UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

July 5, 2011

Charles R. Hoppin
Board Chair
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, California 95814

Dear Mr. Hoppin:

The National Marine Fisheries Service (NMFS) is responsible for administration of the Federal Endangered Species Act (ESA) as it applies to anadromous salmon and steelhead (salmonids). This responsibility includes working with the State Water Resources Control Board, Division of Water Rights (SWRCB) to resolve water resource issues in concert with conservation of threatened and endangered species (ESA 2(c)(2), ESA 6(a)).

We support the adoption of the proposed Russian River frost protection regulation (regulation), with some minor suggestions for change as noted below, because it constitutes a significant action to reduce a substantial threat to the recovery of federally threatened and endangered salmonids. This letter provides the reasoning for our support, a description of the recommendations we are likely to provide to the regulated community if the proposal is adopted and some suggestions for refining the proposal.

Issue Definition

Our support for the regulation stems from our mission to conserve, protect, and manage living marine resources and the habitats that sustain them. In some instances, frost diversions can pose a risk to salmonid survival and recovery by modifying stream flow conditions in a manner that results in the mortality of salmonids beyond what would naturally occur in unimpaired conditions.

The primary risk to salmonids is the stranding of newborn fry on low gradient stream channel surfaces that have been dewatered from removal of frost-related diversions from the stream. However, any life stage could be affected, from incubating embryos (in redds) to adults. For the purposes of this letter, we will limit our discussion to the most relevant salmonid life stages: redds and fry.

Adult salmonids can enter the Russian River as early as August to begin their migration to spawning grounds further upstream. But, most spawning (i.e. redd construction and fertilization of eggs) takes place from January through April, depending on the species and on local stream flow conditions. Redds are therefore generally present in streams and actively incubating embryonic salmonids throughout the frost season (March 15 to May 15). Recent observations of a redd with reference to its location in the channel and vulnerability to frost diversion impacts is currently in preparation by the NMFS.

Steelhead spawning is more widespread and variable than the two salmon species in the watershed and this therefore typically defines the limits of redd distribution. The location of redds in streams is limited by channel form (slope and availability of spawning habitat) and flow conditions. The process of site selection, redd construction and spawning, unfolds over a period of days. The placement of redds is therefore limited to areas inundated by flows during that time.

The time of year fry emerge from the redds is also variable and dependent on run timing, temperature, etc. However, this activity typically begins before or shortly after the initiation of frost season (March 15) and continues through May 15. Therefore, fry may also be present at any time during the frost season. Fry occupy shallow low velocity areas, are poor swimmers, and often take refuge from receding flows in the interstitial spaces of cobble/gravel substrates. For these reasons, they are highly susceptible to stranding.

The impact of frost diversions on stream hydrology and salmonids is most pronounced under low flow conditions. Low flow conditions obviously occur when there has been little rain. Unfortunately, dry spring seasons are also associated with more frequent cold air conditions that result in frost events. This juxtaposition of high water demand with low stream flow conditions creates the risk of hydrologic impairment that can result in salmonid stranding. We are currently preparing a summary report of 17 stream flow gages, located throughout the Russian River basin, that will describe in greater detail the magnitude, temporal and geographic scope of these hydrologic deviations.

Consultation Process

The regulation charges NMFS and the California Department of Fish and Game (CDFG) with the task of consulting with organized groups of winegrape growers to determine the stream stage that should be maintained to prevent stranding mortality beyond natural background levels. Our intent is therefore to provide technical assistance that effectively defines a site-specific stream flow regimen that will approximate a natural hydrograph when hydrologic conditions are conducive to stranding.

This recommendation will likely begin with determining the upper flow limit that defines "conducive conditions". To do this, we will examine the stream flow record during the most recent spawning season to estimate the maximum elevation in the stream reach where redds could have been successfully constructed. We will also consider habitat conditions such as low-

gradient channel benches and the distribution of spawning habitat. This threshold will define the flow above which limits to diversions can be substantially relaxed.

Below that flow, the goal will be to avoid any exacerbation of background stranding while allowing for limited water diversions. The result will be a recommendation that scales diversions to flow conditions and minimizes cumulative acceleration of the flow recession limb. For example, limiting diversions to a percentage of instantaneous flows would prevent abrupt drops in stage while allowing for greater volumes of water to be diverted with higher flows.

With any management recommendation, there is always a risk that unintended harm to the resource (in this case salmonids) may still occur. It is therefore essential to adequately monitor relevant conditions and modify the management parameters to refine the recommendation. The take of endangered species is not authorized or implied with the State frost consultation process. If take is likely to occur, diverters should seek federal permits to authorize such activity per Section 10 of the federal Endangered Species Act.

Review of Draft Regulation

NMFS supports the proposal to regulate vineyard frost protection practices in the Russian River basin, and we would like to highlight three aspects of the regulation that are essential to its success. This will be followed by several more specific suggestions to improve the language of the draft.

First, the SWRCB determination that frost diversions are an unreasonable use of water is important. However, this categorical determination does not imply that all frost diversions, under all conditions, are unreasonable. Rather, it acknowledges the risk of such diversions to salmonids and allows for water users to continue their practices as long as they are able to demonstrate, with reasonable certainty, that they are not having an adverse effect. In so doing, the SWRCB effectively shifts the burden of proof from resource agencies to water users. This is an important and prudent conservation strategy that will reduce the risk of harm to salmonids.

Another essential component of the regulation is the inclusion of water users diverting from hydraulically connected groundwater. Because some wells draw water from the underflow of streams while others do not, it is important not to categorically exclude well water diversions and thereby miss a portion of the issue. A process for fairly discriminating between connected and not connected wells is essential to this portion of the regulation.

Finally, to be consistent with the ESA, it is imperative that final approval of the water demand management plans, and the flow recommendations within them, remain with the SWRCB. This stipulation keeps the liability for take, if it occurs, with the WDMP groups and the SWRCB. Our recommendations are technical assistance only and do not constitute federal regulatory action.

In addition, we recommend the following changes to the proposal:

1. We request that language be added to the regulation that allows for NMFS (and possibly CDFG with their consent) and the SWRCB to cross-train and share responsibility for WDMP consultations in a manner that meets clearly defined standards. This will distribute the consultation workload more widely and facilitate a more efficient process.

2. We suggest the addition of language that defines more specifically how wells will be determined to be hydraulically connected, or not, to streams. An accurate determination of hydraulic connectivity will help ensure natural resources are sufficiently protected.

3. Page 4 of the draft regulation under Section C4 Corrective Actions, contains the following sentence: "Corrective actions also may include revisions to the number, location and type of stream stage monitoring gages, ***or to the stream stages considered necessary to prevent stranding mortality***." As stated, these revisions would be made by "the governing body, in consultation with the diverters". We are willing to consider changes to the location and type of stream gages, such as phased or prioritized approaches. However, it is unacceptable to NMFS because it allows protective stream flow recommendations to be changed without input from resource agencies. We therefore request that language to be omitted or that NMFS and CDFG be consulted on any revisions.

4. We have also noticed an apparent inconsistency in the WDMP approval process that should be corrected. Section C3 of the draft on page 2 states that WDMPs must contain "an assessment of the potential risk of stranding mortality due to frost diversions". The WDMP's must also be submitted by February 1 each year (i.e. prior to the frost season). However, a required component of the risk assessment portion of the WDMP is the inventory of frost diversion systems, yet the diversion system inventory is not due until 3 months after the WDMP is submitted (i.e. May 1). In order to ensure a valid risk assessment is produced in a timely manner, we request the inventory of frost diversion systems be made due prior to the frost season and integrated with the WDMP by the time it is submitted.

We appreciate the SWRCB for taking action on this important issue. We look forward to working collaboratively with winegrape growers, the SWRCB and CDFG on the implementation of this regulation to the satisfaction of all parties. If you have any questions regarding these comments, please contact Steve Edmondson, Habitat Manager for Northern California at (707) 575-6052 or at Steve.Edmondson@NOAA.gov.

Sincerely,

Rodney R McInnis

Rodney R. McInnis
Regional Administrator