UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Sacramento Area Office
650 Capitol Mall, Suite 8-300
Sacramento, California 95814-4706

SEP 22 2010

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street
Sacramento, California 95814

Re: Comment Letter – San Joaquin River Selenium Control Plan Basin Plan Amendment

Dear Ms. Townsend:

NOAA's National Marine Fisheries Service (NMFS) provides this comment letter in response to your September 1, 2010, Notice of Opportunity to Comment on the Proposed Approval of Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) to Address Selenium Control in the San Joaquin River Basin.

On November 9, 2009, NMFS provided a concurrence letter (2009/04097) stating that the third Use Agreement of the Grasslands Bypass Project is not likely to adversely affect anadromous fish species and their designated critical habitat. Since this concurrence letter was written, the following new information has become available.

Water quality data in the San Joaquin River at Hills Ferry beginning in the fall of 2009 through January 2010 indicate prolonged, elevated selenium levels. These levels were measured as high as 52.0 parts-per- billion on January 20, 2010. The San Joaquin River Restoration Program (SJRRP) Water Year (WY) 2010 Interim Flows Project was in effect at that time; however, the flows had not reached the confluence of the Merced River until the spring of 2010. This means that the elevated levels of selenium were not from the Interim Flows project but from nonpoint sources closer to Hills Ferry. Selenium concentrations this high will be problematic in restoring spring- and fall-run Chinook salmon (*Oncorhynchus tshawytscha*) to the upper reach of the San Joaquin River. In addition, the regular reoccurrence of high selenium levels for prolonged periods could negatively affect Central Valley (CV) steelhead (*O. mykiss*) and the Southern distinct population segment (DPS) of North American green sturgeon (*Acipenser medirostris*), both of which are listed as threatened under the Endangered Species Act (ESA).

On June 2, 2010, NMFS published the final rule, in 75 FR 30714, to establish take prohibitions for the threatened Southern DPS of North American green sturgeon. The rule states, "Furthermore, the national standards for use of pesticides and toxic substances may not be conservative enough to adequately protect the Southern DPS as was found for listed salmonids in recent draft and final jeopardy biological opinions issued by NMFS to the EPA (NMFS 1998, NMFS 2000, NMFS 2008). Thus, programs to aid agricultural producers in meeting NMFS-imposed water quality standards may be required to minimize adverse impacts on the Southern DPS." The USEPA Region IX is currently in the process of updating selenium water quality standards as required by the California Toxics Rule to meet a protective level.

Newly published studies have also become available regarding selenium toxicity and effects to green sturgeon. For example, larval green sturgeon experienced higher mortality than larval white sturgeon when exposed to selenium stress (Silvestre *et al.* 2010). Elevated loading into the Bay Delta system over an extended period of time could contribute to these effects.

In the concurrence letter for the SJRRP WY 2010 Interim Flows Project, NMFS supported the need for water quality monitoring as part of the project description to evaluate potential changes in water quality (including selenium) that could adversely affect anadromous fish. The potential effects of the WY 2010 Interim Flows on selenium levels at Hills Ferry and downstream are currently under review. The high levels observed in the San Joaquin River at Hills Ferry from August 2009 to January 2010 are a cause for concern. Table IV-4 in the Proposed Amendments to the Basin Plan summarizes the proposed changes in timeline and selenium water quality objectives for non-point sources in the San Joaquin River between Mud Slough (north) and the confluence with the Merced River. Changing the water quality objective from a 5 ug/L 4-day average to a 15 ug/L monthly mean could allow significant elevation(s) in selenium levels that could cause take of listed anadromous species in the lower San Joaquin River Basin and Delta. NMFS is concerned that increasing the selenium water quality objective for non-point sources on the San Joaquin River between Mud Slough and the confluence with the Merced River (i.e., outside the scope of the Grasslands Bypass Project) would encourage outside parties to discharge selenium laden agricultural tailwaters. NMFS supports water quality criteria extending upstream to Mud Slough as well as the overall Grasslands Bypass Project objectives of continuously improving water quality in the San Joaquin River and maintaining viability of agriculture in the Grasslands Bypass Project area. NMFS, therefore, supports extending the Basin Plan Amendment compliance date for meeting selenium objectives in Mud Slough and the San Joaquin River from the confluence with the Merced to Mud Slough for an interim period of two years, in concurrence with the US Fish and Wildlife Service's September 22, 2010, comment letter. This would provide additional time to study, monitor, and reduce selenium levels prior to the introduction of spring- and/or fall-run Chinook salmon, which is to occur no later than December 31, 2012, as required in the Stipulation of Settlement in *NRDC, et al. v. Kirk Rodgers, et al.*, as well as explore the downstream effects to green sturgeon and salmonids present in the San Joaquin River basin and Delta. A longer compliance date extension may result in risks to the ESA listed species mentioned previously as well as the required reintroduction.

Please contact Ms. Leslie Mirise at (916) 930-3638, or via email at Leslie.Mirise@NOAA.gov, if you have any questions regarding this project or require additional information.

Sincerely,

For
Howard Brown
Acting Supervisor, Central Valley Office

cc: Copy to file – ARN 151422SWR2001SA5967
NOAA Fisheries-PRD, Long Beach, CA
Joe Dillon, NOAA Fisheries, Santa Rosa, CA

NMFS 2010, 75 FR 30714, June 2, 2010, Endangered and Threatened Wildlife and Plants: Final Rule Making to Establish Take Prohibitions for the Threatened Southern Distinct Population Segment of North American Green Sturgeon. Final Rule.

Silvestre, F., J. Linares-Casenave, S.I. Doroshov, D. Kultz. 2010. A proteomic analysis of green and white sturgeon larvae exposed to heat stress and selenium. Science of the Total Environment, Vol. 408, pp. 3176-3188.