

Oroville Spillways Community Meetings Marysville, California on July 19, 2017, 6:00 pm Meeting Summary

This meeting in Marysville, California was the second of three community meetings convened by the California Department of Water Resources (DWR) in July 2017. Meeting objectives included:

- Provide an opportunity for the public to learn about progress on the Lake Oroville Spillways Emergency Recovery Project.
- Provide updated information about DWR and partner agencies' responses to community feedback on the project.
- Provide an opportunity for the public to ask DWR staff questions and offer perspectives.
- Disseminate information on opportunities for the public to find information and engage with DWR.

This document summarizes the presentation to the Oroville community on the Lake Oroville spillways response and recovery, and on other community topics. It also captures public comments and questions, and DWR staff responses. It is not intended to serve as a detailed transcript of the meeting. This document maintains a similar format and focus as the summaries provided after the first round of Community Meetings in April-May 2017.

This document is organized into the following main sections:

1. Introduction
2. Presentation
3. Questions and Comments
4. Action Items

A full video of the meeting is available online at: <https://www.youtube.com/watch?v=tcfjM9gNu3Q>.

Introduction

Mike Harty, Facilitator, opened the meeting, reviewed the agenda, and provided meeting guidelines.

State Water Project Deputy Director Joel Ledesma thanked attendees for coming and emphasized that DWR empathizes with the community's concerns. Mr. Ledesma introduced elected officials in attendance and thanked them for their participation.

Presentation

Deputy Director Ledesma delivered an overview presentation on the Lake Oroville Spillways Incident. He noted the dam is sound and safe and was never at risk of failing during the incident. The cause of the main spillway failure is being investigated by a team of internationally-respected scientists and technical experts, known as the Forensic Team. Once this team's investigation is complete, the Forensic Team will release a report detailing the cause(s) of the problems that lead to the Spillways Incident. This report will be made available to the public. Mr. Ledesma noted the Lake Oroville Spillways were considered structurally sound by all design standards at the time that they were constructed and that regular

inspections did not reveal flaws that would have otherwise led engineers to believe that either spillway would be compromised.

Mr. Ledesma continued with an explanation of the timeline of events of the Spillways Incident, as noted below.

- February 7, 2017: Flow halted on main spillway to assess damage
- February 11, 2017: Flow begins over emergency spillway
- February 12, 2017: Butte County Sheriff Kory Honea orders evacuation
- February 12, 2017: Main Spillway flows increase to 100,000 cfs
- May 20, 2017: Kiewit officially begins construction
- May 24, 2017: Radial gates closed on main spillway for final time this water year

Deputy Director Ledesma concluded by noting that, while DWR managed the risks associated with damage to the Hyatt Power Plant, river valves, and downstream rural communities and agriculture, the priority of the Lake Oroville Spillways Emergency Response was protecting human lives.

Dave Gutierrez, consultant to DWR, discussed current and future reservoir operations, including the near-term projections for lake levels and coordination with the US Army Corps of Engineers (USACE) to develop interim and long-term operations plans and update the current Operations Manual.

Mr. Gutierrez reviewed objectives for Lake Oroville Spillways Emergency Recovery, which include ensuring public safety, the integrity of the main spillway's ability to safely pass Feather River watershed flows by November 1, 2017, and construction of a cut off wall to prevent uphill erosion should the emergency spillway be used again.

Mr. Gutierrez concluded with an update on construction progress and an overview of the entities with regulatory and oversight authority during the construction process.

Erin Mellon, DWR Assistant Director of Public Affairs, provided an update on DWR's communication and outreach efforts. These efforts include public meetings, briefings for stakeholders and elected officials, community notifications, and collaboration with state and local agencies, among others. Ms. Mellon recapped community concerns raised at the April-May public meetings hosted by DWR and detailed DWR's ongoing efforts to address those concerns.

Public Comment and Question Session:

During public question and comment session, meeting participants had the opportunity to express concerns and clarify questions regarding the spillways response and recovery effort. During this session, DWR staff addressed 27 questions and comments from meeting participants. The following comments, questions and responses were recorded (Q= question, R= response, C= comment) during the meeting.

- Comment (C): First, we had asked DWR to start staging water drops, and DWR has done a great job with this. I am hoping you'll continue with the water level drops through the rainy winter season. Second, please remove the sediment and silt from the Yuba City area from Fifth Street Bridge downstream where levees collapsed before the end of this year so that we can have maximum flood protection. Last week you could walk across river without getting your feet wet; that's how bad it is. Third, DWR is responsible for salmon mitigation at the Feather River

Hatchery. With the approval of the California Department of Fish and Wildlife (CDFW), can we get the maximum number of salmon produced this year?

- DWR Response (**R**): DWR is performing studies on the impacts of sediment in the river and surveying channel capacity at various stages to understand the channel bed below the water. These surveys will be completed in August, and the full study will be completed by the end of the year. With respect to the salmon issue, DWR just met with the National Marine Fishery Service (NMFS) and CDFW. They have plans to add 5,000 cubic yards of gravel in the river to make it more usable for salmon. The hatchery has established production goals of 450 thousand Steelhead, 2 million spring run, and 6 million fall run for mitigation; and 1-2 million fall run for enhancement.
- Question (**Q**): I have a question regarding the spillways construction completion schedule. There are 103 working days left until November 1st as of today, and 325,000 cubic yards of concrete are left to be placed in spillway, which means 131 cubic yards of concrete need to be placed every hour, from now until November 1st. This means 13 trucks will be driving through town every hour. Do you have any comment on this level of work?
 - **R**: Yes, 131 cubic yards is a lot of concrete; but it is not unheard of. The record for Roller Compacted Concrete (RCC) placed in a day is 16,000 yards (on a level surface).
 - **R**: Kiewit will have 500 staff working on the spillway construction by August. They are also hiring local labor. There are three different headers (for structural concrete at top and bottom of spillway; RCC in middle) working simultaneously to place layers of concrete, and via live cam you can see this ambitious amount of work. There are RCC, structural and rock crusher plants on site, and the raw materials are onsite to minimize the impact of construction traffic in town. We have 150 trucks/day delivering cement, and the concrete is batched on site. DWR believes construction can be completed by November 1st and plans to bring lake levels down to 700 feet as a contingency.
- **Q**: How did we get to February 2017 with no one ever looking at the emergency spillway to make sure it was functional? How did DWR get us 50 years down the road to 2017 with an emergency spillway that disintegrated upon first use? Was there no core sampling done? No one had any reason to believe that the emergency spillway would hold up.
 - **R**: There are two key things to consider with respect to the emergency spillway: 1) emergency spillways are designed universally to handle very large storms and provide extra capacity when the main spillway capacity is exceeded; and 2) the emergency spillways are designed with the understanding that debris and rock will be excavated during a spill. The rate of erosion on the emergency spillway, however, was not anticipated. The Forensic Team is evaluating the soundness of the rock under the spillways and the Forensic Report, due out to the public in Fall 2017, will provide answers to some of these questions. Core sampling downstream is not a normal procedure.
- **C**: I appreciate the live web cams placed at the construction site. What is status of the public viewing platform at the site and how will that be accessed?
 - **R**: DWR has three different camera views and is also developing a time lapse viewing feature. Using these live-stream cameras is the best way to view construction currently. DWR is still assessing the idea of a public viewing area. Proposed sites for such an area have been challenged, because they either compromise construction or cause public

safety issues. DWR is working with the sheriff's office and local officials to consider other options. DWR is conducting site visits for elected officials who can serve as a conduit of information for you. The visitor center is another good viewing resource.

- **Q:** The spillway is tentatively rated at 100,000 cfs, if repaired in time. If we have another overflow rain, what is plan to handle excess water? The whole Marysville Dam project was designed to handle the overflow of 130,000 cfs from Oroville. Since this project is not in place, is it possible to make a temporary diversion dam to take care of this?
 - **R:** DWR is planning to address flow and storage issues in the previously-mentioned interim operation plan. An updated Water Control Manual is a years-long process to complete, and DWR cannot wait that long to make operations changes, so DWR will revise flood control rules for this winter in collaboration with USACE. DWR also anticipates only using 100,000 cfs on the spillway instead of the 150,000 cfs called for in the operations manual; DWR will operate the lake at much lower levels through the winter to mitigate for this.
- **Q:** In my five applications to FERC, I keep mentioning the emergency spillway. I'm sure you've read my June 7th letter? I read everything out there with respect to structural work. I'm concerned about the dam gates, which seem to have not been repaired. We don't know how many are broken. From the FERC memos, it seems that FERC is concerned and requesting testing of the gates. The gates may need to be taken out in addition to chute repair. I guarantee you within 5 years that you will be doing this. I suggest doing a dual conveyance to allow for removal of water during repairs. Have you considered Coastal Gen's proposal to put an alternate design on the ogee to take the load off the headworks of the FOC? Last time you said that the emergency spillway will never be used again.
 - **R:** There are ramifications for lowering the lake head/emergency spillway elevation. Mainly, this lessens flood capacity and protection for downstream inhabitants. DWR is focusing on completing the spillway and flood control outlet by November 1st of this year. However, DWR will look at the whole system and all its components, including radial gates and the emergency spillway. Everything is still on the table. DWR does not want to lower the ogee weir, because this would lead to a loss of flood control. DWR hopes to never use the emergency spillway again, but it must plan to get to a point where it can be used.
 - **R:** There is no reason to believe that there are problems with the gates. DWR is currently doing assessments and maintenance/repairs on all the gates and is not aware of any problems with any gate.
- **Q:** When will the public be able to access the dam again to enjoy it?
 - **R:** DWR does not have an immediate timeline for development of a public viewing area. Over the long-term, once construction is complete, the dam will re-open. There are some areas that remain open for the public to enjoy currently. The Upper Overlook Parking lot is still closed for a staging area, but you could go to the Kelley Ridge event center and view the dam from the inside and outside of that facility.

****The questions below are from Facebook live:**

- **C:** How many turbines will be operational in 2017 and 2018?

- **R:** Five out of six turbines are currently in operation. The sixth, which has been in refurbishment, is scheduled to come back online at the end of the year.
- **Q:** When will a detailed construction schedule be available?
 - **R:** Kiewit has been updating their construction schedule regularly. The [simplified recovery schedule](#) is available on DWR's website. The detailed plan and specs, just approved by regulating agencies, will be released the first week of August. One of the recommendations from the last Board of Consultants memo was to look at the schedule and ensure that it's reasonable. DWR will be doing this and making the results public.
- **Q:** Does existing concrete added during the emergency get removed from the emergency spillway before adding the splash pad and buttress?
 - **R:** The current plan is for the concrete that was added during the emergency to stay in place this year. The secant pile wall will be completed and DWR will continue to add RCC and buttress by next season, but DWR would not remove other grouted rock until it is time to replace it.
- **Q:** Does the 2017 design use structure training walls for the entire length of the spillway?
 - **R:** Yes, there will be structural concrete at the top and bottom, and RCC in the middle, along the length of the spillway.
- **Q:** Will background checks be required in the future for those crossing the dam?
 - **R:** DWR is still working with sheriff's office and local law enforcement on the best way to open the dam access point considering public and dam safety/security.
- **Q:** Why is the secant wall not as long as the spillway?
 - **R:** The secant will be 1,450 feet long and abut rock so that the appropriate width is protected. The presentation's graphic is not to scale so it may appear that the two are the same length.
- **Q:** Regarding unauthorized blasting at the spillway – did it cause more of the upper spillway to be replaced than was planned? Did the unauthorized blasting necessitate the decision for increased spillway replacement efforts? Why was more work added to the construction project this year?
 - **R:** Premature blasting occurred before we received formal approval from oversight entities, but the blasting that occurred was planned to be done this year and therefore doesn't impact construction plans. DWR's concern was that we want to make sure we do work by protocol, with the appropriate oversight. As for additional construction work this year, DWR needed to add work this year to enable the significant construction anticipated for next year.
- **Q:** Why are FERC and the Governor not present at these meetings?
 - **R:** DWR can't speak for FERC or the Governor, but DWR often has FERC representatives in the audience listening to community concerns and your messages are relayed back to leadership. DWR is the dam owner, and we are the ones who need to hear your feedback and the ones who can implement change.

Closing

Deputy Director Ledesma closed the meeting by thanking everyone for attending and commenting that DWR will address the evening's information requests. He validated the concerns expressed at the

meeting regarding the construction schedule and reassured participants that Kiewit is confident that it can meet the construction deadline.

Action Items

DWR staff discussed general timelines for completion of work and reports; no discrete action items were identified.