
State Water Resources Control Board

MAY 04 2015

Mr. Brian Mueller
El Dorado Irrigation District
2890 Mosquito Road
Placerville, CA 95667

Dear Mr. Mueller:

APPROVAL OF SUPPLEMENTAL STREAMFLOW VARIANCE FOR THE EL DORADO HYDROELECTRIC PROJECT WATER QUALITY CERTIFICATION; FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 184; EL DORADO, ALPINE AND AMADOR COUNTIES

In a letter dated April 10, 2015, El Dorado Irrigation District (EID) requested approval of a supplemental streamflow variance from the State Water Resources Control Board (State Water Board) for the water quality certification (certification) issued for the El Dorado Hydroelectric Project (Project). The supplemental variance request consists of a change to the period and magnitude of the temporary streamflow modifications for the South Fork American River (SFAR) below Kyburz. The State Water Board approved one-time streamflow modifications for the Project in a certification amendment dated April 9, 2015.

The April 10, 2015 request states:

"The District [EID] is proposing additional temporary streamflow variances at Project No. 184 facilities besides those requested in the March 13 streamflow variance request due to worsening drought conditions in the project area. The District conducted an updated hydrologic analysis utilizing April 6, 2015 forecast data to evaluate drought conditions (90% and 50% forecast probabilities...). This latest forecast indicates that while the previously proposed streamflow modifications below Caples Lake, Silver Lake, and Lake Aloha may no longer be effective or necessary, additional reductions to minimum streamflows below Kyburz are required instead in order to help conserve reservoir storage. This unusual condition is due to record low snowpack levels and the unprecedented acceleration of runoff that has occurred in 2015. These extraordinary conditions will likely require releases from reservoirs in April and May in excess of minimum streamflow requirements in order to meet Kyburz bypass minimum streamflow requirements and provide consumptive water supply. Given these circumstances, the District prepared a new streamflow variance plan (Table C), which includes the following proposed streamflow modifications:

1. Reduce minimum streamflows below the Echo Lake dam from 6 cfs [cubic feet per second] or natural flow to 2 cfs or natural flow in April and May (no change from the March 13, 2015 Streamflow Variance Request approved by the SWRCB [State Water Board] on April 9, 2015);

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2. Reduce minimum streamflows at South Fork American River (SFAR) below Kyburz [Diversion Dam] (gage A-12) from 60 to 45 cfs from May 1- 15, from 60 to 30 cfs from May 16-31, from 60 to 18 cfs in June, from 40 to 15 cfs in July, and from 18 to 15 cfs in August."

The streamflow modifications requested in No. 2 above differ from the original flow variance requested below Kyburz Diversion Dam. The supplemental April 10, 2015 variance proposes new reductions from May 1 - 15 (from 60 cfs to 45 cfs) and increased reductions from May 16 - 31 (from 60 cfs to 30 cfs instead of the reduction from 60 cfs to 45 cfs originally requested).

The supplemental variance request is not intended to replace the streamflow variance request approved by the State Water Board on April 9, 2015. EID is requesting that the State Water Board's April 9, 2015 approval for variances at the following four locations remain unchanged and in effect: (1) below Caples Lake main dam (gage A-8); (2) below Echo Lake dam (gage A-3); (3) below Silver Lake dam (gage A-8); and (4) below Lake Aloha main dam (gage A-40). EID requests that these streamflow modifications remain in effect so that EID is able to respond quickly in the event hydrologic conditions continue to change and these modifications again become effective mechanisms to conserve water. As a condition of this approval, EID will be required to notify the State Water Board, the United States Forest Service (USFS), and the California Department of Fish and Wildlife (CDFW) before reducing minimum flows below Caples Lake, Silver Lake, and Lake Aloha in accordance with the State Water Board's April 9, 2015 approval.

The State Water Board provided public notice of EID's request for a supplemental streamflow variance on April 15, 2015, by posting information describing the request on the Division of Water Rights' website and providing notification to interested parties.¹ No written comments were received.

Biological Evaluation

At the April 9, 2015 meeting of the Ecological Resource Committee for the Project, State Water Board staff requested a supplement to the March 20, 2015 Biological Evaluation of Streamflow Variances prepared by EID in support of the original variance request. The supplemental evaluation is intended to assess potential short- and long-term effects to biological resources on the SFAR below Kyburz associated with implementation of the supplemental streamflow variance.

On April 24, 2015, EID provided State Water Board staff with the requested supplemental evaluation. In the supplemental evaluation EID states that implementation of the temporary streamflow modifications proposed by the supplement is not anticipated to have short- or long-term adverse effects on foothill yellow-legged frogs, Sierra Nevada yellow-legged frogs, or rainbow trout. In the March 20, 2015 biological evaluation, EID determined that the original variance request was not anticipated to have long-term impacts to riparian vegetation or benthic macroinvertebrates. EID determined that these findings are still applicable to the April 10, 2015 supplemental variance request. Following release of the supplemental evaluation, State Water

¹ California Code of Regulations, title 23, section 3858, subdivision (a) requires the Executive Director of the State Water Board to provide public notice of an application at least twenty-one (21) days before taking certification action on the application, but the typical notice period may be shortened in an emergency.

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supplemental variance request. Following release of the supplemental evaluation, State Water Board staff consulted with staff from EID, the USFS, and CDFW in an effort to assess EID's determination. The above agencies met on April 27, 2015 to discuss the supplemental variance request. State Water Board staff concurs with the EID determination that no short- or long-term effects to aquatic resources are anticipated to result from implementation of the supplemental variance request.

California Environmental Quality Act (CEQA)

As stated in the original variance approval, Governor Edmund G. Brown's January 2014 drought proclamation and declaration of emergency suspended CEQA to the extent that it would otherwise apply to the State Water Board's approval of a variance to streamflow requirements imposed to meet water quality control plans. Executive Order B-29-15, issued April 1, 2015, continues this suspension. The minimum streamflow requirements for which EID requested variance approval were imposed to meet requirements in the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*. (See In the Matter of Water Quality Certification for the El Dorado Irrigation District's El Dorado Hydropower Project, Federal Energy Regulatory Commission Project No. 184, pp. 4-5.)

CEQA has therefore been suspended to the extent that it would otherwise apply to the conditional approval of the supplemental variance as well.

Conditional Approval

The State Water Board finds that, with the conditions and limitations imposed herein, the supplemental streamflow variance will comply with state water quality standards, other appropriate requirements of state law, and other specified provisions of the Clean Water Act, as required under Section 401 of the Clean Water Act (33 U.S.C. § 1341).

As stated in Condition 2 of the April 9, 2015 State Water Board variance approval, "In the event the State Water Board adopts a new or revised emergency conservation regulation, compliance with such regulation shall additionally become a condition of this streamflow variance." EID should be aware that on April 1, 2015, Governor Brown issued an Executive Order that directed the State Water Board to implement mandatory water reductions in cities and towns across California to reduce potable urban water usage by 25 percent statewide. The State Water Board released a proposed emergency regulation for implementation of the 25 percent conservation standard on April 28, 2015. Under the proposed emergency regulation, EID would be required to meet a mandatory conservation standard of 28 percent based on its residential per capita per day (R-GPCD) water consumption for the months of July – September, 2014. The State Water Board is considering adoption of the proposed emergency regulation at its May 5-6, 2015 meeting. As a condition of this approval, EID will be required to implement the appropriate mandatory conservation standard and comply with the emergency regulation upon its approval by the Office of Administrative Law and filing with the Secretary of State.

Based on review of available information, the State Water Board grants approval for the modified streamflows in the SFAR below Kyburz Diversion Dam (as outlined in No. 2 above) with the following conditions:

1. EID shall comply with all conditions outlined in the State Water Board's April 9, 2015 approval except for the provisions related to streamflow modifications to the SFAR below Kyburz Diversion Dam, which are superseded by this certification amendment.

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2. EID shall notify the State Water Board, USFS, and CDFW of the need to implement the reduced streamflows below Caples Lake, Silver Lake, and Lake Aloha approved in the State Water Board's April 9, 2015 approval at least one week prior to implementation of the reduced streamflows.
3. EID shall implement the appropriate mandatory conservation standard and comply with the State Water Board's proposed drought emergency water conservation regulation upon its approval by the Office of Administrative Law and filing with the Secretary of State. Until that time, EID shall meet the 25 percent conservation mandate, as required by the State Water Board's April 9, 2015 variance approval.
4. The monitoring requirements outlined in Condition 3 of the State Water Board's April 9, 2015 approval apply to the streamflow variance granted in this certification amendment.
5. This approval is contingent on the Federal Energy Regulatory Commission's approval of EID's supplemental variance request.

If EID fails to comply with any of the conditions outlined in this approval or the April 9, 2015 certification amendment, EID shall be subject to enforcement for violation of the amended water quality certification for the Project, the approval for modified streamflows granted herein shall be immediately rescinded, and the unmodified streamflows required by the Project certification shall resume immediately.

If you have questions regarding this approval, please contact Mr. Michael Maher, Project Manager, at (916) 341-5408 or by email at mmaher@waterboards.ca.gov. Written correspondence can be directed to:

State Water Resources Control Board
Division of Water Rights
Water Quality Certification Program
Attn: Mr. Michael Maher
P.O. Box 2000
Sacramento, CA 95812-2000

Sincerely,



Thomas Howard
Executive Director

Attachment A: 90% Probability Forecast, dated April 6, 2015 (Source: EID Supplemental Streamflow Variance Request April 10, 2015)

cc: Please see next page.

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cc: Mr. Brian Deason
El Dorado Irrigation District
2890 Mosquito Road
Placerville, CA 95667

Ms. Jane Diamond, Director
U.S. Environmental Protection Agency, Region 9
Water Division
75 Hawthorne Street
San Francisco, CA 94105

Mr. Adam Laputz
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

Ms. Beth Livingston
United States Forest Service
100 Forni Road
Placerville, CA 95667

Ms. Laurie Hatton
California Department of Fish and Wildlife
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670

TABLE C - Project-184 2015 Forecast Operation 90% PROBABILITY (STREAMFLOW PLAN)

- April 6 FORECAST -

	Jan	Feb	Mar	Apr	May 1-15	May 16-31	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Reservoir Storage, Releases and Direct Diversion Available to Meet EID Demands														
Silver Lake:	End of Month Storage (af)	3,808	5,978	6,887	6,974	6,789	6,389	5,614	4,903	4,331	3,756	3,409	3,144	2,927
	Lake Level Target (af)										3,756			
	Pre-1914 Water Available (af)				5,000	5,366	5,400	4,854	3,805	3,242	2,871	2,871	2,871	2,871
	Inflow Forecast (af)				1,173	366	157	22	0	53	32	24	91	51
	Evaporation (af)				109	78	82	175	222	179	297	59	63	39
	Minimum Outlet (or Natural Flow), cfs				4	4	4	4	4	4	4	4	4	4
	Minimum Outlet (or Natural Flow), af				238	119	127	238	246	246	238	246	238	246
	Leakage (af)				740	354	348	600	489	393	274	230	201	178
	Outlet (Including Leakage, af)				978	473	475	622	489	446	310	313	293	229
Caples Lake:	End of Month Storage (af)	14,417	15,837	17,232	16,614	16,367	16,008	14,158	12,120	10,845	9,893	9,031	8,714	8,415
	Lake Level Target (af)							18,704	18,413	14,376	14,376			
	Pre-1914 Water Available (af)				8,000	8,000	8,000	7,454	6,406	6,020	5,706	5,722	5,782	5,838
	Inflow Forecast (af)				848	389	167	31	0	178	57	17	59	56
	Evaporation (af)				138	96	101	223	224	203	434	72	78	47
	Minimum Outlet, cfs				10	14	14	14	12	5	5	5	5	5
	Minimum Outlet, af				595	417	444	833	738	307	298	307	298	307
	Outlet (af)				1,328	520	444	1,662	1,791	1,269	1,075	307	298	307
Lake Aloha:	End of Month Storage (af)	441	1,134	1,635	1,585	1,625	1,474	1,158	849	737	568	346	205	50
	Lake Level Minimum (af)							3,079	0	0	0			
	Pre-1914 Water Available (af)				360	360	219	0	0	0	0	0	0	0
	Inflow Forecast (af)				586	368	158	28	0	224	106	41	112	75
	Evaporation (af)				158	78	76	116	85	74	41	21	18	5
	Minimum Outlet (or Natural Flow), cfs				3	5	5	5	2	1	1	1	1	2
	Minimum Outlet (or Natural Flow), af				179	149	159	298	123	61	60	61	60	123
	Outlet (af)				478	249	233	228	225	261	235	242	235	225
Echo Lake:	End of Month Storage, Pre-1914 (af)	85	205	609	609	733	736	670	622	580	0	0	0	0
	Inflow Forecast (af)				328	206	88	15	0	125	59	23	62	42
	Evaporation (af)				90	21	22	66	48	42	23	0	0	0
	Minimum Outlet (or Natural Flow), cfs				6/6/2	6/2	6/2	6	6	6	6	6	6	6
	Minimum Outlet (or Natural Flow), af				238	60	63	357	369	369	357	369	357	369
	Diversion in Conduit (af)				0	0	0	0	0	0	556	0	0	0
	Outlet to Echo Creek (af)				238	60	63	15	0	125	59	23	62	42
	Direct Diversion Accretions at Kyburz (af)				5,130	1,151	493	101	0	528	250	106	485	444
	Minimum Bypass Requirement at Kyburz (cfs)				60	60/45	60/30	60/18	40/15	18/15	15	15	15	15
	Minimum Bypass Requirement at Kyburz + 5% (af)				3,749	1,406	1,000	1,125	968	968	937	968	937	968
	SF American River Flow Below Kyburz (af)				3,749	1,406	1,000	1,125	968	968	937	968	937	968
	Total Diversion at Kyburz (af)				4,165	987	645	1,488	1,537	1,537	1,488	0	372	237
Pre-1914 Deliveries														
Silver Lake:	(Maximum per year = 5,400 af)				0	0	0	622	489	446	310	0	0	0
Caples Lake:	(Maximum per year = 8,000 af)				0	0	0	546	1,048	563	371	0	0	0
Lake Aloha:	(Maximum per year = 360 af)				0	0	141	219	0	0	0	0	0	0
Echo Lake:	(Maximum per year = 1,943 af)				0	0	0	0	0	0	556	0	0	0
Direct Diversion from Accretions at Kyburz (af)					3,243	4,165	987	493	101	0	528	250	0	0
	Total Pre-1914 - DEMAND	0	0	3,243	4,165	987	635	1,488	1,537	1,537	1,488	0	0	0
	Total Pre-1914 - DELIVERY	0	0	3,243	4,165	987	635	1,488	1,537	1,537	1,488	0	0	0
	Total Pre-1914 - DELIVERY, cfs	0	0	70	70	33	20	25	25	25	25	0	0	0
	Pre-1914 Shortage	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

- Hydropower generation only when direct diversion is available and Critically Dry instream flows at Kyburz are met.
- Minimum Silver Lake, Echo Lake, and Lake Aloha outlet set at minimum or Natural Flow which ever is less.
- Based on April 6, 2015 California Nevada River Forecast Center forecast of South Fork American River Flow at Kyburz.