

Request for exception to on-stream dam on class II stream - Browns Lake Reservoir- Robert Mann Trust 1999 -29876 King Ridge Road, Cazadero Ca 95421

May 16, 2016

Ms. Barbara Evoy
Deputy Director
Division of Water Rights
State Water Resources Control Board
1001 "I" Street
Sacramento, Ca 95814

Subject : Request for exception to on stream dam on class II stream
29876 King Ridge Road, Cazadero Ca 95421

Ms. Evoy,

This is a request for an exception to the restriction of constructing an on-stream dam on a class II stream. The exception is provided in section **9.0 CASE-BY-CASE EXCEPTIONS TO POLICY PROVISIONS of the On-stream dams on Class II streams Policy for Maintaining Instream Flows in Northern California Coastal Streams Effective February 4, 2014 adopted July 19, 2006.**

Dam Background

This dam was built in the 1950s and has been in operation since then. It is built on a class II and class III stream as determined by Mr. Matt Green in his forestry report dated October 30, 2015. This dam has two spillways, no by-pass and no outlet pipe. This dam is located at the headlands of an un-named stream at the confluence. This dam lies within the watershed for Pepperwood Creek, tributary to the Gualala River.

Dam Specs: Height of dam 62 ft, surface area 14 ac, Dam, volume ac-ft 249 ac-ft

Current and proposed dam use

The current use for the dam is mostly non consumptive recreational use and is available for emergency fire use. There is also a consumptive use, for cattle grazing operations.

Hydrology

This dam is located within a 418 ac watershed area. There are no dams or ponds uphill from the dam. Most of the upper water shed area is owned by the Mr. Mann. The soils in the area can be characterized as rocky clay soils with slopes varying from 3% to 30% or more. Using a Caltrans method to determine the run off factor, C = 0.54 was assigned. According to the Sonoma County mean seasonal precipitation this area receives approximately 73" of rain per year. A rough calculation of the amount of water generated by 1" of rain is as follows:

Volume for one 1" =	area sf	x	1" rainfall	runn off rate	cf	ac-ft
Volume for one 1" =	18,093,953	x	0.083	0.54	814,228	18.87

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Items 2 ,3 and 4 can be met

(1) a detailed description of the reason for the request;

- a. The dam has been in existence since the 1950's as a recreational and to some extent a stock watering pond. It lies within the headlands of the water shed and is approximately 3,900 feet (see Greene report dated Sept 30, 2015) upstream from any viable reach of the stream where **anadromous salmonids** can climb.
- b. The 418 acres of water shed along with a mean average of 73" rainfall per year provide ample run off to fill the reservoir with at least 5 inches of rain according to the owners records. Filling of the reservoir usually happens within the first rains typically from October to mid-December. Once the reservoir is full the run off from the reservoir transmits water to the rest of the water shed without any further impoundment. This minimizes the downstream effects on **anadromous salmonids activities**.
- c. The proposed consumptive use 76 ac-ft will not begin until May 15 past the fish migration that occurs in the lower reaches of the un-named stream and further down the tributary.

(2) the policy provisions that are involved;

Meets the Principals in section 2.1 for Maintaining Instream flows 1, 2, 3, and 4. Principal 5 does not apply since the dam is already constructed.

Number 1 of section 2.4.2 onstream dam on class II streams

The applicant provides documentation acceptable to the State Water Board that the onstream dam was built prior to July 19, 2006.

Number 2 of section 2.4.2 onstream dam on class II streams

A passive bypass system or automated computer-controlled bypass system is constructed that conforms to the requirements contained in Appendix E.

Number 2 of section 2.4.2 onstream dam on class II streams

The applicant prepares and submits a biological assessment demonstrating that the dam will not adversely affect fish between it and the existing permitted or licensed reservoir.

Number 4 of section 2.4.2 onstream dam on class II streams

The applicant develops and implements mitigation plans for non-native species eradication, gravel and wood augmentation, and/or riparian habitat replacement, where needed.

(3) documentation of the reasons why the exception will not compromise maintenance of instream flows in the policy area; and,

- a. Hydrology report and water availability report for the water shed area by Guadalupe S. Chavarria, PE
- b. The water flow records, kept by the owner, document the initial rains and when the reservoir spills.

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- c. Instream report prepared by Matt Greene dated September 30, 2015, focuses on stream classification and the feasibility of migration fish .
- (4) an explanation of how the public interest will be served by the exception.
 - a. Reservoir provides a place to collect silt from the 2 major streams. This silt is collected primarily at the entrance to the reservoir and can be removed and deposited onsite. This helps maintain the water quality of the stream providing better habitat for fish.
 - b. Provide irrigation for crops for consumption by the human population.
 - c. Provide irrigation for new trees to be planted on the property for wildlife habitat, carbon sequestration and erosion control.
 - d. Provide water for livestock that will be sold for food or breeding.
 - e. Provide water for fire suppression used by Cal Fire. (See letter of support)
 - f. Anadromous salmonids activities downstream will be minimized by early water construction. Or when necessary water could be released using a new siphon.

Please call if you have any questions.



Guadalupe S. Chavarria, PE QSD/QSP

Copy: Mr. Bob Mann

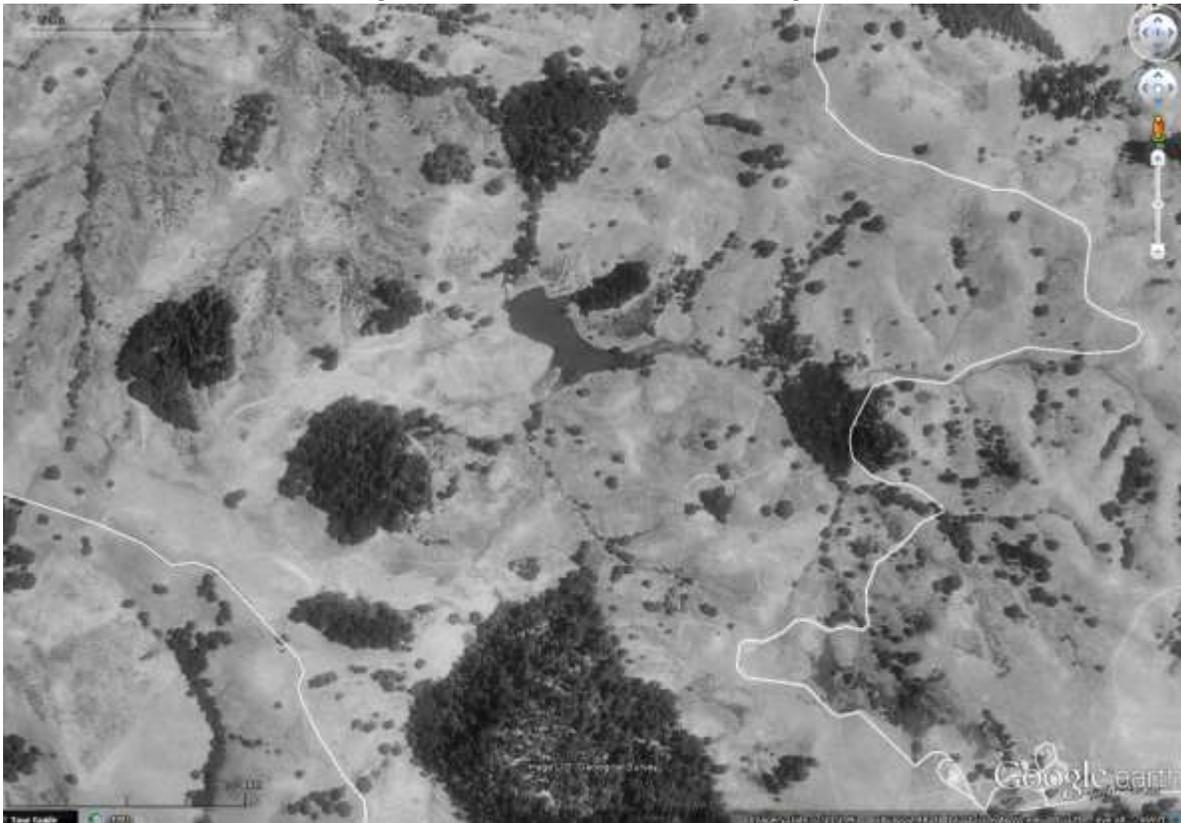
Angela Nguyen, Environmental Scientist, State Water Resources Control Board Division of Water Rights
(916)341-5318 Angela.Nguyen-Tan@waterboards.ca.gov

Attachments:

1. 1993 photo of dam
2. Salamander near dam area
3. Photo of dam side slopes
4. Rock water fall limiting fish access
5. Field report Greene Sept 30 2015
6. Cal fire letter of support

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1 Proof dam has been in existing at least since 1993 – Source Google Earth



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2 Salamander siting

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3 View of dam looking north. This shows the slopes of the dam sides.

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4 Rock water fall limiting fish access. See Green Report for all blockages

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