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FERC 2105

March 23, 2015

STATE WATER RESOURCES
CONTROL BOARD

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DIV OF WATER RIGHTS
SACRAMENTO

Peter Barnes, Engineering Geologist
State Water Resources Control Board
Water Quality Certification Program
P.O. Box 2000
Sacramento, CA 95812-2000

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Dear Mr. Barnes,

My name is Kirk Heppler and my wife and I own two properties in Lake Almanor, one at 2574 Big Springs Road and recently purchased another home at 1434 Peninsula drive. We have been coming to the lake for over 25 years, purchasing our first home in 2010 and found our absolute dream home where we plan retiring on Peninsula drive last month. We were drawn to the Lake Almanor basin for its beauty and recreational activities. I am an avid fisherman and enjoy the fact that Lake Almanor is one of the best fishing locations in California. I love the lake activities and abundance of hiking trails the area has to offer.

I was under the assumption that the thermal curtain discussion was no longer an option since there had been such opposition from the residents and even PG&E. I have read the draft EIR and I am very concerned with some of the assumptions made about the impact on the lake and its fisheries. Experiments with cold water releases in a drought year seems reckless and detrimental to the overall health of the lake and its ecosystem.

I copied the following paragraph from a PG & E report entitled "North Fork Feather River Study Data and Informational Report on Water Temperature Monitoring and Additional Reasonable Water Temperature Control Measures" Amended September 2005. This report represents the results of PG&E's evaluation of water temperature monitoring, modeling and control options, reflects only PG&E's views and is being submitted to the Rock Creek - Cresta Ecological Resources Committee (ERC) so that the ERC may review the report and begin working towards recommendations concerning flow and Project operations and, if feasible, making any affirmative determinations concerning water temperature control actions.

Taken from Page 2 in the Executive Summary:

"Licensee's (PG&E) analysis of each of the twenty-four potential water temperature control alternatives indicates that some of the first and second category alternatives (thermal curtain and increased magnitude water releases) have the best potential to reduce water temperatures in the Rock Creek and Cresta reaches. Sophisticated computer modeling indicates that some of these

alternatives have the potential to reduce water temperatures from 1 to 3°C in July and August. However, such reductions in water temperature would only increase the cold-water trout habitat in the Rock Creek Reach by about 3 to 8 percent and in the Cresta Reach by about 0.5 to 2 percent in July and August of Normal water years. The overall benefits of such modest gains in cold water trout habitat are very limited and likely not measurable given natural fish population variability. Also, these alternatives would likely have a corresponding potential effect of reducing cold-water fish habitat in Lake Almanor and reducing fish production in Butt Valley Reservoir, resulting in a decrease of the aquatic resources and recreational value at each of these reservoirs.

There are too many “potentials” and not enough facts....

The report goes on to touch on the 24 potential water temperature control alternatives. I firmly believe that if you want temperature reduction, you need to address it at the site. I see in Category 3, noted below, they have attempted to do this. I've only included Alternate 15 as viable and worth further investigation. As stated, I understand that there is definitely a “cost” for the electric power to operate these chillers but the power is there and what we're talking about is less power available to sell or lost opportunity. Then there is the cost to purchase and operate the capital equipment and space requirement. All noted but at what cost and is it really “cheaper” given the other alternatives and impact on the Lake Almanor Basin. Additionally, if we're talking about fish health, I would encourage investigating the injection of oxygen (potentially liquid oxygen) to boost the dissolved oxygen content in the colder waters.

Category 3 –Obtain Cold Water from Sources Other than Lake Almanor

Alternative 15 – Construct Mechanical Water Chillers at Belden, Rock Creek, Cresta and Poe Dams. This alternative consists of constructing and operating mechanical water chillers at each of the four dams to cool incoming river water approximately 1°C and deliver it back to the NFFR below each dam. Even to achieve a modest 1°C water temperature reduction would require six very large water chillers and three large cooling towers at each dam. Adequate space to site the chillers and cooling towers does not exist at or in the immediate vicinity of each dam, leading to extremely challenging and costly construction. This alternative would also require a substantial amount of electric power to operate the water chillers and the cooling towers. The modest level of water temperature benefits for this alternative is not commensurate with the corresponding adverse effects and costs, leading to the conclusion that it is not a reasonable water temperature control measure.

In conclusion, I am completely **OPPOSED** to either the installation of a thermal curtain or any cold-water release from Lake Almanor. I believe the DEIR has discounted how negatively such an installation will affect our community. I have several million dollars invested at Lake Almanor and want to protect my investment, the ecosystem and the reason people choose to call the Lake their

home. To assume the impact will be minimal is simply reckless and not realistic. The negative impact on one the best fisheries in the state will also negatively impact real-estate values and the tax revenue generated by those values. The best fishing and recreation in the state is at risk if the water temperature altered by choosing to send cool water downstream 30 to 45 miles, hoping to change the water temperature by less than 0.5 to 2 percent in July and August of Normal water years. **I strongly urge the State Water Board to only consider the PG&E project, as submitted and approved in the Settlement Agreement of April 22, 2004, without the additional release of cold water from Lake Almanor.**

Sincerely,



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