Up the Creek Vineyard, LLC WDMP Annual Report For Year 2025

This Annual Report is hereby submitted to the State Water Resources Control Board (SWRCB) as a supplement to the Water Demand Management Program (WDMP) in accordance with Regulation 862 and consistent with Resolution No. 2011-0047 stipulating a phased approach to WDMP preparations and approvals. Moreover, this report specifically addresses frost protection activities for the period March 13th – May 15th for this year and actions associated with respect to these frost protection activities.

Up the Creek Vineyard, LLC is an independent grape growing entity within the Russian River Watershed, unaffiliated with any governing body. This entity is solely responsible for the preparation and content of this report. The location of Up the Creek Vineyard is shown in Figure 1. Precise coordinates for Up the Creek Vineyard are presented in Part 1, below.

Figure 1

Part 1. Frost Inventory

1.1 System description

The frost protection system comprises a temporary weir emplaced in a seasonal creek with water drawn by a gasoline engine driven pump. Because stream flow rates during frost season are typically quite low**,** supplemental water is provided by pumping from a high-output well directly into the creek. The weir is fitted with a bypass valve at its base that is opened during diversion events to enable continuous water flow downstream.

A. Name of Diverter: Up the Creek Vineyard, LLC

B. Source of Water: [1] Unnamed seasonal creek
[2] Well

Location of Diversion: 38.48888; -122.797867
Seasonal creek: Approximately 8500 ft. to confluence with Mark West Creek
Well: Approximately 3.9 miles from Russian River

C. Diversion System Description: 292 sprinklers @ 1.26 GPM/sprinkler head

Pumping System: [1] 63 HP gasoline engine:
533 GPM (max)
368 GPM (operating @ 25 PSI)
[2] Supplemental 20 HP well pump:
235 GPM (nominal)

Bypass System: 2-inch gate valve: 98 GPM*

D. Frost Protection Acreage: 10.8 acres (by irrigation)
0 acres (by other means)

E. Diversion Rate and Quantities: Diversion rate: 133 GPM
Duration of operation: 3.0 - 9.0 hours
Volume diverted: 0 – 0.22 acre-feet/event

*Note: Bypass valve operated only during periods when natural flow over the weir occurs; when stream is nominally dry, bypass valve remains closed. Net diversion rate is equal to the amount delivered by the gasoline pump less that replenished by the supplemental well pump. Net diversion rates are shown as a function of outlet pump pressure in Figure 2. In operation, actual volume diverted varies from zero (when there is no natural flow through the creek) to 0.22 (max) acre-feet/event (when there is maximum free flow over the weir for the longest duration event).

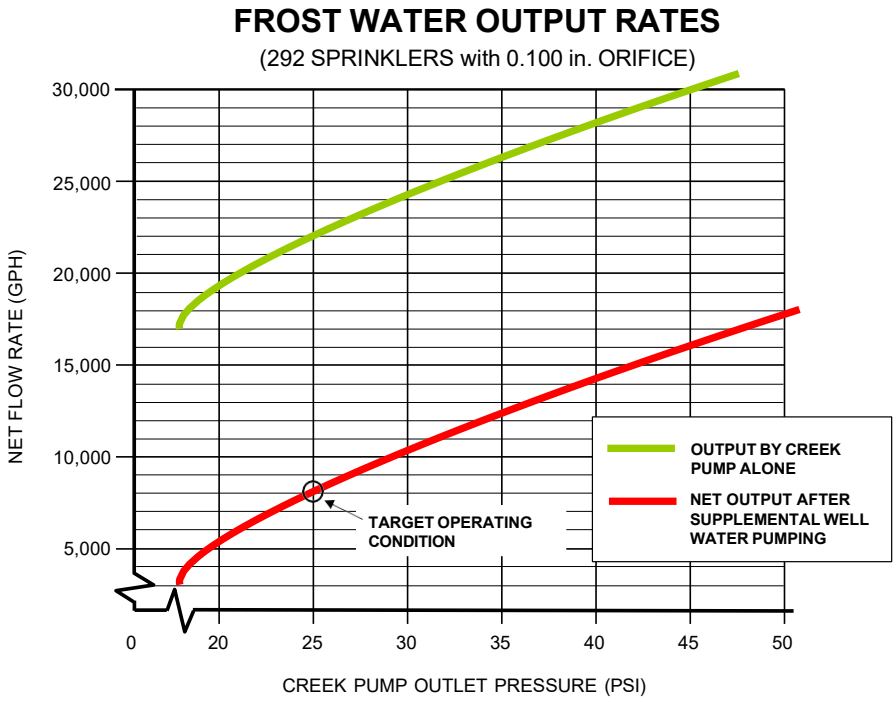
1.2 Diversion Data for each frost event

In year 2025, two frost events occurred - one on 3/17 and another on 3/18. The diversion data is presented below.

FROST PROTECTION WATER USE LOG

DATE	ON-TIME (HOURS)	PUMP OUTPUT RATE (PSI)	CONSUMPTION (GAL/HR)	CONSUMPTION (K GAL)	WATER ORIGIN
3/17/25	7	25	22075	154.5	CREEK
3/18/25	7	25	22075	154.5	CREEK

Figure 2.



Part 2. Stream Monitoring

Stream flow gauges are infeasible for monitoring purposes because flow rates during frost seasons are typically very low to nil. The most practical monitoring approach, when flows exist at all, is through measuring flows over the weir as described in the following sub-sections.

2.1 Description of monitoring process

Stream monitoring is accomplished by measuring the height of water over the weir and converting that into a flow rate, using the standardized formula developed for that purpose as shown below.

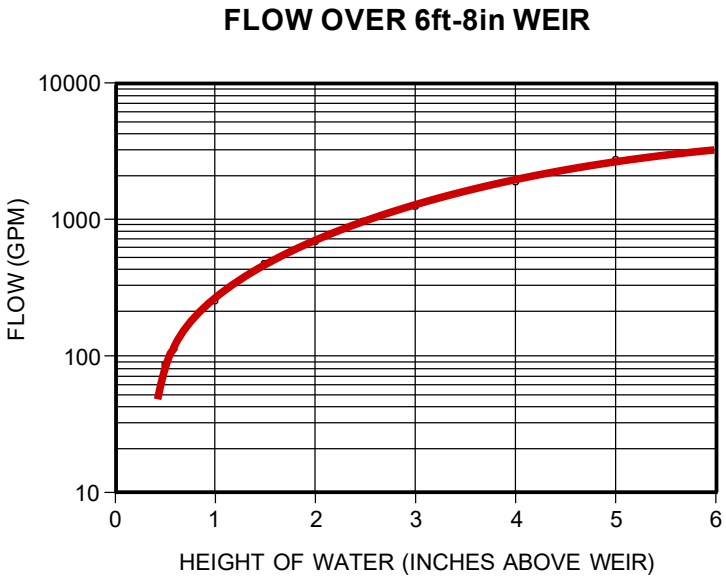
FLOW OVER A RECTANGULAR WEIR

$$Q = 1495\ (W - 0.2h)\ h^{3/2}$$

Q = Flow Rate (GPM)
W = Width of Weir (ft.)
h = Height of water above weir (ft.)

For the conditions that exist in the on-site seasonal creek, the resulting flow is found from the chart in Figure 3 below.

Figure 3.



2.2 Monitoring results as obtained throughout frost season

Throughout the 2025 frost season, stream flow was monitored based upon the process described above. The results are shown in Table 1 below.

Table 1. Stream Water Flow Rates

STREAM WATER FLOW RATE LOG
Frost Year 2025

DATE	HEIGHT ABOVE WEIR (IN)	FLOW RATE (GAL/MIN)
3/13/2025	0	0
3/17/2025	0	0
3/18/2025	0	0
3/25/2025	0	0
4/2/2025	2	680

4/8/2025	0.5	88
4/11/2025	0	0
4/18/2025	0	0
5/2/2025	0	0
5/9/2025	0	0
			
5/15/2025	0.0	0

Part 3. Risk Assessment

Salmonids have never been present in this seasonal creek; therefore, strandings are not an issue within its boundaries. However, it is recognized that flows from the stream, when they are present, do contribute to the overall flow in Mark West Creek, the related tributary to the Russian River, where salmonid strandings are of concern. Consequently, measures should and will be taken to ensure flows are maintained during frost diversion periods.

3.1 Supplemental data and/or analysis requirements

There are no requirements for supplemental data or analysis.

3.2 Fulfillment Schedule

No fulfillment schedule is required.

Part 4. Corrective Action Plan

A corrective action plan was formulated in 2016 as a consequence of consultations with California Department of Fish and Wildlife and National Marine Fisheries Service as described in Part 6.

4.1 Summary of corrective actions to date

Specifically, prior to frost year 2016, a pipe and fitted valve was installed on the lower portion of the weir in order to facilitate continuous flow downstream during diversion periods. As the weir comprises three wooden barriers, placed one atop the other, the pipe/valve installation was made on the lowest of the three barriers. The pipe was sized to replicate, as nearly as possible, the natural flow of the stream while diversions are occurring.

4.2 Planned corrective actions

No further corrective actions are anticipated at this point.

Part 5. Non-Compliance Report

5.1 Identification of non-compliance items

No non-compliance items have been identified.

Part 6. Consultations

No further contacts were made with California Department of Fish and Wildlife and National Marine Fisheries Service subsequent to the corrective action described in Section 4, as none were deemed necessary.

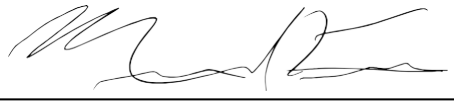
Part 7. WDMP Effectiveness

Thus far it appears that the WDMP process may be an effective means of monitoring diversions from the Russian River and its major tributaries, including its hydraulically connected groundwaters. However, it is not clear if this will lead to the desired goal of mitigating salmonid strandings during frost events.

Part of this difficulty is that, because of widely varying microclimatic conditions that exist throughout the Russian River watershed, as well as the many different frost protection methods that are employed, net diversions that conceivably could lead to salmonid strandings are unpredictable and would vary considerably throughout the watershed region. Of perhaps equal concern is the ability to determine if such strandings, if and when they do occur, are the result of such diversions or would have been experienced to some degree even in the absence of frost protection measures.

7.1 Recommended modifications

No changes or modifications to the WDMP are recommended at this time.



Signature

8/8/2025

Date