



**California Regional Water Quality Control Board
North Coast Region
Bob Anderson, Chairman**



Linda S. Adams
*Secretary for Environmental
Protection*

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**Arnold
Schwarzenegger**
Governor

NCRWQCB

November 25, 2008

MAR 17 2009

**Board of Zoning Adjustments
Board of Supervisors
575 Administration Drive
Santa Rosa, CA 95403**

<input type="checkbox"/> EO	<input type="checkbox"/> WMgmt	<input type="checkbox"/> Admin
<input type="checkbox"/> AEO	<input type="checkbox"/> Timber	<input type="checkbox"/> Legal
<input type="checkbox"/> Reg/NPS	<input type="checkbox"/> Cleanups	<input type="checkbox"/> Date

Subject: Comments on the Mitigated Negative Declaration UPE 07-0008; Henry Cornell Winery

During the November 13, 2008 Board of Zoning Adjustments Public Hearing on the proposed Henry Cornell winery, 245 Wappo Road, Board members requested that the North Coast Regional Water Quality Control Board (Regional Water Board) submit comments on the proposed Henry Cornell winery project. Starting in 2004, Regional Water Board staff has responded to numerous complaints relating to alleged degradation of creek conditions within the upper Mark West Creek watershed. These allegations relate to both the continued discharge of sediments and other pollutants into upper Mark West Creek, and extreme low flow conditions within the creek during late summer and fall over the past four years of inspections. This letter does not comment specifically on the Cornell winery project; it does however summarize Regional Water Board staff inspections regarding beneficial uses of upper Mark West Creek and impacts that have been documented within this critical coho and steelhead rearing creek system.

The Regional Water Board regulates waste discharges from human activities, including discharge of sediment from construction and timber harvest activities. The North Coast Water Quality Control Plan (Basin Plan) includes water quality objectives for turbidity, settleable solids (e.g., sediment deposits), and temperature, all of which are parameters that can be affected by construction and timber harvest activities.

Complaints regarding the condition of upper Mark West Creek were initially received in June 2004. The initial complaint alleged that land use changes within the upper watershed were resulting in increased turbidity during late winter and early spring storms of that year. Staff inspection on June 10, 2004 revealed numerous deep pools, clear running water and numerous large steelhead trout. However, staff noted an area of the creek where a large woody debris dam had held back a significant plug of fine sediment which had partially backfilled a large pool. Complainants noted that increasingly turbid creek flows were first noticed several years prior to 2004.

California Environmental Protection Agency

Recycled Paper

Staff responded to a complaint regarding alleged vegetation removal at 245 Wappo Road during early September 2005. The complaint alleged that vegetation was being removed from the site without a proper construction stormwater permit. The inspection revealed that approximately five acres of vegetated area had been cleared. Regional Water Board staff concluded that this project did not require a construction stormwater permit since clearing and grubbing had occurred, but the site had not been graded. Upon re-inspection staff found that all the piles of woody debris had been removed and that sufficient erosion and sediment controls had been placed. A portion of this acreage is where the proposed winery is to be located.

On January 5, 2006 staff inspected alleged severe turbidity within the creek. The inspection revealed an enormous plug of sediment emanating from a tributary to the north fork of Mark West Creek. The volume of sediment was large enough to suspect that a major landslide had occurred at an as yet unknown location. A subsequent staff inspection in April 2006 identified a landslide that had originated from property located at 245 Wappo Road. The landslide caused extensive sedimentation to the tributary, the north fork and main stem of Mark West Creek. Sediments from the landslide were noted as far downgradient as the Doerksen Christmas tree property, approximately 1.5 miles from the landslide. Some of the shallower pools had completely filled with sediment; deeper pools which had been noted previously as being up to seven feet deep were measured as being half filled with sediment. It was estimated that up to 10,000 cubic yards of sediment slid downward toward the tributary creek, with an unknown volume discharging downgradient into Mark West Creek. The landslide was ultimately stabilized over the course of fall 2006- fall 2007.

In addition to the discharge of sediments, several large alders, rooted in the large cobbles of the Mark West Creek creekbed, had fallen into the wetted perimeter of the low flow channel, creating a tangled web of debris that in places appeared to block fish passage. The cause of the loss of these trees is consistent with higher base elevation of the creekbed due to sedimentation, in conjunction with higher winter flows caused by increased winter runoff, a combination of responses often resulting from the removal of tree canopy within a watershed. Additionally, Mark West Creek base flow during the dry summer months of 2006 was noted as being significantly lower than base flows of the prior two dry seasons.

On July 29, 2008 Regional Water Board staff responded to a complaint alleging that grading and importation of large boulders were occurring at 245 Wappo Road. Staff noted fresh placement of soil and boulders immediately above the tributary to the north fork Mark West Creek. Staff contacted county Permit and Resource Management Division who subsequently issued an after-the-fact stockpile permit for these materials. The boulders were subsequently moved to another area and the soils protected from erosion by erosion control blankets.

On September 4, 2008 Regional Water Board staff requested that Sonoma County Permit and Resource Management Division supervising planner David Hardy join staff in viewing conditions within the upper Mark West Creek. Regional Water Board staff and Mr. Hardy walked approximately 1/8 mile of main stem and north fork Mark West Creek. Mr. Hardy summarized the sediment condition of the section of creek he viewed at the November 13 Board of Zoning Adjustments public hearing. Mr. Hardy's summation is consistent with Regional Water Board staff observations and findings.

The upper Mark West Creek is a spring fed system in the summer time. Urbanization and well development can seriously affect the limited water supplies that replenish this system in the summer. The north bank of the watercourse has seen significant recent development, including groundwater usage for multiple purposes. Regional Water Board staff has noted that springs emanating from the north bank of Mark West Creek were predominantly dry while those on the south bank were flowing. These springs provide for the critical summer base flow needed to support beneficial uses of this creek. The combination of sediment deposition and lack of baseflow has created shallow disconnected pools, rendering fish susceptible to predation and desiccation.

Continued removal of vegetation canopy in the upper Mark West Creek will further exacerbate this problem by removing shade, increasing solar radiation reaching surface waters, and thus increasing stream temperatures. Streams with lower summertime flows are especially vulnerable to the effects of canopy loss and increased solar radiation. This will further jeopardize coho and steelhead by impacting rearing areas and spawning success as sediment, temperature and water availability become chronic problems for these endangered species.

National Oceanic and Atmospheric Administration cites primary threats to coho and steelhead species from elevated stream temperatures, impacted spawning gravels and reduced stream flows. The main threat to these species (loss and degradation of freshwater habitat) has been determined to stem largely from land use activities such as road development, urban growth and agriculture, reductions in water quality and quantity, and artificial barriers. <http://swr.nmfs.noaa.gov/recovery/NCCC.htm>

It became evident from public comment during the public hearing that the cumulative impacts of land use changes within the upper Mark West Creek watershed are significantly impacting water quality and beneficial uses of water within this watershed. This reflects the potential need for a full environmental assessment, including an assessment of cumulative impacts, of the Mark West Creek watershed to determine how water quality and all beneficial uses of water are affected, prior to approval of new developments in this area. Pending such an assessment, the Regional Water Board encourages the implementation of available tools to address these issues, including water conservation practices, dry year contingency plans, riparian restoration, and low impact development practices to reduce soil erosion and increase infiltration.

While the Regional Water Board realizes that solutions may come out of an environmental assessment, solutions to existing water quantity issues can be employed by all landowners at this time. By carefully monitoring water usage, looking for additional opportunities for storage and using water saving principles, the existing situation will improve. The Board of Zoning Adjustments is aware of the fact that water is being trucked from late spring through early fall to one large landowner in the upper reaches of the watershed. This is testament to how just how serious the water issues are in this area. Balancing beneficial uses within this upper watershed may be accomplished by reducing water use during critically dry years by a policy of cessation of groundwater pumping at specified dates; providing for additional onsite water storage during periods of high winter flows; and creating overstory again by planting trees to provide canopy and help reduce soil erosion and infiltrate stormwater runoff. Balancing domestic and agricultural water usage while maintaining sufficient flows to sustain viable fish populations is the goal and will require community based solutions.

Enclosed you will find Regional Water Board photo-documentation of inspections within the upper Mark West Creek watershed. If you have any question regarding this correspondence feel free to contact John Short of my staff at 576-2065.

Sincerely,



David F. Leland
Supervising Water Resources Control Engineer

112508-PRK_CornellWineryCommentLetter.doc

Enclosure: Photo-documentation

Cc: Mr. Steve Edmundsen: NOAA Fisheries, 777 Sonoma Avenue, Santa
Rosa, CA 95405



State of California - The Resources Agency

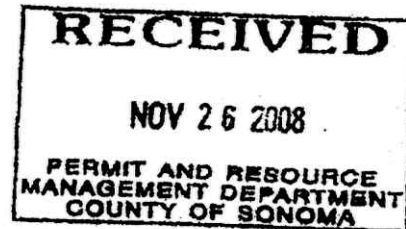
ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF FISH AND GAME

<http://www.dfg.ca.gov>

POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
(707) 944-5500

November 24, 2008



Board of Zoning Adjustments
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Members:

Subject: Cornell Winery, SCH #2008102040, Mitigated Negative Declaration,
City of Santa Rosa, Sonoma County

The Department of Fish and Game (DFG) has reviewed the above referenced document. The Mitigated Negative Declaration (MND) represents the County of Sonoma's (County) environmental review of the applicant's request for a winery with a maximum annual production capacity of 10,000 cases. The proposal includes construction of an 18,670 square foot building and an 8,670 square foot cave for barrel storage. The project would require a substantial amount of grading (approximately 3,000 cubic yards) to terrace the site for the proposed buildings. The plans indicate space for approximately 22 parking spaces. A new water tank would be constructed for fire protection and domestic use. The building and caves would contain all winery operations and equipment. A 540 square foot kitchen is proposed in the 2,640 square foot hospitality area of the winery. The existing wells on the ridge to the northeast will supply the winery with water.

The 40-acre winery parcel is located on a private road, known as Wappo Road, off St. Helena Road, northeast of the City of Santa Rosa. Topography varies over the 40 acres, although the majority of the site is fairly steep with slopes up to 30 percent. The project parcel consists of oak and pine woodlands and open grasslands, although the building site is proposed to be located on two knolls bounded by ravines. The closest watercourse is an intermittent stream approximately 640 feet away, sometimes referred to as the North Fork of Mark West Creek tributary to Mark West Creek through a culvert under St. Helena Road. DFG has documented that the North Fork of Mark West Creek supports a run of Central Coast steelhead, a federally threatened species and may potentially support Central Coast coho salmon, a State and Federal endangered species. DFG has documented coho salmon in the mainstem Mark West Creek, downstream of the project site. Excessive input of fine sediment from hill slope runoff or from roads in the vicinity of the project site will likely have adverse effects on listed salmonids in the project reach as well as downstream of the project reach.

Conserving California's Wildlife Since 1870

The MND and supporting documents state that the project requires about four acre feet per year (AFY) of water and return flows to the aquifer are about two AFY; therefore, the net usage or loss of base flow contribution is about two AFY. The MND estimates Mark West Creek has an average annual flow of 42,671 AFY and a dry year flow of 17,600 AFY; therefore, the net loss of two AFY is likely insignificant. The County should be advised that in coastal rivers and streams the majority, if not all, of the average annual flow in a watershed occurs during a relatively short period of time (i.e., December to March). Very little of the average annual flow occurs during the summer months when juvenile salmonids, fish, aquatic invertebrates and other fish and wildlife resources are most vulnerable to reductions in cool water from base flow provided by groundwater aquifers. Considering the relatively low flow conditions during the summer months in the project reach and the consumptive groundwater use by the proposed project, in conjunction with consumptive groundwater use by single family dwellings and vineyards in the vicinity of the project area, the effects of reduced summer base flow on fish and wildlife resources may be significant. DFG recommends the County provide a more thorough analysis of the cumulative effect of consumptive groundwater use on the summer base flow in the final California Environmental Quality Act (CEQA) document. This analysis should consider the needs of potentially occurring aquatic species, particularly steelhead and coho salmon, during all seasons and life-history requirements. Any adverse effects of reduced flow should be avoided, minimized, or mitigated to a level of insignificance.

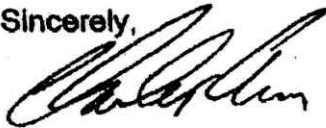
DFG is aware that vegetation at the project site has already been removed and grubbed. This vegetation consisted of oak and pine woodlands and open grasslands. These habitat types provide excellent habitat for wildlife. The unmitigated removal of these habitat types poses potentially significant impacts to terrestrial wildlife and plants including habitat loss, habitat fragmentation, habitat degradation, destruction of breeding sites, and restriction of animal movement, and the introduction or spread of exotic and invasive species. Unmitigated conversion of these habitat types to a vineyard or winery interrupts natural processes and eliminates the natural recruitment of habitat features, such as standing dead trees, downed woody debris, and cavity bearing trees. The unmitigated conversion of natural habitats is likely to reduce local availability of habitat for native plant and animal species. Considering that these habitat types recover slowly after disturbance, it is likely there will be a long-term loss of this habitat, due to the fact that replacement trees would not attain comparable size and structure over the course of many decades or more.

DFG recommends the final CEQA document incorporate mitigation measures to compensate for the removal of oak and pine woodland. DFG recommends that the County develop a vegetation management plan that would account for slow growth rate and the quality and quantity of habitat provided by these trees. For example, the County should develop mitigation scenarios for these impacts that should include setting aside, on-site or off-site, acreage for retention in perpetuity at a ratio of 3:1 for every acre of oak woodland habitat impacted. These sites should be maintained in

perpetuity and managed under an approved management plan with an appropriate monitoring and maintenance scheduled to be conducted for a minimum of ten years to ensure compliance. Furthermore, for individual oak trees with at least one trunk of two inches or more diameter at breast height or multi-trunked native oaks with aggregate diameter of five inches or more, the County should replace in-kind any oak tree removed with specimen trees (no less than 15-gallon size) with a total diameter equal to the individual or total combined diameter of the removed tree in a suitable location.

DFG appreciates the opportunity to comment on the proposed project. We remain available to be of further assistance to the County in finalizing the CEQA document. If there are any comments or questions regarding this letter please contact Mr. Dan Wilson, Environmental Scientist, at (707) 944-5534 or Mr. Richard Fitzgerald, Coastal Habitat Conservation Supervisor, at (707) 944-5568.

Sincerely,



Charles Armor
Regional Manager
Bay Delta Region

cc: State Clearinghouse