

**July 27, 2016**

**State Water Resources Control Board Policy Statement against the proposed Sacramento River diversions for the CA WaterFix**

"Build it first, then ask questions". That's a quote from State Engineer Harvey Banks in the mid-50s as he worked up support for the State Water Project. He cited the urgent need for speedy action. The state built it and the Delta has been in decline ever since.

I mention Mr. Banks because history is repeating. DWR again proposes a massive water project and **it's at 10% design.**\* "Permit it now," they say. "We'll work out the details later." Governor Brown cites the urgency of the project, just as Pat Brown and Mr. Banks did six decades ago.

It seems premature to move forward now with permits when the project is at 10% design. Unintended consequences could be enormous and even catastrophic. The environmental documents are full of impacts unmentioned, unanalyzed or left for future analysis. There is too much we don't know.

How do these unknowns affect Delta residents? I live directly across the river from intake #2, on the Yolo side. Cofferdams would restrict the flow of the river and raise surface elevations upstream. This must be mitigated. The documents state: "Under existing regulations, USACE, CVFPB, and DWR would require installation of **setback levees or other measures** to maintain existing flow capacity in the Sacramento River..."

If they build setback levees, our homes against the levees are gone and the highway would have to be moved. Pretty big impacts, and they are not mentioned. If not setback levees and instead "other measures," what are they? They don't know because it's 10% designed. So we don't know and you don't know.

This lack of information goes up the chain, from unknown impacts to local residents to the entire Delta and beyond – downstream to the Bay and upstream to the watershed. At 10% design, can adaptive management save us from unintended consequences? Is permitting the project now worth the risks?

I hope you will not permit this project at this early stage. I hope you will require that the project be further developed so the impacts are better known before considering a permit.

Thank you.,

Wendy Heaton  
PO Box 360 • Clarksburg, CA 95612

\* The project is at 10% design according to engineer Sergio Valles, who gave a presentation on the Waterfix design and construction at the June, 2016 meeting of the Metropolitan Water District's Special Committee on the Bay Delta.

From Maven's Notebook:

<https://mavensnotebook.com/2016/07/12/california-water-fix-and-summertime-water-operations-discussed-at-metropolitan-committee-meeting/>

Mr. Valles explained that there are two types of tunnel boring machines for soft ground: a slurry machine and an earth-pressure balance machine. *"They both apply pressure to the face of where the machine is boring; it equalizes the pressure against the earth, it just does it in two different manners,"* he said. *"The slurry machine uses slurry to apply a pressure to the ground surface while the earth pressure balance machine uses hydraulic rams to apply that pressure. With the slurry machine, it takes the cuttings away through that slurry, and then it gets separated in a treatment plant above ground, versus the earth pressure balance machine, it takes the cuttings away via a screw conveyer and then it drops the reusable tunnel material onto a conveyer and moves it out to the surface."*

He noted that the general consensus between the contractors, vendors, and tunnel boring machine manufacturers seems to be that using an earth pressure balance machine is the machine to use. *"But we're at 10% design and we don't have a lot of geotechnical information, so the plan is to get about 1500 borings and CPTs to assess the geotech and that will tell us more precisely what type of machine we should use."*

Mr. Valles then played some videos which showed how the tunnel boring machine works. (Sorry, I can't embed the video clip. Watch starting around 48:30 on the [video here](#).)

He noted that in the construction of the tunnels, there are over 700,000 concrete segments, so having these manufacturing facilities build them to a great deal of precision is really critical for the overall project, and there isn't any leakage – exfiltration or infiltration.