

**California Land Stewardship Institute
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Napa, CA 94558**

FERC

Proposed Surrender, Decommissioning and Non-Project Use of Project Lands of the Potter Valley Hydroelectric Project

Docket Number P-77-332.

To whom it may concern:

Thank you for the opportunity to comment on the above titled project. The Ca. Land Stewardship Institute (CLSI) is a 501c3 nonprofit organization that works with private agricultural and ranching landowners as well as federal, state and local agencies to improve water quality, reduce soil erosion, improve water conservation and efficiency, restore habitats and sustain agricultural lands. CLSI has worked in the Russian River watershed for over 25 years often with a focus on water supply. Previously we have received grant funds to build offstream ponds on farms along the Upper Russian River (Mendocino County reach) to provide water for frost control while eliminating impacts from direct diversions to listed salmonids in the river. CLSI also manages the Ca. State Water Resources Control Board (SWRCB) Russian River Frost Regulation in Mendocino County and monitors both surface and groundwater in numerous locations along the Upper Russian River.

Under the Ca. Sustainable Groundwater Management Act or SGMA, Ukiah Valley was required to form a Groundwater Sustainability Agency (GSA) and a Groundwater Sustainability Plan (GSP). This plan involved creating a detailed model (Ukiah Valley Integrated Hydrological Model or UVIHM) of the groundwater basin, stream flow including the Russian River and watershed processes.

It is important to note that the water diverted by the Potter Valley Project (PVP) is abandoned into the Russian River and has been appropriated by the SWRCB for use by municipalities, farmers and homeowners along the Russian River. These appropriative water rights based upon PVP water provide an average of 3117.6 acre-feet/year for agricultural use and 5665 acre-feet/year for municipal water supply within Mendocino County from the outlet of Lake Mendocino to the Mendocino County line. These numbers are averages of reported water use for the 2017-2019 period provided by the SWRCB. This period includes both wet, normal and dry years.

Our organization is currently working on a project evaluating flows in the Upper Russian River and potential changes to the Ukiah Valley groundwater basin as a result of the loss of Potter Valley Project diversions into the Russian River. We have updated the UVIHM used to produce the GSP for the Ukiah Valley to include all groundwater monitoring and river flow data collected since the GSP was completed as well as a new topographic survey of the Russian River channel completed as part of the grant. The project is funded by the Bureau of Reclamation. The goals of the project are to provide model analysis of future conditions including the removal of the PVP and the effects on surface water and groundwater availability for agricultural and municipal water users as well as and conditions under several climate change scenarios. Model simulations include replacing the loss of PVP surface water with use of groundwater. Another goal of the project is the development of a Decision Support Tool for all local water managers to use to adapt to the loss of appropriative water rights based on PVP water.

While the project is not yet complete, we are submitting a summary of our preliminary model results for consideration in your NEPA document as an impact from the removal of the PVP.

1. The UVIHM documented that for 9-10 months of the year flows in the Upper Russian River gain water from the groundwater basin and watershed. However, during 2-3-months of the dry season the PVP water provides recharge to the groundwater basin. The model shows the loss of this recharge will likely result in lower groundwater levels in dry years.

2. In our project we modeled the loss of appropriative rights based on PVP water and replacement by groundwater pumping in various climate years (normal, wet, dry, very dry). Assuming all the appropriative water rights (8782.6-acre feet average/year) cannot be used and are replaced with the same amount of groundwater pumping, the groundwater basin levels will likely show consistently lower elevations. In dry and extremely dry years this lowering of groundwater levels could result in violation of minimum groundwater level thresholds as defined in the GSP.
3. An alternative to these dire effects to the groundwater levels from the loss of PVP surface water is the construction of off stream ponds that can be filled from high flows and water purchased through the new ERPA diversion. We recommend that the construction of ponds be a mitigation measure for the loss of 8782.6-acre feet of appropriative water rights due to the removal of the PVP.

Please contact us if you would like to learn more about the modeling and results for your NEPA analysis. Laurel can be reached at 707 869 2760 and laurelm@fishfriendlyfarming.org.

Thank you

A handwritten signature in purple ink, appearing to read "Laurel Marcus".

Laurel Marcus
Senior Science Advisor