

March 23, 2022

RE: Water Storage Security for the Future of the Potter Valley Project

To Whom It May Concern,

As a born and raised resident of Potter Valley, the ongoing conversation regarding the future of the Potter Valley Project and the benefits it provides (both water and power), has driven me to question some of the popular rhetoric that has become prominent in news articles as of late.

Seismic Fear Mongering

Our universe is most comfortable at the atomic level. Therefore, all things are constantly disintegrating to the smallest structure, the atom. Yes, Scott Dam will eventually fail, as will the Pyramids. A single event failure of Scott Dam due to earthquake is possible, but PG&E clearly exhibits faith in the integrity of the structure as they have recently asserted a willingness to effect electrical repairs and to continue to operate the Project on an annual basis for, perhaps, five years.

Fishery Considerations

Scott Dam was built to gather winter waters and hold them for summertime generation of power. Scott Dam has existed since 1922. The Cape Horn Dam, including a fish ladder, was built some 15 years prior. The mile long tunnel continues to exhibit the competency of the Project superiors as it was dug from both ends and did meet in the middle, (The question to be considered here, is the how of establishing the correct starting points?) Since the spawning grounds beyond Scott Dam lie some two hundred miles from the sea, perhaps the omission of a fish ladder at Scott Dam was judgment rather than disregard.

A relic of the 1964 flood remains, the hanging culverts. A hanging culvert is a culvert from which the escaping water resembles a waterfall, thus the fish are denied access. There exists approximately one hundred miles of Eel River frontage afflicted with hanging culverts. Logic has it that reopening fish habitat adjacent to those first one hundred miles of the river would be a worthy, cost-effective restoration project.

Conditions of yesteryear are not the same as conditions of today. Today the waters are misdirected by illegal water diversions. Today the waters are often befouled by spilled meth lab chemicals and petroleum product leakage. Today the adjacent forest floors are tainted by distribution of poisons: e.g., strychnine, warfarin and arsenic. Today there exist fishing trawlers bearing eight hundred tons of salmon in international waters.

Lack of discussion of all the factors above, and others, which are detrimental to the fishery are often left out in the endless crusade to base the survival of the species solely on the habitat potential beyond Scott Dam. If there had been focused efforts to truly mitigate these named circumstances, and extinction of the salmon remained eminent, then building a fish ladder at Scott Dam would have more logic.

Infrastructure Modernization vs Removal

Drought is upon us. Water is life. There is no "MORE" water. Conservative use of water is a must. The Potter Valley Project (Project) at one hundred years of age could benefit from a creative face lift. In researching other hydro power projects, there are options to consider for improving Project efficiencies as well as economic returns from hydropower production. For example, install a silo in Lake Pillsbury that would protect the needle valve intake, house fish screens, and a multilevel water intake. Plumbing would provide for needle valve flows. Diversion waters could be transferred from Scott Dam via pipeline to and through the tunnel to the generator site in Potter Valley. The use of pipe minimizes water loss due to

evaporation and leakage. The installation of the pipeline, the elevation differential from dam to tunnel and the design of today's generators strongly suggest additional generator sites. The existing inefficient generators, with a maximum output of 9.2 megawatts (although with current limited water supply, does not get to operate at capacity), could be replaced in the (near) future with a modern power generation system that could produce more power within the limitations of the current water supply. Water delivery infrastructure from the powerhouse to Lake Mendocino can also be modernized to increase efficiencies concurrently.

Please look at the examples below for application to the Potter Valley Project and alternatives to modernize the existing infrastructure versus focus on removal alone.

Districts providing example of innovative modernization are:

Swalley Project, Bend, Oregon: 450 acres of irrigation, 0.2-megawatt generator, 8.8-million-dollar cost, paid for in ten years.

<https://oregonwatershedplans.org/swalley-id>

Three Sisters Irrigation, The Sisters, Oregon: 7000 acres of irrigation, 50% water diversion, 0.75-megawatt generator, 60 miles of pipe installed, 55-million-dollar cost, paid for in twenty-five years.

<https://www.energytrust.org/success-stories/three-sisters-irrigation-district-bend-2/>

<https://www.tsidweb.org/our-water-about-the-three-sisters-irrigation-district>

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Potter Valley