had considered erosion control within the lakebed itself to keep up with private landowners' replanting efforts. Mr. Sarkisian said he would bring the topic back to DWR's environmental scientist to potentially find opportunities for erosion control in the lakebed.

Assemblymember Gallagher asked Mr. Sarkisian if DWR is prepared to address the expected doubling of the debris level. Mr. Sarkisian said DWR is prepared to deal with the levels of debris given the improvements since 2017.

## **EMERGENCY SPILLWAY STUDIES**

David Sarkisian began by reviewing improvements made to the spillway between 2017 and 2019, which included the roller-compacted concrete buttress in front of the monoliths, the roller-compacted splash pad or apron, and an underground cutoff wall, which engineers refer to as a secant pile wall.

In July 2022, DWR received a letter from the Federal Energy Regulatory Commission (FERC) asking to determine the safe capacity of the emergency spillway and the spillway adequacy of the Oroville Dam. To answer these questions, DWR had to:

- Define the Probable Maximum Flood (PMF)
- Verify the capacity of the Flood Control Outlet (gated spillway)
- Verify the capacity of the Emergency Spillway
- Verify the stability of structures under the flood loading
- Evaluate erosion/scour potential at Emergency Spillway and potential for headcutting.

Mr. Sarkisian described the numerous studies that have already been completed along with the communication to FERC that addresses almost all of the steps outlined above. The remaining studies that are needed to confirm the capacity of the emergency spillway include assessing erosion and headcutting of the secant pile wall as well as confirming the performance of the roller compacted concrete splashpad under the recently revised PMF. DWR will submit a Work Plan to FERC by September 1, 2023 that will include the plans for these remaining studies.

Mayor Pittman reiterated his request for including pictures in Oroville Dam Citizens Advisory Commission materials, including this presentation. He said that pictures of the improvements would prove comforting to the 100,000-plus people who were evacuated during the spillway event and could help build public confidence.

In response to a question from Supervisor Conant about forecast-informed reservoir operations (FIRO) and structure requirements, Mr. Sarkisian responded that the effort, while helpful, is unlikely to inform decision-making on additional infrastructure at the reservoir. Mr. Craddock contributed to the conversation by noting ongoing FIRO research with Scripps Research Institute and coordination with the USACE and Yuba County will continue to inform operations.

Assemblymember Gallagher asked about analysis conducted using the recently updated probable maximum flood (PMF) which saw the peak inflow increase from 671,000 cubic feet per second (cfs) to 721,000 cfs, noting that modeling for the emergency spillway indicated an increase in capacity from 350,000 cfs to 421,000 cfs. Mr. Sarkisian added that the old PMF peak reservoir elevation was 917 feet, and now it is 919.1 feet, which means a 2.1-foot higher water surface elevation under the new PMF. Mr. Sarkisian stated that a remaining analysis is of the roller-compacted splash pad during these higher flows. This particular analysis is anticipated to be completed next year.

Assemblymember Gallagher's asked about what the term "unlikely" means when referring to the DWR statement about "headcutting upstream 700 feet to the monolith being unlikely," Mr. Sarkisian responded by agreeing this term is still ambiguous which is why DWR will be conducting the additional analysis to more precisely identify the probabilities of when headcutting would occur or not. Mr. Sarkisian added that this study and the others are reviewed through a peer-review process by a board of FERC-approved independent consultants contracted every five years. This particular analysis is expected to be completed within the next two to three years.

Assemblymember Gallagher requested that results from this peer review be included in a presentation at a future Commission meeting. He also took a moment to recognize stakeholder Matt Mentink's contributions to this forum and his help to guide discussions over the past few years of the Commission's existence.

## **PUBLIC COMMENT**

Speaker 1, a citizen of Oroville, made a comment about the recreation potential for Oroville. He discussed how the projects included in the Settlement Agreement Recreation Management Plan for Oroville facilities signed in 2006 have yet to be implemented today. He requested that the budget projections for these projects be updated to reflect today's inflation as well as further analysis considering climate change, which was not heavily considered in 2006. He emphasized the importance of inclusive recreation such as non-motorized water activities. He stressed that there have been problems in the community such as poverty and drug dependency since the Oroville Dam was built, but the region has potential for recreation to help lift the community out of these issues.

Vice Mayor Smith commented on Speaker 1's concern about recreation and how it ties to the earlier presentation about lake debris. He discussed the importance of managing risk from debris in the lake to boaters and other recreators, and how planning for climate change impacts now through a revisit of the 2006 Recreational Plan would overall be beneficial to the community.

Speaker 2, a citizen of Yuba County and member of the Oroville Comprehensive Needs Assessment Ad Hoc Committee, made a comment regarding his concern about inadequate analysis of the Oroville Dam's capacity to deal with the realistic PMF. He cited several reasons the PMF should be updated from the 2017 number currently in use, including Atmospheric River 1,000 (ARkStorm) knowledge, historical evidence, and recent congressional bills requesting the PMF be updated in a bipartisan effort every five to 10 years. He asked if the splash guards on the abutment of the main spillway and raising the Parish Camp Dam by three feet are compensating for the emergency spillway's inability to control freeboard and wave surge from landslides on the lake rim.

Mr. Sarkisian responded that DWR is working now and over the next few years to provide sound information to FERC through many different studies on dam infrastructure to demonstrate the need for improvements. Mr. Sarkisian noted that he hopes work with hydraulics experts on ARkStorm predictions in context with the PMF will shed light on the dam's capabilities during a variety of extreme scenarios.

Speaker 2 followed up with a question about whether the secondary spillway could be a solution to the problems being analyzed by DWR. Mr. Sarkisian did not have the risk reduction statistics at hand and noted that the flooding analyses do not provide all that information yet. He added that DWR is working hard to answer those questions to justify the investment of a big project like a secondary spillway.

Continuing his public comment, Speaker 2 then asked about the project alternatives that appear in many of the plans that came out of the Comprehensive Needs Assessment (CNA). He asked what FERC's preferred alternative would be for infrastructure improvements in estimated costs. Mr. Sarkisian could not answer on behalf of FERC, who did not have a representative present at the meeting. He did speak, however, of FERC's ultimate goal, which is to reduce risks, and not implementing solutions that could pose additional risks. Speaker 2 continued to ask questions about the CNA alternatives and concerns about financing these alternatives, which Assemblymember Gallagher noted is in the record before asking for public comments from other meeting attendees.

Speaker 3, citizen of Oroville and tribal member of Mooretown Rancheria, asked if there could be more discussion around water quality at future Commission meetings.

## ADJOURNMENT

Assemblyman Gallagher reviewed action items captured throughout the meeting, then thanked Commissioners and participants for attending. He then adjourned the meeting.