Yuba Feather Downstream Stakeholders Concerns
Current and New Water Control Manual (August 22nd 2024)
Section D Downstream Flood Protection Levees not certified for WCM
Additional Questions in respect to Oroville Levee
(October 28th 2024)

1. Background

Some two years ago, when the Oroville Dam Citizens' Advisory Commission (OCAC) discussed the inundation maps for Oroville, it became clear that the Oroville Levee had become what the Chairman of the Commission called an 'orphan levee' for which no agency had taken responsibility for years. It was also clear that the inundation maps being used for Oroville were not consistent with the flooding that occurred in 1997 and 1986 and were based on the unrealistic assumption that highway 70 acts as a levee.

When the Dam was built, Oroville Levee did not receive an Urban Levee Evaluation, the USACE did not take ownership of the levee as it did in the case of the Yuba City levee and the levee was not included in either the federal or the State levee programs. The reasoning behind these exclusions appears to be unknown.

Recently, the DWR has made it clear that the City of Oroville is the registered owner of the levee. In 2012, the DWR helped the City fund a levee analysis study which identified deficiencies in need of repairs, which were never undertaken. In 2023, the Sutter Butte Flood Control Agency (SBFCA), supported by the city and the DWR, reviewed the situation of the levees and funding is currently being sought for a comprehensive appraisal of the levees. Funding was applied for but not received in the current round of the USACE levee support program and there is, apparently, no State funding currently available. The last evaluation of the levees is thought to have been over 30 years ago and there is no known certification.

The levee was assembled from rocks without a solid core over a hundred years ago. It protected Oroville adequately for over 50 years before the Dam was built. The river around Oroville is the main channel for releases from the Dam and these

now have the potential to expose the levees to higher and longer flows and threats of inundation which resulted in evacuations. The damage resulting from evacuations in 1997 and 2017 was significant and long lasting. The damage included both immediate costs borne by local residents and businesses, estimated at over $5 million for which there was no compensation, and, in the longer term, to the reputation of the city as a safe place to live and do business. A campaign to bring manufacturing businesses to Oroville ended in 2017 because of the spillway incident.

In 1986 and 1997 the flows from the dam, which in 1997 are officially reported to have reached 162,000 cfs, although the official number is 125,000 cfs/day, resulted in at least two boils. These were not examined closely after 1986 and no action to fix them has been taken since 1997. At a public meeting in February 1997 the answer given to the question 'why the boils were not fixed after the 1986 flood' was 'no one knows who is responsible'.

Accurate inundation maps prepared by SBFCA suggest that short releases up to 200,000 cfs would probably not overtop the levee. In 1997, many of us remember that the river reached to within 5- 10ft of the top of the levee; so, if the release measurements 1997 were accurate, much higher releases than 200,000cfs would overtop the levee and the city would be flooded.

There are known weaknesses in the levee which was not constructed in an orthodox way. More importantly, there is no study, at least no public study, that the levee can withstand sustained releases of 150,000cfs and there is no public record of the levee being certified.

2. Questions:

- Does the USACE know of the reasons why the Oroville levee was not included in the Urban or Rural Levee Evaluations when the Oroville Dam was built, or included in the state or federal levee programs?
- Does the USACE know of any certification of the Oroville levee or technical study assessing the state of the levee?
- Was the levee included in the modelling of the downstream levees for the current WCM revisions? If so, on what assumptions was the modelling based?

- How is the USACE assessing the ‘capacity’ of the levee in order to estimate the risk as outlined in Appendix I of the FIRO Preliminary Viability Report?
- Can a revised Water Control Manual be finalized without certification that the Oroville levee can safely pass the anticipated flows?
- Can the USACE suggest how can the studies and maybe renovations that are necessary for certification of the levee be funded?