

### **Russian River Frost Protection**

The Russian River watershed, located in Sonoma and Mendocino counties, is home to substantial viticultural lands. The direct appropriation of water from the Russian River and its tributaries occurs for both summertime vineyard irrigation and springtime frost protection. Springtime frost events occurring during the budding phase of the grape vines can cause a loss in production and revenue. To protect against these events, growers practice the rapid diversion and application of water from streams to prevent the accumulation of frost on the grape vines. Typically, many growers participate in the simultaneous operation of multiple diversions on the same water body within a short time span. These actions, while important for growers, reduce stream flow and can lead to rapid drops in water depth that in the spring may have considerable impacts on out-migrating salmon and steelhead such as the stranding of fish on sand bars or channel banks, or the take of sensitive or protected salmon species.

Concerns about the fishery impacts associated with direct spring and summertime water appropriation from the Russian River and its tributaries are shared by government agencies, stakeholders and recreational fishermen. The balance between the economic interests of the farmers and the protection of salmonid resources is delicate, particularly as it relates to coho salmon, which is a species listed under both the federal Endangered Species Act and the California Endangered Species Act. The State Water Resources Control Board (SWRCB) and the Department of Fish and Game (DFG) have jurisdiction in this matter, and SWRCB has produced draft frost protection regulations. Although these regulations have not been formalized, many grape growers have voluntarily switched to less intrusive frost protection methods or alternative water sources. There are still many individuals within the agricultural industry who have not altered their water appropriation practices and have voiced opposition to SWRCB's draft frost protection regulations.

DFG, National Marine Fisheries Service, SWRCB and stakeholder groups met with the hope of finding mutually satisfactory frost protection measures that would not impact migrating fish, especially sensitive species. Investigations of illegal diversions have been investigated and prosecuted by DFG game wardens, however DFG, along with the other interested parties, awaits SWRCB's adoption of final regulations for frost protection in the Russian River watershed and will continue to work cooperatively in support of frost protection regulations that effectively address the detrimental impacts to the declining fisheries in the Russian River.