

## **FEATHER RIVER RECOVERY ALLIANCE (FRRRA)**

### **Second Progress Report January 2019**

We had intended to provide you with a Progress Report on our campaign in November but the disastrous Camp Fire absorbed our energy while distracting everyone's attention from the long-term risks associated with the Dam. Now that things have settled down for most of us, we are issuing our second Progress Report.

Soon after the 1997 floods concern about the management of the Dam evaporated and apathy set in. It was luck that there was no similar dangerous incident for as long as 20 years. We may not be so lucky in future. Without continued public pressure for transparency and change, can anyone believe that the risk will evaporate?

**'Spillway Emergency'** a story of the spillway failure written by two retired Butte County Cal Fire executives William Sager and Wayne Wilson was published a month or two ago. This book, available on Amazon, is a comprehensive history of the events leading up to and during February 2017. It explains the circumstances but does not assign blame. Those in Oroville who tackled the emergency are rightly portrayed as heroes. The decisions made in February 2017 and before, which resulted in the emergency, are explained. It is well worth reading. A copy of this book will be sent to all those who sign up as FRRRA members before the end of February ([www.notjustaspillway.com](http://www.notjustaspillway.com)).

#### **Summary of Activities**

The FRRRA is currently actively involved in the following:

1. Collaborating on raising the safety standards used by FERC and the DWR in the assessment.
2. Presenting FERC with the Petition, signed by 8,000, and an intervention. The Petition asks for an independent, comprehensive assessment of the Dam and fair treatment for the downstream communities.
3. Encouraging local Associations that signed the pending Settlement Agreement which is part of the relicensing of the Dam by FERC initiated in 2006 to follow ORAC and withdraw.
4. Monitoring and encouraging restoration and improvement of the mandated recreational and infrastructure upon which much of the tourism depends.
5. Preparing for the possibility of collaborating with other to provide the District Attorney with a ranked list of projects for any settlement discussions
6. Keeping abreast of developments at the Dam, DWR and FERC.
7. Promoting the truth about the Dam.

More detailed background follows.

#### **Work on the Dam**

So, what has happened at the Dam in the past five months. The new spillway is almost complete, on time but, with a cost of over \$2 billion, at least 100% over budget. The emergency spillway now has a concrete apron to mitigate erosion. FERC is now proposing that the Dam be set up to deal with a maximum of 450,000 cfs. If this is enforced, the emergency spillway will have to be concrete down to the river. On January 17<sup>th</sup> the lake was at 686 ft, rising 8 ft per day during the storm, and about 200ft below where it was on this day in 2017. So, the risk of floods or an emergency this year is low and the spillway may not be needed. However, the lake level is still managed according to a rule book prepared by the Corps of Engineers decades ago and modern forecasting

techniques are not involved. As of January 17<sup>th</sup> the outflow, controlled by the DWR was 2,000 cfs whereas the typical inflow during the storm is at least 100,000 cfs and has been over 400,000 cfs .

Interestingly, although there has been no public notice, holes are being bored down the side of the Dam close to one of the green spots, and equipment to measure internal stress and water flow installed. When the Dam was built, there were some 50 piezometers to measure internal stresses; but they were abandoned in 2003 so there is no measurement now. The DWR's position has been that the green spots are caused by rainfall. There is no hard data to support or challenge this. Could they be having second thoughts? Will we be told what they learn?

### **Oversight of the DWR**

There have been two developments that might be significant improvements to oversight if they are intelligently implemented.

First, thanks to pressure from Senator Nielsen and Assembly Member Gallagher, a local community oversight committee, like those existing in communities with prisons, has been set up. The Committee of our elected representatives will review the operation of the Dam. The question is whether it will have any authority.

Secondly, the DWR is undertaking a comprehensive 'Needs Assessment' program to establish priorities for the future. An Independent Review Board (IRB) has been appointed to help develop scope and criteria. An Ad Hoc Committee, with members, including a FRRR Director and the Executive Director of the UC Berkeley Center for Catastrophic Risk Management (CCRM), selected by James Gallagher has been established to work with the IRB. The FRRR is working with the CCRM to develop information for the AD Hoc Committee so that the 'Needs Assessment' can be more effective in improving the safety of the Dam.

### **FERC**

Regrettably, Supervisor Connelly's request to Senator Feinstein which resulting in her inserting a clause in the Federal Budget requiring an independent, comprehensive assessment of all aspects in the Dam has been interpreted by FERC as a Level 2 Risk Analysis (1). This is not the comprehensive, independent assessment which we had sought. Level 2 inspections have the reputation of being something of a formality. We look forward to working with our elected representatives, all of whom campaigned in the recent election in support an independent, comprehensive assessment of the Dam, to ensure that the Level 2 Analysis fills this purpose.

The petition to FERC signed by 8,000 requesting an independent, comprehensive assessment of the Dam as well as fair treatment for the downstream communities will be submitted shortly with an intervention. Even if does not result in any action, it may discourage FERC from issuing a license before all involved, particularly the local community, are satisfied that the Dam will be managed with safety as the top priority. We are a long way from that.

The proposed 50 year relicensing by FERC of the DWR to operate the Dam has been delayed for 12 years mainly because of community dissatisfaction. A Settlement Agreement, was signed by many local organizations, but not the County, in 2006. This will go into effect if and when the Dam is relicensed. Last year, the Equestrian Association and ORAC, the joint DWR/Community organization that deals with recreation, withdrew from the Settlement Agreement citing the lack of public trust in the DWR and safety concerns. The FRRR intends to encourage other organizations, including the City of Oroville, to consider withdrawing from the Settlement Agreement. At the City Council meeting on October 16<sup>th</sup> 2018, Don Fultz made a well-received presentation

suggesting the City should withdraw from the Settlement Agreement (2). Realization by FERC that support for the Settlement Agreement is crumbling will be another reason for them to delay relicensing the DWR to operate the Dam until everyone is sure it will be safely managed.

Encouragingly, it looks as if FERC is recommending (3) that the DWR make plans for the Dam to handle a maximum outflow of 420,000 cfs – the maximum handled to date is thought to have been less than 250,000cfs. Nobody is quite sure of the exact number, the outflow numbers start with an eyeball which is often adjusted before publication. If this recommendation is implemented, there will be significant consequences. The emergency spillway will become an auxiliary spillway requiring concrete down to the river costing over \$250 million. Downstream, logically, the river will have to be dredged, flood plains created, levees raised and flood plain maps revised. Alternatively, the lake level should be kept lower. It will be interesting to find out how the DWR will respond to this new recommendation.

Even more encouragingly, in November a panel appointed by FERC (the FERC After Action Panel - FAAP) to consider the lessons learnt from the spillway incident reported (4). The report is constructively critical. Among other things indisputable evidence is provided that in 2005, when the question of the adequacy of the emergency spillway was brought up, the DWR gave FERC incorrect information either deliberately or because they did not look at their records. The panel report characterizes the DWR's approach to safety as being a 'compliance rather than a safety program' (page 39), and points out that there have been significant deficiencies in the way 12D inspections have been handled (page 41) and offers recommendations for improvement. It notes that the failures seem to be 'of a systematic or cultural nature' (page 43) We will be watching to see how these are implemented. The result may be that there will be effective regulation of the Dam in future. Time will tell.

### **Legal Cases**

The many individual cases, including that of the City of Oroville, brought against the DWR for damages resulting from the evacuation have been consolidated and will be heard in Sacramento in 2020. It should be noted that the DWR rejected all claims for damages with the comment that the issues would have to be resolved in the courts, rather than by establishing a businesslike process for settling claims. Discovery is now underway. The evidence that the emergency was caused, in part at least, by rash DWR decisions and long term neglect is becoming clearer. These cases may well result in improved operation of the Dam.

The case that the District Attorney is bringing against the DWR to enforce the fine, potentially \$52 billion, for dumping material into the river is more likely to bring positive changes with the Dam. The DWR sought to consolidate this case with the others but this was denied. As it stands, it will be argued before a jury in Butte County. It is likely that this case will settled before trial. Any settlement could, or maybe should, provide for dredging of the downstream rivers, and improvement of the levees and flood plains, such as that in the Oroville Wildlife Area. Safety concerns can also be addressed in any settlement as can community restitution. The FRRA is prepared to help the District Attorney's office develop a ranked chart of projects for any settlement negotiations in collaboration with other parties.

### **Recreation and Industrial Development**

The 2017 emergency has had serious adverse effects on recreation in Oroville. It will be a long time before the number of visitors to the lake recovers. Some of the restrictions that were put in place after the emergency will probably stay in place. The DWR says that walking along the dam will be restored in due course. The FRRA has energetically protested about the way the DWR deals with recreation facilities. This was a major factor in ORAC and the Equestrian Association withdrawing from the Settlement agreement.

Industrial development has also been set back. The Oroville industrial recruitment program has been discontinued and cannot sensibly be revived until the community trusts the way the Dam is operated. FRRRA's activities are designed to provide the basis for establishing this trust. This requires accountability and transparency on the part of the DWR.

## Conclusion

The FRRRA particularly supports and appreciates the efforts to change the way the DWR operates the Dam made by Butte County Supervisor Bill Connelly, Assembly Member James Gallagher and Senator Jim Nielsen. Equally, we thank them for supporting the FRRRA. Following is a sincere recent comment by Bill Connelly which explains why our task is arduous and likely to last for years.

*After several days of reflection there are several key points that should be explored.*

*1. If the safety people include those that formally worked for DWR or are selected by DWR the cultural issues are not really going to be changed.*

*2. If there are no consequences for bad behavior, bad decisions, bad operation, bad promotions, bad hires and threats in general to public safety nothing will really change. Example if you are an Aircraft mechanic and make life threatening mistakes you may be held accountable. Loose your license, get fined or even go to jail for performing poorly. Most all aircraft are safe.*

*None of this happens to people that burn down powerhouses, injure five by operating out of compliance the river valve, trust the spillway to checked by chains and hammers, and then without any institutional knowledge think somehow the emergency spillway is safe to use. They put thousands as risk.*

*3. It is nothing more than an emergency spillway no matter what you call it no matter what you do to harden the hill. There is no control when water flows over the top. Quit calling it an axillary spillway.*

*4. To reject the use of science to operate the facility as some of the instruments might fail is not only stupid, shortsighted, but is leading us back to the possibility of flooding every decade or less. Try redundancy for the equipment. In addition, the whole water basin needs people on the ground, updated hydrology, understanding of ground saturation, snow packs, and run off predictions that are based on science. It is the obvious choice for maximum safety and water delivery.*

*5. \$\$\$ Money, Costs, are being considered but not being talked about at the risk of public safety. Doesn't anyone else see that the most important thing to the DWR is the delivery of CHEAP water. If you are not talking openly about costs you are hiding the real negotiations that are happening with those that pay.*

## References:

1. [Letter January 8<sup>th</sup> 2019 from Frank Blackett, Regional Engineer, FERC to Gwen Knittweis, Chief Hydropower License Planning and Compliance Office, DWR.](#)
2. [Don Fultz Speech: October 16 2018](#)
3. [Letter October 25<sup>th</sup> 2018 from Frank Blackett, Regional Engineer, FERC to Ted Craddock, DWR](#)
4. [FERC Oroville Dam After Action Panel Report](#)

**Membership – see also [www.notjustaspillway.com](http://www.notjustaspillway.com)**

Finally, we would appreciate your help by becoming a member of FRRRA today.

Your membership contribution will help cover administration. The campaign is volunteer-based. There will be projects designed to provide information about the Dam or raise questions that the DWR should answer which will require funding. We will seek support for these projects on their merits.

You can easily use the form on the web page to join today and make your contribution online.

OR

If you prefer to donate by check, please send your name, address, email and telephone to:

*Feather River Recovery Alliance,  
P.O. Box 2702,  
Oroville, CA, 95965*

Make all checks payable to ***'Feather River Recovery Alliance'***

**Those joining before the end of February will be mailed a copy of 'Spillway Emergency'.**

*The Feather River Recovery Alliance is a public interest 501c charitable organization so donations are tax deductible with registered office at 94 Stringtown Rd, Oroville, 95966, California.*

*Directors: Chairman: Dick Thompson, Treasurer: Larry Grundmann, Secretary: Robert Bateman*