



Tri-Dam Project

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February 25, 2015



**Pacific Gas and  
Electric Company<sup>®</sup>**

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State Water Resources Control Board  
Division of Water Rights  
**Attn:** Mr. Jeff Parks  
Water Resource Control Engineer  
1001 I Street, 14th Floor  
Sacramento, CA 95812-2000

California Dept. of Fish and Game  
**Attn:** Ms. Linda Connolly  
Environmental Specialist III  
1234 East Shaw Avenue  
Fresno, CA 93710

Stanislaus National Forest  
Supervisors Office  
**Attn:** Ms. Beth Martinez  
19777 Greenley Road  
Sonora, CA 95370

U.S. Fish and Wildlife Service  
**Attn:** Ms. Deborah Giglio  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825

**RE: Spring Gap-Stanislaus Hydroelectric Project, FERC No. 2130 – CA and  
Tri-Dam Project, FERC No. 2005  
Notification of Planned Deviation from License Requirements Supplemental  
Flows and Recreation Flows for 2015**

Dear Addressees:

Due to the prolonged dry weather conditions in California, combined with the current long-term forecast of minimal snowpack in the Sierra Nevada Mountains, Pacific Gas and Electric Company (PG&E) and Tri-Dam Project are requesting a variance from the requirements in PG&E's license for the Spring Gap - Stanislaus Project (FERC No. 2130) and Tri-Dam's Beardsley-Donnells Project (FERC No. 2005) to provide certain Supplemental and Recreational Boating flows in the Middle Fork Stanislaus River (MFSR). This variance should also be protective of the foothill yellow-legged frog (*Rana boylei*) (FYLF) in the Sand Bar Reach.

## **PG&E's Spring Gap-Stanislaus License Requirements**

On April 24, 2009, the Commission issued a new license to PG&E for the Spring Gap - Stanislaus Project. The new license has two appendices consisting of: 1) the State Water Resource Control Board's (SWRCB) Water Quality Certification issued pursuant to Section 401 of the Clean Water Act, and 2) the Forest Service's Section 4(e) conditions.

**Supplemental Flows:** SWRCB Condition No.3 (rev. June 16, 2009) and U.S. Forest Service (USFS) 4(e) Condition No. 34 require PG&E to maintain minimum Daily Flows and to provide Supplemental Flows in the Sand Bar Dam Reach of the MFSR. Minimum Daily Flows are intended to provide a year-round streamflow adequate to meet stream ecology needs except those associated with high spring streamflow events. The magnitude of the daily flows varies modestly both seasonally and with water year type to reflect the seasonal and annual variations in the unimpaired hydrograph. Minimum supplemental flows are intended to provide a high spring streamflow event in all years, even those when Beardsley Reservoir does not spill. The supplemental flows are "de-linked" from the daily flows to provide a range of annual variability as to when the high spring streamflow event occurs.

SWRCB Condition No. 3 and Forest Service 4(e) Condition No. 34 state, in relevant part, as follows:

*"The Supplemental Flow period shall be 13 continuous weeks in length (seven weeks in Critically Dry water-years). For years in which Beardsley Reservoir is forecast not to spill, the Licensee shall initiate the Supplemental Flow period at a time between March 1 and May 1 so that the peak Supplemental Flow will occur approximately two weeks after the then-forecast peak inflow to Donnell's Reservoir (Peak Flow Trigger).*

SWRCB Condition No. 3 and Forest Service 4(e) Condition No. 34 further specify the minimum supplemental flows required each week during the 13-week period by water year type.

Supplemental Flows are implemented when the Water Temperature Trigger is met to ensure that the timing of flows is consistent with FYLF breeding needs. The Water Temperature Trigger is intended to function in combination with the Date and Peak Flow Triggers for initiating Supplemental Flows in years that Beardsley Dam is forecast not to spill.

On July 27, 2011, PG&E filed with the Commission an interim Water Temperature Trigger approved by the USFS and the SWRCB. A revised Water Temperature Trigger approved by the USFS and the SWRCB will be filed with the Commission within one year of the completion of foothill yellow-legged frog monitoring.



The initial Temperature Trigger recommends:

- Supplemental Flows should be initiated when a mean daily water temperature of < 5.0°C is maintained for six (6) continuous days, as measured at Sand Bar Diversion Dam.
- Except in Critically Dry years, Supplemental Flows should be initiated on March 13th, if the Temperature Trigger has not been met by that date. In Critically Dry years, Supplemental Flows should be initiated on April 5th if the Temperature Trigger has not been met by that date.

Table 1 below describes the Spring Gap- Stanislaus Project Supplemental Flow requirements for a Dry water year, if implemented in 2014. Table 2 below shows the Tri-Dam Project Supplemental Flow requirements which are consistent through all water year types. PG&E usually implements the Spring Gap - Stanislaus Supplemental Flow requirement a week after Tri-Dam has initiated theirs. All Supplemental Flows are additive to the specified minimum Daily Flows.

**Table1. Spring Gap-Stanislaus Project Supplemental Flow requirements for a DryWater Year Type.**

<i>Week</i>	<i>Date</i>	<i>Minimum Instream Flow</i>	<i>Supplemental Flow (cfs)</i>	<i>Total Instream Flow (cfs)</i>
1	13-Mar	50	5	55
2	20-Mar	50	10	60
3	27-Mar	50	25	75
4	3-Apr	50	35	85
5	10-Apr	50	75	125
6	17-Apr	50	140	190
7	24-Apr	50	220	270
8	1-May	50	400	450
9	8-May	50	180	230
10	15-May	50	110	160
11	22-May	50	65	115
12	29-May	50	25	75
13	5-Jun	50	10	60

**Table 2. Tri-Dam Project Minimum Supplemental Flow schedule for the Donnells Reach.**

Week	Water Year Type		
	Normal (cfs)	Dry (cfs)	Wet (cfs)
1	5	5	5
2	10	10	10
3	25	25	25
4	35	35	35
5	75	75	75
6	125	125	125
7	200	200	200
8	325	325	325
9	175	175	175
10	95	95	95
11	55	55	55
12	25	25	25
13	10	10	10

Decreased water temperatures resulting from a Supplemental Flow pulse extending into the late spring (i.e., May or June) can be less conducive to successful FYLF breeding and rearing (in the case of the MFSR, flows greater than 150 cfs). The FYLF monitoring results of 2012 and 2013 (both Dry water year types), suggest that in Dry water year types, implementing the Supplemental Flow has the potential to defer the breeding by two weeks (PG&E 2014). In 2012, a Supplemental Flow was not implemented and FYLF breeding began at the end of April (approximately April 26); in 2013, cooler temperatures resulting from the Supplemental Flow pushed the initiation of breeding to May 9. The absence of the Supplemental Flow in 2012 therefore allowed stream temperature to warm more quickly, providing a longer temporal window for FYLF breeding activity.

In warm, dry years such as 2012 through 2014, low spring flows could allow for water temperatures to warm to suitable breeding conditions (typically 10-12°C) with a descending hydrograph by mid-April and early May, and for shallow backwater habitats to emerge, with breeding occurring primarily throughout the month of May. The earlier timing allows for metamorphosis to occur in late-August and early September, increasing the potential for additional young of year (YOY) growth before the onset of winter. Any additional growth that can be attained by YOY FYLF increases their chances of overwinter survival and gives them a competitive advantage when they emerge from winter refugia sites at a larger size.



Information on the impact to other biota such as fish and riparian from the cancellation of a Supplemental Flow pulse in a Dry year is limited. The temporary increase in stream flows can serve to temporarily redistribute fish and provide relatively cooler spring flows until flows subside in early May. The pulse flow provided by the Supplemental Flow may also aid in distributing riparian vegetation and their seeds; the difference in distribution without the Supplemental Flow in the MFSR is unknown.

**Recreational Boating Flows:** SWRCB Condition No. 10 requires PG&E to provide a Recreation Streamflow Event immediately below Sand Bar Diversion Dam (Sand Bar and Mt. Knight runs) on two consecutive weekend days in the third of three consecutive years in which a flow event has not otherwise occurred. This is the fourth year that this event will not occur. PG&E and Tri-Dam Project are requesting a temporary variance which would allow for the elimination of Recreational Boating flows for 2015. Providing the recreation flows would require the release of an additional 2,500 ac. ft. of water (approximately). As of the date of this letter, PG&E and Tri-Dam Project anticipate that inflows to the Sandbar Diversion Dam will not be sufficient to provide this flow. Tri-Dam Project also expects that upstream reservoir levels (Beardsley, Donnell's) will be exceptionally low this year, limiting recreational opportunities at these sites.

**Monitoring Conditions:** For 2015, PG&E, as required in the Spring Gap-Stanislaus license, is required to perform the following biological monitoring activities in the MFSR:

- Trout Population Monitoring
- Relief Reach Riparian Restoration and Streambank Stabilization

In order to continue to provide instream flows for the 2015 water year and manage benefits to FYLF (Supplemental Flows implemented after March could interfere with successful recruitment), PG&E and Tri-Dam Project request to forego the implementation of supplemental and recreational stream flows in 2015. Pursuant to Article 401(b) of the Project license, PG&E plans to request a variance from the Commission for the planned deviation from Forest Service 4(e) Condition No. 34 and from SWRCB Water Quality Certification Condition No.3, pertaining to supplemental flows for 2015 and SWRCB Condition No. 10 pertaining to Recreation Flows for 2015. It is the intent that all conserved water will be utilized for instream flow releases in the MFSR and for power generation purposes in the future.

If snowpack accumulation reaches 50% of normal at the Lower Relief Valley snow course by the April 1 snow survey, PG&E and Tri-Dam Project will initiate the supplemental and recreation flows if your agency is in concurrence to do so.

Given the timing of the Supplemental Flow requirement, PG&E and Tri-Dam respectfully request a response within 30 days from the date of this letter. If you have any questions concerning this matter please contact Rich Doble at (415) 973-4480, or Ron Berry at (209) 965-3996 ext. 120.

Sincerely,



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Richard J. Doble  
Senior License Coordinator  
Hydro Licensing

TRI-DAM PROJECT



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Ron Berry  
General Manager

cc: Mr. John Aedo  
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Federal Energy Regulatory Commission  
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