CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

APR 0 9 2015

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

Dear Mr. Mueller:

REQUEST FOR TEMPORARY AMENDMENT TO THE EL DORADO HYDROELECTRIC PROJECT WATER QUALITY CERTIFICATION; FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 184; EL DORADO, ALPINE AND AMADOR COUNTIES

On March 11, 2015, the El Dorado Irrigation District (EID) requested a one-time amendment (amendment) to the water quality certification (certification) for the El Dorado Hydroelectric Project (Project). On March 13, 2015, EID submitted a revised amendment request. The amendment would temporarily modify the streamflow requirements outlined in the certification at five locations in order to conserve and manage Project reservoir storage and maintain consumptive water supplies in response to drought conditions in 2015. The proposed modifications to minimum streamflow requirements are as follows:

1) Reduce minimum streamflows at South Fork American River (SFAR) below Kyburz (gage A-12) from 60 cubic feet per second (cfs) to 45 cfs from May 16 – 31, from 60 cfs to 18 cfs in June, from 40 cfs to 15 cfs in July, and from 18 cfs to 15 cfs in August;
2) Reduce minimum streamflows below Caples Lake main dam (gage A-6) from 10 cfs to 5 cfs in April, from 14 cfs to 5 cfs from May 1 -15, and from 14 cfs to 7 cfs from May 16 -31;
3) Reduce minimum streamflows below Echo Lake dam (gage A-3) from 6 cfs or natural flow[1] to 2 cfs or natural flow in April and May;
4) Reduce minimum streamflows below Silver Lake dam (gage A-8) from 4 cfs or natural flow to 2 cfs or natural flow in April and May; and
5) Reduce minimum streamflows below Lake Aloha main dam (gage A-40) from 3 cfs to 2 cfs or natural flow in April and from 5 cfs to 2 cfs or natural flow in May.

EID requests the variance in streamflows in order to meet the following objectives:

- Ensure availability of consumptive water under EID's pre-1914 water rights of 15,080 acre-feet (af); and
- Ensure adequate reservoir storage for all Project purposes in 2015 and 2016.

[1] Note: When "natural flow" is used, the minimum streamflow would be reduced to the lower of the new proposed flow or natural flow, whichever is less.

EID evaluated the proposed streamflow variances using a 90% probability forecast, dated March 9, 2015 (Attachment A). The result of implementing the proposed streamflow variances under the 90% probability forecast indicates that EID would be able to meet its consumptive water demands in entirety; however, the lake-level targets would not be met for Caples Lake in June, July, August, and September (target elevations of 18,704 feet, 18,413 feet, 14,376 feet, and 14,376 feet, respectively) and in Lake Aloha[2] in June. Additionally, the November 30 Caples storage objective of 13,000 af would not be achieved, however the required minimum pool of 10,000 af would be met. Per the 90% probability forecast, Caples Lake storage is projected to be 11,737 af on November 30, 2015. The proposed streamflow variances would not result in any increase in power production.

The State Water Resources Control Board (State Water Board) provided public notice of the amendment request on the Division of Water Rights' website on March 13, 2015. Notification was provided to interested parties on March 16, 2015 through the Division of Water Rights' automated LYRIS email notification system. No comments were received.

Discussion

The proposed streamflow amendments align with the goal expressed in Governor Edmund G. Brown's January 17, 2014 Drought Proclamation of maintaining water in storage for year-round water needs and in case of continued drought. This need is particularly acute for public service water providers.

Water Conservation

EID estimates that the proposed streamflow variances from April 1 – August 31, 2015, would conserve up to 5,950 af of water in Project reservoirs in 2015. The conservation is important to prepare for the contingency that 2016 could be another dry year. The conserved water would be available for release in 2016 to meet the consumptive demands of EID's customers, and provide license specified streamflows. EID contends its pre-1914 water right of 15,080 af is crucial to provide consumptive water to its customers in the eastern portion of the Project area, especially given the potential for reductions and curtailments during the current drought.

The State Water Board appreciates EID's ongoing efforts to conserve water. Based on information submitted to the State Water Board under the Emergency Regulations for Statewide Urban Water Conservation (Conservation Regulation), EID has demonstrated an average water conservation level from June 2014 through January 2015 of 25 percent when compared to its 2013 water use during the same period. While EID's water conservation efforts are encouraging, EID's reported conservation in January and February 2015 was only 16 percent and 18 percent, respectively. As you know, Governor Brown has called upon Californians to reduce their water usage by 25[3] percent. As part of State Water Board staff's evaluation of the amendment request, State Water Board staff reviewed the 2013 Comprehensive Annual Financial Report (Financial Report) issued by EID. The Financial Report consistently shows a monthly water use of 200-250 residential gallons per capita per day (R-GPCD) in 2013. Based

[2] As outlined in Condition 8 of the certification, EID shall operate Lake Aloha to comply with the End-of-Month Lake Level Operational Requirements established in State Water Board Decision 1635 as modified by Order WR 2001-22. If EID anticipates that Lake Aloha will not meet the target level, EID shall notify the United States Forest Service, Ecological Resource Committee, Federal Energy Regulation Commission and the Chief (Deputy Director) of the Division of Water Rights in writing, within 10 days of this determination, and provide an explanation of why the target level will not be attained.

[3] Executive Order B-29-15, dated April 1, 2015.

on the information EID submitted to the State Water Board under the Conservation Regulation, EID's September 2014 R-GPCD was 193. The standard for indoor water use, without additional drought conservation measures, is 55 gallons per person per day, and the state's average per capita daily use in December 2014 and January 2015 were 67 R-GPCD and 72 R-GPCD, respectively. The water use reported in the 2013 Financial Report is approximately three times the amount of the state's average per capita daily use. The State Water Board urges EID to look for additional ways to conserve water during these drought conditions. To this end, conservation conditions are included as part of this certification amendment.

Biological Evaluation

On March 20, 2015, EID provided State Water Board staff with a Biological Evaluation of Streamflow Variances (evaluation) associated with its variance request. The evaluation provided an assessment of potential effects to biological aquatic resources associated with implementation of the proposed streamflow modifications. The evaluation looked specifically at impacts to foothill yellow-legged frogs, Sierra Nevada yellow-legged frogs, rainbow trout, riparian vegetation, and benthic macroinvertebrates. EID determined that the proposed streamflow modifications are not anticipated to have long-term adverse effects on the biological aquatic resources listed above. However, maintaining water in storage may also provide potential benefits to aquatic resources, if the drought continues.

The streamflow variance will be implemented during a period of rainbow trout spawning and egg incubation at Caples Creek (April and May). Additionally, there is the potential for the stranding of foothill yellow-legged frog tadpoles and egg masses if ramping rates (see certification Condition 2), are not met. Based on State Water Board's consultation with other agencies and review of relevant information, State Water Board staff believes that there is a potential for impacts to rainbow trout, Sierra Nevada foothill yellow-legged frogs, and foothill yellow-legged frogs. Conditions have been developed to address potential impacts and are required as a condition of approval of the certification amendment.

California Environmental Quality Act (CEQA)

Governor Brown's January 2014 drought proclamation and declaration of emergency suspended CEQA as 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 requests amendment 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 for this conditional approval.

Conditional Approval

Approval of the certification amendment with the exception of the request below Kyburz Diversion Dam (item 1 of the variance request above) is hereby granted with the conditions described below. If EID fails to comply with any of the conditions outlined in this letter, EID shall be subject to enforcement for violation of water quality certification and the approval of the amendment shall be immediately rescinded and certification-required streamflows shall resume immediately.

1) The temporary variance authorized by this amendment is not effective unless EID implements a program to reduce monthly water demand by a minimum of 25 percent of its baseline water demand no later than May 1, 2015, and maintains the conservation reduction through December 31, 2015. Monthly baseline water demand shall be defined as 2013 R-GPCD, as reported per the Conservation Regulation. R-GPCD for 2013 and the term of the one-time amendment will be documented through the use of mandatory water usage data submitted to the State Water Board as required by the Conservation Regulation adopted by the State Water Board on March 17, 2015, and approved by the Office of Administrative Law on March 27, 2015. (Cal. Code Regs., tit. 23, sec. 863 et seq.) California Code of Regulations, title 23, section 865 requires mandatory reporting of water usage by urban water suppliers. EID shall provide a copy of this information to the State Water Board Project Manager on a monthly basis to verify compliance.[4] EID shall implement mandatory, rather than voluntary, conservation and consider conservation pricing in order to ensure it meets the required 25 percent conservation level and is able to institute the reduced streamflows authorized under this certification amendment. If the Governor lifts the drought emergency proclamation prior to December 31, 2015, EID may submit a request to the Deputy Director for Water Rights (Deputy Director) to suspend the 25 percent conservation mandate. Regardless of the drought conditions, the State Water Board encourages EID to continue to pursue significant conservation and reduce its R-GPCD target.[5]

2) 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. The Deputy Director is hereby delegated the authority to clarify the new conservation regulation with respect to the applicable conservation standard[6], timeline or other implementation issues that arise in the context of this certification amendment.

3) EID shall perform monitoring surveys to assess the impact of the streamflow variance on rainbow trout, Sierra Nevada foothill yellow-legged frog, and foothill yellow-legged frog populations. The monitoring surveys shall be conducted, in consultation with the California Department of Fish Wildlife (CDFW) and the United States Forest Service (USFS), during the variance period, where streamflow reductions are implemented, following the methods prescribed in certification Conditions 13.a., 13.c., and 13.d. The State Water Board recognizes USFS and CDFW expertise in the area of fish and wildlife resources and the need for timely consideration and action on EID's request. Accordingly, in addition to the requirements in this amendment, EID shall comply with the biological monitoring requirements in the CDFW's and USFS' approval letters for this variance.

   Rainbow trout population monitoring shall be conducted in accordance with the methods outlined in certification Condition 13.a. to assess the impact of the streamflow variance on the success of rainbow trout spawning and egg incubation. Monitoring shall be performed at all stations described in certification Condition 13.a. that are subject to the streamflow variance. Foothill yellow-legged frog and Sierra Nevada yellow-legged frog population monitoring will be conducted in accordance with the methods outlined in certification

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[4] The emergency Conservation Regulation is in effect until December 23, 2015 (270 days). EID shall provide the State Water Board with this information to document its conservation through December 31, 2015, regardless of whether the Conservation Regulation is in effect.

[5] Per EID's 2013 Financial Report, its R-GPD is 225 by 2020.

[6] On April 7, 2015, the State Water Board released a proposed regulatory framework for implementation of the required 25 percent potable urban water savings called for under Governor Brown's April 1, 2015 Executive Order. Under the proposed regulatory framework, EID would fall under Tier 4 and would be required to meet a conservation standard of 35 percent.

Conditions 13.c. and 13.d. to determine the effect of the streamflow variance on reproductive success.

EID shall provide the State Water Board with the data and an assessment of the biological monitoring required per this amendment no later than November 15, 2015.

4) An increase in conservation or precipitation may allow for the minimum streamflows outlined in the certification to be resumed. EID shall evaluate its ability to resume minimum streamflows as outlined below.

   Precipitation. Within 24 hours of measureable precipitation EID shall measure the storage level at Caples Lake. Upon an increase in forecasted storage at Caples Lake of 11,737 af or greater (based on a 90% probability streamflow plan forecast), EID shall make a determination (based on the most current 90% probability forecast), whether or not the storage in Caples Lake and inflows will allow for the resumption of the streamflows required in the Project certification. EID shall notify the Deputy Director of its determination within 72-hours of a measurable precipitation event, unless a longer timeframe is approved by the Deputy Director.

   Conservation. By the fifth of each month (starting May 5, 2015) throughout the variance period, EID shall evaluate its conservation efforts and the 90% probability forecast to determine whether the minimum streamflows outlined in the certification can be resumed. EID shall notify the Deputy Director of its determination no later than the eighth of each month throughout the variance period.

   If EID determines the need to continue reduced streamflows the Deputy Director may request more information regarding the rationale for continued reduced streamflows, and may override EID's determination. Upon a determination by EID or the Deputy Director that certification streamflows should be reinstated, EID shall resume the certification required streamflows as soon as operationally feasible and no later than 72-hours following an affirmative determination by EID or the Deputy Director to resume the certification required streamflows.

5) Water made available for storage as a result of this variance shall not be transferred unless written approval is granted by the Deputy Director. The Deputy Director shall consider whether the proposed transfer supports the intended benefits of this streamflow variance, domestic use and drought resiliency, or whether it supports the benefit potentially impacted by the variance, public trust use.

6) All other conditions of the Project water quality certification, including ramping rates, and the mandatory conditions described in California Code of Regulations, title 23, section 3860, remain in full force and effect during the one-time variance allowed by this amendment.

The State Water Board supports EID's request for a streamflow variance in the SFAR below Kyburz Diversion Dam. However, at this time the State Water Board does not approve the proposed modified streamflow at the SFAR below Kyburz (gage A-12).[7] The Deputy Director is delegated the authority to approve a streamflow variance in the SFAR below Kyburz Dam as outlined in this amendment. EID shall consult with staff from the State Water Board, CDFW, USFS, Federal Energy Regulatory Commission (FERC), and other interested parties on or after

[7] The request is to reduce minimum streamflows at the SFAR below Kyburz (gage A-12) from 60 cfs to 45 cfs from May 16 – 31, from 60 cfs to 18 cfs in June, from 40 cfs to 15 cfs in July, and from 18 cfs to 15 cfs in August.

April 30, 2015 to review current conditions and make a recommendation regarding the need for reduced streamflows in the SFAR below Kyburz Dam. The Deputy Director may approve a streamflow variance for the SFAR below Kyburz Dam based on the information and recommendation resulting from the consultation. The streamflow variance approved by the Deputy Director shall be up to but no greater than the streamflow variance requested by EID in its March 13, 2015 request. The streamflow variance for this reach shall be effective upon the Deputy Director's determination, and shall be subject to the conditions in this amendment as well as any other conditions imposed by the Deputy Director at the time of determining the acceptable streamflow variance.

In issuing this amendment the State Water Board is not approving the El Dorado Hydroelectric Project, FERC Project 184 Drought Streamflow Plan. The State Water Board must consider each request for variance at the time of the request based on the environmental conditions and forecasting information available.

The State Water Board understands EID's desire to meet all its customers' consumptive demands and ensure adequate storage in the event of continuing dry conditions. However, all water use demands must be considered and balanced during dry conditions. Future requests for modification of the Project streamflow and/or lake level requirements outlined in the certification would need to include an updated evaluation of EID's objectives and their appropriateness given the need to balance limited water supply across all beneficial uses.

The State Water Board needs to take a complete view of streamflow variance requests and as such, all water rights, even those that form the foundation of an entity's water supply, may be subject to mandatory conservation measures and curtailment depending on conditions.

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

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

Sincerely,

Thomas Howard
Executive Director

Attachment A: 90% Probability Forecast, dated March 9, 2015 (Source: EID Streamflow Variance Request March 13, 2015)

cc: Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

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 Willife
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670

Attachment A- Project-184 2015 Forecast Operation 90% PROBABILITY *(STREAMFLOW PLAN)*

- March 9 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	5,940	6,398	6,948	6,861	6,006	5,241	4,622	3,756	3,464	3,194	2,972	
	Lake Level Target (af)		-	-	-	-		-	-	-	3,756	-	-	-	
	Pre-1914 Water Available (af)			3,057	4,362	5,387	5,400	5,312	4,678	3,580	3,154	3,154	3,154	3,154	
	Inflow Forecast (af)			802	1,305	1,025	439	130	0	0	4	60	97	93	3,957
	Evaporation (af)			0	102	77	83	184	221	179	307	59	64	39	1,315
	Minimum Outlet (or Natural Flow), cfs			4	4/2	4/2	4/2	4	4	4	4	4	4	4	
	Minimum Outlet (or Natural Flow), af			246	119	60	63	238	246	246	238	246	238	246	
	Leakage (af)			594	625	339	380	671	544	440	328	233	206	183	4,543
	Outlet (Including Leakage, af)			840	744	399	443	802	544	440	564	293	303	276	5,648
Caples Lake:	End of Month Storage (af)	14,417	15,837	16,097	16,453	17,284	17,419	16,537	15,556	14,029	12,403	12,058	11,737	11,480	
	Lake Level Target (af)	-	-	-	-	-	-	18,704	18,413	14,376	14,376	-	-	-	
	Pre-1914 Water Available (af)			1,435	2,224	3,302	3,763	3,412	2,778	1,681	1,263	1,304	1,368	1,470	
	Inflow Forecast (af)			415	789	1,077	462	186	0	0	8	42	63	102	3,144
	Evaporation (af)			0	136	97	105	235	243	212	534	79	87	52	1,780
	Minimum Outlet, cfs			5	10/5	14/5	14/7	14	12	5	5	5	5	5	
	Minimum Outlet, af			307	298	149	222	833	738	307	298	307	298	307	
	Outlet (af)			307	298	149	222	833	738	1,315	1,100	307	298	307	5,874
Lake Aloha:	End of Month Storage (af)	441	1,134	1,506	2,304	3,184	3,473	3,051	1,661	828	537	356	172	33	
	Lake Level Minimum (af)	-	-	-	-	-		3,079	0	0	0	-	-	-	
	Pre-1914 Water Available (af)			360	360	360	360	360	0	0	0	0	0	0	
	Inflow Forecast (af)			495	988	1,018	436	166	0	0	14	101	118	137	3,473
	Evaporation (af)			0	70	78	83	220	166	83	41	21	17	3	783
	Minimum Outlet (or Natural Flow), cfs			2	3/2	5/2	5/2	5	2	1	1	1	1	2	
	Minimum Outlet (or Natural Flow), af			123	119	60	63	298	123	61	60	61	60	123	
	Outlet (af)			123	119	60	63	368	1,224	750	264	261	285	273	3,790
Echo Lake:	End of Month Storage, Pre-1914 (af)	85	205	205	599	1,064	1,197	1,072	978	931	443	119	119	119	
	Inflow Forecast (af)			277	553	569	244	93	0	0	8	56	66	77	1,942
	Evaporation (af)			0	40	44	47	125	94	47	23	0	0	0	421
	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			369	119	60	63	357	369	369	357	369	357	369	
	Diversion in Conduit (af)			0	0	0	0	0	0	0	464	324	0	0	788
	Outlet to Echo Creek (af)			277	119	60	63	93	0	0	8	56	66	77	819
Direct Diversion Accretions at Kyburz (af)				9,845	9,966	3,340	1,431	610	0	0	34	263	515	820	26,825
Minimum Bypass Requirement at Kyburz (cfs)				30	60	60	60/45	60/18	40/15	18/15	15	15	15	15	
Minimum Bypass Requirement at Kyburz + 5% (af)				1,937	3,749	1,874	1,500	1,125	968	968	937	968	937	968	15,932
SF American River Flow Below Kyburz (af)				1,937	3,749	1,874	1,500	1,125	968	968	937	968	937	968	15,932
Total Diversion at Kyburz (af)				9,179	7,379	2,072	661	1,488	1,537	1,537	1,488	481	463	708	26,992
Pre-1914 Deliveries															
Silver Lake: (Maximum per year = 5,400 af)				0	0	0	0	802	544	440	564	0	0	0	2,349
Caples Lake: (Maximum per year = 8,000 af)				0	0	0	0	75	634	1,097	426	0	0	0	2,233
Lake Aloha: (Maximum per year = 360 af)				0	0	0	0	0	360	0	0	0	0	0	360
Echo Lake: (Maximum per year = 1,943 af)				0	0	0	0	0	0	0	464	0	0	0	464
Direct Diversion from Accretions at Kyburz (af)				3,055	4,165	1,176	635	610	0	0	34	0	0	0	9,675
Total Pre-1914 - DEMAND		0	0	3,055	4,165	1,176	635	1,488	1,537	1,537	1,488	0	0	0	**15,080**
Total Pre-1914 - DELIVERY		0	0	3,055	4,165	1,176	635	1,488	1,537	1,537	1,488	0	0	0	**15,080**
Total Pre-1914 - DELIVERY, cfs		0	0	70	70	40	20	25	25	25	25	0	0	0	
Pre-1914 Shortage		0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

- Reservoirs are operated to release the Natural Flow when allowed.
- 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 March 9, 2015 California Nevada River Forecast Center forecast of South Fork American River Flow at Kyburz.

Source: EID Streamflow variance request
March 13, 2015