



Via Electronic Submittal

Hon. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

October 18, 2010

**Re: Response to Placer County Water Agency Comment Letter on
Exploratory Model Runs and Flow Interests for
Nevada Irrigation District Yuba-Bear Project #2266 and
PG&E Drum-Spaulding Project #2310**

Dear Secretary Bose:

On September 16, 2010, Placer County Water Agency (PCWA) filed a comment letter in the above-referenced dockets.¹ PCWA's letter addressed a water balance model run that was recently proposed by the Foothills Water Network within the coordinated relicensing of the Nevada Irrigation District's (NID) Yuba-Bear and Pacific Gas & Electric's (PG&E) Drum-Spaulding hydroelectric projects. PCWA's comments were also copied to numerous federal, state and local elected officials.

The Foothills Water Network is providing this letter in response to the comments filed by PCWA to clarify the exploratory nature of the model runs at this point in the relicensing and support PCWA's request to disaggregate water supply deliveries to PCWA and NID. We also include a technical analysis demonstrating that the Yuba-Bear Drum-Spaulding Projects divert water, which is then used in the project area exclusively for hydropower, and is subsequently abandoned in Folsom Reservoir. Accordingly, the Foothills Water Network demonstrates how our recent modeling run explores restoring the water to the Yuba River and to a large extent, protecting the water delivered to local water suppliers like PCWA and Nevada Irrigation District. Finally, we take this opportunity to correct the FERC record on the fact that the Yuba-Bear and Drum-Spaulding projects are not solely driven by water supply – but divert significant volumes of water exclusively for hydropower generation.

Foothills Water Network

This response was jointly developed and signed by non-governmental organizations and by individuals participating in the Drum-Spaulding and Yuba-Bear Relicensings. The Foothills Water Network represents a broad group of non-governmental organizations and water resource

¹ September 16, 2010 PCWA Letter Accession # 20100917-5091

stakeholders in the Yuba, Bear, and American Watersheds. The overall goal of the Foothills Water Network is to provide a forum that increases the effectiveness of non-profit conservation organizations to achieve river and watershed restoration and protection benefits for the Yuba, Bear, and American Rivers. This includes negotiations at the county, state, and federal levels, with an immediate focus on the FERC relicensing processes.

Collaborative Relicensing Negotiations

The collaborative relicensing process is meant to provide a safe venue to explore potential alternative management scenarios that meet multiple interests. The model run to which PCWA refers in its letter was developed by Foothills Water Network to explore how different instream flow requirements might alter the YBDS Hydropower Projects. As the Foothills Water Network has stated in past filings, we are very interested in studying and using water delivery information to inform future license conditions for YBDS.

PCWA is familiar with the concept and process of the relicensing stakeholder collaborative. Currently, PCWA is successfully managing the relicensing of its Middle Fork American Project. The Foothills Water Network looks forward to working with PCWA within the Yuba-Bear/Drum-Spaulding relicensing collaborative as well. We are hopeful that PCWA's complete participation in the YBDS process will assist in achieving an outcome that is acceptable to all relicensing participants.

Hydropower Generation and Water Supply

The Foothills Water Network agrees that a more careful analysis of water supply considerations within the YBDS relicensing has considerable merit. It is important to understand, as PCWA has suggested, the effects of potential protection mitigation and enhancement measures on water supply that is delivered through the coordinated projects. It is equally important to consider the effects of water that is largely delivered through the projects on instream resources, such as salmon and steelhead in the Western Placer Creeks.² The artificial separation of water supply and

² The Western Placer Creeks region includes the four main arteries: Coon Creek, Auburn Ravine, Secret Ravine, and Miners Ravine, and their tributaries. The Yuba-Bear Drum-Spaulding Projects directly affect the creeks through hydropower releases and indirectly affect the creeks through hydropower releases to meet water supply demands and conveyance of those waters. For more information, see FWN Comments on PAD and SD1 Study Requests on August 11, 2008 (Accession Number: 20080811-5122), Sections 4.1.5. Operations, Maintenance, Outages of Canals and Ditches, p. 6; Section 4.4 Project Water Imports to the Western Placer Creeks p. 10-11; and Section 5.2 Anadromy in Western Placer Creeks p. 14. See also FWN Comments on Revised Study Plans on February 9, 2009 (Accession Number: 20090209-5012), Sections 13 West Placer Creeks p. 18-24 and Section 15 Anadromous Ecosystem Effects and Water Use and Efficiency Studies p. 26-32.

hydroelectric purposes within a project that is operated for both fails to do justice for many interests.

Since the Commission denied several studies or parts of studies that would have provided greater insight into the role of water supply within the coordinated Yuba-Bear/Drum-Spaulding system, Foothills Water Network has independently investigated a number of issues that relate to the role of water supply in relation to the Projects. In this investigation, we have discovered a number of important facts that partially address the issues raised by PCWA in its September 16, 2010 comments. In order both to respond to substantive issues raised by PCWA, and also in order to clarify the administrative record, we have provided analysis of some aspects of these issues in an appendix to this letter.

Please see Appendix for supporting technical analysis of existing diversions by the Projects that are used exclusively for hydropower, and not delivered by regional water suppliers for local consumption.

Thank you for FERC's consideration of this letter.

If you have any questions or comments about this letter, please contact Julie Leimbach, Coordinator, Foothills Water Network at julie@foothillswaternetwork.org 530-622-8497.

Sincerely,
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Foothills Water Network Yuba-Bear Work Group Members



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A handwritten signature in blue ink that reads "Allan Eberhart". The signature is written in a cursive style and is positioned above a thin horizontal line.

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Senator Barbara Boxer
Senator Dianne Feinstein
Senator Sam Aanestad
Assemblyman Ted Gaines
Assemblyman Roger Niello
Assemblyman Dan Logue
PCWA Board of Directors and David Breninger, General Manager
Placer County Board of Supervisors and Tom Miller, CEO
Auburn City Council and Robert Richardson, City Manager
Colfax City Council and Bruce Kanz, City Manager
Lincoln City Council and Jim Estep, City Manager
Loomis Town Council and Perry Beck, Town Manager
Rocklin City Council and Carlos Urrutia, City Manager
Roseville City Council and Ray Kerridge, City Manager
San Juan Water District Board of Directors and Shauna Lorange, General Manager
Sacramento Suburban Water District Board of Directors and Robert Roscoe, Manager
John Woodling, Executive Director, Regional Water Authority
Tom Gohring, Executive Director, Water Forum Successor Effort
Ron Stork, Friends of the River
Terry Davis, Sierra Club Mother Lode Chapter
Auburn Chamber of Commerce
Colfax Area Chamber of Commerce
Lincoln Area Chamber of Commerce
Loomis Basin Chamber of Commerce
Rocklin Area Chamber of Commerce
Roseville Chamber of Commerce
Dennis Rogers, Senior Vice President, North State Building Industry Associates
Ed Tiedemann, PCWA General Counsel
Frances Francis, PCWA FERC Legal Counsel
Yuba-Bear Drum-Spaulding Stakeholders (E-mail Distribution List)
Jeffrey Parks, SWRCB
Tim Welch, FERC Relicensing West, California Coordinator

Appendix: Analysis of Impacts of FWN’s Model Run on Water Supply and Water Diverted Exclusively for Hydropower

FWN will respond to PCWA’s concerns by focusing on three recent years, representing three different water year types.

On an annual basis from 1977-2004, PG&E has diverted an average of 125,600 AF of South and Middle Yuba water, used it solely for power generation, and then abandoned it in Bureau of Reclamation’s Folsom Reservoir. PG&E does not sell this water to NID, PCWA or any other entity for water supply purposes. Therefore, reducing water used solely for power generation could free up substantial amount of water for other beneficial uses, with little or no impact on consumptive water delivered to PCWA.

We compared hydrographs of the YBDS water diversions with the water deliveries to PCWA and NID with and without our FWN model run. Based on the years 2002-2004, we found that a fraction the water PG&E uses solely for power generation and then abandons to Folsom Reservoir could almost completely provide the instream flows included in the FWN SY Model run. (Water Year 2002 was a Dry year, 2003 Above Normal, and 2004 Below Normal.) This is an important conclusion for any water supply interests – including PCWA’s – because the alternative instream flow scenario is made possible primarily by a reduction in hydropower rather than a reduction in water supply.³

Please see the following graphs that support and illustrate our conclusion.

³ Note that this is not necessarily a loss in total hydro production; some would be made up in the Yuba County Water Agency’s Yuba River Development and also in PG&E’s Narrows 1 Project, which are located downstream.

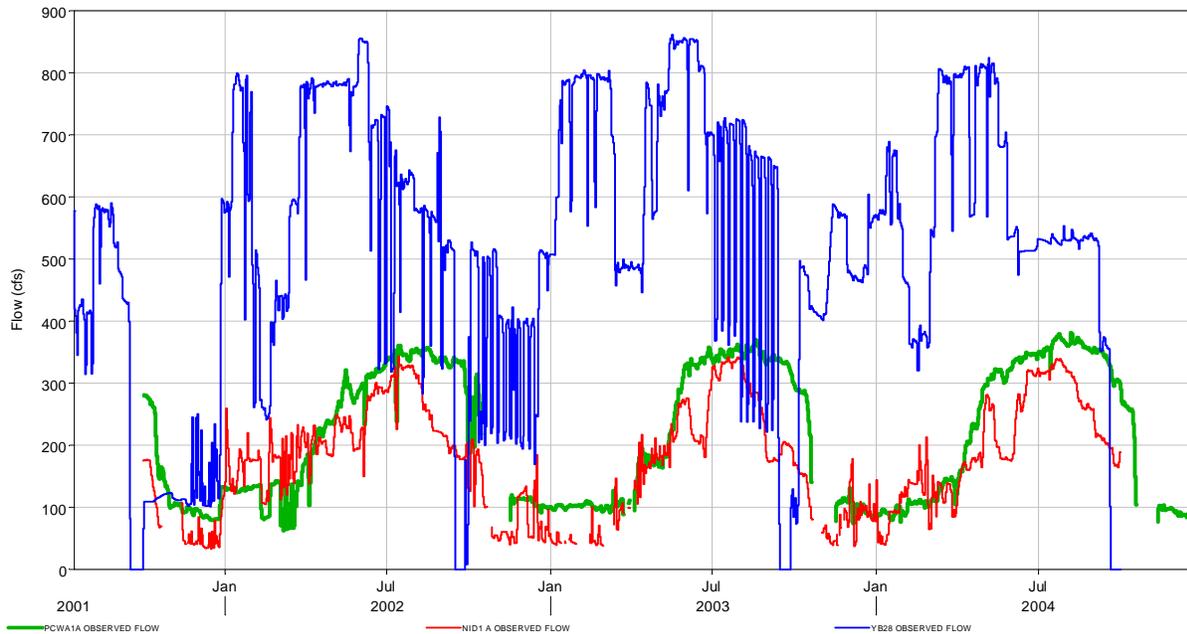


Figure 1 – Comparison of Drum Canal Observed Flow at YB28 (blue line) and Sum of Water deliveries to PCWA (green) and Sum of Water deliveries to NID (red line).

Drum Canal Flow (blue): The flow into the Drum Canal is diverted from Spaulding Reservoir and consists of water diverted from the Middle Yuba, the South Yuba, and Canyon Creek. The graph shows that the pattern of diversion is similar across all three years of data from January 2002 through December 2004.

From January to June, water is diverted from runoff; from June until it rains and/or snow melts, water diverted into the Drum Canal is supplied mostly from reservoir storage in the Middle Yuba, South Yuba and Canyon Creek drainages.

Water Deliveries (green and red): Like the Drum Canal diversion, the PCWA and NID water supply deliveries follow a fairly consistent pattern, though the water year types vary significantly. In winter, Drum Canal water deliveries tend to be around 100 cfs for NID and for PCWA. This water is destined primarily for domestic, municipal and industrial use. The NID water deliveries measured at NID 1a are the sum of NID1+NID2+NID3. The PCWA water deliveries calculated at PCWA 1a are the sum of PCWA 1+PCWA2+PCWA3+PCWA4+PCWA5.

Water deliveries increase with the beginning of irrigation season in mid-April. In mid summer, water deliveries to NID and PCWA peak at about 350 cfs. The approximately 250 cfs increase is destined mostly for agriculture and recreational agriculture (golf courses and horse pasture). Peak deliveries to PCWA begin earlier and continue longer than peak deliveries to NID.

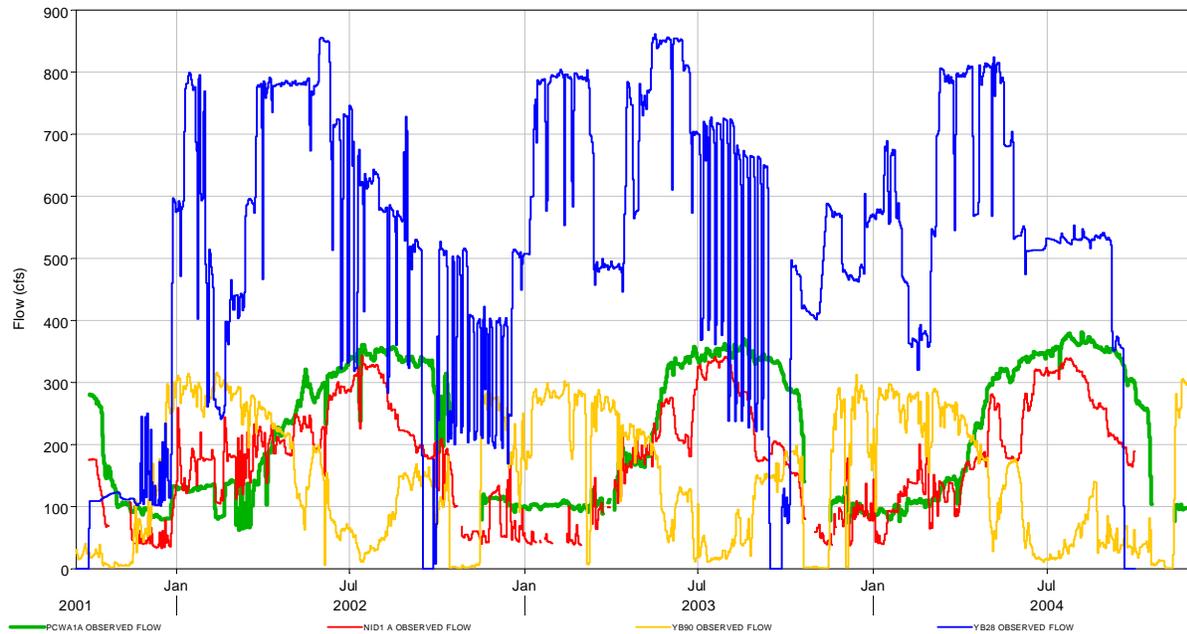


Figure 2 – Comparison of Drum Canal (blue line), PCWA water supply deliveries at YB28 (green line), NID water deliveries (red line), and diversions to Drum Canal not consumed by water supply at YB90 (gold line).

Drum Canal Diversions for Hydropower - Not Water Supply (gold): Water diverted from Middle Yuba, South Yuba, Canyon Creek, Bear and tributaries that flows into Folsom Lake after having been used exclusively for hydropower generation. Measured at YB90.

Except for the peak water delivery period around July, Drum Canal flows are considerably greater than the sum of the PCWA and NID water deliveries. In Figure 2, the gold line represents the water that “makes up” this difference—water that is delivered neither to NID nor PCWA.

PG&E diverts this water for the sole purpose of hydropower generation. After PG&E (and NID) generates hydropower in its multiple facilities on the Bear River and Western Placer Creeks, the water is abandoned in Bureau of Reclamation’s Folsom Reservoir.

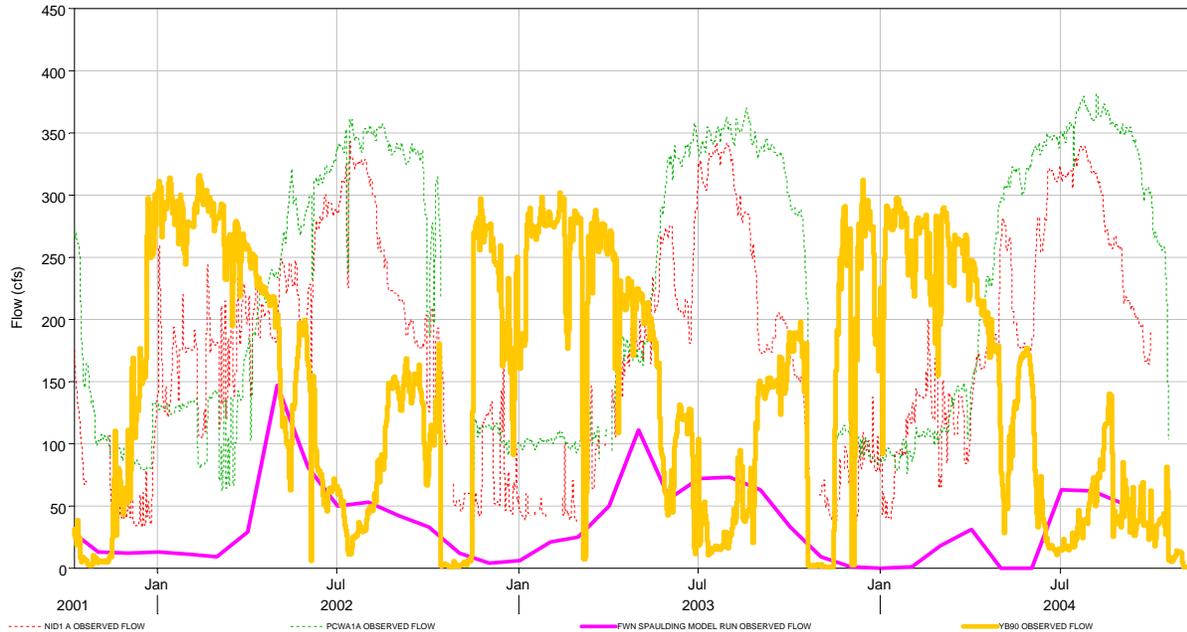


Figure 3 – Comparison FWN 081210C Model Run Flows (pink line), Hydropower only water (gold line), PCWA water deliveries (green dotted line), and NID water deliveries (red dotted line).

FWN 081213C Model Run Flow (pink): The incremental additional flow that would be required over the period of record to meet minimum flows in this particular model run.

This comparison indicates when the FWN 081210C Model Run could impact water supply deliveries to PCWA and NID. When the water used exclusively for hydropower (gold) dips below the FWN 081210C Model Run (magenta), it indicates that NID and PCWA water suppliers could experience shortfalls. Alternately, when the gold line is above the magenta line, water supply demands are met. A visual comparison of the shortfall volume with the actual supplied volume provides appropriate context regarding the relative size of the shortfall (small) with the amount of water actually delivered (very large). Note that, despite PCWA’s concerns regarding spring pulse flows, the FWN flows do not cause shortfalls in the spring.

(The dotted red and green hydrographs are the PCWA and NID water deliveries that have been dimmed to highlight the comparison of the other hydrographs. Note that the scale of the Y axis (Flow) has decreased to 450 cfs so the graph magnifies the previously shown hydrographs in figures Figures 1 and 2.)

The Foothills Water Network looks forward to collaboratively developing model runs with PCWA that attempt to meet the multiple interests of the relicensing stakeholders within the collaborative relicensing venue. We look forward to hearing PCWA’s recommendations on how to develop more specific quantifiable information to inform its’ interests.

Data Gaps

The Foothills Water Network supports PCWA's request "that a supplemental tool be developed to disaggregate the combined water supply shortage shown in this model so that staff can analyze the individual impacts to PCWA and NID customers." This tool might also illuminate how PCWA and NID divide water supply during a month of potential shortfall.

During the study planning phase, the Foothills Water Network anticipated that determining the amount of water used by the YBDS Projects including "water that is generated, consumed, sold, transferred or lost" is particularly germane to informing license conditions for the YBDS Projects. FWN worked with NMFS in writing and presenting concepts contained in NMFS proposed "Water Use and Efficiency Study", which NMFS proposed and FERC rejected. With the advent of PCWA's recent letter, we can now see that such information about water supply deliveries and the Western Placer Creek instream flows will in fact inform license conditions in relation to water supply and instream flows in Western Placer Creeks resulting from water supply conveyance. Though we do have limited data, we do not have relicensing studies on the topic.

FERC determined in February 29, 2009 in response to NMFS' requested Water Use and Efficiency Study,

The stated objectives of this requested study are to: 1) determine the amount of water which is diverted or captured, including water that is captured by the projects' dams and canals, or other facilities which operate with the projects; and 2) to determine the amount of water which is used by the projects, including water that is generated, consumed, sold, transferred, evaporated, or lost.

With regard to 18 CFR 5.9(b)(5), NMFS has not adequately addressed how information regarding "contracted, exchanged, acquired or sold" water has a reasonable nexus to the project or how this information would inform license requirements.

We agree with the applicants that most of the data that would be provided in this study already exists, either contained in the PAD, otherwise provided to the relicensing participants, or otherwise publicly available.

Though the Commission made the aforementioned determination, it seems that such additional information may need to be developed in order to inform license conditions. We look forward to working with FERC, PCWA, and other relicensing participants to address this data gap and others related to the water supply demands and the cumulative effect of hydropower and water supply operations on the Western Placer Creeks.

For the Record:

As the YBDS Project has a new FERC staff person and the issue of this "abandoned water" has arisen again, the Network would like to take this opportunity to review and correct the FERC record on the subject.

The Network notes that we have filed many comments in an attempt to correct a general misperception concerning the use of a substantial amount of water diverted by the Projects. An annual average of 125,600 AF of water diverted by the project is used in the project area exclusively for hydropower, and is subsequently abandoned in Folsom Reservoir. Understanding this is a key to developing new license conditions that meets PCWA's and NID's water supply interests. It is critically important to correct the FERC record on this issue.

FERC adopted this unfortunate misperception of the hydrology in FERC's Scoping Document 2:

Although we note that reduction in streamflow is in most cases a function of consumptive water deliveries, relicensing studies may identify instances where project diversions may directly or cumulatively affect downstream anadromous fishes.” (FERC Scoping Document 2, Section 2.3.1, p. 6, October 6, 2008. Accession Number: 20081006-3034.)

In a January 23, 2009 filing of its Revised Study Plan, NID comments on NMFS' proposed study plans:

Last, Licensee believes that NMFS has failed to consider that if FERC did not issue new licenses for the Yuba-Bear Hydroelectric Project or Drum-Spaulding Project it is very likely that flows in the river would not change since these projects are operated primarily for water supply, which would continue even if the projects did not include power facilities. (NID Revised Study Plan, Attachment 3A: Licensee's Detailed Replies to Comment Letters, p. 34, January 23, 2009. Accession Number: 20090123-5109.)

In a February 9, 2009 filing of Comments on Revised Study Plan, FWN attempted to correct the record that in this project but did not receive any response from FERC or licensees.⁴ We hope that in laying out the above analysis, we have clarified that an annual average of 125,600 AF is diverted – not as a function of consumptive water delivery – but rather that it is diverted *exclusively for hydropower generation.*

We offer the following re-wording of FERC and NID's previous statements:

If FERC did not issue new licenses for the Yuba-Bear Hydroelectric Project or Drum-Spaulding Project *it is very likely that flows in the Yuba Rivers would be restored by an annual average of 125,600 AF because that water is diverted exclusively for hydropower generation.* Various YBDS Projects facilities are, in some cases, operated exclusively for hydropower generation and in some cases are operated for combined hydropower and water supply purposes.

⁴ Foothills Water Network Comments on YBDS Revised Study Plan, p. 30-33, February 9, 2009 (Accession Number: 20090209-5012)