From: Gary Bobker [mailto:bobker@sbcglobal.net]
Sent: Thursday, February 05, 2015 1:12 PM
To: Bonham, Chuck@Wildlife; Cowin, Mark@DWR; Howard, Tom; Ren_Lohoefener@fws.gov; Murillo, D@USBR; Will Stelle
Cc: Wade Crowfoot; Marcus, Felicia@Waterboards; Spivy-Weber, Frances@Waterboards; Doduc, Tam@Waterboards; Moore, Steven@Waterboards; Dadamo, Dorene@Waterboards; Gibson, Thomas@Wildlife; Wilcox, Carl@Wildlife; Castleberry, Dan@fws; michael_chotkowski@fws.gov; Rea, Maria@NOAA
Subject: URGENT - RE: CRITICAL ROLE OF STORM PULSE IN PROTECTING ENDANGERED SALMON, STURGEON AND OTHER SPECIES

all,

We urge you to decide today to forego significantly increased pumping during the duration of the storm pulse event. We believe that this action is absolutely necessary to protect the 2014 brood class of outmigrating anadromous fish species and reduce the potential for extinction of Delta smelt and longfin. See attached letter for more details.

cheers,

Gary

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February 5, 2015

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URGENT RE: CRITICAL ROLE OF STORM PULSE IN PROTECTING ENDANGERED SALMON, STURGEON AND OTHER SPECIES

Gentlemen:

A major storm is forecast to arrive today in the Central Valley that is expected to produce significant runoff from rivers in the Sacramento Basin to the Delta and San Francisco Bay. Storm pulses are important cues for salmonid migration in any circumstances; given the extremely low base flows of recent years and the depleted state of Central Valley salmonid populations, the coming pulse will likely be a key event in determining the future conservation status of the endangered winter-run Chinook salmon, the threatened spring-run Chinook salmon and Central Valley steelhead, and the commercially valuable and ecologically sensitive fall and late-fall run Chinook salmon. Storm pulse flow levels also affect juvenile survival of the threatened green sturgeon.

Under current operating criteria (as described in the SWRCB Executive Director's February 3 order regarding the Temporary Urgency Change Petitions) exports are allowed at the state and federal pumping facilities in the South Delta up to D-1641 limits when Delta outflows are above 7,100 cfs and the DCC Gates are closed, subject to additional requirements controlling reverse flows in Old and Middle Rivers required under the state and federal Endangered Species Acts. These Old and Middle River (OMR) flow requirements, contained in the biological opinions for salmon, steelhead and Delta smelt, have recently been upheld as scientifically justified by the federal courts. As noted in the February 3 SWRCB order, "(t)he ESA and CESA standard of avoiding jeopardy to the continued existence of a threatened or endangered species is a minimal standard, and as such may differ from the Water Code requirement that the changes must not unreasonably affect fish and wildlife, especially when many species have already experienced extreme impacts from the drought for several years" (p. 17).

However, we understand that these OMR flow requirements may be relaxed in advance of the coming storm. The potential elimination or major reduction of the storm pulse as a result of increasing exports and/or relaxing OMR flow criteria presents a direct threat to the success of this year class of each of these populations and to the long term survival and recovery of these species. If implemented, this action would neither ensure the most minimal conditions necessary to conserve the listed species nor avoid unreasonable effects to fish and wildlife species, especially those at high risk of extinction.

The continued existence of all of the Bay-Delta's ESA-listed fish populations is now in jeopardy, and loss of an entire year-class of these populations would increase the risk of extinction to an unacceptable degree. Prior to the drought, these populations were in critical condition; the combination of drought conditions and water operations in the past three years has further devastated the species. Delta operations that relaxed flow requirements and export restrictions in spring 2014 resulted in reduced Delta survival rates of juvenile migrants (the product of the 2013 spawning effort, for Chinook salmon). More than 95% of the 2014 winter-run Chinook salmon brood died before they entered the Delta as a result of high temperatures during the summer and fall of 2014. High temperatures and low flows also impacted fall-run and spring-run Chinook salmon spawning success as well as steelhead and green sturgeon spawning and rearing success. Increasing export pumping during the first major storm pulse of the outmigration season for these endangered populations on top of reduced survival for the previous brood classes represents a significant cumulative impact in addition to its negative effects on each of the year classes separately.

Given the failure of recent operational decisions to protect the 2014 brood class of fish thus far, it is absolutely crucial to ensure that juveniles migrating now are able to capitalize on the storm pulse through the weekend and subsequent storm runoff events that may occur later in the winter and spring so that they can pass safely through the Delta to San Francisco Bay and the ocean. The storm is a fortuitous event that could facilitate successful survival through the Delta. However, if your agencies allow exports to significantly increase and Delta channel flow conditions to degrade during the storm pulse, this will increase entrainment (including, but not limited to, salvage) and disorientation of migrating fish, and other mechanisms of take for at

least four listed species of anadromous fish. This may be the last chance to salvage 2014 year class production for these devastated populations.

Eliminating or significantly reducing the storm pulse and creating adverse Delta channel flow conditions could also have extremely negative effects on several resident native fish populations that are at high risk of extinction. The Delta smelt Fall Midwater Trawl index hit a new record low at the end of 2014. Export pumping during storms in December resulted in an alarming spike in entrainment of this highly endangered fish at the South Delta export facilities. Longfin abundance was at its second lowest recorded level in late 2014; the historic decline in this population is even larger than that experienced by Delta smelt. Significantly increasing export pumping and degrading Delta channel flow conditions during a storm event while seasonal outflows have been extremely low will increase the risk of entrainment of this fish in the Delta export facilities -- there is a clear statistical relationship (a negative correlation) between entrainment and total winter-spring Delta outflows. Adding entrainment mortality to a population that is already less than 1% of its abundance less than a decade ago is scientifically unsupportable and a very big gamble to risk.

We urge you to decide today to forego significantly increased pumping during the duration of the storm pulse event. This action is absolutely necessary to protect the 2014 brood class of outmigrating anadromous fish species and reduce the potential for extinction of Delta smelt and longfin. Please contact Dr. Jon Rosenfield of my staff at (510) 684-4757 or rosenfield@bay.org for more details regarding the basis for our request.

Sincerely,

Gary Bobker
Program Director

Cc:
Wade Crowfoot, Governor's Office
Members, SWRCB
Tom Gibson, Carl Wilcox, CDFW
Dan Castleberry, Mike Chotkowski, USFWS
Maria Rea, NMFS