Bialla Vineyards

WATER DEMAND MANAGEMENT PROGRAM

Effective February 1, 2015

This Water Demand Management Program (WDMP) is hereby submitted to the State Water Resources Control Board (SWRCB) in accordance with Regulation 862 and consistent with Resolution No. 2011-0047 stipulating a phased approach to WDMP preparations and approvals. Bialla Vineyards is an independent grape growing entity within the Russian River Watershed, unaffiliated with any governing body. As such, it is owned and administered by:

Paul Bialla
2740 River Road
Windsor, CA 95492

who is solely responsible for the preparation and implementation of this WDMP. The approximate location with respect to the Russian River watershed is shown in Figure 1. The precise coordinates of Bialla Vineyards are defined in Section 1, below.

The purpose of this WDMP is to provide SWRCB with the specified information to assess the impact of Bialla Vineyards' water diversions during the periods March 15 – May 15 of each calendar year on possible downstream strandings of salmonids and, if necessary, implement corrective actions to mitigate such strandings. As stipulated in the Regulation, this WDMP is organized into the following five sections:

Section 1. Frost Systems Inventory
Section 2. Stream Stage Monitoring
Section 3. Risk Assessment
Section 4. Corrective Action Plan
Section 5. Annual Reporting

Moreover, per the requirement of Resolution No. 2011-0047, a schedule for this WDMP and its updates is attached as Figure 2.

Section 1. Frost Systems Inventory

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 into the creek. The frost protection system inventory is not expected to change significantly. However, if required, the inventory will be updated 3 months following the approved WDMP as shown in figure 2. Should future changes be incurred they will be described in submittals of the annual report.

A. Name of Diverter:	Bialla Vineyards
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 @ 1.34 GPM/sprinkler head [1] 63 HP gasoline engine: 700 GPM (max) 391 GPM (operating) [2] Supplemental 20 HP well pump: 235 GPM
D. Frost Protection Acreage:	10.8 acres (by irrigation) 0 acres (by other means)
E. Diversion Rate and Quantities*:	Diversion rate: 156 GPM Duration of operation: 3.0 – 7.0 hrs Volume diverted: 0 – 0.20 acre-feet/event

* Net diversion rate is equal to the amount delivered by the gasoline pump less that replenished by the supplemental well pump. Volume diverted varies from zero (when there is no natural flow through the creek) to 0.20 acre-feet/event (when there is maximum free flow over the weir).

Section 2. Stream Stage Monitoring

Flow rates through the creek during frost periods range from 0 to a maximum of 300 GPM (estimated). More accurate monitoring is planned during the 2015 and 2016 frost seasons (see schedule in Figure 2.). Regardless of the final results, it is clear that stream gages are not practical at this location. Stream flow rates will be calculated by manually taking measurements during several periods

throughout the frost seasons. Standard engineering formulas for flows over a weir will be used to calculate stream stage. These collected data will be summarized and presented in the annual reports.

It is planned to coordinate these activities with the National Marine Fisheries Service (NMFS) and State Department of Fish and Wildlife (DFW) to reach agreement on the stream stage monitoring process.

Section 3. Risk Assessment

No salmonids exist in the seasonal creek. Consequently, any risks inherent in this frost protection system would be associated with possible reduced flows (if any) that contribute to the overall stream flow in Mark West Creek, the closest tributary to the Russian River. Historically, there have often been periods with no stream flow in this seasonal creek during frost periods. Such has been the case in the past two years and a portion of the 2012 frost season. On those occasions, should a frost event occur, the frost protection system is entirely dependent upon groundwater sourced from the well.

It is intended to provide stream flow data to NMFS and DFW subsequent to frost events each season for use by these agencies in assessing the impact of local flow reductions on Mark West Creek stream stages.

Section 4. Corrective Action Plan

Inherent in this WDMP is the plan to coordinate with NMFS and DFW and respond to actions deemed appropriate to mitigate possible salmonid strandings due to reduced stream flows imposed by diversions from this unnamed creek.

Unilateral actions are planned, some of which have already been applied during former frost events. These are:

1. Lowered pump operating pressures, hence reduced sprinkler flow rates to reduce coverage area to a minimum.
2. Shortened operating durations: later starts, closer to frost initiation and earlier shut-offs, ambient temperature permitting.
3. Additional groundwater pumping (into creek) to supplement natural flows, when beneficial.

As shown in the schedule of Figure 2., additional corrective actions are planned to be applied following the frost seasons of 2015 and 2016, and beyond, if necessary.

Section 5. Annual Reporting

In compliance with the SWRCB regulation, an annual report will be prepared and submitted to the Deputy Director for Water Rights no later than September 1st of each year. This report is to be organized as follows:

- Part 1. Frost Inventory
  - 1.1 System Description, including changes from the previous report
  - 1.2 Diversion data for each frost event
  - 1.3 Source of water for each frost event
- Part 2. Stream Monitoring
  - 2.1 Description of monitoring process
  - 2.2 Monitoring results as obtained throughout the frost season
- Part 3. Risk Assessment
  - 3.1 Supplemental data and/or analysis requirements
  - 3.2 Fulfillment schedule
- Part 4. Corrective Action Plan
  - 4.1 Summary of corrective actions to date
  - 4.2 Planned corrective actions
- Part 5. Non-compliance Report
  - 5.1 Identification of non-compliance items
- Part 6. Consultations
  - 6.1 Summary of consultations with Department of Fish and Wildlife
  - 6.2 Summary of consultations with National Marine Fisheries Service
- Part 7. WDMP Effectiveness
  - 7.1 Recommended modifications
  - 7.2 Effectiveness overview summary

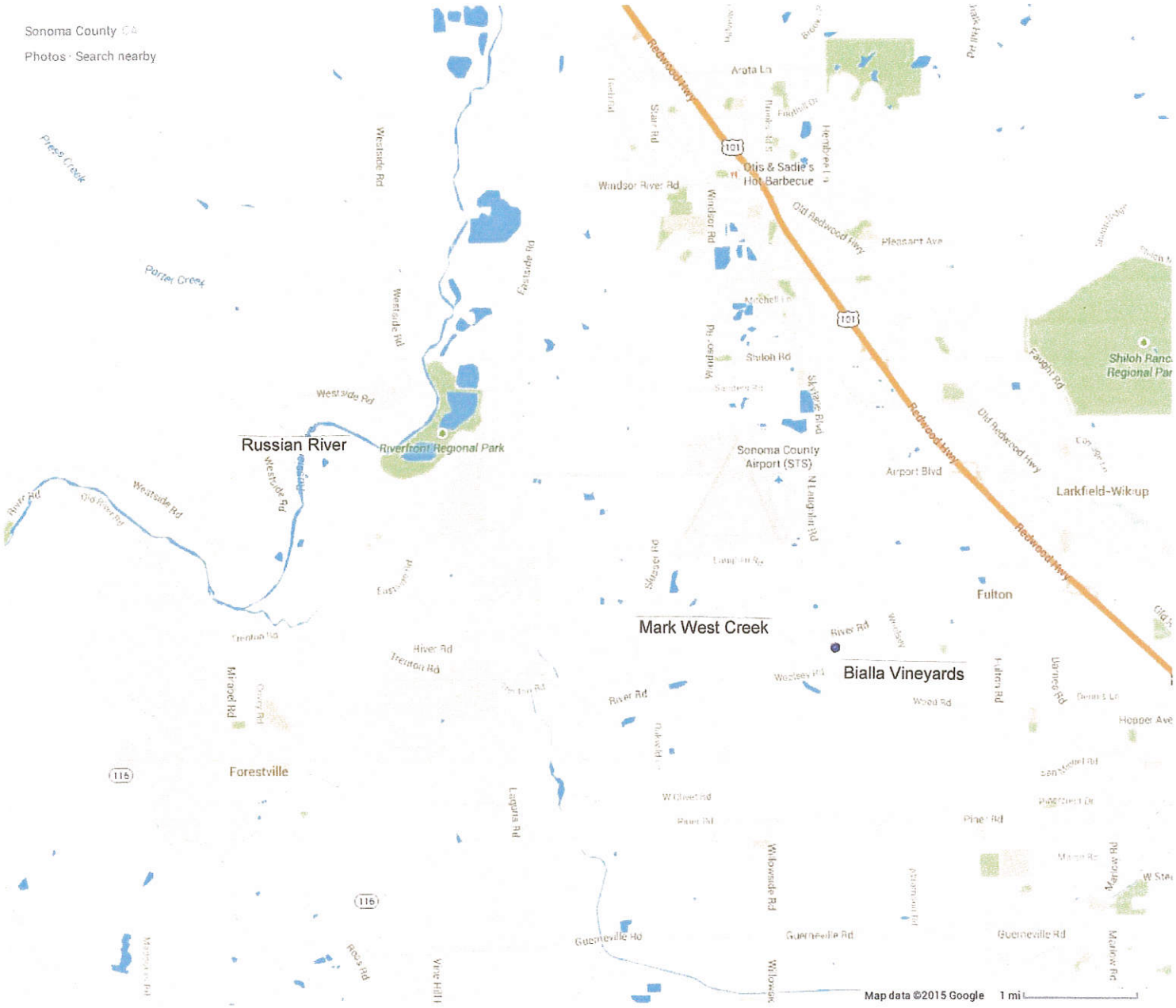

Figure 1.

RUSSIAN RIVER VALLEY
in region of
BIALLA VINEYARDS

Figure 2. SCHEDULE