

Russian River Frost Program

November 10, 2009

Via Email Only

commentletters@waterboards.ca.gov

State Water Resources Control Board
P.O. Box 2000
Sacramento, CA 95812

Re: 11/18/09 Russian River Frost Protection Workshop

Dear Chair Hoppin and Members of the Board:

This letter presents for your consideration the Russian River Frost Program, a coordinated effort by water users in the Russian River watershed to manage the diversion and use of water for frost protection. This program responds to the State Water Board's request at the April 7, 2009 workshop for a stakeholder solution to frost control issues.

As the culmination of much work by individual landowners, Mendocino County Farm Bureau, Russian River Flood Control and Water Conservation Improvement District, California Land Stewardship Institute, and Sonoma County Farm Bureau, the Russian River Frost Program ("Frost Program") brings together the existing frost protection efforts in both Mendocino and Sonoma Counties. By joining the Mendocino County effort, known as the Upper Russian River Stewardship Alliance ("URSA"), and the Sonoma County effort, the Middle Russian River Stewardship Alliance ("MRSA"), into a single plan, the Frost Program provides a more efficient and comprehensive approach to frost protection in the Russian River watershed while also allowing the necessary flexibility to implement that program in areas with distinct needs.

The Program is a practical and straightforward approach to reduce the impact on stream flows from diversions for frost protection by implementing conservation actions (projects that reduce the volume of water used for frost control and change the ways that frost water is obtained) in order to reduce instantaneous demand and prevent acute reductions in stream flow. This will ensure that the Endangered Species Act ("ESA") is not violated. Quite simply, the purpose is to sustain agriculture by protecting fish.

This grassroots, cooperative approach has already resulted in immediate and real improvements. Under this Frost Program, both episodes of alleged frost diversion-related stranding mortality referred to in the National Marine Fisheries Service ("NMFS") February 2009 letter to the State Water Board have been resolved and actions are being taken to prevent similar problems from recurring in the future, some off stream ponds to reduce water diversion rates have already been constructed, alternative water sources are being developed, and BMPs are being implemented. As the program continues to implement these and other conservation actions, it will ensure the continued sustainability of fish and farms; recognizing that the prosperity of each, and that of our communities, is intertwined.

Frost Program Management and Participation

The Frost Program is managed by the Russian River Frost Program Steering Committee, which is comprised of:

- Mendocino County Farm Bureau – *Devon Jones*
- Fetzer Vineyards – *David Koball*
- Sonoma County Farm Bureau – *Lex McCorvey*
- Rodney Strong Vineyards – *Doug McIlroy*
- Silverado Premier Properties – *Pete Opatz*
- Russian River Flood Control – *Sean White*
- California Land Stewardship Institute – *Laurel Marcus*

Landowner participation in the Frost Program is most appropriately measured in terms of the participation necessary to resolve identified problems. As demonstrated in the included URSA and MRSA implementation plans, participation has been sufficient to resolve frost diversion contributions in all known instances of stranding. Participation in the implementation plans will grow substantially through outreach efforts this winter.

Through outreach efforts, conducted through the wine commissions of the two counties which are not voluntary organizations, 100% of the growers will be informed as to their responsibility to comply with the ESA. Growers will be made aware of the risks they assume by not participating in the Frost Program, and will understand through education, demonstration and organized events that non-participants will assume tremendous risks as individuals if they do not take action to address frost issues.

Background of the Frost Program

To explain the Frost Program, it is necessary to describe in some detail how and why it developed the way it has. Originating as a group of individuals responding to agency concerns, efforts to address frost protection have matured into the coordinated watershed-wide approach described herein.

In the past two years, very dry springs coincided with unusual cold snaps during a time when vineyards and orchards are particularly vulnerable to crop-destroying frost damage. In April of 2008, during this “perfect storm,” NMFS discovered two episodes of stranding: one in Mendocino County on the mainstem of the Russian River near Hopland, and another in Sonoma County on Felta Creek.

In response to the events of 2008, and in anticipation of another cold dry spring in 2009, NMFS sent a letter to the State Water Board on February 19, 2009 expressing concern that diversions for frost water could again contribute to salmonid stranding. To address the concerns raised by this letter, the State Water Board held a workshop in April to look into the issue. At the Board’s direction, water users set to work to develop a plan, now formalized as the Russian River Frost Program, to resolve the episodes that occurred and to prevent future such occurrences.

While the Frost Program presented here is a single plan for the entire Russian River watershed, it did not begin as such. The original water user response was a Mendocino County plan presented by URSA to NMFS’ Frost Protection Task Force in 2008. Sonoma growers were not invited to the Task Force until early 2009 and accordingly development of the Sonoma County plan has trailed the Mendocino efforts. The Mendocino and Sonoma implementation plans were initially developed independently because the climate, geology, infrastructure, and hydrology are sufficiently different between the upper and middle portions of the Russian River watershed and these differences mandate unique solutions.

As grower led efforts progressed, however, it became evident that the best way to deal with frost water diversion issues was with a single program implemented in each reach by the respective local group. The uniform structure and single Science Advisory Group of the Frost Program provide for efficiency and uniformity while implementation plans tailored to local conditions allow for appropriate focus on the mainstem issues that dominate the upper part of the watershed and the tributary issues that are the primary concern in the middle watershed.

The Unexpected Incidents of 2008 Will Not Recur

It is important to recognize that the concerns raised by NMFS' February 19, 2009 letter were acute problems in discrete locations that occurred unexpectedly during an unusually cold and dry spring. While the importance of these episodes is not to be understated, these two occurrences do not support the generalization that stranding is a chronic problem occurring every year throughout the entire Russian River watershed. As is demonstrated in the attached Frost Program documents, the majority of the past 20 years were not as critically cold and dry as 2008 and 2009, thereby showing that the climactic combination that coincided with the strandings rarely exists. Furthermore, because the Russian River watershed is so varied, it cannot be assumed that because strandings occurred near Hopland and on Felta Creek, similar problems occur throughout the watershed. Now that the conditions potentially contributing to stranding have been identified and appropriate conservation actions have been identified, the Frost Program will work to ensure that these problems do not recur.

Effectiveness Monitoring and Independent Science are Foundations of the Frost Program

This program uses a watershed based approach to monitoring directed by an independent Science Advisory Group. Watershed based monitoring will examine a variety of factors affecting stream flows including factors other than diversions for frost protection. Focused monitoring will therefore allow the Frost Program to direct its conservation actions to provide the greatest benefit to stream flow. Alternatively, the 'command and control' regulation of individual frost diversions proposed by NMFS will inevitably miss these critical linkages. The Program's systematic science-based approach is the only method which will actually benefit the fish.

The decisions about what factors to investigate and monitor, and selection of protocols for conducting such inquiries, are critically important for the success and scientific validity of the Frost Program. Accordingly, an independent Science Advisory Group will provide advice to the Frost Program on these critical issues. Hydrologic data sets require qualified professionals to review and interpret their meaning typically with an entire range of other hydrologic and geologic data. Analyses based on one data set will be incomplete and unreliable. Additionally, farmers must be comfortable providing information to the Frost Program. This cannot happen if people feel that this information will put their livelihoods at risk. The Science Advisory Group will both inform the Frost Program as to the reliability of the data collected and give participants comfort that the science is objective.

Proactive Resource Management—not Regulation—is the Solution

While much attention has been paid to whether the Board should regulate direct diversions for frost protection, such a regulation is neither necessary nor appropriate. Any Water Board regulation will redirect resources from the most meaningful real world improvements of the Frost Program to the cost of compliance with the regulation. The ESA already prohibits the take of endangered species and dictates enforcement; the Frost Program will enable growers to comply with the ESA, negating the need for further regulation. A ban on the use of direct diversion for frost protection will cause economic ruin for farm families and the communities

that support them, while the adoption of the proposed Frost Program as a solution will enable the continued survival of both fish and farmers.

Conclusion

This Russian River Frost Program recognizes that while a single plan for the entire Russian River watershed is the most appropriate and efficient way to make improvements, both the problems and the solutions vary significantly between the upper and middle parts of the watershed. Consequently, separate implementation plans have been prepared for these two regions.

The three documents included with this letter explain the Russian River Frost Program and how it will be implemented. First is a description of the overarching Russian River Frost Program explaining the principles of the program and describing how it will be implemented through its regional constituents. The second attachment, "Russian River Frost Control Program – Upper Russian River, Mendocino County," describes the URSA implementation plan. The third attachment is the implementation plan for the Middle Russian River operated by the Sonoma County Farm Bureau Frost Subcommittee.

As indicated earlier, the joining of the upper and middle plans is a relatively recent development. Consequently, the attachments describing the upper watershed implementation plan and middle watershed implementation plan are not as completely integrated as they ultimately will be. These implementation plans are being revised and may undergo further development and integration before the 2010 frost season.

Thank you for your consideration.

Sincerely,

Devon Jones
Mendocino County Farm Bureau

David Koball
Fetzer Vineyards

Lex McCorvey
Sonoma County Farm Bureau

Doug McIlroy
Rodney Strong Vineyards

Pete Opatz
Silverado Premier Properties

Sean White
Russian River Flood Control

Laurel Marcus
California Land Stewardship Institute

Russian River Frost Program

Overview

The Russian River Frost Program provides a general framework to address frost protection issues and for the coordination of the frost protection plans being implemented in the upper part of the Russian River watershed by the Upper Russian River Stewardship Alliance (“URSA”), and in the middle part of the watershed by the Sonoma County Farm Bureau Frost Subcommittee (“MRSA”). A more detailed description of how the Frost Program is implemented is in the following URSA and MRSA implementation plans.

General Principles

Problem: Stranding of salmonids on Felta Creek and on the main stem of the Russian River near Hopland.

Objective: Prevent to the extent possible additional occurrences of stranding at the two locations it occurred and generally reduce the acute effects on stream flow from direct diversions for frost protection throughout the Russian River watershed.

Approach: Implement conservation actions to reduce the demand for water for frost protection and reduce instantaneous diversion rates.

How it works

The Russian River Frost Program improves the diversion and use of water for frost protection by working with diverters and agencies to learn about frost water use and watershed conditions, and then implementing conservation actions that improve the management and infrastructure for the purposes of reducing overall frost water use and reducing instantaneous demand. The implementation of this strategy, while described in greater detail in the implementation plans, can generally be explained by the following four components: Outreach, Watershed Assessment, Conservation Actions, and Program Coordination and Analysis.

Outreach: Contact farmers that divert water for frost protection and educate them about the Program. Have stakeholder meetings and annual program updates before and after frost season.

Watershed Assessments: Assess sub-watersheds to determine where conservation actions would be most beneficial.

- Focus on watersheds agencies have identified.
- Collect land use information.
- Work with Scientific Advisory Group to determine priorities for locations and types of monitoring and Conservation Actions.
- Stream Flow Monitoring – Identify existing gages and install additional gages where appropriate.

Conservation Actions: The goal is to reduce the potential for conflict between diversions for frost protection and fishery resources. This will be done by reducing the instantaneous diversion rates through implementing the following actions where appropriate:

- **Frost Protection BMPs** – Reduce the total instantaneous demand for frost water through BMP implementation. BMPs were developed and are being field tested in October/November 2009.
- **Infrastructure Improvements** – Reconfigure or construct infrastructure necessary to reduce instantaneous diversion rates. Typical infrastructure improvements include: constructing off stream ponds, revising pumping and piping systems to remove large pumps from waterways, drilling wells, and use of recycled water.
- **Diversion Coordination** – Work with water users to coordinate diversions and releases in order to minimize the chance of fish stranding due to diversions for frost protection.
- **Frost Forecasting** – An important part of improving frost water diversion and use management is improving the quality of and access to frost forecasts.

Program Coordination and Analysis: On an ongoing basis:

- **Annual Frost Program Reporting** – Annual reports on the effectiveness of the Frost Program will be provided to the SWRCB, NMFS, and CDFG.
- **Agency Coordination** – There will be ongoing communications with the agencies regarding particular tributaries of concern, fish planting scheduling, and other possible areas for improvement. There will be at least one meeting before frost season and one after frost season to exchange information.
- **Adaptive Management:** Changes will be made to the Program based upon information and recommendations from participants, agencies, and the Science Advisory Group.

Science Advisory Group: The Science Advisory Group, further described in the URSA implementation plan, will provide objective guidance for the Frost Program. This will include:

- Articulate conceptual models of stream flow processes, differentiating between geomorphic settings and geographic areas of the Russian River watershed.
- Review the existing evidence and research, identify data gaps, and recommend methodology to resolve data gaps.
- Recommend necessary monitoring to provide a basis for determining changes in water management to assure adequate instream flows.
- Review Watershed Analysis
- Review Annual Report

The Russian River Frost Program
Management

The Russian River Frost Program Executive Committee will manage the Frost Program. Comprised of individuals from URSA and MRSA, This group will comprise two sub-committees representing the upper and middle reaches of the Russian River, and will implement the Russian River Frost Program in their respective regions.

- **URSA** (Upper Russian Sustainability Association) – This committee consists of organizations and landowners in Mendocino County, and will implement the Program in the upper Russian River.
- **MRSA** (Sonoma County Farm Bureau Frost Subcommittee) – Consists of Sonoma County Farm Bureau board members and vineyard representatives from the Russian River watershed within Sonoma County.

The following organizational chart graphically represents the Russian River Frost Program management.

