

Address to Oroville City Hall, October 16

I'm here to sound an alarm, to explain why I'm sounding it and to suggest actions that may help. I have no illusions about anyone acting on what I say; I just sleep better if I know I have done what I think needs to be done.

In the handout packet I have provided there is a compare and contrast handout between Oroville Dam and the nearby Folsom Dam. The most interesting difference, and perhaps the root of the problem, is that Folsom Dam was designed and built by the Army Corp of Engineers, and the operation was then transferred to the Bureau of Reclamation. Oroville Dam was designed and built by the Department of Water Resources or DWR, and they control and operate it to this day.

We may see this difference in the way problems are handled. For instance, when Folsom had a near catastrophe they got a whole new lower level spillway. The Bureau of Reclamation didn't design or build the dam, so they had nothing to defend. When Oroville dam had a near catastrophe, they threw some cement on a hillside that serves as our higher level spillway. As problem after problem emerges and persists, the culture at DWR is to defend the original design, deny problems and apply superficial fixes.

DWR is overseen by the Federal Energy Regulatory Commission. An interesting relationship appears to exist between DWR and FERC wherein both consider part of their mission to be protecting the other from the court of public opinion, which is legalized through a regulation known as CEII (Critical Energy Infrastructure Information). This regulation is applied in communication with the public as, "We don't have to tell you because what you ask is CEII. So DWR says "FERC said we could do it that way", and FERC says, "DWR said it was okay to do it that way." And neither has to cough up any details to the public because that would be exposing CEII.

I write fiction too, and I have created a story that illuminates some of the problems I'm here to warn about.

***The rainfall had exceeded all expectations and the dam was filling at an alarming rate. Some of the piezometers, those devices embedded in earthen dams to measure water pressure and warn of a potential problem, those devices that are standard safety equipment in all***

***earthen dams, triggered a buzzer in a control room. Workers monitoring the meters took the first step; they turned on all of the turbines in the powerhouse and started to release more water. They took the next step; they opened the river valve to further increase the release. The buzzer became a louder beep, indicating the water pressure in the dam's core was continuing to build. The workers were annoyed; they never did like those pesky meters, but they took the next step, they open the low level spillway. In spite of exorbitant runoff from the rains, the water level stopped rising and actually started inching its way back down, but the pressure was still increasing. Was it an earthquake, the kryptonite of earthen dams? Was it uneven settlement that has taken out other earthen dams? Was it simply the erosion from decades of seepage that has taken out similar earthen dams? At that point, it didn't matter?***

***The pressure continued to increase and the town's early warning siren, the one connected to the piezometers, gave a single blast every three minutes. The more worrisome in Oroville grabbed their pre-packed emergency stuff, and anything else that would fit in their vehicles and headed out. Ten minutes later, as the pressure was still building, the siren started giving two blasts every two minutes, and others decided to heed the warning and exit the town. Then the pressure rose to the inevitable-collapse level, and the siren started wailing three blasts every minute. With so many having already left, most of the rest of the town was able to escape, lessening the carnage, but not saving the town we love.***

That's an interesting piece of fiction, but let's look at some facts. One acre foot of water equals 326,000 gallons of water. The dam, when full, is holding back 3.5 million acre feet. Another fact, From January 2005 through June 2013, a period of just eight years, the Association of State Dam Safety Programs reported 173 dam failures and 587 "incidents" – described as episodes that, without intervention, would likely have resulted in dam failure. Worldwide, 60% of all dam failures are from earthen dams.

Now let's dissect the fiction in the story I told. Those meters, those devices embedded in earthen dams to measure water pressure, vibration

and shifting earth, warning of a potential problem, those devices that are standard safety equipment in all earthen dams; in Oroville Dam they're all broken. The Federal Energy Regulatory Commission, FERC as we know it, according to one report, has asked DWR to fix them for years. So the control room where workers monitor the outputs of those meters is also fiction, as is the ability to turn on all of the generators in the powerhouse, some are always broken. Equally broken is the river valve. And that low level spillway that could easily be a saving grace, it doesn't exist. Unfortunately, neither does a warning siren. These are just some of the problems at Oroville Dam.

I recall vividly February the twelfth in 2017. I recall walking out of my house and seeing neighbors scurrying about. They said the dam was overflowing, and I have vowed to remember what that felt like. I remember thinking I was on the verge of losing many of the friends and family I hold dear, including children and grandchildren. I was also on the verge of losing everything I own. In the next dam disaster it's not a given that we will have any more time to reach safety, and may have less. After all, evacuations make DWR look bad, so they put them off till the last possible second, till many of us will die trying to escape, as would have happened had the emergency spillway collapsed and hundreds were in the path, stuck in roadway gridlock.

I've spent two years researching problems at Oroville Dam. What I found was alarming. DWR pretends the problems don't exist, or don't matter. I believe if this council and this mayor and this city attorney knew the extent of these problems, actions would have been taken. I believe that if demands were made of DWR to fix the problems and DWR refused, this city hall would have taken the fight to local, Sacramento and national news agencies, shouting to the rooftops that there are problems that DWR is refusing to fix and that they would have kept screaming until the problems were fixed. I could be wrong.

Granted, an earthen dam that tall in earthquake country is never going to be completely safe, but DWR can do much more to ensure our safety. DWR has a way of getting us to ignore the safety issues, to obscure them behind compensation issues, and we, meaning both city council and the citizens, have taken the bait every time. DWR offers money that is like a minnow on a fish hook. It might be tasty, but the sacrifice for going after

that tid-bit should be seen as unreasonably dangerous and costly. What it cost is the ability to do your jobs as representatives of this city, and hold DWR accountable for the safety issues that still exist at the dam; issues that DWR has been informed about, but takes no action to resolve. Why should DWR act to protect us when we're signing agreements in spite of the safety issues? These agreements make you co-conspirators. In the words of the Editor of our local paper, "Money shouldn't buy the silence of locals." The editor also said, "The Oroville City Council and Feather River Recreation and Parks District board need to discuss publically whether they should withdraw from the settlement agreement."

Recently I attended an event and listened to a campaign speech. In the speech the person talked about holding DWR accountable. After the speech I asked how that was going to be accomplished and I got answers that explain the problem perfectly. The first answer was, "I'm going to negotiate with DWR for a better deal," and I thought, wow, that's worked so well for the last 50 years. And how do you negotiate with an entity that appears to lie every time their mouth opens. The person also said that the original agreement was good.

If the agreement we signed is so good, why does anyone else get a say in how money is spent. Just for fun, tell the SBF gatekeepers you want to spend that money on a warning siren for Oroville. That would be leadership; ethical, responsible leadership, and oh my God, how informative their response would be. Wouldn't it be great to listen to DWR tell us it can't be used for that? What a headline: "DWR Refuses to Let Oroville Spend Their Own Money on Dam Safety."

The second part of the campaigner's answer was, "We can't take action unless the town is behind us." It brought up more thoughts about leadership. Refusing to take the lead on safety issues, to learn and share information that is prevalent, and then blame the town for not being behind you? They can't get behind your silence.

When I look at what humanity does to the planet and too each other, I see a species ever dedicated to rearranging the deck chairs on the Titanic. That's a great comparison to deciding how to spend 3 million as the dam sits unsafely above us. Do any of the proposed projects hold water, so to speak, when compared to Oroville's safety? Won't they all wash out to the

sea with the rest of Oroville? How brazen of DWR to think they can distract us from thinking about safety issues with 3 million dollars. Then again, so far it's working.

State and federal governments are holding all but two cards. We are holding the settlement agreement card and the media card, and if well played they give us more power than we have thus far accepted. We don't even have to spin the story, just tell the truth. If we withdraw from the agreement over safety issues the world will be on our side. The story of our dam has been around the world. Until the agreement is ratified by FERC, there is nothing legally binding. If there was it still wouldn't hold up in face of what happened on February 12, 2017. It wouldn't hold up in the face of safety issues DWR is not addressing. It wouldn't hold up in the face of a second "Unsatisfactory" rating for Oroville Dam. It wouldn't hold up in the light of a history of broken promises. Please don't let the vanishing point of obscure promises with too many strings dissuade you from the civic duty of keeping us safe.

I have brought you all a packet of information. It details the safety issues. There is also a copy of the Statement that ORAC, an association working with DWR to develop recreation around the lake, gave to DWR when they withdrew from the settlement agreement. It reads like our Declaration of Independence.

To their credit, DWR is a great water seller, but that's all. They don't seem well suited to design, construction and operation, and can't maintain a dam, respond to problems prior to catastrophes or even tell the truth about the dam's condition. I'm asking for a drastic measure, withdrawal from all DWR agreements, because nothing short of that gets their attention. I'm asking for other measures.

- Get up to speed on your knowledge of the dam that sits above us.
- Start making demands based on what independent experts have already brought to light: broken piezometers, the need of a low level spillway, a rebuild on control gates and a warning siren. New legislation is not mandating a fix for these issues.

- This shouldn't be your problem to deal with, but it is. Create alliances with other downstream communities who can help fight the battle with DWR for a safer dam.
- Trade in your SBF committee for a dam safety committee.

On a final note, we love commerce. It paves the way to revenue to run our city. Some may be concerned about raising alarms, but have you talked to people from other areas about our dam. They aren't afraid to look at the truth, it essentially doesn't affect them. The concern about our dam is already out there. It's out there globally, because we came frighteningly close to losing our city. Imagine the effect of another near miss. You will not attract businesses after that. Property values will plummet, destroying your tax base. On the other hand, if you do whatever it takes to get a safer dam, financial catastrophes can be avoided.

I'm sorry there isn't more good news, but the god of my understanding didn't ask me to bring good news, only the truth, and he promised I would sleep better for having told it. Lives are at stake. Oroville deserves better. Be good leaders and the community will follow. Amen.