



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
777 Sonoma Ave., Room 325
Santa Rosa, CA 95404-4731

February 19, 2009

In response refer to:
151422SWR08SR00091

Victoria Whitney
State Water Resources Control Board
Division of Water Rights
Post Office Box 2000
Sacramento, California 95812

Dear Ms. Whitney:

Thank you for the opportunity to meet with you on February 11, 2009, to discuss frost protection issues in the Russian River. We would like to reiterate our concern over the threat of frost protection irrigation by vintners to Federally threatened and endangered salmonids. Coho salmon, Chinook salmon, and steelhead all spawn and rear in the basin and all are protected under the Federal Endangered Species Act (ESA). Section 9(a)(1) of the ESA makes it unlawful for any person to "take" any endangered or threatened species. The term "take" means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct" with respect to listed species (16 U.S.C. §1532(19)). While there are provisions in the ESA to provide exemptions to the prohibition of take, no such exemptions exist for these activities. Similar provisions also exist for the California Endangered Species Act.

Each fall and winter, Chinook salmon and steelhead spawn in the upper Russian River and throughout its tributaries. In dry years such as this, there is insufficient flow in the tributaries, so higher numbers of adult steelhead spawn in mainstem areas along with the majority of Chinook salmon. Endangered coho salmon face similar circumstances in major tributaries of the lower river, as do threatened salmonids in other watersheds. After incubating in redds for 20 to 80 days, fry emerge from gravels and occupy shallow slow moving areas along the stream margins and in riffle habitats. Stranding of juvenile salmonids can occur when rapid decreases in flow result in receding water levels. This has the greatest potential to occur in low gradient areas consisting of gravel or cobble substrate.

As you know, much of the floodplain area along the river is cultivated for wine grape production, especially in the Ukiah, Hopland, Alexander, Knights, Dry Creek, and Green Valley Creek valleys. When "bud-break" occurs on the grape vines, the crops become susceptible to damage by frost. This generally happens by March 15, but is expected earlier this year because of



unseasonably warm weather. It is the general practice of vintners to irrigate their vines with large volumes of water during frost events in order to minimize their crop loss (on the order of 50 gal/minute/acre).

Last April, our Office of Law Enforcement was notified of two episodes of fish stranding mortality; steelhead fry perished along the mainstem Russian River near Hopland, and coho salmon fry died in Felta Creek, tributary to Mill Creek, thence Dry Creek. These events occurred during a severe frost event that co-occurred with a dry spring (*i.e.*, when stream flows were already low). Recent research has identified similar impacts in Maacama Creek, tributary to the Russian River (Deitch 2006).

NOAA's National Marine Fisheries Service has been working collaboratively with the State Water Resources Control Board (SWRCB), interested vintners, and other resource management agencies to address this issue. While we are exploring several promising long-term solutions, few practical ideas for avoiding additional take of salmonids this spring have arisen. Given that we are likely to experience similar dry year conditions this spring, and the need to protect crops from frost damage still exists, it seems imperative to act now in order to avoid a potentially widespread reduction in the reproductive success of salmonids in watersheds where this is an issue.

We are concerned that water diversions, that may otherwise be legal under California water law, will be causing significant salmonid mortality. We, therefore, urge the SWRCB to take immediate action, such as implementing emergency regulations, to protect this important public trust resource from further harm. If you have any questions or comments concerning the contents of this letter, please contact David Hines at (707) 575-6098.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Edmondson", followed by the text "(for)" in parentheses.

Steven A. Edmondson
Northern California Habitat Supervisor

cc: Charles Armor, Regional Manager, Bay Delta Region, CDFG
Dick Butler, Supervisor, Protected Resources Division, NMFS
Katherine Kuhlman, Executive Officer, NCRWQCB
Dan Torquemada, NOAA Office of Law Enforcement