



City of Oroville

OFFICE OF THE CITY COUNCIL

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August 15, 2017

Ms. Kimberly Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

RE: FERC PROJECT NO. 2100 – OROVILLE DAM SPILLWAY INCIDENT

Dear Secretary Bose:

As elected representatives of the City of Oroville, we felt it necessary to write this letter to express the concerns of our constituents in light of the recent Oroville Dam spillway incident and the ongoing effects on our community. Oroville Dam itself plays a critical role in metering flood flow on the Feather River. However, while we recognize and appreciate the many flood control benefits of the Oroville Dam, we are greatly concerned by the physical constraints and operational decisions that have negatively impacted the downstream communities. The communities downstream are composed of low-income, minority and economically depressed constituencies. In the City of Oroville, for example, 24% of the population lives in poverty. Just downstream in Marysville, the poverty rate is nearly 29%. The benefits of the Oroville Dam project are significant throughout the state, providing water to 24 million people in California. But the extreme danger and burden of flood water is shouldered by our disadvantaged communities alone. We view this as a social, economic and environmental justice issue that must be addressed.

In the last fifty years, atmospheric rivers occurring when there is a large snowpack have fueled large inflows into the dam requiring large discharges from the spillway. Climate change has made this worse. Levee failures, emergency evacuations and loss of life and property during high water events in 1986, 1997 and 2017 have all been borne by our residents who live and work immediately downstream of the Oroville Dam. This latest ongoing incident dramatically highlights the fact that those who suffer the greatest consequences from dam malfunction or potential failure have little or no say in the construction, operation or maintenance of the structure.

The collapse of the main spillway at the Oroville Dam and the failure of the emergency spillway led to the evacuation of approximately 188,000 people, including virtually all the residents of the City of Oroville. People spent hours trying to flee just a few miles, not knowing if the spillway would fail, taking themselves and their loved ones away. Had the emergency spillway failed, tens

of thousands would have died, 24 million would be without a source of water and life as we know it in California would forever be changed. This disaster is one of the worst nightmares any elected official could imagine for their community.

While the dam did not fail, the ramifications of this event continue, going far beyond repairs to the dam: thousands of truck trips to bring repair materials and equipment have degraded many of our roads; real estate transactions have declined and escrows have been cancelled; and much of the recreation, which we depend on in our small community, has come to a standstill. Riverbend Park, which was built as part of the Settlement Agreement with the California Department of Water Resources (DWR) for the Federal Energy Regulatory Commission (FERC) license for the Oroville Dam, was inundated and sustained serious damage. 800 families will be displaced for soccer while the park remains closed and tournaments will be held in other cities. For the past several years we have been working on a river plan that would reconnect the City with the river, and many now wonder if the river is something to embrace or if it should be feared. Additionally, some biking and running trails are gone; a boat ramp is closed; some roads are closed; docks are closed; and most recreational access points along the Feather River adjacent to the City of Oroville are closed until further notice. The cost for just the road repair is in the millions and the cost to our community is overwhelming.

Accordingly, we have the following demands:

- 1) The residents of Oroville and the surrounding areas deserve to know how this happened. Several public interest organizations brought up the inadequacy of the emergency spillway during the FERC relicensing process in 2005. FERC and DWR assured us that the dam was safe and could handle any foreseeable flood event. We believed this to be true. The emergency spillway was allegedly rated to 500,000 (+/-) cfs and yet it nearly failed with a flow of just 12,000 cfs. It is readily apparent that the dam safety regulators at FERC did not take the safety of the citizens of Oroville seriously. With this concern in mind, we demand an oversight hearing by FERC's Division of Dam Safety to determine how this regulatory failure occurred.
- 2) The community deserves a full analysis of the impacts of this event to Oroville and the surrounding areas. This should include the direct and indirect impacts to services, infrastructure, and local economies. We also demand to have a full analysis of the impacts to the Feather River and how that will impact current and future recreation and tourism.
- 3) There must be a process established to discuss with FERC, DWR, the water beneficiaries, and other interested parties related to this project how these impacts will be mitigated and to discuss the potential for other impact-related compensation so the Oroville residents, who are most impacted by the presence of the dam, can feel some relief from the daily impacts of the presence of the dam in the community. The benefits from the Oroville Dam are immense. California would not exist in its current form without the water from this project. As a result of the crisis and evacuation, there were business and property losses, lost wages, and damages to public and private property. The people from this community who were in harm's way when parts of this project failed must be made whole as part of the process.

- 4) This emergency has demonstrated that the Oroville Dam lacks the operational flexibility, reliability, and redundant operational systems to provide adequate flood protection to communities downstream. It is not clear how DWR is adapting both the dam itself and/or reservoir operations to accommodate these deficiencies. We demand options be explored to provide for large releases well in advance of high water events and well below the service spillway crest elevation. Or, overall flood protection must be improved by providing additional flood buffers when there is a large snowpack and the potential for warm storms.
- 5) DWR's outreach to the impacted communities downstream has been inadequate at best. Our best sources of information have been informal and indirect sources rather than through official FERC and DWR channels. FERC and DWR must immediately shift its thinking in how, when, and to whom it shares information. There is already a strong community distrust of DWR due to this event. A lack of communication and transparency only makes it worse. DWR must do more to improve trust and credibility with the community by providing greater transparency and providing formal, consistent communication with the downstream communities.
- 6) Design and construction of the necessary repairs to the dam and related infrastructure must be paramount and other considerations must be secondary. The number one priority must be to protect the lives of the 200,000 people living immediately downstream. To be abundantly clear: fisheries protection, water supply issues, State Water Contractor priorities, FEMA reimbursement, politics and other issues must take a distant backseat to public safety.
- 7) The overall infrastructure of the dam is old and, in the case of the spillways, river valves and turbines, failing. There must be a longer term plan for ensuring that Oroville Dam and all appurtenant features are repaired and brought up to 21st century standards. This plan must include not only the gated spillway and the emergency spillway, but also ensuring the plant facilities and low level release valves are adequate and fully operational and include redundant operational systems. We insist all construction plans be reviewed by independent experts to ensure that this infrastructure is well planned, soundly built and supported.
- 8) There must be a full and thorough review of how DWR designs, constructs, operates and maintains the dam. This review must include not only the existing, independent consulting board review and regulatory review, but also legislative oversight hearings and reviews by the State Auditor. Full disclosure and transparency of these proceedings and documents is essential.
- 9) There must be a public discussion as to how Oroville Dam should be operated in the future and who should operate it. Without prejudging the conversation, some of the questions are as follows:

- a. Should DWR continue to be the operator of Oroville Dam? There are other alternatives that must be analyzed and discussed.
- b. Should the Division of Dam Safety remain under DWR or should it become an independent body or moved to another agency to avoid perceived conflicts? Many of the most important technical regulators in the State serve under a publicly accountable board—DSOD should be no different.
- c. Are the current inspections, maintenance, repair, and replacement activities associated with the infrastructure at the dam sufficient to provide for public safety?
- d. How can we ensure more local input on Dam operations?
- e. Should there be a more robust public safety obligation on the part of DWR to provide for law enforcement and emergency response at the Oroville Dam and Reservoir, as well as to enable better protection for citizens? For example, there are some specific public safety measures that should be implemented immediately (e.g. an audible warning system to warn citizens of an imminent failure of the dam and/or spillway, infrastructure modifications to enable orderly and timely evacuation of residents, etc.) and others.
- f. Should the operations at Oroville Dam be modified to provide for increased flood space during seasons in which there is a large snowpack?
- g. How has DWR's coordinated reservoir operations and predictive forecasted reservoir operations benefitted our communities? How could these tools be better utilized? Forecasting during this crisis was significantly inaccurate.

10) Improving Flood Protection Downstream:

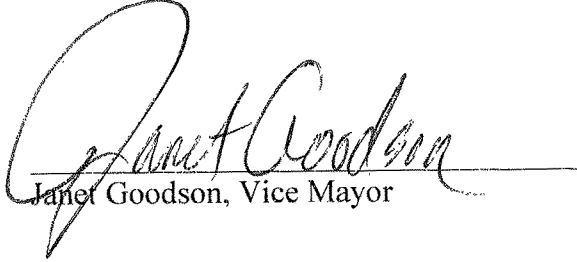
- a. There are several constrictions of the Feather River downstream that could be improved to better contain flood flows from the spillway. It is essential that a cost-benefit study be conducted to analyze projects that might alleviate these constrictions.
- b. There are also several critical repair sites along the Feather River levee system that must be improved in order to better contain future flood flows from the spillway, including but not limited to sites in District 10, south of Yuba City, south of Nicolaus and the levees in the City of Oroville.
- c. We have also seen large-scale erosion of the river banks as a result of quick draw downs of the spillway in the aftermath of the crisis. This erosion could ultimately threaten levees and, combined with the debris from the spillway collapse, has contributed to significant debris in the river channel. The debris impact to the carrying capacity of downstream levees must be analyzed/measured and

removal/mitigation measures must be taken to protect property, lives, and the ecology and fish habitat of the Feather River.

- d. Another major release gate should be constructed as a safety feature to provide redundancy in the event of existing gate failures or to provide additional release in the event of an emergency dealing with heavier flows.
- 11) An oversight committee comprised of local government officials, the Chamber of Commerce, special districts, community groups and experts in dam safety must be formed for local oversight and input.
 - 12) For the safety of the community, the City demands the widening of Highway 162 and Highway 70 for evacuation purposes in the event of another emergency, whether it be dam related, wildfires, etc. These state highways have proved to be inefficient for the safe and timely evacuation of the residents of the greater Oroville area during emergencies caused by failure of other state owned infrastructure, such as the Oroville Dam. Had the spillway failed to the degree that was feared when the evacuation was ordered, many would have died or been severely injured in the process of evacuating due to the inadequacy of Highway 162 and Highway 70 to appropriately handle the volume of vehicles during an emergency evacuation.
 - 13) The City demands that the relicensing of the Oroville Dam be delayed until the Forensic Analysis Team has determined the root cause of the spillway incident, as well as any other contributing causes, their findings have been shared with the Board of Consultants prior to their final review and comments on repairs to the dam, and until the local community has had the opportunity thoroughly review, and collectively agree upon, the terms contained in the new agreement.

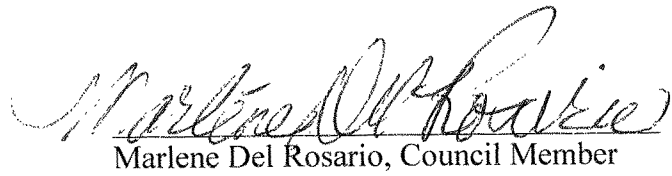
We request your assistance to shed more light on the regulatory failure that occurred at the Oroville Dam.

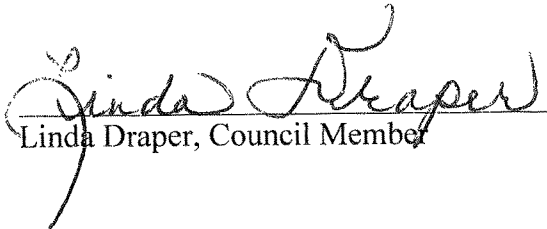
Respectfully,


Janet Goodson, Vice Mayor


Jack Berry, Council Member


Art Hatley, Council Member


Marlene Del Rosario, Council Member


Linda Draper, Council Member