

Russian River Frost Protection Water Demand Management Plan

Submitted By: Alfred White

Date: December 5, 2011

Inventory of frost diversion system(s)

- (A) Name of the diverter Thornhill Vineyard Properties, LLC
- (B-1) Source of water used Russian River
- (B-2) Location of diversion Longitude 123.1786, Latitude 39.102717
- (C) Diversion system description capacity 40hp electric, 1500 gpm
- (D-1) Acres frost protected with irrigation 142
- (D-2) Acres frost protected by other means 0
- (E-1) Rate of diversion 3.3 cfs (recharge only)
- (E-2) Hours of operation (ea. frost event) 3-10
- (E-3) Volume diverted (ea. frost event) none during frost

Stream stage monitoring program

- (A-1) Number of gages 2
- (A-2) Gage type USGS
- (A-3) Location of stream gages USGS 11462080 USGS 11462500
- (B) Stage that should be maintained at each gage to prevent stranding mortality
The minimum flow required by D1610 at time of diversion
- (C) Provisions for gage installation, calibration and maintenance
Gages already exist and are calibrated and maintained by USGS
- (D) Monitoring and recording intervals (not to exceed 15 min.) 15 min.

Risk assessment

Guidelines: *Based on the inventory and stream stage information described above, and information regarding the presence of habitat for salmonids, the governing body shall conduct a risk assessment that evaluates the potential for frost diversions to cause stranding mortality. The risk assessment shall be conducted in consultation with NMFS and DFG. The governing body is authorized to include its own expert scientists and engineers in the consultation, and request board staff to participate, when desired. The risk assessment shall be evaluated and updated annually.*

The potential for frost diversions to cause stranding mortality does not exist since no diversions take place during frost events. The mainstem flows are regulated, and my diversion is equipped with a NMFS approved fish screen. I have a 50 AF pond and a 16 AF pond which provide all the water for frost protection. Recharge is only done during non frost events when the flow in the river is in compliance with D1610 and Table 3 of the 2009 NMFS Final BO (see attached).

Corrective Actions

Guidelines: *If the governing body determines that diversions for purposes of frost protection have the potential to cause stranding mortality, the governing body shall notify the diverter(s) of the potential risk. The governing body, in consultation with the diverters, shall develop a corrective action plan that will prevent stranding mortality. Corrective actions may include alternative methods for frost protection, best management practices, better coordination of diversions, construction of offstream storage facilities, real-time stream gage and diversion monitoring, or other alternative methods of diversion. 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. In developing the corrective action plan, the governing body shall consider the relative water right priorities of the diverters and any time delay between groundwater diversions and a reduction in stream stage. The corrective action plan shall include a schedule of implementation. To the extent feasible, the corrective action plan shall include interim corrective actions if long-term corrective actions are anticipated to take over three years to fully implement. The diverters shall implement corrective actions in accordance with the corrective action plan, or cease diverting water for frost protection.*

With no diversions during frost, no potential for stranding exists. No corrective actions are necessary.

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Inventory of frost diversion system(s)

- (A) Name of the diverter Mendocino Wine Group, LLP
- (B-1) Source of water used sheet flow into drains into ponds, springs
- (B-2) Location of diversion None
- (C) Diversion system description capacity winter rainfall
- (D-1) Acres frost protected with irrigation 92
- (D-2) Acres frost protected by other means 0
- (E-1) Rate of diversion None
- (E-2) Hours of operation (ea. frost event) 3-10
- (E-3) Volume diverted (ea. frost event) None

Stream stage monitoring program

- (A-1) Number of gages NA
- (A-2) Gage type NA
- (A-3) Location of stream gages NA
- (B) Stage that should be maintained at each gage to prevent stranding mortality
NA
- (C) Provisions for gage installation, calibration and maintenance
NA
- (D) Monitoring and recording intervals (not to exceed 15 min.) NA

Risk assessment

Guidelines: *Based on the inventory and stream stage information described above, and information regarding the presence of habitat for salmonids, the governing body shall conduct a risk assessment that evaluates the potential for frost diversions to cause stranding mortality. The risk assessment shall be conducted in consultation with NMFS and DFG. The governing body is authorized to include its own expert scientists and engineers in the consultation, and request board staff to participate, when desired. The risk assessment shall be evaluated and updated annually.*

The potential for frost diversions to cause stranding mortality does not exist, since no diversions take place.

Corrective Actions

Guidelines: *If the governing body determines that diversions for purposes of frost protection have the potential to cause stranding mortality, the governing body shall notify the diverter(s) of the potential risk. The governing body, in consultation with the diverters, shall develop a corrective action plan that will prevent stranding mortality. Corrective actions may include alternative methods for frost protection, best management practices, better coordination of diversions, construction of offstream storage facilities, real-time stream gage and diversion monitoring, or other alternative methods of diversion. 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. In developing the corrective action plan, the governing body shall consider the relative water right priorities of the diverters and any time delay between groundwater diversions and a reduction in stream stage. The corrective action plan shall include a schedule of implementation. To the extent feasible, the corrective action plan shall include interim corrective actions if long-term corrective actions are anticipated to take over three years to fully implement. The diverters shall implement corrective actions in accordance with the corrective action plan, or cease diverting water for frost protection.*

With no diversions, no potential for stranding exists. No corrective actions are necessary.