

Memorandum

Date: October 25, 2018

To: Ms. Amanda Montgomery, Manager Permitting Section
State Water Resources Control Board
Division of Water Rights
Post Office Box 2000
Sacramento, CA 95812-2000

From: ^{CSU} _{As} Mr. Gregg Erickson, Regional Manager
California Department of Fish and Wildlife-Bay Delta Region, 2825 Cordelia Road, Suite 100, Fairfield, CA 94534

Subject: Comments Regarding Water Right Applications A032563A and A032563B of Robert Mann to Appropriate Water from an Unnamed Stream Tributary to Pepperwood Creek Thence House Creek Thence the Wheatfield Fork Gualala River in Sonoma County

This memorandum is response to your request dated July 17, 2018, for technical comments regarding the potential effects of the Brown's Lake Reservoir to aquatic resources in the unnamed tributary to Pepperwood Creek, thence the Gualala River. This request was made in the context of processing Appropriative Water Right Applications A032563A and A032563B filed by Robert Mann. CDFW understands this Application falls within the purview of the State Water Resources Control Board, Division of Water Right's (SWRCB) Policy for Maintaining Instream Flows in Northern California Coastal Streams (Policy) and that this Policy includes a process by which applicants, petitioners, and/or registrants may request that the SWRCB grant an exception to a provision. We also understand the SWRCB received a request for a case-by-case exception to Policy section 2.4.2 for this project and that this section of the Policy precludes acceptance of new water right applications that involve an onstream dam on a Class II stream.

Brown's Lake Reservoir has a storage capacity of 249 acre-feet (af) and was built over the confluence of two Class II tributaries. The watershed area draining to the reservoir is 418 acres (approximately 0.65 square miles). The SWRCB documentation of a site visit, dated April 19, 2017, identified the stream channel below the dam as a class II stream, and described several permanent downstream barriers that prevent anadromous fish from accessing the reach of stream below the dam. There are no other water rights of record indicated within the watershed of this unnamed tributary.

When considering this Policy exception request, we recommend evaluating the following watershed processes: hydrology; connectivity; sediment transport; water quality and; aquatic ecology. In brief, dams in stream channels have the potential to reduce downstream flow, particularly in the early part of the wet season as the reservoir fills. Reduced flows, and the dam itself, may create or increase discontinuity in surface water in streams. Dams also arrest the transport of sediment mobilized by storm flows. Water quality may also be degraded as the water's residence time in the reservoir influences temperature, dissolved oxygen and other properties of water that would otherwise flow past the point of storage. Changes in all these watershed processes can in turn have adverse effects to aquatic ecology. For example, depletion of early season flows can inhibit passage of adult anadromous salmonids. Removal of the sediment load in the reservoir can promote channel incision downstream and/or reduce the

availability of salmonid spawning habitat. In addition, the reservoir itself creates habitat conducive to the presence of piscivorous non-native species such as bass and bullfrogs, which can in turn depress populations of salmonids, frogs, western pond turtles and other native species.

The dam under consideration likely has some effect on the natural hydrology of the watershed, and therefore the resulting stream flow downstream. However, the interception of flow in the smaller fraction of the total watershed area will be moderated by the larger contribution of unimpaired portions of the watershed. The lack of additional diversions along the flow path also contributes to maintaining an unimpaired hydrology. If the SWRCB proceeds with processing this Application, a complete Water Availability Analysis as defined in the Policy should be completed to determine the extent of hydrologic effects.

The degree to which permitting of the reservoir will promote the maintenance of bullfrog and bass habitat should also be evaluated. This and other potential effects should all be considered and the following conditions, if incorporated into the water right, will likely address these concerns:

1. A season of diversion limited to the period between December 15 and March 31.
2. A minimum bypass of the February median, or natural unimpaired flow, whichever is less.
3. A passive system to bypass flow through or around the reservoir to ensure flows are not inadvertently interrupted.
4. No stocking of fish of any kind in the reservoir.
5. Development and implementation of an effective invasive species management plan. The plan should include, at a minimum, an annual survey for bullfrogs and bass in the reservoir and proposed actions to manage those species. Management actions may include completely draining the reservoir between September 1 and November 15 every two to three years for a minimum of two weeks or until bottom soil is completely dry and/or more direct actions, such as seining and other lawful methods to capture bullfrogs and bass. The plan would also include alternative measures that will be implemented if the above-described actions fail to adequately manage invasive species.
6. Reasonable access for CDFW personnel to monitor compliance.

CDFW has also determined that Fish and Game Code Section 1602 applies to the operation of the reservoirs. Section 1602 requires a person to notify CDFW for any activity that will:

1) substantially divert or obstruct the natural flow of a river, stream, or lake; 2) substantially change the bed, channel, or bank of a river stream or lake; or 3) use material from the bed, channel, or bank of a river, stream, or lake. Examples of activities that require notification include diverting water from a river, stream, or lake for domestic use or irrigation and, as in this case, impounding water in an on-stream reservoir. Permittee shall notify CDFW in accordance with Fish and Game Code Section 1602, and receive a letter from CDFW indicating the application is complete, prior to SWRCB's approval of the permit. Procedures for submitting a notification form can be found at: <https://www.wildlife.ca.gov/Conservation/LSA/Forms>

Because this project involves diversion of water, the Permittee shall include a supplement to the notification, known as Attachment C. Please note there is a notification fee associated with this process.

If you have questions regarding these comments, please contact Mr. David Hines, Senior Environmental Scientist (Specialist), at (707) 944-5528 or david.hines@wildlife.ca.gov; or Mr. Craig Weightman, Environmental Program Manager, at (707) 944-5577 or craig.weightman@wildlife.ca.gov.

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