

ARNOLD SCHWARZENEGGER. Governor JOHN McCAMMAN. Director



DEPARTMENT OF FISH AND GAME Northern Region 601 Locust Street, Redding, CA 96001 www.dfg.ca.gov

October 29, 2010

Ms. Nadananda Hamilton Friends of the Eel River 2346 Marinship Way, Suite 102 Sausalito, CA 94965

Mr. Nick Angelhoff Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, CA 95551-9646

Mr. Thomas J. Weseloh, Northcoast Manager California Trout 1976 Archer Road McKinleyville, CA 95519

RE: Potter Valley Project Block Water Release Request

Dear Ms. Hamilton, Mr. Angelhoff and Mr. Weseloh:

The Friends of the Eel River (FOER), joined by the Bear River Band of the Rohnerville Rancheria, have recently requested that the California Department of Fish and Game (CDFG) and National Marine Fisheries Service (NMFS) augment Eel River flows from a bank of 2,500 acre feet of Potter Valley Project (PVP) reserve block water stored in Lake Pillsbury at river mile (RM) 170. The stated intent for the release was to move early Eel River Chinook salmon spawners upstream from their traditional holding waters. These waters are in the lower mainstem reach from the confluence of the Van Duzen River at RM 13 downstream to the ocean. This letter summarizes the current management and basis of the Potter Valley Project block water.

CDFG and NMFS have closely monitored the lower reach conditions and well being of the early Chinook salmon run since 1996 in association with an annual CDFG project that excludes early adults from entering the Van Duzen River at low flows. This exclusion is done to prevent the fish from shallow water stranding prior to adequate transport flows of minimum 150 cubic feet per second (cfs) at the Bridgeville gage. During this period the agencies have developed considerable knowledge of the current habitat and fishery conditions in the lower holding reaches, and the situation is well documented.

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The requests were made to increase flows to flush out "toxic" algae and benefit water quality in the holding waters. CDFG has not observed the current algae to be a problem for holding salmon and steelhead. This is not the warm water blue-green algae that can be toxic; and has been present in the system during several recent summers. In terms of water quality, the existing lower Eel River flow, water temperatures and dissolved oxygen are adequate to support the fish, and they have done so successfully within the known historical record - and at lower flows than are present this year. Regardless, agency monitoring of these reaches and the fishery will continue in the future, and water quality samples will be taken and analyzed if a needed.

Early adult salmon have been holding in the lower Eel River for known history, and especially since the channel shallowing that occurred in the floods of the 1950s - 60s. This lower river early-run holding pattern was doubtless a factor for the timing and success of the many canneries in the late 1800s and early 1900s, located in the Fortuna area. Then as now, the fish left the lower reaches when autumn rains created adequate upstream migration flows. The higher flows also displaced fishing opportunity, the canneries shut down their season, and the prolonged holding of adults was ended. Fish subsequently entering the system did not linger, and proceeded directly upstream following the attraction water from the streams of their choice since the entire system became accessible to them.

Regardless, a bad situation can still occur when spawners move upstream on an pulsing freshet, similar to the release of an early pulse of block water that can quickly diminish and cause upstream marooning of the adults in relatively small pools. These locations are where poachers snag highly vulnerable fish until more serious, enduring storms occur. That means CDFG Wardens must patrol an excess of 300 miles of stream reaches instead of just the reach from Alton to Fernbridge (~ 6 miles) to protect the run. This would not be easily accomplished, especially with the depleted number of Wardens statewide. The spawners' best success occurs when the rains raise and sustain flows 350 cfs at the Scotia gage. Fish can then freely return to their targeted home streams without being diverted by false attraction flows, or held up by rapidly falling early freshet flows.

For the past decade, including this year, CDFG has excluded early spawners from entry into the Van Duzen, using dams and culverts to prevent the fish from running up shallow riffles, stranding themselves, and dying. This stranding has occurred for many years in the reach downstream from Yager Creek confluence (RM 5) to the Eel River confluence, and to a lesser extent in the Eel River mainstem reach from the Van Duzen confluence (RM 13) to Scotia (RM 21). CDFG cannot contain the higher Eel River flow with weirs and pipes, or we would advocate blocking it to Ms. Hamilton, Mr. Angelhoff and Mr. Weseloh October 29, 2010 Page Three

early spawners as well to prevent upstream stranding losses and poaching. Thus, in the lower Eel River, the holding reaches serve as a sanctuary from stranding mortality for these early fish.

CDFG has established low flow closures to angling in several north coast rivers, including the mainstem Eel River, which is closed to fishing when discharge at the Scotia gage is less than 350 cfs. This is done to protect adult salmon from poaching. The flow on October 23, 2010, was approximately 130 cfs, which was good for this time of year and is a result of the past wet spring and early summer. In fact, the flow conditions in the lower Eel River and Van Duzen River are quite good this year. Nonetheless, that flow is well below the 350 cfs protection floor, and even with the requested block water would not attain adequate levels to protect the fish from poaching and stranding.

Adult benefits from block water releases include supplementing flows in the event of low flow migration delays in the area of Van Arsdale, downstream to the middle fork Eel River. This can happen as described above, when early freshet pulses move the fish upstream and then a dry weather period causes flow to fall below adequate levels for movement.

Another potential use of the block water is to flush out-migrants, especially young-ofthe-year Chinook salmon, downstream in the event of a dry spring and low flows in the upper reaches of the mainstem Eel River. The block water is managed on an annual basis from October 1 – September 30 (the water year). If it is discharged downstream in October to lure early adults upstream, there is little or none available for flushing out-migrants the following spring.

This summarizes the current management rationale of the Potter Valley Project block water. Based on the recent requests and discussions with stakeholders, CDFG and NMFS plan to schedule a workshop on the subject and notice will be provided for that workshop. Please contact CDFG Senior Biologist Supervisor, Scott Downie at (707) 725-1070 with questions or for further information.

Sincerely, **NEIL MANJI**

Northern Region Manager

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