

State of California  
 Department of Fish and Game

Agency  
 Review Team  
 Letter 1



**M e m o r a n d u m**

Date: March 3, 2010

To: Mr. Ken McLean, Chief  
 Northern Region Headquarters  
 California Department of Forestry  
 and Fire Protection (CAL FIRE)  
 135 Ridgway Avenue  
 Santa Rosa, CA 95401  
[SantaRosaReviewTeam@fire.ca.gov](mailto:SantaRosaReviewTeam@fire.ca.gov)

From: *Original signed by Larry Wyckoff for*  
 Charles Armor, Regional Manager  
 Department of Fish and Game – Bay Delta Region, Post Office Box 47, Yountville, California 94599

Subject: Department of Fish and Game Pre-Harvest Inspection Report for Timber Harvesting Plan 1-09-058 SON "Fairfax Conversion"

**PROJECT DESCRIPTION**

Plan Number:	1-09-058 SON
Timberland Owners:	Codorniu Napa, Inc. - Artesa Vineyards
USGS 7.5' Quadrangle:	Annapolis
CalWater Watersheds:	Grasshopper Creek (1113.830003), Little Creek (1113.830004) and Annapolis (1113.840303)
Lake and Streambed Alteration Agreement:	Notification required for sediment retention basins, outfall structures and rocked fords on Class II and III watercourses
Legal Description:	MDB&M, T10N, R13W, Sections 17 and 18
Total Acreage:	190 acres
Silviculture:	Conversion (171 acres)
Winter Operations:	Yarding: October 15 – November 14; April 2 – May 1
Erosion Hazard Rating:	Moderate
Proposed In-Lieu Practices:	None
Harvest Methods:	Tractor, including end/long lining Rubber tired skidder/forwarder Feller buncher

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PHI Dates:	June 16, 2009 and February 16, 2010
PHI Attendees :	Jeff Longcrier – Registered Professional Forester (RPF) Gerri Finn – CAL FIRE Mona Marlow – Artesa Winery Scott Gergus – North Coast Regional Water Quality Control Board (NCRWQCB) Cherie Blatt – NCRWQCB Stephen Bargsten – NCRWQCB (2 <sup>nd</sup> PHI only) Michael Huyette – California Geological Society (CGS) Don Braun – CGS (1 <sup>st</sup> PHI only) Brenda Blinn – Department of Fish and Game (DFG) Nick Pappani – Raney Planning and Management, Inc. Geoff Monk – Monk and Associates, Inc. Isabelle deGeofroy – Monk and Associates, Inc. (2 <sup>nd</sup> PHI only) Matt O’Connor – O’Connor Environmental, Inc. Lee Erickson – Erickson Engineering, Inc. (2 <sup>nd</sup> PHI only)

This report includes DFG’s recommendations based on the review of the 1-09-058 SON Fairfax Conversion Timber Harvesting Plan (THP) and participation in two Pre-Harvest Inspections (PHI). DFG has also reviewed the draft Environmental Impact Report (EIR) and Timber Conversion Permit (TCP) application for the proposed project and submitted a comment letter dated December 7, 2009 (see attached). Additional DFG recommendations are included in the December 7, 2009 comment letter and should be also considered during review of the THP.

DFG recommendations are focused on avoiding or minimizing the proposed project’s effects on sensitive<sup>1</sup> fish, wildlife, and botanical resources. DFG recommendations do not necessarily reflect the opinion of other governmental agencies. DFG’s participation in the PHIs and other site visits were reconnaissance-level surveys without quantitative sampling of fish, wildlife, aquatic invertebrates, rare and endangered plants, sediment, large woody debris (LWD), snag density, canopy, vegetation composition, or stream flow. DFG recommendations provide the basis for short- and long-term protection, conservation and management of fish, wildlife, native plants, and habitat. DFG requests that these recommendations be included as enforceable conditions in the approved THP. Findings and recommendations in this report should be applied to the review of all other documents related to this project prepared and reviewed pursuant to the California Environmental Quality Act (CEQA).

The proposed THP area is located in Sonoma County within the Grasshopper Creek, Little Creek and Annapolis watersheds. The Town of Annapolis is located approximately 0.5 miles northwest of the plan area. The proposed THP area is located on a broad, flat ridge (Beatty Ridge) between Grasshopper Creek and the Wheatfield Fork of the Gualala River. Patchett Creek, which is a Class II watercourse, is located adjacent to the proposed THP area. Patchett Creek is a tributary to the Wheatfield Fork of the Gualala River, which

<sup>1</sup> Sensitive species include federally listed, State listed, and species that meet the definitions of Endangered, Rare and Threatened (CEQA § 15380) or as provided in CEQA § 15380(d).

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is a Class I watercourse and located approximately 1.6 miles downstream. Class III watercourses are also located adjacent to the proposed THP area. Protective measures for watercourses located adjacent to the proposed THP area include a 100-foot Watercourse and Lake Protection Zone (WLPZ) for Patchett Creek and a 25- to 50-foot WLPZ for Class IIIs depending on slope. Elevations within the proposed THP area range from 660 to 860 feet above mean sea level.

Proposed silviculture within the THP area is conversion (171 acres) using ground-based harvesting. Forest products to be harvested include sawlogs, fuelwood, firewood and pulpwood. Proposed activities within the THP area also include the construction and reconstruction of both temporary and permanent roads. Landings will be temporarily constructed for timber operations. A seasonal road and landing will be abandoned. Two permanent rocked fords crossings will be installed in seasonal swales on new roads which will be used to access vineyard units. Two temporary road crossings will be installed on Class IIIs. Activities associated with vineyard development and described in the draft include the construction of a 9-acre reservoir for rainfall capture, and grading and filling-in of approximately 299 feet of swales for the installation of sediment retention structures.

The THP states that winter operations will occur and includes a Winter Operating Plan pursuant to Forest Practice Rules (FPR) § 916.9(k). Under this plan, tractor yarding, loading, hauling and maintenance activities will occur from October 15 to November 14 and April 2 to May 1.

## FIELD REVIEW AND TIMBER HARVEST PLAN ASSESSMENT

### Habitat Types

The THP indicates that the proposed project area supports the following five habitat types: North Coast coniferous forest, northern coastal grassland, coastal scrub, riparian vegetation and seasonal wetlands. The plan area was converted to agriculture use in the late 1800s to early 1900s and the establishment of orchards and sheep grazing persisted until the 1950s. The proposed timber harvest area is described in the plan as a mostly even-aged stand of 50- to 75-year-old redwoods and Douglas-firs. The understory is composed mainly of madrone, California huckleberry, and tanoak. Tanoak is a major component in some areas. Based on observations made during the PHI, the habitat type within the forested portions of the project area is consistent with montane hardwood-conifer as described in [A Guide to Wildlife Habitats in California](#) (Mayer and Laudenslayer 1988). Adjacent areas exhibit similar habitat types with some areas having been subjected to land conversion for vineyard development.

In addition to a mixed hardwood-conifer forest, wetlands and native and non-native grasslands are also present within or adjacent to the proposed THP area. Approximately 0.42 acres of the total 3.46 acres of wetlands will be permanently impacted. Mitigation for the loss of wetlands will consist of the creation of 1.24 acres of wetlands within the project area. Approximately 19 acres of grasslands are proposed to be converted for vineyard development. A 15.6-acre grassland preserve is proposed to be established to protect a population of thin-lobed horkelia (*Horkelia tenuiloba*). A 4.4-acre preserve would also be established for the stand of Annapolis manzanita (*Arctostaphylos manzanita* x *A. stanfordiana*). A conservation easement will be established for the rare plant preserves.

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## **Aquatic Species**

### *Anadromous Salmonids*

The THP area is located within planning watersheds that are within the Central California Coast (CCC) Evolutionarily Significant Units (ESU) for steelhead (*Oncorhynchus mykiss*) and coho salmon (*Oncorhynchus kisutch*). Within the CCC ESU, steelhead is listed as "Threatened" and coho salmon is listed as "Endangered" under the Federal Endangered Species Act (FESA). Coho salmon in waters south of Punta Gorda is listed as "Endangered" under the California Endangered Species Act (CESA). The Wheatfield Fork of the Gualala River supports steelhead and historically supported coho salmon (LeDoux-Bloom 2002). Currently, coho distribution is thought to be limited to the North Fork Gualala River which is located north of the plan area. The THP is subject to the Anadromous Salmonid Protection (ASP) Rules which were recently adopted by the Board of Forestry (BOF). As such, FPR § 916.9 et. seq. applies to this THP. The ASP rules require additional protection on Class II watercourses up to 1000 feet from a Class I watercourse. However, due to the distance of Patchett Creek from the Wheatfield Fork (>1000 feet), standard Class II watercourse protections apply.

Operations in this plan should be consistent with the State's recovery goals for coho salmon. Fish and Game Code § 2055 establishes that it is the policy of the State that all State agencies, boards and commissions shall seek to conserve endangered and threatened species and shall utilize their authority for such purposes. DFG evaluates proposed plans based on the adequacy of protective measures to avoid "take" of coho salmon as defined in Fish and Game Code § 86. THP 1-09-058 SON "Fairfax Conversion" is not located within a planning watershed that is known to have been occupied by coho salmon since 1990; therefore, activities currently proposed in the plan will not result in "take" or significant impacts to coho salmon.

### *Special-status amphibians*

The proposed THP area is within the range of the California red-legged frog (*Rana draytonii*; CRLF) which is federally listed as "Threatened" and is also a State Species of Special Concern (SSC) (DFG 1994). During the breeding season, frogs typically inhabit permanent water above 12 inches deep or permanent water below 12 inches deep, if suitable cover is available [U.S. Fish and Wildlife Service (USFWS) 2008A]. CRLF may also occupy seasonal bodies of water, if water persists through late July. Frogs are most active during the wet season, which is defined as starting with the first frontal rain system depositing a minimum of 0.25 inches of rain after October 15 and ends on April 15 (USFWS 2008A). When dispersing to and from aquatic habitat, CRLF may travel up to two miles (Bulger 1998) through a variety of upland habitat types (Fellers and Kleeman 2007).

The proposed THP area does not contain suitable breeding habitat for CRLF due to the small size and shallow waters of the wet areas and the fast-flowing or flashy high-gradient streams. However, the proposed plan area does contain suitable CRLF dispersal habitat. The THP indicates that protocol-level surveys for CRLF will be conducted prior to operations. If frogs are found and genetic analysis shows that they are CRLF and not northern legged-frog (*Rana aurora*), the THP states that an Incidental Take Permit will be obtained under FESA.

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Foothill yellow-legged frog (*Rana boylei*; FYLF) which is a State SSC (DFG 1994) has been documented in Patchett Creek. During the second PHI, the Review Team observed two adult yellow-legged frogs in this stream. Foothill yellow-legged frogs occur in shallow, flowing water, apparently preferentially in small to moderate-sized streams with at least some cobble-sized substrate. Females lay their eggs between late March and early June. A minimum of 15 weeks is required to reach metamorphosis which occurs between July and September.

Class II and III streams and their riparian zones are unique habitats and act as sources (and controllers) of energy, water, sediment, nutrients and organic matter to downstream reaches. Riparian zones maintain shade, protect against windthrow, produce litterfall, and provide important migratory routes for wildlife. Riparian zones also serve to recruit in-stream large and small woody debris which provide habitat, food and shelter for aquatic life, and act as a filter strip for sedimentation from erosion sources located further upslope. In the case of agricultural development projects, riparian buffers also provide measures to protect aquatic and terrestrial resources from potential effects of chemical fertilizers, herbicides and pesticides.

The conversion of forestland and other vegetation types to vineyard development has the potential to negatively impact riparian and aquatic habitats and the associated special-status species. Loss of forest vegetation may result in increased overland flow to streams. Surface run-off may increase due to soil compaction from equipment use, decrease in organic litter depth and reduction in evapo-transpiration from the loss of forest canopy. The proposed THP refers to the hydrologic assessment prepared for the draft EIR (Chapter 3.7) and the Erosion Control Plan for a discussion of project impacts and mitigation measures. Results of the hydrologic evaluation show that peak run-off would increase by approximately two to five percent with 2-, 10- and 100-year storm events as a result of land conversion. Upslope soil disturbance may also occur as a result of the grading and filling-in of approximately 299 feet of swales for the installation of sediment retention structures. After settling, the run-off would flow to Class III streams which may be located between 25 and 75 feet downstream of the sub-basins. Some Class II streams exist less than 400 feet downstream of the sub-basins.

Changes in water levels in streams where foothill yellow-legged frogs breed can damage egg masses and the fragile early larval stages (Hayes and Jennings 1988). Yellow-legged frogs may be affected by decreased water flows by forcing adult frogs to move into permanent pools where they may be more susceptible to predation. Furthermore, maintaining a flow regime ensures the presence of suitable habitat such as riffle areas with cobble-sized or larger rock substrate (CDFG 1994). Modifications to stream flow may affect the differential sorting of substrate which is important to maintain frog habitat.

The THP proposes to establish the standard riparian buffer required under the FPRs for Class III watercourses which is 25 to 50 feet. The THP proposes to establish a 100-foot riparian buffer for the Class II watercourse which is slightly above the 50- to 75-foot buffer mandated by the FPRs. DFG does not consider these riparian buffers adequate to protect special-status amphibians and other aquatic life from potential adverse impacts of the forestland conversion and subsequent vineyard operations. DFG therefore recommends implementing riparian buffer widths of a minimum 50 to 85 feet on the Class III

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watercourses, wetlands and springs (**Recommendation #1a**). On Patchett Creek, a minimum of one site potential tree height or 150 feet, whichever is greater, should apply (**Recommendation #1b**). If riparian vegetation is lacking or sparse on stream banks, then native shrubs and trees should be planted to act as filter strips (**Recommendation #1c**).

#### Lake and Streambed Alteration Agreement

Please be advised that any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed requires notification to DFG pursuant to Section 1600 et seq. of the Fish and Game Code. The watercourse classification system used by the FPRs has no bearing on the requirements of Section 1600 of the Fish and Game Code. Issuance of Lake and Streambed Alteration Agreement (LSAA) is subject to CEQA.

During the PHIs, DFG discussed with project proponents the potential for adverse impacts to water quality and aquatic species as a result of the construction and implementation of sediment basins and other structures within the THP area. Project proponents agreed to include activities on Class III watercourses such as installation of sediment basins, rocked fords, and a sump outfall structure and pipeline. To obtain information about the LSAA notification process, please access our website at [www.dfg.ca.gov/habcon/1600](http://www.dfg.ca.gov/habcon/1600); or to request a notification package, contact the Lake and Streambed Alteration Program at (707) 944-5520.

#### **Terrestrial Wildlife Species**

##### *Northern Spotted Owl*

Two known northern spotted owl (*Strix occidentalis caurina*; NSO) activity centers (SON 043 and SON 058) occur within 1.3 miles of plan boundaries. NSO is listed as "Threatened" under FESA, is a State SSC (Shuford and Gardali 2008), and is a BOF Sensitive Species. NSO surveys were conducted in 2006 and 2007 within the proposed THP area according to USFWS survey protocol. NSO were not detected; however, negative survey results for NSO are valid for two years only. The proposed THP incorporates "take" avoidance measures described by USFWS (USFWS 2008B). Implementation of these habitat retention measures are pursuant to FPR § 919.9(e) (CAL FIRE 2008). Less than the required 200 acres of nesting/roosting within 0.7 miles of each activity center is present currently. Therefore, the proposed THP indicates that no further loss or deterioration of NSO nesting/roosting will occur as a result of harvest operations.

During the first PHI, the Review Team examined the forest stand located near the northern boundary of the proposed THP area to the north of Annapolis Road. The proposed THP describes this stand as NSO foraging habitat. According to the USFWS habitat description, NSO foraging habitat is classified as having ≥40% canopy cover of trees ≥11 inches diameter at breast height (dbh) and a basal area of ≥75 square feet per acre of trees ≥11 inches dbh. NSO nesting/roosting habitat is classified as having ≥60% canopy cover of trees ≥11 inches dbh. Based on on-site observations by DFG and CAL FIRE staff, this forest stand may meet the habitat requirements of NSO nesting/roosting habitat. DFG recommends that the stand metrics be re-evaluated and submitted to DFG for review (**Recommendation #2**).

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Four raptor species, western screech owl (*Otus kennicottii*), red-tailed hawk (*Buteo jamaicensis*), barn owl (*Tyto alba*) and American kestrel (*Falco sparverius*), have been observed within the proposed THP area. Past avian surveys conducted within the proposed THP area did not detect nesting activity; however, suitable habitat is present within the plan area for a variety of raptor species. Birds in the order of Falconiformes and Strigiformes and their nests are protected under Fish and Game Code § 3503.5. Migratory raptors are also protected under the Migratory Bird Treaty Act. If species that are listed as fully-protected under Fish and Game Code § 3511 are present within the proposed THP area, they may not be taken or possessed at any time. If timber operations are proposed during the raptor nesting season (February 15 to August 31), the THP states that surveys will be conducted by a qualified biologist 30 days prior to operations. The survey will include examination of all trees within the plan area and 500 feet outside of plan boundaries, if possible.

To adequately detect the presence of special-status raptor species potentially occupying the proposed THP area, DFG recommends that a protocol-level survey be conducted during the raptor nesting season (**Recommendation #3a**). For large, conspicuous nesters such as hawks, a full survey should include two aerial or stand watches during the early nesting period (February to early May), and a minimum of two tape-playback surveys during the late nesting season (mid-May to July) conducted by a qualified surveyor. For Accipiters such as sharp-shinned hawk (*Accipiter striatus*) and Cooper's hawk (*Accipiter cooperii*), a full survey should include a minimum of two dawn vocalization surveys in potential habitat during the early nesting season (mid-March to early May) and a minimum of two tape-playback surveys during the late nesting season (mid-May to July). Surveys for nocturnal raptors should be conducted concurrently with NSO surveys, and use the same survey criteria on number of visits, survey stations, and seasonal and relative timing. If timber operations do not start, the year surveys are conducted, and operations are proposed during the next raptor nesting season, then, at a minimum, early season surveys should be conducted the year of operations (**Recommendation #3b**).

The proposed THP indicates that if an active raptor nest is discovered during surveys then a buffer width of a maximum of 300 feet will be established surrounding the nest tree. A buffer width as low as 50 feet may be established if observations by a qualified biologist show that nesting birds are not significantly disturbed by project activities. Noise disturbance as a result of timber activities can lead to temporary displacement or abandonment by the adult of a nest, eggs or young. Nesting birds may tolerate or become habituated to predictable, noisy human activity as is found in urban environments (Dykstra et al. 2000). However, the scientific literature provides strong evidence that birds in natural habitats react more strongly to human (noise and visual) disturbance than those in urbanized areas (Knight et al. 1987; Bednarz et al. 1994; Poole 1981). In a relatively quiet pre-project environment, a larger nest tree buffer than what is currently proposed will be necessary. To adequately protect nesting raptors from timber-related noise disturbance, DFG recommends that buffer widths should be a minimum of 500 feet for Accipiters and 1,000 feet for Buteos. The RPF should also notify DFG to discuss additional protective measures for nesting raptors prior to timber activities pursuant to FPR § 919.3(a) (**Recommendation #4**).

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The conversion of forestland to vineyard will cause loss and degradation of potential raptor nesting and other wildlife habitat. DFG recommends that trees containing any active raptor nest be retained (**Recommendation #5**). Furthermore, loss and fragmentation of wildlife habitat should be effectively mitigated. Forest stands should be kept in a functional state as to allow continued use by wildlife [14 CCR 897 (b)(1)(B)]. Habitat retention, especially within the riparian and upland zones, may allow recruitment of late seral habitat elements and connectivity between habitats [14 CCR 897 (b)(1)(C)]. DFG Recommendations #1-3 indicated above would reduce adverse effects of forest conversion on terrestrial wildlife species.

The THP states that the yellow warbler (*Dendroica petechia*; SSC) has been documented within the proposed plan area and surveys are proposed to be performed 14 days prior to timber operations. An effective yellow warbler survey includes conducting a minimum of three to six visits to stations in potential habitat starting in June (to avoid counting migrants) and ending in late July. DFG recommends that passerine surveys be conducted prior to timber-related activities (**Recommendation #6**). The THP proposes to establish a maximum 100-foot buffer surrounding an occupied yellow warbler nest. To adequately protect nesting passerines from timber-related noise disturbance, DFG recommends that a minimum of a 150-foot buffer should be established surrounding each yellow warbler nest (**Recommendation #7**).

The conversion of forestland to vineyard will negatively affect the amount and quality of riparian habitat where yellow warblers typically nest. Riparian-associated passerines also use upland habitat for foraging and dispersal (RHJV 2004). The THP should incorporate increased protective measures for habitat important for yellow warblers during the migratory and nesting seasons. Increasing the riparian buffer widths as recommended by DFG in this memo (see Recommendations #1-3) would reduce adverse impacts of the proposed conversion on yellow warbler habitat.

## Botanical Resources

### *Sensitive plants*

Seasonally-appropriate botanical surveys were conducted within the proposed THP area in 2006. Survey findings are typically valid for a period of five years in forested environments (DFG 2005). Therefore, if harvest operations are not completed by the end of the 2011 floristic season, additional surveys will have to be conducted (**Recommendation #8**). The proposed THP should also refer to the recently revised DFG document describing protocols for surveying and evaluating impacts to rare plants (DFG 2009).

A 15.6-acre preserve will be established to protect the majority of the population of thin-lobed horkelia (*Horkelia tenuiloba*) found within the plan area. Thin-lobed horkelia is listed as 1B by the California Native Plant Society (CNPS 2008). A 4.4-acre preserve would also be established for the Annapolis manzanita (*Arctostaphylos manzanita* x *A. stanfordiana*) which is not CNPS-listed but considered a rare hybrid. The horkelia plant is found in grasslands and mesic openings within the proposed THP area. These grasslands are composed mostly of native grass species such as Pacific small reedgrass (*Calamagrostis nutkaensis*) and annual hairgrass (*Deschampsia danthonioides*).

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The proposed THP does not specify that non-native plant species such as annual rye grass (*Lolium multiflorum*) will not be used on disturbed soil for erosion control. Annual or "Italian" rye grass is a persistent non-native plant species and should not be used within the proposed THP area. Alternatives exist such as a native grass seed mixture appropriate for the local area or the sterile hybrid Regreen®. Weed-free mulch, native slash, or clean straw are also appropriate for erosion control (**Recommendation #9**).

The proposed THP does not include a detailed monitoring and adaptive management plan for the sensitive plant preserves (refer to DFG 2005). Compliance monitoring and/or reporting ensures timber operations are conducted consistent with the protection measures specified in the THP. The adaptive management plan should be supported by scientific studies and ecological expertise and include an actions timeline. The management plan should apply to rare plant preserves, riparian zones and wetlands, and address the short- and long-term effects of timber conversion on protected areas. The proposed THP should include monitoring (minimum of eight to ten years) to detect changes in the numbers and viability of plant populations, hydrologic and groundwater conditions, encroachment of invasive plants, excessive nutrient loading from herbicide and fertilizer applications in vineyards, and include remediation or restoration actions if needed (**Recommendation #10**).

#### *Wildlife Tree*

During the PHI, DFG observed a single mature large-diameter redwood located in the eastern portion of the proposed THP area. The residual tree is relatively isolated but located approximately 100 feet from a Class III watercourse and associated riparian vegetation. This legacy tree is proposed to be removed for vineyard development.

Large-diameter, mature trees often exhibit characteristics valuable to wildlife species, especially birds and bats (Mazurek and Zielinski 2004; Richter, D. 1993; Bull et al. 1997). Structural components of large mature trees (24 inches in diameter or larger) such as large limbs, platforms, deeply furrowed bark, dead tops, reiterated crowns, defects and deformity, and burned basal hollows provide nesting, shelter, and foraging habitat to a diversity of wildlife species. The mature redwood appeared to have a cavity in the top third of the main stem. Cavities formed at the base of the tree and further up are especially important and provide nesting and roosting sites for Vaux's swift, pygmy nuthatches, violet-green swallows, big brown bat, California bat and long-legged bat. Although the mature redwood is isolated, the tree's crown offers some protection from adverse effects of wind and rain. DFG recommends the retention of this large-diameter wildlife tree pursuant to 14 CCR Appendix Technical Rule Addendum #2 (C)(a) (**Recommendation #11**).

A proposed temporary road located directly upslope of the thin-lobed horkelia preserve poses an increased risk of sediment run-off to the preserve. DFG recommends that erosion control measures be used on permanent and temporary roads in areas where the potential exists for sediment run-off to sensitive plant preserves and wetlands (**Recommendation #12**).

A segment of road is located within the horkelia preserve but is proposed for decommissioning. Heavy equipment could accidentally enter the preserve during harvesting operations and potentially damage rare plants. Therefore, DFG recommends that preserve boundaries be indicated by a wildlife-friendly fence and/or signs prior to harvesting operations (**Recommendation #13**).

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### **Roads and Landings**

A proposed temporary landing located in the far southeastern section of the THP area is located within approximately 35 feet of a Class III watercourse and wet area. Landings may be exposed for several years before vineyards are planted and established. Adequate vegetated filter strips should be in place to prevent sediment delivery to streams and wetlands. To protect water quality and aquatic life, DFG recommends that landings be constructed a minimum of 50 feet from all waterbodies. Vegetated filter strips should be maintained and/or log berms installed. These erosion control measures should be included under Item 18 of the THP (**Recommendation #14**).

### **RECOMMENDATIONS**

DFG recommends the following site-specific and feasible mitigation measures be incorporated as enforceable provisions in the 1-09-058 SON Fairfax Conversion THP:

1. Prior to Second Review, the THP shall be revised to include the following protective measures for riparian zones: a) buffer widths of a minimum 50 to 85 feet on Class III watercourses, wetlands and springs; b) a buffer width of one site potential tree height or 150 feet, whichever is greater, on Patchett Creek; c) if riparian vegetation is lacking or sparse on stream banks then native shrubs and trees shall be planted to act as filter strips.
2. Prior to Second Review, the RPF shall re-evaluate NSO habitat typing in stands located in the northern portion of the THP area (north of Annapolis Road). The RPF shall provide DFG with detailed stand measurements that show whether the habitat meets the requirements of NSO foraging or nesting-roosting habitat.
3. Prior to Second Review, the THP shall be revised to indicate that a) protocol-level surveys for diurnal and nocturnal raptors shall be conducted during the raptor nesting season (February to July) prior to operations. The THP shall also state that b) if timber operations do not start the year surveys are conducted and operations are proposed during the following raptor nesting season, then, at a minimum, early season surveys shall be conducted the year of operations.
4. Prior to Second Review, the THP shall be revised to include noise disturbance buffer widths of a minimum of 500 feet for Accipiters and 1,000 feet for Buteos surrounding each nest tree. The RPF shall notify DFG to discuss additional protective measures for nesting raptors prior to timber activities.
5. Prior to Second Review, the THP shall be revised to indicate that trees containing active raptor nests shall be retained.
6. Prior to Second Review, the THP shall be revised to indicate that yellow warbler surveys shall be conducted during the nesting season (June until late July) prior to timber-related activities.
7. Prior to Second Review, the THP shall be revised to include a noise disturbance buffer width of a minimum of 150 feet surrounding each yellow warbler nest.

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8. Prior to Second Review, the THP shall be revised to state that if harvest operations are not completed by the end of the 2011 floristic season, additional plant surveys shall be conducted.
9. Prior to Second Review, the THP shall be revised to state that non-native plant species such as annual rye grass shall not be used on disturbed soil for erosion control.
10. Prior to Second Review, the THP shall be revised to include a detailed monitoring and adaptive management plan for the sensitive plant preserves.
11. Prior to Second Review, the THP shall be revised to indicate that the mature large-diameter redwood located in the eastern portion of the THP area shall be retained as a wildlife tree.
12. Prior to Second Review, the THP shall be revised to indicate that erosion control measures shall be implemented on permanent and temporary roads to prevent sediment run-off to botanical preserves and wetlands. Of particular importance is the proposed temporary road located directly upslope of the thin-lobed horkelia preserve.
13. Prior to Second Review, the THP shall be revised to indicate that the boundaries of sensitive plant preserves shall be indicated by wildlife-friendly fences and/or signs prior to harvesting operations.
14. Prior to Second Review, the THP shall be revised to indicate that landings shall be constructed a minimum of 50 feet from all watercourses, springs, seeps and wetlands. Vegetated filter strips shall be maintained and/or log berms installed. Including these erosion control measures under Item 18 of the THP is appropriate.

If you have questions or comments regarding this memorandum, please contact Mr. Richard Fitzgerald, Coastal Habitat Conservation Supervisor, at (707) 944-5568.

#### Attachment

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North Coast Regional Water Quality Control Board

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cc's continued:

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Mr. Ken McLean

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Mr. Ken McLean

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Linda S. Adams  
Secretary for  
Environmental Protection

**California Regional Water Quality Control Board**  
**North Coast Region**  
Geoffrey M. Hales, Chairman



Arnold  
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Governor

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Agency  
Review Team  
Letter 2

## Preharvest Inspection Report

**To:** Mark Alpert, Senior Engineering Geologist, NCRWQCB  
Jeff Longcrier, Registered Professional Forester (RPF)  
Gerri Finn, CAL FIRE  
CAL FIRE, Regional Office, Santa Rosa

**From:** Cherie Blatt, Water Resources Control Engineer

**Date:** April 8, 2010

**Subject:** Preharvest Inspection Report, THP 1-09-058 SON, Codorniu Napa-  
landowner, Gualala River Basin

### TIMBER HARVEST PLAN INFO:

**Threatened and Endangered Species:**

Steelhead and Chinook federally listed  
as "Threatened." Coho federally and  
State listed as "Endangered"

**CWA Section 303d Listing:**

Sediment  
Temperature

**Calwater No.:**

1113.830003  
1113.830004  
1113.840303

**Legal Description:**

Sections 17 & 18  
T10N, R13W  
Mount Diablo Base & Meridian

**Silviculture:**

Conversion 171 acres

**Erosion Hazard Rating:**

Moderate

**Yarding Method:**

Tractor, Skidder, Feller buncher

**Winter Ops:**

Oct 15-Nov 15 and  
April 1-May 1 only.

**Watercourse/Supply:**

Class I, II, III streams  
Domestic Water Supplies  
Wetlands

**New THP Roads:**

1000 feet

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## **I. INTRODUCTION**

THP 1-09-058 SON contains preliminary timber harvest plans as part of the Draft Environmental Impact Report (DEIR) for the vineyard conversion project. The DEIR contains general vineyard information about water quality protection measures. Comments to State Clearinghouse to review the DEIR were due in July 2009. The engineering plans by Lee Erickson dated 11/16/09 contain the most specific information on what the final vineyard will look like. These three documents: the THP, the DEIR, and the engineering plans, were reviewed for water quality protection, erosion control information, and drainage plans. The DEIR is scheduled to be finalized in conjunction with THP approval by CAL FIRE.

On June 16, 2009 and February 16, 2010, I participated in the preharvest inspection (PHI) for Timber Harvest Plan (THP) 1-09-058 SON. North Coast Regional Water Quality Control Board (RWB) staff attended the PHI as a member of CALFIRE review team, to principally evaluate the: potential adverse impacts to the beneficial uses of water from the proposed timber harvest, effect of overall land disturbance from conversion to vineyard, potential discharges to waterbodies from equipment operation and vegetation removal, and use of pesticides and herbicides. RWB staff evaluated the THP's qualification from the perspective of enrollment in the Regional Water Board's General Waste Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-federal Lands (GWDR), Order No. R1-2004-0030.

Clean Water Act Section 401 Water Quality Certification is required due to proposed wetland disturbance. Stephen Bargsten, Nonpoint Source Unit, is the lead staff for this Water Quality Certification. Also, a Construction Stormwater Permit is required due to grading for the corporation yard, reservoir, and associated road. Paul Keiran, Permitting Unit, is the lead staff for this Construction Stormwater Permit. Please contact these staff members and see Recommendations 18, 19, and 20 below for more information regarding these permits.

Attending the PHI on June 16, 2009 and February 16, 2010 were:

Cherie Blatt, Regional Water Board (RWB)  
Scott Gergus, RWB  
Michael Huyette, California Geological Survey (CGS)  
Gerri Finn, California Department of Forestry (CAL FIRE)  
Brenda Blinn, California Department of Fish and Game (DFG)  
Mona Marlow, Artesa Winery Representative  
Jeff Longcrier, Registered Professional Forester (RPF), NCRM  
Matt O'Connor, Geologist,  
Geoff Monk, Biologist, Monk & Assoc.  
Nick Pappani, Raney Planning & Management

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In addition, the following attended the PHI on February 16, 2010:

Stephen Bargsten, RWB  
Don Braun, California Geological Survey (CGS)  
Isabelle deGeofroy, Biologist, Monk & Assoc.  
Lee Erickson, Erickson Engineering

## **II. GENERAL OBSERVATIONS**

The PHI Review Team evaluated the proposed project including the protection measures for watercourses, wetlands, and domestic water supplies (DWS). The project, located in the Gualala River Basin, is designated as a Clean Water Act Section 303(d) listed watershed for sediment and temperature impairment. Endangered species habitat, including for salmonids, is present in the watershed. THP page E-39 states that 296% of the 19,202 acre watershed assessment area has had a timber harvest plan filed on it within the last 10 years. Consistent enforceable language in the THP, DEIR, and engineering plans is needed to protect water quality and the beneficial uses as cited in the Water Quality Control Plan for the North Coast Basin (Basin Plan).

PHI Reports by CAL FIRE, CGS, and DFG were submitted. RWB staff support water quality protection recommendations as submitted in these PHI reports.

## **III. WETLAND AND WATERCOURSE PROTECTION**

The THP project removes 0.41 acres of wetlands and contains draft mitigation for this loss by constructing new wetlands (See THP page E-15 and DEIR). As indicated below, the impacts as well as mitigation to wetlands will be considered as part of the 401 water quality certification. To ensure proper protection of the beneficial uses of water, all existing wetlands shall be shown on THP maps. For instance, the wetland above the Taeffer DWS is not shown on THP map page E-26. The existence of this wetland is important to the DWS and may be an important issue the first winter after timber harvest due to the lack of full vineyard construction and associated erosion control in place. Recommendation 1

### **Horkelia Reserve**

There are existing seasonal roads across the protected Horkelia Reserve. These roads shall not be used for timber harvest operations. To ensure these roads are not used, they shall be fully blocked from all traffic such as with brow logs and fencing. Only the new roads shown on THP maps and engineering plans shall be used. Reference THP map page E-26 and engineering plans page C1. Recommendation 2

### **Comment Points**

The Comment Points (CP) listed on THP pages E-10, E-14, E-154, and E-155 describe erosion control to be performed at specific areas.

**CP 2.** This culvert collects water in the ditch of Sonoma County's Annapolis Road and directs the flow north under this road toward Little Creek. The vineyard project may increase runoff discharge to this culvert. THP page E-10 explains that hand placed rock armor will mitigate and prevent further enlargement of small channel scour in an area with negligible tributary area from roadside drainage. However, the THP inspection revealed that the bottom of this County culvert is severely rusted out near the outlet. DWS are located below. A culvert replacement schedule is recommended. The Regional Board intends to notify the County by copy of this report and separately outside the THP process. The vineyard project must state minimum volume and size of rock intended to be used at CP2 to prevent further scour. Recommendation 3



**Culvert CP 2**

The engineering plans show the existing sizes of culverts under the Annapolis Road draining the ditch and some of the vineyard project area. The conversion and development of the proposed vineyard project may increase storm water runoff loading to these culverts. Engineering plans (page C2) show a vineyard drainage collection system, a sediment basin, and a wetland draining to a 15 inch diameter culvert under the County road located east of CP 2. This culvert may be undersized for the increased flow that will be added to its normal load. The THP shall be revised to discuss the culvert condition and potential adverse impacts to the culvert, watercourse, and road drainage system at this location. Recommendation 4

**CP 7.** Summer 2009 culvert work occurred east of CP 7 on neighboring Mendocino Redwood (MRC) property. The new, larger culvert on the MRC road will collect the potential increase in volume of runoff from the proposed vineyard project area and drain it to the east. This area was inspected by RWB staff on the first PHI 6/16/09 for 1-09-058 SON and the completion inspection for MRC's THP 1-07-028 MEN (Map Point Q). No recommendation

**CP 8 and 9.** Erickson engineering plans dated 11/16/09 show the recent elimination of a portion of vineyard project area near CP 8 and 9. This change was not reflected on THP maps by the time of the PHI 2/16/10. These watercourse areas and watercourse crossings at CP 8 and 9 are no longer planned for construction. Timber harvest operations are not to take place within this new "out" area. Equipment barriers such as brow logs and wildlife friendly fencing shall be installed to keep equipment away from this nonproject area and off the road that connects these areas. Recommendation 5

**CP 10 and CP11. Rocked ford crossings** are proposed at CP 10 and 11. The rocked ford detail is shown on the engineering plans page C8. The THP's licensed timber operator (LTO) must follow all directions in the engineering plans as well as the THP. The latest engineering plans shall be made available to the LTO as part of the THP. The rocked ford detail from the engineering plans must be in the THP prior to the start

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of timber operations. Timber harvest equipment shall only drive over the watercourses and wetlands after the rocked fords are installed. Recommendation 6

### **Wetlands**

The wetland mitigation areas must be surrounded by wildlife friendly fencing. Fencing shall be designed to keep human activity out. ATV tracks and unauthorized tree cutting was observed at the end of the February 16, 2010 inspection near the Horkelia Reserve. The wildlife fencing must be monitored to ensure it is passable by wildlife but free of harmful unauthorized human activities during THP operations in the area. This monitoring shall be written into the THP. Recommendation 7

**Wetland between Units 2 & 3.** A rocked ford crossing is proposed at CP11 in the northeast corner of the THP to cross the edge of a wetland. Only about 50 feet of protection is proposed between this wetland and the vineyard construction area (see engineering plans pages C1 and C3 just south of vineyard Unit 3). This rocked ford is planned to cross the narrow edge of the wetland thereby connecting vineyard Units 2 and 3. This rocked ford must be constructed prior to any timber harvest operations in Units 2 and 3. The wetland protection area shall be protected with a wildlife friendly fence to keep timber harvest and vineyard equipment out. Recommendation 8

### **Class III Protection**

The DEIR appears to contain language that is more protective of Class III watercourses than the protection in the THP. For instance, the THP allows Class III equipment exclusion zone (ELZ) buffers to be as small as 25 feet. The DEIR, Volume I, Section 3.4 page 84, states that up to 75 feet of Equipment Limitation Zone (ELZ) protection will be given to Class III watercourses:

*"All other tributaries on the project site are Class III tributaries. A protective buffer that averages 25 to 75 feet in width on either side of the top-of-banks of all Class III tributaries shall be established on site, and Best Management Practices will be implemented within the vineyard project site to ensure that Class III tributaries and their buffers remain protected. Sheet flow over the impacted areas will be filtered via v-ditches, surface drains and fiber roll checks, then directed into sediment basins before draining into the Class III tributaries on the project site."*

Also regarding watercourse protection, the DEIR, Chapter 3.7 – Hydrology and Water Quality, page 3.7 – 79 provides 50 foot protection stating that:

*"As with any fertilizer application, there is potential for excessive nutrients in the site runoff to affect downstream water bodies. However, since the drip irrigation system will be used to apply fertilizers at agronomic rates (and rain is minimal during the growing season when they would be applied), it is likely that these constituents would not runoff into the surrounding streams. Furthermore the presence of 50-foot forested buffer areas between the vineyard blocks and onsite waterways will likely entrap applied fertilizers*

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*before leaving the site in the event that significant runoff does occur following an application."*

Inconsistent with the DEIR, the THP table on page E-14 gives 25 feet of ELZ protection on slopes less than 30 percent and 50 feet of ELZ protection for Class III watercourses on 30 percent side slopes or more. It does not state that 75 foot ELZs will be used as discussed in the DEIR. Full water quality protection is required to protect the DWSs, reduce the potential for sediment discharge for threatened and endangered species such as salmonids, and to ensure compliance with Clean Water Act Section 303(d) listings in the watershed for sediment and temperature impairment. For instance, runoff does not enter a sediment basin near Annapolis Road in the northwest quarter, nor in the headwaters of the Class III Red Fern Creek in the northwest corner. Due to the proposed impacts to the watershed, the potential for sediment discharge, and the need to retain the channel integrity and ameliorate surface flow, all equipment must be excluded from within 75 feet of the Class III watercourse (Red Fern Creek) and the associated headwater wetlands located in the northwest corner of the project area. The RPF shall revise the THP table to provide 75 foot ELZ protection on this Class III watercourse. Native vegetation within this 75 foot zone shall be left intact.  
Recommendation 9

The direction of sheet flow to v-ditches, surface drains, fiber roll checks, then into sediment basins before draining into Class III watercourses shall be evaluated on all engineering plans. This is to ensure the engineering plans are consistent with the protection measures listed in the DEIR. Recommendation 10

Erosion control to prevent sediment discharge over large cleared areas during the first winter is unclear. THP Item 18 meets FPRs that require treatment of WLPZs that contain bare areas over 100 square feet. However, extensive bare soil areas outside of WLPZs are expected in this high rainfall area. The THP shall be revised to provide details of erosion control that will be in place for the first winter season(s) before the vineyard is planted, cover crop planted, and full vineyard erosion control is installed. For instance, it is not clear if sediment basins will be fully functional during the first winter of timber removal. There is a concern that sediment discharge to watercourses may not be prevented. Enforceable language must be added to the THP stating that barriers will be installed prior to operations to keep timber harvest equipment out and to protect native vegetation. Recommendation 11

THP page E-12, number 12) states that operation on tractor roads on slopes >40% within 200 feet of a Class I, II or III watercourse shall be suspended once 3" of precipitation has fallen as rain. It is not clear how this applies to the stated April 1<sup>st</sup> to May 1<sup>st</sup> timeline. Please explain and clarify. Timber harvest must not be operating during rain events, nor if operations could result in discharges or threatened discharges of sediment to watercourses. Recommendation 12

**Old Growth Redwood & Class III watercourse:** According to an email from engineer Lee Erickson in March 2010, the engineering plans will be changed from what was available during the 2/16/10 PHI. The corporation yard is no longer planned to be built

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adjacent to and west of the Class III watercourse located just below the old growth Redwood. Rather, the corporation yard is planned to be built just west of the large reservoir near unit 1. This means that the corporation yard area shown on the engineering plans may be planted as vineyard. It is possible that runoff from this new vineyard area will be routed to discharge to the sediment basin below the old growth Redwood. This area is especially sensitive to sediment input due to the proposed new vineyard, perimeter road, vegetation removal, and sediment basin location near the head of a Class III watercourse. Very little of existing native vegetation will be left to protect the water quality of this Class III watercourse. It is important to maximize protection of native vegetation in this area. The DEIR (Volume I, Section 3.4, page 84) states up to 75 feet of buffer will protect Class III watercourses. The CAL FIRE inspection report (Recommendation 1.O.) recommends leaving native vegetation between the old growth Redwood and the Class III watercourse below. Maximizing native vegetation retention was also discussed onsite during both PHIs. However, the current engineering plans show a large sediment basin in this location that may need to be enlarged further due to the new vineyard on the former corporation yard site.

New plans must be submitted for agency review maximizing native vegetation retention along this Class III watercourse and between the old growth Redwood and the head of the Class III. The Class III ELZ protection shall be extended to encompass the old growth Redwood and at least a 25' radius protection outside the drip line. Native vegetation in this area shall be retained to the extent feasible around the sediment basin. A 75 foot native vegetation buffer shall be retained as measured from the bankful high water mark of this Class III watercourse. Any bare areas left after construction shall be replanted with native vegetation. Recommendation 13

It is important that the grading of native vegetation outside the vineyard perimeter is avoided. For consistency with the DEIR and for enforcement of the THP, a biological monitor shall be onsite to protect wetlands and watercourses whenever THP operations are in the process of moving soil. This recommendation was discussed with Geoff Monk at the end of the 2/16/10 PHI due to evidence of ATV trespass, unauthorized tree cutting, and concern for wetland protection especially at the Horkelia Reserve. Recommendation 14



**Unauthorized Tree Cutting**

#### **IV. DOMESTIC WATER SUPPLY PROTECTION**

THP pages E-92 through E-127.8 include notifications to at least 24 neighboring landowners with requests regarding domestic water supply (DWS). The THP includes at least 10 replies from the neighbors notifying the project representative of DWS locations. Any new replies after the May 19, 2009, have not been distributed for agency review. Generally, the neighbors' concerns include adverse changes in quality and quantity of individual water supplies due to the vineyard project. Types of surface water intake or depths of wells are not given in the letters from the neighbor. At least two

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neighbors have surface water intakes for DWS (Hall and Taeffer/Anderson) within 100 feet of the new vineyard area.

Individual letters of concern for DWS are on THP pages E-102 through E-127.8 from neighbors Taeffer/Anderson, Breidenthal, Starcross Community, Wellman, Hall, Duncan, Dew, Spacek, Annapolis Historical Society, and Duncan. Proposed sediment basins will capture some of the surface flow above DWS, however, other areas above DWS will be untreated. One example includes runoff from the vineyard to the Annapolis Road ditch which discharges to watercourses. Two other examples lacking sediment basin treatment are along Red Fern Creek (south of CP 1) and above the Taeffer/Anderson property. Sediment discharge and pesticide runoff could adversely impact these DWSs. Native plant buffers measuring 75 feet on both sides of the Red Fern Creek Class III watercourse in the northwest quarter of the THP shall be retained to filter vineyard runoff. The wetland directly above the Taeffer DWS shall be retained and a 25 foot native vegetation buffer with equipment exclusion fencing around this wetland during vineyard construction shall be installed. Recommendation 15

THP, Item 26, Watercourse and Lake Protection Zones and Domestic Water Supplies, does not discuss full protection of these DWS in accordance with the Forest Practice Rules. It is not clear if timber harvest equipment will stay more than 100 feet from all DWS as required under FPR 916.5. Assurance must be added to the THP Item 26 that states that the water quality and quantity of the DWS are protected. Minimum distances from wetlands and watercourses that feed these DWS, including Hall, Taeffer/Anderson, and all the DWS users in the northwest quarter of the THP shall be addressed. Surface DWS shall be specifically addressed in Item 26 for potential adverse impacts. Recommendation 16

#### **Taeffer/Anderson DWS**

The THP includes a letter from Taeffer and Anderson regarding their property just west of Unit 5a (see letter on THP page E-118 and map of DWS on E-119. See also engineering plans page C4). It is unclear who wrote the information on THP map page E-102 but the handwriting states that the Taeffer/Anderson wells are 6 feet and 20 feet from the property line.

The Review Team visited this area during the February 16, 2010 PHI. The DWS appeared to be of cistern design and surface water was visible. It was estimated that the engineering plans show the new vineyard project within 80 feet of this DWS and show a proposed vineyard road as close as 50 feet. Forest Practice Rule 916.5 protects DWS and state that timber harvest operations with 100 feet of a DWS, including springs, are prohibited. CAL FIRE PHI Report Recommendation 1.L. notes the PHI discovery of surface DWS at the Taeffer/Anderson property at 34175 Annapolis



**Taeffer DWS**

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Road. The recommendation states that the RPF shall revise the plan and provide appropriate protection measures for this spring fed surface DWS.

On March 18, 2010, I called Ron Taeffer to speak to him about the letter on THP page E-118 Tracy Anderson regarding their DWS. The letter states that the biggest concerns about their two wells are the water level, and the water quality affected by vineyard pesticides. Mr. Taeffer confirmed these concerns.

This property owner has a genuine concern due to the location of the surface well location directly below the proposed vineyard. Engineering plans, page C4, show a wetland above his well. This wetland is proposed for conversion to vineyard and is counted in the wetland loss totals. The engineering plans show vineyard runoff routed away from the wetland to a sediment basin to the southeast. However, there is no special plan to protect the Taeffer well. It appears possible that adverse impacts to the water quantity and quality of the Taeffer well could result from the vineyard project in this location. Full protection of this wetland above the DWS is recommended to protect the down gradient beneficial uses of water. Discharge of pesticides in toxic amounts is prohibited by the Basin Plan. The wetland above the Taeffer/Anderson DWS shall be fully retained for complete water quality protection for this surface DWS. Grading and conversion of this wetland is not allowed. A native vegetation buffer of 75 feet shall be retained around the wetland. See Recommendation 15

#### Hall DWS

On June 16, 2009, the PHI review team inspected the (neighbor) Hall DWS intake within the project property boundary located North of Annapolis Road (see THP map page E-26). This is an in-stream box collection system with plastic pipe. A letter from James Hall, September 1, 2007, (THP pages E-124 and 125) states that he has been using water from this spring as the primary water source on the parcel for over 30 years. The THP does not give specific protection measures for this surface DWS. The THP shall detail protection measures for this DWS such as distance from edge of vineyard perimeter road construction and vegetation retention. Waterbreak construction and drainage patterns that will prevent vineyard runoff to this spring box shall be discussed. Recommendation 17



Hall DWS

#### **V. STORMWATER POLLUTION PREVENTION PLAN**

The DEIR, Volume I, page 3.7-58, from the current CAL FIRE Website for THP 1-09-058 SON states that:

*“Prior to issuance of grading permits, the applicant shall obtain Applicable NPDES permits from the North Coast Regional Water Quality Control Board and comply with all applicable programs. Compliance with the Permit requires the project*

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*applicant to file a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB) and prepare Storm Water Pollution Prevention Plan (SWPPP) prior to construction. The SWPPP would incorporate Best Management Practices (BMPs) in order to prevent, or reduce to the greatest extent feasible, adverse impacts to water quality from erosion and sedimentation: the SWPPP shall be provided for the review and approval of the SWRCB.”*

The DEIR goes on to describe the Post-Construction Monitoring Plan for the first winter season after site preparation/project construction. The DEIR states that this first year post construction monitoring is for the period following grading and drainage work. The ECP in the THP must state the project proponent will submit a notice of intent (NOI) and develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to comply with the State Water Board Construction Stormwater Permit. A landowner representative may contact Regional Board staff Paul Keiran, (by email Pkeiran@waterboards.ca.gov or phone (707)576-2753, for information for submitting the NOI and SWPPP. Mr. Keiran will review documents showing the total acreage and require a Construction Stormwater Permit if applicable. Construction Stormwater Permits must be obtained prior to any grading. Recommendation 18

#### **VI. CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION**

On 2/16/10, Stephen Bargsten, RWB, inspected the project area for CWA Section 401 coverage. The wetland protection and construction proposal was reviewed. The following is language that Stephen is using in new 401 Water Quality Certifications regarding not using plastic for permanent best management practices (BMPs) because they could trap reptiles, amphibians, and fish. This includes fiber rolls with outer plastic mesh:

“The applicant shall prioritize use of wildlife-friendly 100% biodegradable erosion control products/BMPs wherever feasible. For purposes of this Order, photodegradable synthetic products are not considered biodegradable. Applicant shall not use or allow the use of erosion control products, that contain synthetic (e.g., plastic or nylon) netting or materials for permanent erosion control (i.e., erosion control materials to be left in place for two years or after the completion date of the project). If the Applicant finds that erosion control netting or products have entrapped or harmed wildlife, the Applicant shall remove the netting or product and replace it with wildlife-friendly biodegradable products. The Applicant shall not use or allow the use of soil stabilization products that contain synthetic materials within waters of the United States or waters of the State at any time. Applicant shall remove any remaining synthetic netting or materials remaining at the end of two years, or sooner.”

A minimum 25 foot native vegetation buffer shall be retained between the wetland in Unit 3 and the vineyard construction area including the vineyard perimeter road. The two wetlands and connecting watercourse between the two wetlands shall be retained below the “Sacred” Redwood. Please see engineering plans C3 for detail. These wetlands and connecting watercourse must also be protected by a minimum 25 foot native vegetative buffer. A wildlife friendly passable fence shall protect these wetlands the associated watercourse. No grading, roads, or timber harvest, or vineyard activities

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are to take place between the buffer and the wetlands. This fence is to be installed before grading begins. Engineering plans pages C1 and C3 shall be edited to reflect this change. County standards shall take precedence if more stringent.

Recommendation 19

The project proponent must receive Water Quality Certification from the RWB prior to project commencement in wetland areas. The application may be submitted now. Please see our website or Stephen Bargsten, Environmental Scientist, Regional Water Board, for more information (707) 576-2653 [sbargsten@waterboards.ca.gov](mailto:sbargsten@waterboards.ca.gov) [http://www.waterboards.ca.gov/northcoast/water\\_issues/programs/water\\_quality\\_certification.shtml](http://www.waterboards.ca.gov/northcoast/water_issues/programs/water_quality_certification.shtml)

Recommendation 20

### **VII. WASTE DISCHARGE REQUIREMENTS**

THP 1-09-058 SON contains an Erosion Control Plan (ECP) on THP pages E-153 through 160 in accordance with RWB Order No. R1-2004-0030 General Waste Discharge Requirements for Discharges Related to Timber Harvest Activities. Recommendations in this report are designed to assist the THP to comply with these GWDRs. Upon CAL FIRE approval, the submitter shall follow the application procedures in the GWDR to obtain coverage from the RWB agency prior to the start of THP operations. Recommendation 21

The THP contains an outdated Implementation Schedule on page E-157. Also, ECP monitoring shall include rainy season inspection above DWS for potential sediment discharge or gullyng. Any problems found must be fixed immediately and reported in the annual report. DWS areas checked must include Taeffer, Hall, culvert areas at Annapolis Road, and Red Fern Creek. Recommendation 22

### **VIII. RECOMMENDATIONS**

Recommendations and comments are provided pursuant to the statutory authority contained in the Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.), the Basin Plan and the Z'berg-Nejedly Forest Practice Act (California Public Resources Code Section 4582.6). Please note that only portions of the proposed project were reviewed during the PHI due to time restrictions, limitations of the area covered, and scope of the PHI.

It is the position of Regional Water Board staff that the following recommendations be included in the THP to ensure protection of the beneficial uses of water and meet compliance with the Basin Plan. **All information must be submitted to the RWB at least 2 days prior to CAL FIRE 2<sup>nd</sup> Review.**

1. To ensure proper protection of the beneficial uses of water, all existing wetlands shall be shown on THP maps. For instance, the wetland above the Taeffer DWS is not shown on THP map page E-26. The existence of this wetland is important to the DWS and may be an important issue the first winter after timber harvest due to the lack of full vineyard construction and associated erosion control in place.

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2. There are existing seasonal roads across the protected Horkelia Reserve. These roads shall not be used for timber harvest operations. To ensure these roads are not used, they shall be fully blocked from all traffic such as with brow logs and fencing. Only the new roads shown on THP maps and engineering plans shall be used. Reference THP map page E-26 and engineering plans page C1.
3. Culvert CP 2 collects water in the ditch of Sonoma County's Annapolis Road and directs the flow north under this road toward Little Creek. The vineyard project may increase runoff discharge to this culvert. THP page E-10 explains that hand placed rock armor will mitigate and prevent further enlargement of small channel scour in an area with negligible tributary area from roadside drainage. However, the THP inspection revealed that the bottom of this County culvert is severely rusted out near the outlet. DWS are located below. A culvert replacement schedule is recommended. The Regional Board intends to notify the County by copy of this report and separately outside the THP process. The vineyard project must state minimum volume and size of rock intended to be used at CP 2 to prevent further scour.
4. The engineering plans show the existing sizes of culverts under the Annapolis Road draining the ditch and some of the vineyard project area. The conversion and development of the proposed vineyard project may increase storm water runoff loading to these culverts. Engineering plans (page C2) show a vineyard drainage collection system, a sediment basin, and a wetland draining to a 15 inch diameter culvert under the County road located east of CP 2. This culvert may be undersized for the increased flow that will be added to its normal load. The THP shall be revised to discuss the culvert condition and potential adverse impacts to the culvert, watercourse, and road drainage system at this location.
5. Erickson engineering plans dated 11/16/09 show the recent elimination of a portion of vineyard project area near CP 8 and 9. This change was not reflected on THP maps by the time of the PHI 2/16/10. These watercourse areas and watercourse crossings at CP 8 and 9 are no longer planned for construction. Timber harvest operations are not to take place within this new "out" area. Equipment barriers such as brow logs and wildlife friendly fencing shall be installed to keep equipment away from this nonproject area and off the road that connects these areas.
6. Rocked ford crossings are proposed at CP 10 and 11. The rocked ford detail is shown on the engineering plans page C8. The THP's licensed timber operator (LTO) must follow all directions in the engineering plans as well as the THP. The latest engineering plans shall be made available to the LTO as part of the THP. The rocked ford detail from the engineering plans must be in the THP prior to the start of timber operations. Timber harvest equipment shall only drive over the watercourses and wetlands after the rocked fords are in installed.
7. The wetland mitigation areas must be surrounded by wildlife friendly fencing. Fencing shall be designed to keep human activity out. ATV tracks and

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unauthorized tree cutting was observed at the end of the February 16, 2010 inspection near the Horkelia Reserve. The wildlife fencing must be monitored to ensure it is passable by wildlife but free of harmful unauthorized human activities during THP operations in the area. This monitoring shall be written into the THP.

8. A rocked ford crossing is proposed at CP11 in the northeast corner of the THP to cross the edge of a wetland. Only about 50 feet of protection is proposed between this wetland and the vineyard construction area (see engineering plans pages C1 and C3 just south of vineyard Unit 3). This rocked ford is planned to cross the narrow edge of the wetland thereby connecting vineyard Units 2 and 3. This rocked ford must be constructed prior to any timber harvest operations in Units 2 and 3. The wetland protection area shall be protected with a wildlife friendly fence to keep timber harvest and vineyard equipment out.
9. Due to the proposed impacts to the watershed, the potential for sediment discharge, and the need to retain the channel integrity and ameliorate surface flow, all equipment must be excluded from within 75 feet of the Class III watercourse (Red Fern Creek) and the associated headwater wetlands located in the northwest corner of the project area. The RPF shall revise the THP table to provide 75 foot ELZ protection on this Class III watercourse. Native vegetation within this 75 foot zone shall be left intact.
10. The direction of sheet flow to v-ditches, surface drains, fiber roll checks, then into sediment basins before draining into Class III watercourses shall be evaluated on all engineering plans. This is to ensure the engineering plans are consistent with the protection measures listed in the DEIR.
11. The THP shall be revised to provide details of erosion control that will be in place for the first winter season(s) before the vineyard is planted, cover crop planted, and full vineyard erosion control is installed. For instance, it is not clear if sediment basins will be fully functional during the first winter of timber removal. There is a concern that sediment discharge to watercourses may not be prevented. Also, enforceable language must be added to the THP stating that barriers will be installed prior to operations to keep timber harvest equipment out and to protect native vegetation.
12. THP page E-12, number 12) states that operation on tractor roads on slopes >40% within 200 feet of a Class I, II or III watercourse shall be suspended once 3" of precipitation has fallen as rain. It is not clear how this applies to the stated April 1<sup>st</sup> to May 1<sup>st</sup> timeline. Please explain and clarify. Timber harvest must not be operating during rain events, nor if operations could result in discharges or threatened discharges of sediment to watercourses.
13. Retention of native vegetation shall be maximized around and between the old growth Redwood and the Class III watercourse below. The Class III ELZ protection shall be extended to encompass the old growth Redwood and at least a 25' radius protection outside the drip line. Native vegetation in this area shall

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- be retained to the extent feasible around the sediment basin. A 75 foot native vegetation buffer shall be retained as measured from the bankful high water mark of this Class III watercourse. Any bare areas left after construction shall be replanted with native vegetation.
14. It is important that the grading of native vegetation outside the vineyard perimeter is avoided. For consistency with the DEIR and for enforcement of the THP, a biological monitor shall be onsite to protect wetlands and watercourses whenever THP operations are in the process of moving soil. This recommendation was discussed with Geoff Monk at the end of the 2/16/10 PHI due to evidence of ATV trespass, unauthorized tree cutting, and concern for wetland protection especially at the Horkelia Reserve.
  15. Native plant buffers measuring 75 feet on both sides of the Red Fern Creek Class III watercourse in the northwest quarter of the THP shall be retained to filter vineyard runoff. The wetland directly above the Taeffer DWS shall be fully retained and a 75 foot native vegetation buffer with equipment exclusion fencing around this wetland during vineyard construction shall be installed.
  16. THP, Item 26, Watercourse and Lake Protection Zones and Domestic Water Supplies, does not discuss full protection of these DWS in accordance with the Forest Practice Rules. It is not clear if timber harvest equipment will stay more than 100 feet from all DWS as required under FPR 916.5. Assurance must be added to the THP Item 26 that states that the water quality and quantity of the DWS are protected. Minimum distances from wetlands and watercourses that feed these DWS, including Hall, Taeffer/Anderson, and all the DWS users in the northwest quarter of the THP shall be addressed. Surface DWS shall be specifically addressed in Item 26 for potential adverse impacts.
  17. The THP does not give specific protection measures for the Hall surface DWS. The THP shall detail protection measures for this DWS such as distance from edge of vineyard perimeter road construction and vegetation retention. Waterbreak construction and drainage patterns that will prevent vineyard runoff to this spring box shall be discussed.
  18. The DEIR goes on to describe the Post-Construction Monitoring Plan for the first winter season after site preparation/project construction. The DEIR states that this first year post construction monitoring is for the period following grading and drainage work. The ECP in the THP must state the project proponent will submit a notice of intent (NOI) and develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to comply with the State Water Board Construction Stormwater Permit. A landowner representative may contact Regional Board staff Paul Keiran, (by email [Pkeiran@waterboards.ca.gov](mailto:Pkeiran@waterboards.ca.gov) or phone (707)576-2753, for information for submitting the NOI and SWPPP. Mr. Keiran will review documents showing the total acreage and require a Construction Stormwater Permit if applicable. Construction Stormwater Permits must be obtained prior to any grading.

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19. For **CWA Section 401 coverage**, plastic that could result in adverse impacts to reptiles, amphibians, and fish, shall not be used for permanent BMPs. A minimum 25 foot native vegetation buffer shall be retained between the wetland in Unit 3 and the vineyard construction area including the vineyard perimeter road. The two wetlands and connecting watercourse between the two wetlands shall be retained below the "Sacred" Redwood. Please see engineering plans C3 for detail. These wetlands and connecting watercourse must also be protected by a minimum 25 foot native vegetative buffer. A wildlife friendly passable fence shall protect these wetlands the associated watercourse. A wildlife friendly passable fence shall protect this wetland. No grading, roads, or timber harvest, or vineyard activities are to take place between the buffer and the wetlands. This fence is to be installed before grading begins. Engineering plans pages C1 and C3 shall be edited to reflect this change. County standards shall take precedence if more stringent.
20. The project proponent must receive 401 Water Quality Certification from the RWB prior to project commencement in wetland areas. The application may be submitted now. Please see our website or Stephen Bargsten, Environmental Scientist, Regional Water Board, for more information (707) 576-2653 [sbargsten@waterboards.ca.gov](mailto:sbargsten@waterboards.ca.gov)  
[http://www.waterboards.ca.gov/northcoast/water\\_issues/programs/water\\_quality\\_certification.shtml](http://www.waterboards.ca.gov/northcoast/water_issues/programs/water_quality_certification.shtml)
21. THP 1-09-058 SON contains an Erosion Control Plan (ECP) on THP pages E-153 through 160 in accordance with RWB Order No. R1-2004-0030 General Waste Discharge Requirements for Discharges Related to Timber Harvest Activities. Recommendations in this report are designed to assist the THP to comply with these GWDRs. Upon CAL FIRE approval, the submitter shall follow the application procedures in the GWDR to obtain coverage from the RWB agency prior to the start of THP operations.
22. The THP contains an outdated Implementation Schedule on page E-157. Also, ECP monitoring shall include rainy season inspection above DWS for potential sediment discharge or gullyng. Any problems found must be fixed immediately and reported in the annual report. DWS areas checked must include Taeffer, Hall, culvert areas at Annapolis Road, and Red Fern Creek.

**REFERENCES:**

THP file 1-09-058 SON

Water Quality Control Plan, North Coast Basin (Basin Plan)

**ENCLOSURE:** Attachment: Map

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WQ PHI Report  
1-09-058 SON

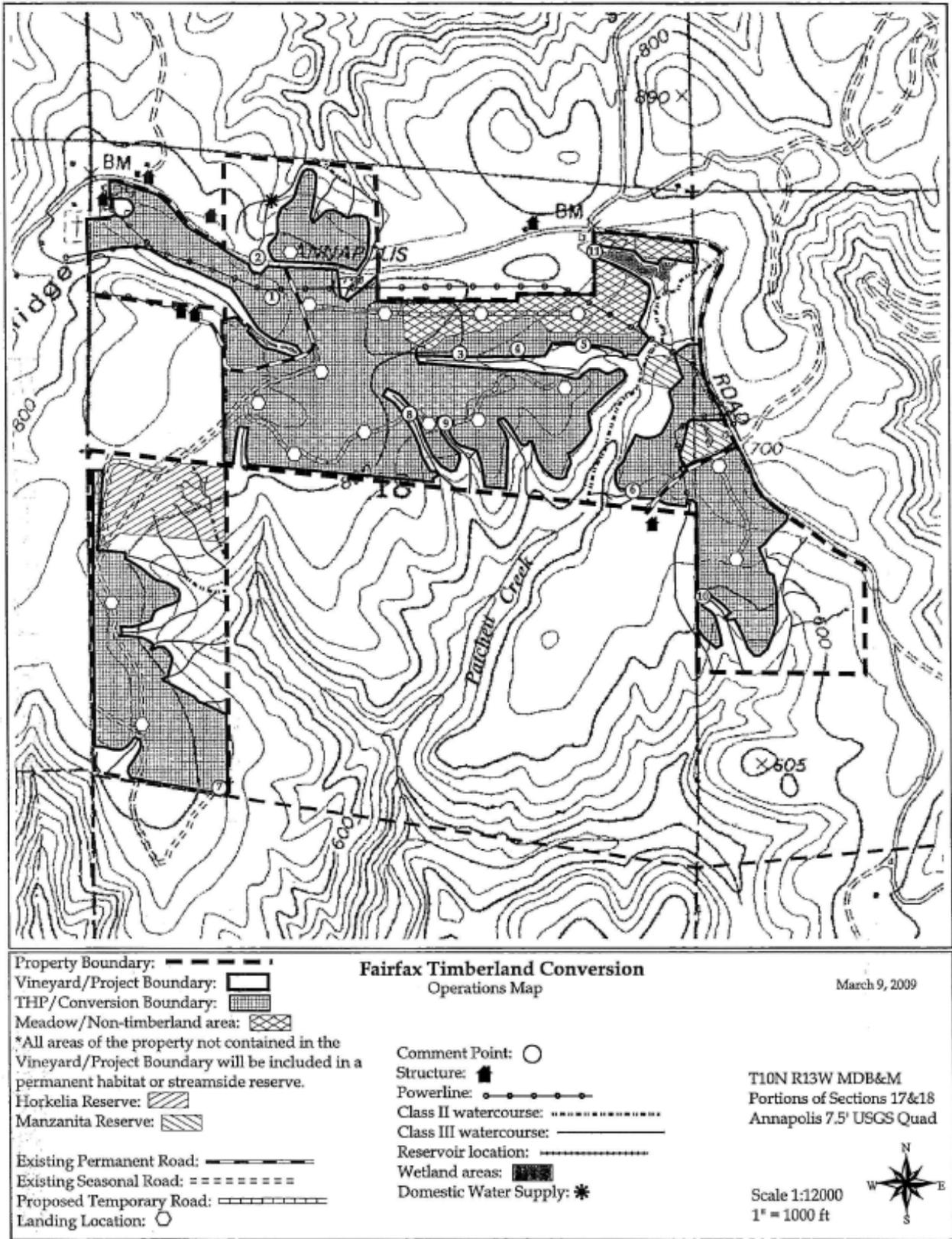
16

**CC:** County of Sonoma Public Works Department, Santa Rosa, CA  
Jane Hicks, U.S. Army Corps of Engineers, San Francisco, CA

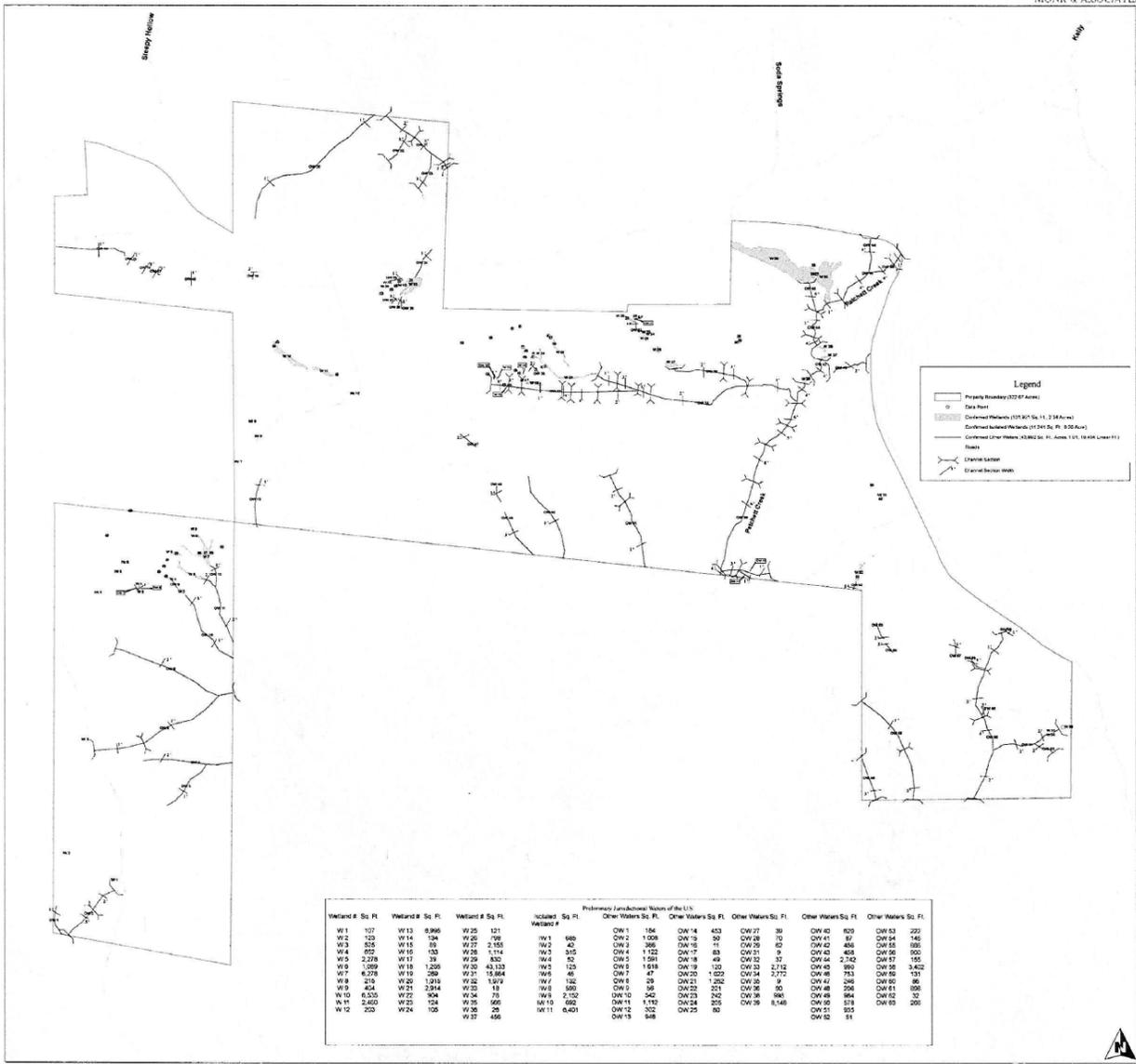
*California Environmental Protection Agency*

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MONK & ASSOCIATES

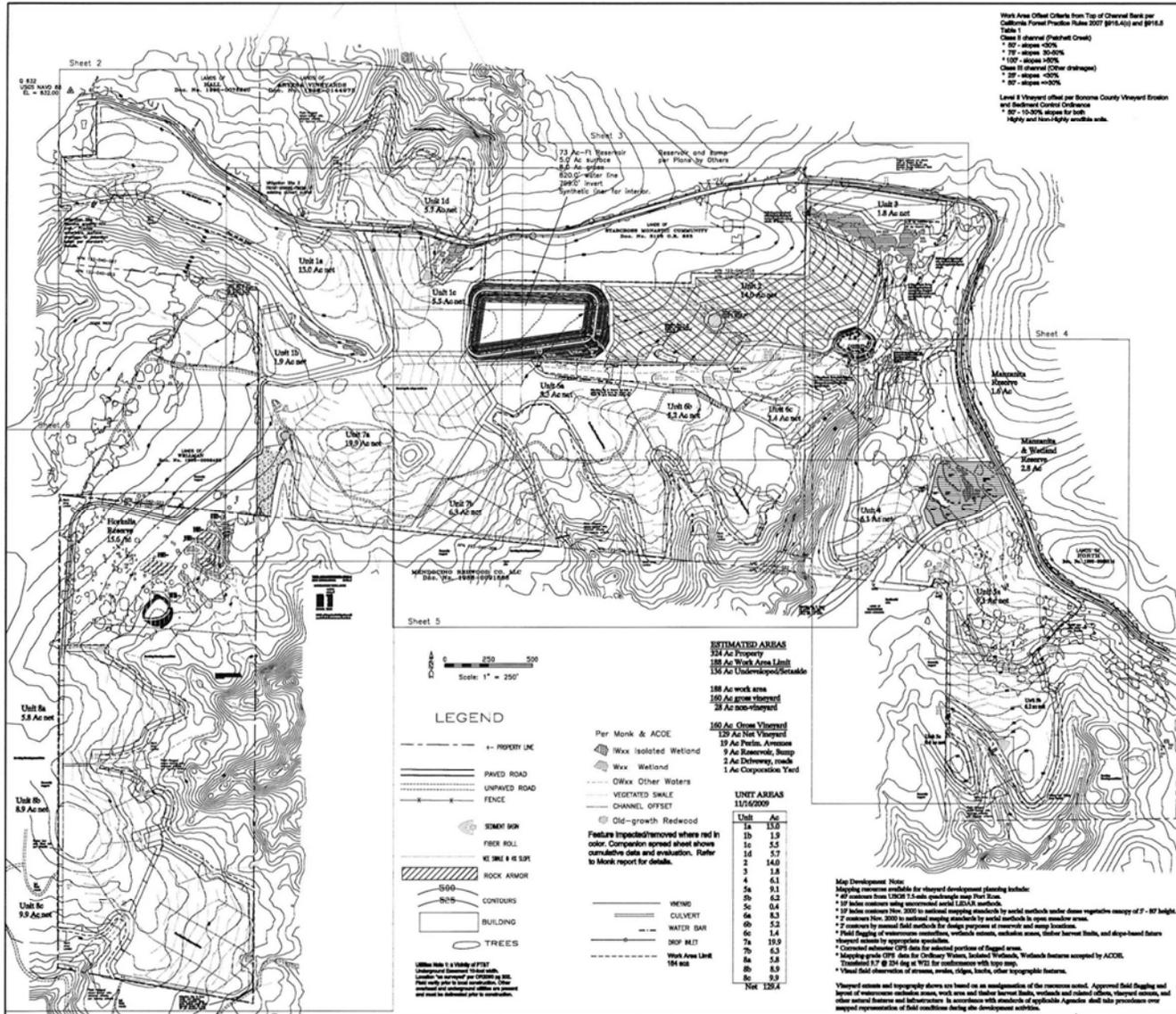


Preferred Jurisdictional Values of the U.S.											
Wetland #	Sq. Ft.	Wetland #	Sq. Ft.	Wetland #	Sq. Ft.	Wetland #	Sq. Ft.	Wetland #	Sq. Ft.	Other Waters Sq. Ft.	Other Waters Sq. Ft.
W1	107	W13	8,966	W25	121	IW1	680	OW1	104	OW14	453
W2	129	W14	194	W26	798	IW2	42	OW2	1,008	OW15	59
W3	828	W15	33	W27	2,155	IW3	42	OW3	266	OW16	11
W4	892	W16	133	W28	1,114	IW4	315	OW4	1,122	OW17	83
W5	2,279	W17	38	W29	832	IW5	52	OW5	1,261	OW18	49
W6	1,269	W18	1,209	W30	43,123	IW6	125	OW6	1,618	OW19	120
W7	6,278	W19	299	W31	13,864	IW7	46	OW7	47	OW20	1,820
W8	215	W20	1,316	W32	1,917	IW8	182	OW8	29	OW21	292
W9	424	W21	1,919	W33	18	IW9	60	OW9	39	OW22	242
W10	8,333	W22	944	W34	71	IW10	150	OW10	240	OW23	142
W11	2,400	W23	124	W35	665	IW11	682	OW11	1,112	OW24	275
W12	203	W24	108	W36	29	IW12	6,401	OW12	332	OW25	80
				W37	458			OW13	848		
								OW14	453	OW26	30
								OW15	59	OW27	820
								OW16	11	OW28	10
								OW17	83	OW29	42
								OW18	49	OW30	468
								OW19	120	OW31	9
								OW20	1,820	OW32	469
								OW21	292	OW33	9
								OW22	242	OW34	2,782
								OW23	142	OW35	980
								OW24	275	OW36	3,422
								OW25	80	OW37	713
								OW26	30	OW38	131
								OW27	820	OW39	86
								OW28	10	OW40	296
								OW29	42	OW41	594
								OW30	468	OW42	106
								OW31	9	OW43	131
								OW32	469	OW44	86
								OW33	9	OW45	296
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								OW96	131		
								OW97	296		
								OW98	594		
								OW99	106		
								OW100	131		

Monk & Associates  
Environmental Consultants  
1136 Saranip Avenue, Suite Q  
Walnut Creek, California 94595  
(925) 947-4867

Sheet 1. Confirmed Wetland Delineation  
Artesa Winery Project Site  
Sonoma County, California

Scale: 1 inch = 200 feet  
Map Preparation Date: May 9, 2006  
Corps Confirmation Dates: November 7 & 16, 2006  
Map Revision Date: November 28, 2006



Work Area Offset Criteria from Top of Channel Bank per California Forest Practice Rules 2007 (911-A) and 911-A.1 Table 1  
Class I Channel (Channel Creek)  
• 50' slopes < 30%  
• 75' slopes 30-50%  
• 100' slopes 50-75%  
• 125' slopes 75-90%  
Class II Channel (Other Stream)  
• 25' slopes < 30%  
• 50' slopes 30-50%  
Level II Vineyard Offset per Sonoma County Vineyard Erosion and Sediment Control Ordinance  
• 80' - 10-30% slopes for both highly and less-highly erodible soils.

USGS 7.5-min quad map: Annapolis  
Scale: 1" = 2000' 40' Contours  
Location Sketch

Table of Contents  
Sheet Description  
C1 Vineyard Overview  
C2 Unit 1 Plan View  
C3 Units 2, 3 Plan View  
C4 Units 4, 5 Plan View  
C5 Units 6, 7 Plan View  
C6 Unit 8 Plan View  
C7 Erosion Control Details  
C8 Settling Basin, Rocked Ford Details  
W1 Mitigation Wetland Details

Site Enhancement and Erosion Mitigation Existing Non-Vineyard Erosion Potential Areas per Plan view notes.

- ATV full abatement
- Rock armored culvert outlet
- Swamp control in abandoned old road
- Groundwater control in settling gully
- Groundwater control in settling gully
- Abandoned old road repair
- Recreate ditch meandering and snaking.

URDA-OCR Sonoma County Sub Map #25  
24% O&E Odds/Up to early team 15-20%  
28% O&P Odds/Up to early team 30-35%  
28% O&P Odds/Up to early team 30-35%

A slope-dependent 20' - 80' setback per CDF rules is required from any Class II channels as flagged in the field by the Forester prior to construction. The clearing limit is limited to field logging notes.

Call for Underground Service Alert prior to construction in the vicinity of underground pipelines within 10' easements. Confirm to easement requirements in 47' corridor beneath power lines. Other infrastructure such as buildings, wells, water systems, septic systems, improved roads, have not been observed and are not believed present in development areas.

Sonoma County Vineyard Erosion and Sediment Control Ordinance (VESCO) Sec. 20-1002(b) Itemization  
The Engineer certifies that the Plan was prepared by Lee Erickson, P.E., ADAMS, CH20000, that the Plan contains information as required by VESCO Sec. 20-7.4, and that the Plan uses temporary and permanent measures believed sufficient to meet requirements of VESCO Sec. 20-7.5.

Signature and Date:

Lee J. Erickson  
P.E.  
ADAMS  
CH20000  
Engineer 12/10  
lye@adamsc.com

REVISIONS

Erickson Engineering, Inc.  
Valley Ford CA 94572-0446  
707/795-2488 Voice/Fax

Vineyard Overview

Fairfax Vineyard  
35147 Annapolis Road  
Annapolis CA 95412

Artesia Winery  
1345 Henry Road  
Napa CA 94559

Drawing #1118 v12.dwg  
11.14.2009  
Scale: 1" = 200'  
Sheet

C1

**Agency Review Team Letter 3**

State of California

The Natural Resources Agency

**MEMORANDUM**

**TO:** Bill Snyder, Deputy Director,  
Resource Management

**Attention:** Leslie Markham, Deputy Chief  
Forest Practice, Northern Coast Region I Headquarters

**DATE:** March 17, 2010

**FROM:** Department of Forestry and Fire Protection  
Sonoma Lake Napa Unit

**SUBJECT:** 5400 FOREST PRACTICE REGULATION AND TIMBER TAXATION  
5410 Forest Practice Act  
Preharvest Inspection  
**THP# 1-09-058SON**  
Inspection No.: 1  
**Inspection Dates: June 16, 2009 and February 16, 2010**  
Tentative THP Public Comment Date: March 18, 2010  
Inspection Hours: 90  
Forest District: Coast Area  
Present:  
Jeff Longcrier -RPF  
Mona Marlow -Landowner rep, Artesa Winery  
Matt O'Conner -Consulting Geologist, O'Connor Environ.  
Lee Erickson -Consulting Engineer, Erickson Engineering  
Geoff Monk -Consulting Biologist, Monk and Associates  
Isabelle de Geofroy -Biologist, Monk and Associates  
Nick Papiani -Consultant, Raney Planning and Mgmt.  
Brenda Blinn -DFG  
Cherie Blatt -NCWQCB  
Scott Gergus -NCWQCB  
Stephan Bargsten -NCWQCB  
Michael Huyette -CGS  
Don Braun -CGS, 6/16/09  
Gerri Finn -Calfire

THP 1-09-058SON  
PREHARVEST INSPECTION  
LAST DATE OF INSPECTION: 2/16/2010  
Page 838 of 28

**Focused Arch. Inspection Dates: June 16, 18, 29, 2009 and February 2, 2010**

Present:	
Jeff Longcrier	-RPF, 6/18 & 29/09 and 2/2/10
Chuck Whatford	-Calfire Archaeology 6/16, 18, 29/09 and 2/2/10
Reno Franklin	-Kashia Band of Pomo Indians 6/29/09 and 2/2/10
Walter Antone	- Kashia Band of Pomo Indians 6/16, 29/09 and 2/2/10
Tom Origer	-Consulting Archaeologist 6/16, 18/09 2/2/10
Eileen Barrow	-Archaeologist, Tom Origer and Assoc 2/2/2010
Derrick Antone	- Kashia Band of Pomo Indians 2/2/2010
Bill Davis	- Kashia Band of Pomo Indians 6/16/09
Kathy Thorne	-Calfire Archaeology 6/16/09
Gerri Finn	-Calfire, 6/18 & 29/09 and 2/2/10

On June 16, 2009 and February 16, 2010, preharvest inspections (PHI) were conducted on the site of the proposed timber harvest/ timberland conversion area. Provisions of the proposed THP Conversion have been evaluated. On June 16, 18, 29, 2009 and February 2, 2010, focused Archaeology PHIs were conducted; following is a summary of the observations, evaluations, and recommendations made during the field inspection for each of the items below. The PHI was held open by Calfire, to obtain updated information for the archaeological addendum. The information was necessary for Calfire Archaeology to evaluate historical/cultural concerns and make recommendation(s) for historical and cultural resource protection.

**1. TIMBERSTAND DESCRIPTION AND SILVICULTURE (THP ITEMS 14, 15, AND 37).**

The proposed project is a conversion of timberland for vineyard development. According to the plan, the property is 324 acres, of that, 190 will be developed into vineyard. This project has been analyzed and mitigated in a Draft Environmental Impact Report (DEIR) that has been reviewed and accepted by the department.

In Section II, the plan states that 171 acres of timberland will be developed to vineyard. Some of this acreage has been removed from the proposed plan since its acceptance by the department and a revised project acreage is needed for plan accuracy. For accuracy of the administrative record, the RPF shall revise the Section I, Item 8 and correctly state the number of acres proposed in the project. In addition to revising Section I, the RPF shall also correct acreage references for information and accuracy, throughout the proposed plan. **Calfire Recommendation IA.1.** Also, the plan maps in Section II and

THP 1-09-058SON  
PREHARVEST INSPECTION  
LAST DATE OF INSPECTION: 2/16/2010  
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where necessary throughout the plan, shall be revised to accurately reflect the plan boundaries. **Calfire Recommendation 1A.2**

The project area consists of timberland and remnant orchards that have been intensively managed for past, onsite, sawmill production and agriculture. The timberland is comprised of medium to small sawlog and pole sized redwood and Douglas fir. The conifer overstory varies between light to moderately dense, composed of redwood and Douglas fir with a significant component of tan oak. The understory consists mainly of tan oak regeneration. Other species that are minor competitors for the site are madrone, huckleberry and ceonothus. Typical coastal understory species are found throughout the plan area and includes, various berries, huckleberry, and brush and grasses in the openings. There is large grassy opening with remnant apple orchard along Annapolis Road and another meadow area on the western portion of the project area (Horkelia reserve.)

The nearby area has similar vegetation types as the proposed plan area. These types consist of timberland used for timber production, rural residences, brush and grassy openings, vineyards, orchards, and ranchland used for livestock grazing.

Basal area retention and/or restocking the plan area are not required after harvest in the timberland conversion area.

2. **SLIDES AND/OR UNSTABLE AREAS.**

CGS attended the PHI and a complete geological report is provided in the plan and part of the draft EIR (DEIR). No unstable areas were identified in the plan nor noted during the PHI. Please see CGS PHI report for further information regarding unstable areas and the geological report.

3. **EROSION HAZARD RATING AND SOIL STABILIZATION (ITEMS 17 & 18).**

The erosion hazard ratings (EHR) as defined by the Forest Practice Rules (FPRs) accurately reflect field conditions. Soil stabilization measures in the THP exceed the minimum standards of the Forest Practice Rules and have been developed to be consistent with the Erosion Control Plan (ECP) and Sonoma County grading requirements. Please reference Item 5 of this PHI report for more information on soil stabilization for the extended winter period.

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Section II, Item 18, reference to 14CCR16(b)(1) and (2) as well as 14CCR 916.9.1(1 and n) and the definition of saturated soils, shall be revised to be consistent with language in the 2010 Forest Practice Rules. **Calfire Recommendation I.B.**

4. **YARDING AND HARVESTING PRACTICES (ITEMS 16, 19, 20, 21 & 22).**

Ground based yarding is proposed in the THP. Field review verified that the proposed yarding method is appropriate. As described in the plan the conversion harvest area is located on gentle slopes, generally less than thirty percent.

5. **WINTER PERIOD OPERATIONS (ITEM 23).**

New forest practice rules for winter operations and the extended wet weather operating period have come into effect since the time of plan submission. Winter operations are not proposed in the THP. Operations are proposed for the extended wet weather operating period from October 15 to November 14, and from April 1 to May 1. *Please reference Agency Question 11.* A winter operations plan is included in the THP for the extended wet weather operating period.

The plan proposes that all timber operations are allowable during the extended operating period excluding tractor operations on tractor roads on slopes greater than forty percent that are within two hundred feet of a watercourse once three inches of rain has fallen (reference Section II, Item 23, #12). Considering that very little of the project area is on slopes greater than forty percent, it is unlikely that there will be much restriction of tractor operations during the extended wet weather period. Also, considering that tractor operations will include intensive vegetation removal, stump pulling and soil discing in preparation of vineyard installation, (which may occur concurrently with harvesting), soil stabilization measures should be in place, prior to October 15. For soil stabilization and protection of the beneficial uses of water, operations that create large areas of exposed soil such as brush removal, stump pulling and discing, shall not occur during the extended wet weather period. **CDF Recommendation I.C. Answer to Agency Question 11.** Also, considering the extensive vegetation removal proposed for timberland conversion, suspension of operations once three inches rain has fallen is appropriate for the protection of the beneficial uses of water and erosion control. The RPF shall revise the plan to clearly state that timber operations shall cease when three inches of

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cumulative rainfall has been measured in the Annapolis area. **CDF Recommendation 1.D. Answer to Agency Question 11.**

The plan states that there will be no significant vegetative cover remaining upon completion of the timber harvest. Again, please reference Section II, Item 23. As discussed during the PHI, when significant amounts of vegetation are being removed for vineyard development, the Sonoma County Grading and Vineyard Development permits and the Water Quality General Waste Discharge permit conditions will come into effect, but this information is not included in Section II, Item 23, of the THP. For clarity and consistency with agency requirements, LTO information, and enforceability of the Erosion Control Plan (ECP), the RPF shall revise the winter operations plan to be consistent with the 2010 Forest Practice Rules and shall include an extended winter period operations plan (please consider table form) for the period between October 15 and November 15, and between April 1<sup>st</sup> and May 1<sup>st</sup>, that 1) discloses how and when, soil is to be stabilized in the project area, that 2) is in conformance with the various agency permits and 3) is consistent with the ECP. **CDF Recommendation 1.E, Answer to Agency Question 11.**

6. **ROADS AND LANDINGS (ITEMS 24 AND 25).**

Road use is proposed generally on existing facilities within the plan area. Some new temporary road and landing construction is proposed. Abandonment of temporary roads and landing will be through the development of the vineyard over the temporary features. Abandonment procedure complies with 14 CCR 923.8. Some roads mapped as temporary roads, have been changed or have been eliminated since the submission of the plan, as well as, Map Points 8 and 9. Specifically, the existing but proposed temporary road that accesses Map Points 8 and 9 has changed due a change in that plan boundary between Map Points 8 and 9. Map Points 8 and 9 are no longer part of the proposed plan. Also, the recently surveyed location of the road at Map Point 7 has determined that the actual road location is somewhat different than the mapped location, and that Map Point 7 is off property and is the responsibility of adjacent landowner, MRC. The RPF shall revise all pertinent sections of the plan and maps to accurately reflect all temporary, seasonal and permanent roads and Map Points. **Calfire Recommendation 1.F.**

The landing at the southwestern most corner of the property was located near a Class III watercourse and a small/ minor wetland to be eliminated. The landing was proposed to be in the road that is adjacent to the ELZ of the Class III watercourse. Considering that the soils in the area are Goldridge, erosion control and soil stabilization may be

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problematic. The RPF agreed to move the landing fifty feet from the ELZ and provide post harvest surface treatment. This landing shall also be given a Map Point designator. For soil stabilization and protection of the beneficial uses of water, the RPF shall revise the plan and map(s) and designate a map point identifier for the landing referenced above. For LTO information, the RPF shall include language in Section II and describe the location of the landing and the post harvest soil stabilization measures, as discussed during the PHI. **Calfire Recommendation 1.G. Answer to Agency Question 13.** Please reference DFG PHI report for further information and recommendation regarding this landing.

Permanent roads are used by the landowner and by adjacent residents for year round access to their properties. Although there is rock on the surface of the roads, additional rock is necessary to meet the permanent standards defined by 14CCR 895.1 and provide soil stabilization and filtering ability for the protection of the beneficial uses of water. The RPF shall revise the plan in Section II, Item 25, and state that prior to the completion of timber operations, mapped permanent roads shall be improved where necessary to meet the permanent road standards. **Calfire Recommendation 1.H.**

7. **WATERCOURSE AND LAKE CLASSIFICATION AND PROTECTION MEASURES (ITEM 26).**

As stated in the plan, there are no watercourses or watercourse protection zones (WLPZs) in the project area, but they are adjacent to the plan and require agency review for potential impacts to beneficial uses of water by the proposed project. Since adjacent watercourses and their buffers are outside the project boundary, there can be no timber harvesting of WLPZs. This protection measure exceeds the minimum protection required by the FPRs.

Watercourses were visited during the PHI. Classifications for the watercourses were evaluated and appropriate. Protection of the beneficial uses of water was evaluated during the PHI by evaluating the Class II and III watercourses and their respective protection zones (WLPZs). One short unmapped Class III watercourse was discovered during the PHI between Map Points 4 and 5. In addition, an unmapped small Class II pond was discovered near the permanent road to the Weller residence. This very small pond is part of a small wetland to be eliminated. Other wetlands proposed for removal were not identified on the THP maps and it was determined during the inspections that all wetlands shall be added to pertinent plan maps. For accuracy and LTO information, all pertinent plan maps shall be revised to include, the unmapped Class III watercourse, the

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unmapped small pond and unmapped wetlands. **Calfire Recommendation 1.I.**

The RPF provides a table of watercourse protection measures for Class I, II and III watercourses (Table 1). There are new Forest Practice Rules for watercourse protection and protection of listed Anadromous species, effective 1/1/2010. Considering this, the RPF shall revise the plan in Section II, Item 26, and in all pertinent areas, to conform to the new rules and discuss Class II typing (large/standard). This shall include revising Table 1. The only Class I watercourses immediately affected by the plan are domestic water supplies (DWS). Considering that Class I watercourses, other than DWS, are not within or adjacent to the plan area, the RPF shall revise Table 1, and include only relevant Class I watercourse (DWS) information and protection measures. The Class III protection measures shall be revised to be consistent with the minimum now required by the 2010 FPRs. **Calfire Recommendation 1.J.** Prior to timber operations, the WLPZ boundary/ plan boundary shall be flagged by the RPF, to conform to the new rules. **Calfire Recommendation 2.**

Agency Question 12 requests an evaluation of the sediment filtering ability of the proposed watercourse and wetland buffer widths. The proposed buffers exceed the minimum standards of the Forest Practice Rules because they are outside the project area, therefore these buffers will not be harvested. The Class III buffer is an EEZ or equipment exclusion zone, requiring a minimum width of thirty feet on slopes less than thirty percent and fifty feet on slopes greater than thirty percent (reference 14CCR 916.9(h)(1)). Class II buffers are also slope dependent in width (reference Section II, Item 26), meeting the minimum standards of the Rules. During the creation of the vineyard, there will be large areas of exposed soil. Under the jurisdiction of the County, Calfire, and the NCWQCB, exposed soil is required to be stabilized prior to the winter period. The ECP states that a permanent cover crop will be established on vineyard avenues/perimeter roads and straw wattle waterbars placed for erosion control. This cover crop with erosion control facilities will add to the sediment filtering ability of the watercourse buffers as well as the dispersal of water before it is likely to concentrate and cause erosion. In 2001, Calfire, Forest Hydrologist, Pete Cafferata, conducted a Hydrologic Review of 105 acres of the plan area. Please reference THP 1-01-171SON, Hydrologic Review. Mr. Cafferata stated that with some modifications, watercourse protection was adequate to protect the downstream beneficial uses of water. Those modifications, as well as additional protection measures, have been implemented in the proposed plan. For enforceability, the RPF shall add the erosion control measures for perimeter roads and vineyard avenues, including timing of the installation, to Section II of the THP. **Calfire Recommendation 1.K. Answer to Agency Question 12.**

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Mr. Cafferata also conducted an evaluation of water quality issues. In his evaluation, Mr. Cafferata analyzed rainfall, runoff, and retention of precipitation and that effect to the amount of water available in the watercourse. Mr. Cafferata determined that the net water available to the entire tributary would be reduced by approximately two percent, and that the change in water yield is unlikely detectable in the field.

8. **WATERCOURSE AND LAKE PROTECTIONS (IN-LIEU/ALTERNATIVE PRACTICES) (ITEM 27).**

No “In Lieu” practices are proposed in the plan.

9. **DOWNSTREAM DOMESTIC WATER SOURCES (ITEM 28).**

The RPF received several letters regarding the location of domestic water sources (DWS), and most are wells. There are two known DWS that collect surface water and are downstream of the plan area. These were visited during the PHI. They are located at 34175 and 34910 Annapolis Road. The DWS at 34910 was visited and determined to be 162 feet from the plan boundary, a buffer that exceeds the standards of the Forest Practice Rules. The RPF received information stating that the 34175 DWS were wells but at the PHI, it was discovered that one of the DWS is a surface fed source. The RPF shall revise the plan and provide appropriate protection measures for the spring fed surface domestic water source at 34175 Annapolis Road. **Calfire Recommendation 1.L.** *Answer to Agency Question 15.*

10. **SENSITIVE WATERSHEDS (ITEM 29).**

This THP is not located in a Sensitive Watershed as defined by the State Board of Forestry and Fire Protection.

11. **HAZARD REDUCTION (ITEMS 30 AND 31).**

The hazard reduction measures in the plan are adequately addressed. There are public roads and residences that require slash treatment to reduce fire hazard within the fire hazard reduction zone. The protection measures in the plan conform to 14CCR 917.2.

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12. **WILDLIFE/BIOLOGICAL RESOURCES (ITEMS 32, 33, 34, AND 35).**

The RPF includes operational information for the protection of plant and animal species in Section II, Item 32 pages E-18 – E-23. The DEIR addresses biological resources in 3.4-1 thru 3.4-154. The Cumulative Impacts to Biological Resources are analyzed in the Impact Statements 4-4 and 4-5 of the DEIR, and in Section IV, E-58 thru E-82.

There are no known activity centers within the plan area but habitat for the Northern Spotted Owl (NSO) exists within the plan area and assessment area. Information for Northern Spotted Owl required by Calfire for THP review is provided in Section V.

The NSO information in the plan was reviewed by Bob Motroni, Calfire biologist, Sacramento Headquarters, who addressed Agency Questions 16, 17, and 18. Agency Question 16 requests that NSO information found in Section V be evaluated to help ensure that a “take” of NSO will not occur as a result of this operation. Mr. Motroni’s evaluation determined that the NSO survey design was completed to USFWS protocol with the exception that under a two year design, at least two visits must occur before June 30<sup>th</sup>. In year two (2007) of the survey, only one visit was conducted prior to June 30<sup>th</sup>. He states that this twelve day lapse is not considered significant given total number of survey visits over the two year survey period and habitat quality of the area surveyed. Calling stations were of sufficient number and distribution to adequately survey potentially occupied habitat. In fact, survey trips to the project area exceed that required by the two year USFWS survey protocol and occurred at appropriate spacing and duration during the protocol survey period except as noted above. NSO were not detected. In addition, the EIR commits to a pre-harvest NSO survey to further ensure take avoidance (page 3.4-45). *Answer to Agency Question 16.*

Agency Question 17 asks to verify that this operation will not further reduce the amount of nesting/roosting habitat below the acreage currently shown in the THP. Mr. Motroni states that habitat typing shows 0 acres of nesting roosting habitat for NSO #SON 043 (using USFWS habitat definitions) within a 0.7 mile radius of the Activity Center. A total of 728 acres of foraging habitat remains post harvest (nine acres are removed) exceeding the 300 acre foraging habitat guidance for this core area by 428 acres. Although no habitat is typed as nesting/roosting pre harvest, the likelihood that nine acres of foraging habitat removed represents the best opportunity for nesting/roosting habitat recruitment toward a future goal of 200 acres is exceedingly remote. Overall, habitat retention extent guidance of 500 acres (nesting/roosting and foraging) is markedly exceeded by 228 acres within the 0.7 mile radius band. Similarly, the 36 acres of

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nesting/roosting habitat typed within the 0.7 – 1.3 mile radius band remains unmodified. Foraging habitat within this band is reduced from 1806 acres to 1709 acres (97 acres total). USFWS habitat guidance within this band requires retention of at least 836 acres of suitable habitat of any type subject to the conditions of Section III(4) of the USFWS Take Avoidance Analysis-Coast (February 27, 2008) regarding tree species, composition, and various abiotic considerations. Post Harvest, 1709 acres of habitat remain in the 0.7 – 1.3 mile band exceeding USFWS acreage guidance and generally meeting Priority Ranking of Habitat Retention Acres (Section III(4) referenced above). No NSO were detected in the survey of the project area. Take is avoided for this NSO Activity Center.

For NSO #SON 058, Mr. Motroni's evaluation concluded that habitat typing shows 0 acres of nesting/roosting habitat (using USFWS habitat definitions) within a 0.7 mile radius of the Activity Center. A total of 840 acres of foraging habitat remains post harvest (0 acres are removed) exceeding the 300 acre foraging habitat (USFWS retention guidance) for this core area by 540 acres. Overall, habitat retention extent guidance of 500 acres (nesting/roosting and foraging) is markedly exceeded by 340 acres within the 0.7 mile radius. Similarly, the 37 acres of nesting roosting habitat within the 0.7 – 1.3 mile radius band remains unmodified. Foraging habitat within this band is reduced from 1858 acres to 1829 acres (29 acres removed). USFWS habitat guidance within this band requires retention of at least 836 acres if suitable habitat of any type subject to the conditions of Section III(4) of USFWS Take Avoidance Analysis-Coast (February 27, 2008) regarding tree species, composition, and various abiotic considerations. Post harvest, 1829 acres of habitat remain in the 0.7 – 1.3 mile band exceeding USFWS acreage guidance and generally meeting Priority Ranking of Habitat Retention Acres (Section III(4) reference above). No NSO were detected during the survey of the project area. Take is avoided for this NSO Activity Center. *Answer to Agency Question 17.*

Agency Question 18 requests an evaluation of the adequacy of the discussion of the potential impact to NSO in the biological assessment area from a cumulative impact standpoint. Again, Calfire biologist, Bob Motroni, evaluated the plan for adequacy and compliance with the rules. Mr. Motroni stated that the NSO discussion on pages E-60 and E-61 does not provide a discussion of the potential impact to NSO within the larger assessment area. He stated that there is, however, a discussion of possible NSO impacts within the larger assessment area in other sections of the DEIR. See pages 3.4-43 for discussion concerning the status of NSO within the vicinity and region of the project site. Pages 3.4-44 and 45 provide a discussion of habitat condition and suitability for NSO occupancy surrounding the project site. The biological assessment concludes that "adjacent properties do not provide suitable habitat that would be used by the NSO." Pages 3.4-128 and 129 discuss the likelihood of NSO occupancy on adjacent properties

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given extensive disturbance/development. Mr. Motroni concludes that the discussion on page E-60 and 61 should summarize the above or make reference to biological assessment findings on past timber harvest and development in the larger assessment area and their influence on owl habitat suitability and activity centers. Considering that the potential impact to NSO has not been evaluated for the larger biological assessment area in Section IV (Cumulative Impact Assessment) of the THP, the RPF shall revise the plan and include a discussion, as described above in Calfire biologist, Bob Motroni's evaluation. **Calfire Recommendation 1.M. Answer to Agency Question 18.**

In addition, the plan area habitat typing was evaluated during the PHI. It is not obvious that the habitat typing is consistent with the Attachment A of the new guidance document for Calfire take avoidance determination, reference Section III(2) of USFWS Take Avoidance Analysis-Coast (February 27, 2008). Specifically, the RPF shall evaluate the habitat typing, and revise the plan if necessary, to ensure that NSO habitat is accurately typed, meeting the definition for foraging ( $\geq 40\%$  canopy cover of trees  $\geq 11"$  DBH, basal area  $\geq 75$  ft/ac) or nesting/roosting ( $\geq 60\%$  canopy cover of trees  $\geq 11"$  DBH). **CDF Recommendation 1.N.** Please see DFG PHI report for additional information and recommendation.

A single large and mature redwood tree was noted in the center portion of the plan area, north east of the proposed horkelia reserve. The tree, while not an old growth tree, is one of the largest on the property and one that has more potential wildlife values than found in the rest of the project area. This tree is also near the head of a Class III watercourse. The RPF agreed to retain the tree for present and future wildlife habitat and to extend the Class III watercourse buffer to include this tree. The RPF shall revise the plan and map to show the large redwood and surrounding area as being retained, (as discussed in the field) and give the tree a map point designator. **Calfire Recommendation 1.O.** Please see DFG report for additional information regarding the retention of this tree.

Foothill yellow legged frogs (FYLF) were noted during the PHI. Geoff Monk, consulting biologist, showed the PHI attendees two small pools in Patchett Creek where the frogs could normally be seen at this time of year. He then pointed out a frog in each pool. Mr. Monk stated that he has tracked the FYLF and has seen them disperse (migrate) within Patchett Creek, upstream where sunlight is more available during the cool wet months and downstream where it is shadier and cooler with more pool habitat available during the warm dry months. Protection measures for FYLF are provided in the plan in Section II, Item 32. These may not be consistent with the slope dependent Class II watercourse buffer width described in Section II, Item 26. The RPF shall review and revise the plan, if necessary, for consistency and for providing appropriate protection measures, as

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described in the plan. **CDF Recommendation 1.P.**

Please see DFG'S PHI report for addition information and review of biological resources.

13. **CULTURAL AND HISTORICAL RESOURCES (ITEM 36).**

A professional archaeological survey was conducted. Also, Chuck Whatford (CDF Archaeology) conducted an onsite, focused, archaeological PHI, which was attended by representatives of the Kashia Band of Pomo Indians. Reviewing staff, please see Chuck Whatford's PHI report, as well, as this Calfire inspector's confidential PHI discussion regarding cultural resources.

14. **CUMULATIVE IMPACTS ASSESSMENT.**

The THP and the EIR provide the reviewer with a thorough analysis of watershed conditions, biological/botanical resources, as well as soil resources. These documents include mitigation for the protection of these resources. The Erosion Control Plan (ECP) addresses soil stabilization and the prevention of sediment delivery to watercourses, thus protecting the beneficial uses of water. This PHI report address the adequacy of mitigation measures proposed in the plan and recommends mitigation where necessary to ensure the compliance with the Forest Practice Rules for resource protection. Please reference Item 5, 6, 7, and 12 of this PHI report. *Answer to Agency Question 14.*

I have reviewed the THP, the cumulative impact assessment, the DEIR, the ECP, and have conducted a field review of the proposed timber operations. Impacts from this timberland conversion have been considered by the RPF and, with mitigation, are not expected to cause or add to the potential for significant, cumulative, or adverse impact. A complete and thorough cumulative impacts assessment has been included in the DEIR. This assessment as well as the rest of the DEIR was reviewed and accepted by the department, and determined that the conversion of timberland has been mitigated to a level of less than significant.

15. **NOTICE OF INTENT.**

An accurate Notice of Intent has been posted at Annapolis Road and the property access road.

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## 16. PUBLIC ISSUES.

The DEIR addresses public concerns that were given to the department during the initial submission of a timberland conversion on the ownership in 2004. These concerns are shown in a summary table in Chapter 1 of the DEIR. The table references the appropriate location in the DEIR where the concern is addressed.

In Agency Question 21, 1<sup>st</sup> Review requests that I provide a response to the concerns raised in a public comment letter from the Klamath Forest Alliance, THP Tracking Center. Four areas of concern are addressed in the letter. 1) Erosion Hazard Rating (EHR) greater than low and winter operations. Response: Please reference Item 3 and 5 of this PHI report; winter operations are not proposed. 2) Spotted Owl –Degraded Habitat. Response: Please reference Item 12 of this PHI report which includes information from Calfire Biologist, Bob Motroni, on the adequacy of protection measures for NSO. 3) 303(d) Watershed/ Winter operations in WLPZs RMZs ELZs and unstable areas. Response: Please reference Item 3, 5, and 7 of this PHI report for information and recommendations relating to this subject. No timber operations are proposed in any WLPZ, RMZ, ELZ, etc., these watercourse buffers are not included in the plan area. Winter operations are not proposed in the plan. There are no unstable areas within the plan area. Please reference CGS, Huyette's PHI report. 4) Beneficial Uses of Water/winter operations in WLPZ, RMZ, ELZ, unstable areas. Response: As stated above, no timber operations are proposed in any WLPZ, RMZ, ELZ, etc., these watercourse buffers are not included in the plan area. Winter operations are not proposed in the plan. There are no unstable areas within the plan area. Please reference CGS, Huyette's PHI report. *Answer to Agency Question 21.*

Ms. Wellman's letter to the department, addresses four concerns. 1) Roads inaccurately described. Response: Existing Permanent, Existing Seasonal and Proposed Temporary Roads were visited during the PHI. Although, PHI recommendations have been made concerning roads within the plan area, the roads were determined to be described accurately on the THP map. The existing seasonal roads are part of a road system that has not been used for logging since prior to the Forest Practice Act of 1973. These roads have had vegetation become established on them but the road prism is still intact and it is apparent that they are existing and in good condition (with the exception of the entrenched road at Map Points 3 – 5.) 2) The pond not mapped. Response: CDF Recommendation 1.H., requires that all wet areas (including ponds) proposed for removal be mapped on the plan maps. 3) Water wells not mapped. Although the plan map does

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not show domestic water supplies (DWS) off property, the PHI review team referred to landowner letters and maps for review of DWS that may be impacted by the project. Please reference Item 9 of this PHI report for further information. 4) Birds and other animals use the forests as homes, no list submitted to date. Response: The THP addresses listed species and the DEIR supplies a list of wildlife noted on the project area.

“An Updated Guide to the Reference Values Used In The Southern Oregon/Northern California Coho Salmon Recovery Conservation Action Planning (CAP) Workbooks” was sent to the Department by a member of the public. Response: The conversion THP project area is not within a planning watershed that is known to have been occupied by coho salmon since 1990. The plan, revised to meet the 2010 FPR, complies with the rules for the protection and restoration of the beneficial functions of the riparian zones in watersheds with listed anadromous salmonids, 14CCR 916.9.

Green house gases (GHG), climate change and global warming have been evaluated in the plan and the DEIR. An evaluation is included in Section IV (Cumulative Impacts Analysis) of the THP and the DEIR addresses these issues in Section 3.3-4 thru 3.3-5 and in Section 4-13 thru 4-17. The project area is part of the timberland on the ownership, but not all timberland is proposed for conversion. There will be timberland retained in a deed restriction for the areas not proposed for conversion. The timberland to be converted has been reduced since submission of the plan due to additional retention areas in watercourse buffers and other resource protections. The RPF will revise the plan and update the actual acreage proposed for harvest and vineyard development. Please reference CDF Recommendation 1.A. The plan and DEIR conclude that carbon sequestration rates will be reduced with the removal of some of the timberland on the property, but that the vineyard and retention areas will sequester more GHG than will be produced by the project. The analysis in the DEIR was evaluated by the department (Doug Wickizer, Environmental Review). The department found it adequately addressed and mitigated to a level of less than significant. *Answer to Agency Question 20.*

17. **OTHER.**

Agency Question 19 raised the concern of visual impacts of the project to the area, especially Annapolis Road. The THP and the DEIR give a comprehensive analysis of visual resources in Section IV, Item 5 (Cumulative Impacts Assessment) of the THP and in Chapter 3.11 of the DEIR. The vineyard development will border Annapolis Road in several locations but is broken up by reserves, wetlands, other ownerships, timbered watercourse buffers, and areas of non development. The visual impact of this project will

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be similar to other vineyard development and vineyard conversion projects in the surrounding area. The DEIR was reviewed and accepted by the department. It states that the project conforms to the Sonoma County General Plan and that the impact will be less than significant. Considering this, no additional mitigation is deemed necessary for visual impacts. *Answer to Agency Question 19.*

Flagging of the project boundaries and WLPZs was reviewed in the field and was found to be lacking in some areas, or sparse and barely visible in others. In addition, there were many different types of flagging noted in the field, but a code is not provided Section II of the plan. For operational information, the RPF shall provide a flagging code in Section II of the plan. **Calfire Recommendation I.Q.** To prevent timber operations from occurring outside the plan area and help prevent heavy equipment from encroaching into the WLPZ, the RPF shall reflag the revised plan/WLPZ boundary and enhance field flagging to be plainly visible throughout the plan area prior to timber operations. **Calfire Recommendation 3.**

#### ANSWERS TO REVIEW TEAM'S QUESTIONS

- Contact CDF Archaeology (Chuck Whatford) @ (707) 576-2966, [Chuck.Whatford@fire.ca.gov](mailto:Chuck.Whatford@fire.ca.gov) for a Mutually Agreeable PHI date.  
*Chuck Whatford attended the PHI.*
- Contact CGS (Michael Huyette) @ (707) 576-2987, [Michael.Huyette@fire.ca.gov](mailto:Michael.Huyette@fire.ca.gov) for a Mutually Agreeable PHI date.  
*Michael Huyette attended the PHI.*
- Contact WQ (Cheri Blatt) @ (707) 576-2755, [cblatt@waterboards.ca.gov](mailto:cblatt@waterboards.ca.gov) to schedule a Mutually Agreeable PHI date.  
*Cherie Blatt attended the PHI.*
- Contact DFG (Brenda Blinn) @ (707) 944-5541 or [bblinn@dfg.ca.gov](mailto:bblinn@dfg.ca.gov) to schedule a Mutually Agreeable PHI date.  
*Brenda Blinn attended the PHI.*

#### **RPF Questions to be addressed prior to PHI:**

*The RPF provided his responses at PHI to all participating agencies.*

1. In the letter to CAL FIRE dated May 19, 2009, the RPF indicated that the roads located outside of property boundary of this project in the NW ¼ of Section 19 and the SW ¼ of the NW ¼ of Section

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18 "Shall be left in a better than current condition by the LTO". To provide an enforceable standard, revise THP Item #24 or 25 in Section II to indicate that the non-appurtenant roads "Shall be left in a better than current condition by the LTO".

*The RPF's response is adequate. In addition please reference CDF Recommendation 1.H. Permanent roads are used by the landowner and by adjacent residents for year round access to their properties. Although there is rock on the surface of the roads, additional rock is necessary to meet the permanent standards defined by 14CCR 895.1 and provide soil stabilization and filtering ability for the protection of the beneficial uses of water. The RPF shall revise the plan in Section II, Item 25, and state that prior to the completion of timber operations, mapped permanent roads shall be improved where necessary to meet the permanent road standards.*

2. Regarding the NSO information on page E-20, for plan accuracy and to provide an enforceable standard, revise item "(b)" under Operational Protection Measures to include clear and concise language that the CAL FIRE take determination shall be amended into the THP prior to the commencement of operations. This amendment is in addition to the other circumstances that would require the THP being amended that are outlined in this section. In addition, make the same revision as outlined above to item "4)" of the Mitigation Proposed to Prevent Adverse Impacts to the Biological Assessment Area on page E-82.

*The RPF has revised the plan as requested.*

3. THP 1-04-055 SON (Zapar Inc., Roger Roessler, President) and 1-04-059 SON (Robert Martin) are listed in the table of past projects occurring within the watershed and biological assessment areas during the previous 10-year period. These plans have not been approved or operated on due to litigation that determined an EIR would be required rather than the Mitigated Negative Declarations that were submitted with the original THPs. In a recent conversation with the RPF preparing the revised THPs in conjunction with the EIRs, he indicated that a combined EIR was nearly completed and that both plans will be submitted to CAL FIRE for review. Since these plans have not been approved but are pending resubmittal and review in the near future, these plans are considered potential future projects. To comply with the requirements for disclosure of future projects, revise the appropriate section of the CIA to include a brief discussion of these two potential conversions including potential cumulative impacts when combined with the current proposed project.

*The RPF has revised the plan as requested.*

4. Item #18 on Page 8 states that grass seed or mulch may be used for soil stabilization and erosion control. Please revise the THP to indicate that only native grass species appropriate for the area and weed-free mulch will be used. Also please state that annual (or "Italian") ryegrass (*Lolium multiflorum*) which is considered a persistent and invasive species will not be used for erosion control. (DFG)

*The RPF has revised the plan as requested.*

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5. The following questions refer to Biological Resources in Section II, Item 32, starting on page E-21:

- a. The THP indicates that the THP area contains suitable habitat for several diurnal and nocturnal raptor species.
- i. Since the potential exists for the permanent loss of nesting habitat for several raptor species, please consider conducting protocol-level raptor surveys within the THP area prior to operations. Please refer to DFG's *Suggested Raptor Survey Methods (Draft; March 8, 2001)*.

*The RPF has revised the plan as requested.*

- ii. Please specify that the LTO will examine each tree prior to felling operations and contact the RPF if a raptor nest is discovered during operations.

*Per Brenda Blinn, DFG understands that the biologist will be looking at trees during raptor surveys but would prefer that the LTO also examine each tree prior to felling.*

- iii. Please revise Item 32(b) to indicate all non-listed raptor species which may occur within the THP area.

*The RPF's response is acceptable.*

- iv. Please note that the Cooper's hawk and the sharp-shinned hawk are no longer state-listed as Species of Special Concern (2008) although, as correctly stated in the THP, raptors are protected under the Migratory Bird Treaty Act and their nests, eggs and young are protected under the Fish and Game Code 3503.5.

*The RPF has revised the plan for accuracy.*

- b. Please specify in the THP that DFG will be contacted to discuss protective measures for any non-listed (pursuant to 14 CCR 919.4) as well as listed species found during harvesting activities.

**Per Brenda Blinn, DFG, the protection measures in the plan are acceptable.**

- c. The THP indicates that nest boxes will be installed within the plan area. Please clarify in the THP the targeted species for installation of nest boxes, their intended purpose, and whether the nest boxes will be monitored.

**The RPF's response is adequate.**

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- d. Please assess the potential adverse impacts of the conversion to California red-legged frog (*Rana draytonii*; CRLF) which is federally-listed as “threatened” and is a State species of special concern. Please include an assessment of potentially suitable aquatic and upland habitat for CRLF within two miles of THP boundaries. Please refer to the protective measures included in the *USFWS Take Avoidance Scenarios* (dated March 25, 2008). See also [http://www.fire.ca.gov/resource\\_mgt/resource\\_mgt\\_forestpractice\\_pubsmemos\\_memos.php](http://www.fire.ca.gov/resource_mgt/resource_mgt_forestpractice_pubsmemos_memos.php) and *Information Needs and Guidelines for Timber Harvest Plans (THPs) for US Fish and Wildlife Service Technical Assistance Analysis- California Red-legged Frogs. 2 pp. March 25, 2008.*

*Please reference DFG PHI report for information on California Red Legged Frogs.*

- e. In addition to the map of the thin-lobed horkelia preserve, please provide a map showing the location(s) of other populations of horkelia that may be adversely affected by operations. (DFG)

**This issue was discussed with DFG during the PHI. The RPF’s response is acceptable.**

6. Regarding THP maps:

- a. Maps on pages E-26 and E-27 do not clearly indicate the Class II and III watercourses in the vicinity of the conversion areas. Please revise.

*The RPF has revised the plan as requested.*

- b. Please consider including a map in the THP showing the location and extent of the conservation easements areas, streamside conservation areas, and wetlands proposed to be created as mitigation. (DFG)

*The RPF’s response is acceptable.*

7. In Section IV, page E-68, the Pacific fisher is described as a state species of special concern. The fisher has recently been uplisted to Candidacy status under the California Endangered Species Act (CESA). Please address any potential impacts to Pacific fisher under Sections II and IV. (DFG)

*The RPF has revised the plan as requested.*

**RPF Archaeology Questions to be addressed prior to Approval (For confidentiality purposes, please**

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submit Archeological responses attached separately.)

8. – 10. The Archeological questions are provided for the RPF in this original document, but have been omitted from copies in order to maintain confidentiality in accordance with policy. A copy has been provided to the CAL FIRE field unit as well. The original copy of this material is maintained in a confidential file at CAL FIRE Northern Region Headquarters, 135 Ridgway Avenue, Santa Rosa, CA 95401. CAL FIRE ARCH

*Please see Calfire Archaeologist, Chuck Whatford, Confidential PHI report for information regarding Archeological concerns. Also, please see Calfire Inspector, Gerri Finn's, PHI report, Item 13 – Confidential, for information regarding Archeological concerns.*

**Agency Questions to be addressed at PHI:**

11. Considering the amount of exposed soil generated by this operation in conjunction with the conversion activities and the potential of significant amounts of rainfall, should operations during the extended winter period between Oct. 15<sup>th</sup> – Nov. 15<sup>th</sup> and Apr. 1<sup>st</sup> – May 1<sup>st</sup> be permitted or should all operations cease between Oct. 15<sup>th</sup> and May 1<sup>st</sup>?

*Please see Item 5 of this PHI report for information and recommendations regarding extended wet weather period operations.*

12. Given that there will be significant amounts of exposed soil above the various WLPZs, will the width of the WLPZs proposed in Item #26 provide an adequate filter strip to ensure the water quality found in the various watercourses and wetlands is maintained?

*Please see Item 7 of this PHI report for information and recommendations regarding the adequacy of WLPZ widths.*

13. Evaluate the proposed operations including the use of landings in the vicinity of watercourses and designated wet areas. Since some of these areas are outside of the conversion area, has adequate mitigation been proposed to protect these watercourses and wet areas and downstream beneficial use of water?

*Please see Item 6 of this PHI report for information and recommendations regarding the near stream landings. Also, please see DFG PHI report for additional information and recommendations.*

14. Has adequate mitigation been included in the THP to ensure that significant adverse impacts will not occur to the watershed, biological/botanical and soil resources of the area covered by the proposed conversion?

*Please see Item 14 of this PHI regarding the adequacy of plan mitigations.*

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15. Evaluate potential impacts to domestic water sources within or immediately adjacent to the proposed project. Pay special attention to water sources such as Mr. Hall's that is located on the Codorniu Napa property yet supply domestic water to an off-site location.

*Please see Item 9 of this PHI report for information and recommendations regarding DWS.*

16. Evaluate the NSO information found in Section V to help ensure that a "take" of NSO will not occur as a result of this operation.

*Please see Item 12 of this PHI report for information regarding NSO.*

17. Since the minimum acreage of 200 acres within a 0.7 mile and 836 acres within 1.3 miles radius of activity centers SON 043 and SON 058 have not been met as indicated on the table on page E-148, verify that this operation shall not further reduce the amount of nesting/roosting habitat below the acreage currently shown in the THP.

*Please see Item 12 of this PHI report for information regarding NSO.*

18. From a cumulative impact standpoint, has the potential impact to the NSO in the biological assessment area been adequately discussed on page E-60 and E-61? It appears that this discussion only includes impacts associated with the project area and not the entire biological assessment area.

*Please see Item 12 of this PHI report for information and recommendation regarding NSO.*

19. Considering the potential impact to the visual resources of the area primarily adjacent to the Annapolis Road, has adequate mitigation been included to reduce the potential impact to a less than significant level or is additional mitigation such as a visual buffer adjacent to Annapolis Road needed?

*Please see Item 17 of this PHI report for information regarding aesthetics.*

20. Has the RPF provided adequate information in the THP and EIR concerning potential impacts of this project on global warming, climate change and greenhouse gases? Has the project been adequately mitigated to address potential impacts of this project on these resources?

*Please see Item 17 of this PHI report for information GHG.*

21. Public comment was received from the THP Tracking Center in Klamath Falls, Oregon on May

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18, 2009. Please provide a response to the concerns raised in this letter in the PHI report for this THP. If you have not received a copy of this correspondence, contact the Region office for a copy. As of 5/27/09, this is the only comment letter that has been received for this plan.

*Please see Item 16 of this PHI report for information regarding Public Concerns.*

22. **For CGS:** Does the proposed 170-acre conversion, which includes operations on and adjacent to identified unstable areas, pose a potential of substantially reducing the stability of slopes on or adjacent to the property that could pose a risk to public safety, domestic water supplies, or water quality?

*Please see CGS PHI report for information regarding unstable areas.*

**Agency Archaeology Questions to be addressed at PHI: (For confidentiality purposes, please submit Archeological responses attached separately.)**

23. – 25. The Archeological questions are provided for the Inspector in this original document, but have been omitted from copies in order to maintain confidentiality in accordance with policy. A copy has been provided to the CAL FIRE field unit as well. The original copy of this material is maintained in a confidential file at CAL FIRE Northern Region Headquarters, 135 Ridgway Avenue, Santa Rosa, CA 95401. CAL FIRE ARCH

*Please see Calfire Archaeologist, Chuck Whatford, Confidential PHI report for information regarding Archeological concerns.*

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## CDF PHI RECOMMENDATIONS

1. **Prior to noon, on the Monday BEFORE** the scheduled Second Review Team meeting, the RPF shall make the following revisions and send the original revisions to CDF-Santa Rosa.
  - A.
    1. In Section II, the plan states that 171 acres of timberland will be developed to vineyard, but because some of this acreage has been removed from the proposed plan since its acceptance by the department, revised project acreage needs to be included in the plan for accuracy. For accuracy of the administrative record, the RPF shall revise the Section I, Item 8 and correctly state the number of acres proposed in the project. In addition to revising Section I, the RPF shall also correct acreage references for accuracy throughout the proposed plan.
    2. Also, the plan maps in Section II, and where necessary throughout the plan, shall be revised to accurately reflect the plan boundaries.
  - B. In Section II, Item 18, the reference to 14CCR16(b)(1) and (2) as well as 14CCR 916.9.1(1 and n) and the definition of saturated soils, shall be revised to be consistent with language in the 2010 Forest Practice Rules.
  - C. To ensure soil stabilization and the protection of the beneficial uses of water, operations that create large areas of exposed soil such as brush removal, stump pulling and discing, shall not occur during the extended wet weather period.
  - D. Considering the extensive vegetation removal proposed for timberland conversion, the suspension of operations once three inches rain has fallen is appropriate for the protection of the beneficial uses of water and erosion control. The RPF shall revise the plan to clearly state that timber operations shall cease when three inches of cumulative rainfall has been measured in the Annapolis area.
  - E. For clarity and consistency with agency requirements, LTO information, and enforceability of the Erosion Control Plan (ECP), the RPF shall revise the winter operations plan to be consistent with the 2010 Forest Practice Rules and shall include an extended winter period operations plan (please consider table form) for the period between October 15 and November 15, and between April 1<sup>st</sup> and May 1<sup>st</sup>, that 1) discloses how and when, soil is to be stabilized in the plan area, that 2) is in conformance with the various agency permits and 3) is consistent with the ECP.

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- F. The existing but proposed temporary road that accesses Map Points 8 and 9 has changed due a change in that plan boundary between Map Points 8 and 9. In addition, Map Points 8 and 9 are no longer part of the proposed plan. Also, the recently surveyed location of the road at Map Point 7 has determined that the actual road location is somewhat different than the mapped location, and that Map Point 7 is off property and is the responsibility of adjacent landowner, MRC. The RPF shall revise all pertinent sections of the plan and maps to accurately reflect all temporary, seasonal and permanent roads and Map Points.
- G. The landing at the southwestern most corner of the property was proposed to be in the road that is adjacent to the ELZ of a Class III watercourse. For soil stabilization and protection of the beneficial uses of water, the RPF shall revise the plan and map(s) and designate a map point identifier for the landing referenced above. For LTO information, the RPF shall include language in Section II and describe the location of the landing and the post harvest soil stabilization measures, as discussed during the PHI.
- H. Although there is rock on the surface mapped permanent roads, additional rock is necessary to meet the permanent standards defined by 14CCR 895.1 and provide soil stabilization and filtering ability for the protection of the beneficial uses of water. The RPF shall revise the plan in Section II, Item 25, and state that prior to the completion of timber operations, mapped permanent roads shall be improved where necessary to meet the permanent road standards.
- I. One short unmapped Class III watercourse was discovered during the PHI between Map Points 4 and 5. In addition, an unmapped small Class II pond was discovered near the permanent road to the Weller residence. For accuracy and LTO information, all pertinent plan maps shall be revised to include, the unmapped Class III watercourse, the unmapped small pond and unmapped wetlands.
- J. There are new Forest Practice Rules for watercourse protection and protection of listed Anadromous species, effective 1/1/2010. Considering this, the RPF shall revise the plan in Section II, Item 26, and in all pertinent areas, to conform to the new rules and discuss Class II typing (large/standard). This shall include revising Table 1. The only Class I watercourses immediately affected by the plan are domestic water supplies (DWS). Considering that Class I watercourses, other than DWS, are not within or adjacent to the plan area, the RPF shall revise Table 1, and include only relevant Class I watercourse (DWS) information and protection measures. The Class III protection measures shall be revised to be consistent with the minimum now required by the 2010 FPRs.

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- K. The ECP states that a permanent cover crop will be established on vineyard avenues/perimeter roads and straw wattle waterbars placed for erosion control. This cover crop with erosion control facilities will add to the sediment filtering ability of the watercourse buffers as well as the dispersal of water before it is likely to concentrate and cause erosion. For enforceability, the RPF shall add the erosion control measures for perimeter roads and vineyard avenues, including timing of the installation, to Section II of the THP.
- L. The RPF received information stating that the Domestic Water Source at 34175 Annapolis Road were wells but at the PHI, it was discovered that one of the DWS is a surface fed source. The RPF shall revise the plan and provide appropriate protection measures for the spring fed surface domestic water source at 34175 Annapolis Road.
- M. Considering that the potential impact to NSO has not been evaluated for the larger biological assessment area in Section IV (Cumulative Impact Assessment) of the THP, the RPF shall revise the plan and include a discussion of the potential impacts.
- N. It is not obvious that the habitat typing is consistent with the Attachment A of the new guidance document for Calfire take avoidance determination, reference Section III(2) of USFWS Take Avoidance Analysis-Coast (February 27, 2008). Specifically, the RPF shall evaluate the habitat typing, and revise the plan if necessary, to ensure that NSO habitat is accurately typed, meeting the definition for foraging ( $\geq 40\%$  canopy cover of trees  $\geq 11''$  DBH, basal area  $\geq 75'$ ft/ac) or nesting/roosting ( $\geq 60\%$  canopy cover of trees  $\geq 11''$  DBH).
- O. A single large and mature redwood tree was noted in the center portion of the plan area, north east of the proposed horkelia reserve. The RPF agreed to retain the tree for present and future wildlife habitat and to extend the Class III watercourse buffer to include this tree. The RPF shall revise the plan and map to show the large redwood and surrounding area as being retained, (as discussed in the field) and give the tree a map point designator.
- P. Protection measures for Foothill Yellow Legged Frog are provided in the plan in Section II, Item 32. These may not be consistent with the slope dependent Class II watercourse buffer width described in Section II, Item 26. The RPF shall review and revise the plan, if necessary, for consistency and for providing appropriate protection measures, as described in the plan.
- Q. Flagging of the project boundaries/WLPZs was reviewed in the field and was found to be

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lacking in some areas, or sparse and barely visible in others. In addition, there were many different types of flagging noted in the field, but a code is not provided Section II of the plan. For operational information, the RPF shall provide a flagging code in Section II of the plan.

- R. It agreed during the focused Archaeology PHI that the RPF, the LTO, the Kashia representative(s), the Calfire Archaeologist and the Calfire Forest Practice Inspector, would attend an onsite, pre operational meeting, to discuss how timber operations will proceed while protecting the known and unknown archaeological sites. The RPF shall revise the plan in Section II, Item 36, to state that, prior to timber operations and in the first season of operations, an onsite pre operations meeting shall be arranged by the RPF. This meeting shall include the RPF, the LTO, and an appropriate representative of the Kashia Band of Pomo Indians, Calfire Archaeologist, and the Forest Practice Inspector.
2. The WLPZ boundary/ plan boundary shall be flagged by the RPF, to conform to the new rules, prior to timber operations.
  3. To prevent timber operations from occurring outside the plan area and help prevent heavy equipment from encroaching into the WLPZ, the RPF shall reflag the revised plan/WLPZ boundary and enhance field flagging to be plainly visible throughout the plan area prior to timber operations

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ERNIE LOVELESS  
Unit Chief, Sonoma Lake Napa Unit

Original signature is on file with CDF

by: Gerri Finn RPF#2669  
Unit Forester

Attachments: CDF PHI map

cc: Region/File/Field  
RPF  
CGS  
DFG  
WQ

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### 13. CULTURAL AND HISTORICAL RESOURCES (ITEM 36) - CONFIDENTIAL

A professional archaeological survey was conducted and a revised Archaeological Addendum has been developed for the proposed plan. The original addendum was revised at the request of Calfire Archaeology and as a result of finding several new artifacts and sites during the preharvest inspections. Chuck Whatford (CDF Archaeology) conducted an onsite, focused, archaeological PHI, which was attended by representatives of the Kashia Band of Pomo Indians, and the consulting Archeologist, Tom Origer. On that day (June 16<sup>th</sup>, 2009) but during the agency PHI (not the focused archaeological PHI) two cultural artifacts were found by Calfire inspector, Gerri Finn. A worked point was found in disturbed soil on the property boundary of Artesa and Mendocino Redwood Company. A handstone was found near Map Point 8. Due to the findings, an additional focused archaeological inspection took place to review the newly found artifacts and their site location. The inspection occurred on June 18, 2009, and was attended by the RPF, Jeff Longcrier, the consulting archeologist, Tom Origer, Calfire Archaeologist, Chuck Whatford and Calfire Inspector, Gerri Finn. Also, an additional inspection was conducted at the request of the Kashia band of Pomo Indians to review the newly discovered sites. The inspection took place on June 29<sup>th</sup>, 2009. Attending the inspection were RPF, Jeff Longcrier, Kashia Band of Pomo Indians Tribal Representatives, Reno Franklin and Walter Antone, Calfire Archaeologist, Chuck Whatford and Calfire Inspector, Gerri Finn. Many other cultural artifacts were discovered on this third day of the focused archaeological PHI as well as historical sites. It was determined by Calfire, that the Archaeological Addendum did not accurately, nor completely, address the cultural resources within the proposed plan area. A new addendum was requested by the department, one that would ensure that historic and cultural resource protections are adequately addressed within the proposed plan. Again, please see Chuck Whatford's PHI report for additional information regarding the revised Archaeological Addendum. A revised archaeological addendum was subsequently developed and submitted to the department. An additional focused archaeological PHI was conducted to review the newly revised addendum on February 2<sup>nd</sup>, 2010. In attendance at the focused PHI were RPF, Jeff Longcrier, Consulting Archaeologists, Tom Origer and Eileen Barrow, Kashia Band of Pomo Indians Tribal Representatives, Reno Franklin, Walter Antone and Derrick Antone, Calfire Archaeologist, Chuck Whatford and Calfire Inspector, Gerri Finn. Although new artifacts were found during this inspection, no new sites were discovered.

The concern of protecting cultural resources from accidental site disturbance, at known and unknown sites was discussed during the inspections. There will be an agreement

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between the landowner and the Kashia for monitoring operations for archaeological impacts, per Longcrier and Franklin. This agreement is not an enforceable part of the THP/TCP. It was also agreed that the RPF, the LTO, the Kashia representative(s), the Calfire Archaeologist and the Calfire Forest Practice Inspector, would attend an onsite, pre operational meeting, to discuss how timber operations will proceed while protecting the known and unknown archaeological sites. The RPF shall revise the plan in Section II, Item 36, to state that, prior to timber operations and in the first season of operations, an onsite pre operations meeting shall be arranged by the RPF. This meeting shall include the RPF, the LTO, and an appropriate representative of the Kashia Band of Pomo Indians, Calfire Archaeologist, and the Forest Practice Inspector. **CDF Recommendation 1.R.** In addition, considering that an LTO is not required for the development of the project after timber operations are complete, Calfire will assign responsibility for resource protection during the life of the timberland conversion permit (TCP), and as part of the TCP.



## DEPARTMENT OF CONSERVATION

### CALIFORNIA GEOLOGICAL SURVEY

135 RIDGWAY AVENUE • SANTA ROSA, CALIFORNIA 95401

PHONE 707 /576-2987 • FAX 707 /576-2979 • TDD 916 / 324-2555 • WEB SITE conservation.ca.gov

Agency  
Review Team  
Letter 4

TO: William Snyder, Deputy Director for Resource Management  
California Department of Forestry and Fire Protection  
135 Ridgway Ave.  
Santa Rosa, California 95401

FROM: C. Michael Huyette  
California Geological Survey  
135 Ridgway Ave.  
Santa Rosa, California 95401

DATE: March 4, 2010

SUBJECT: ENGINEERING GEOLOGIC REVIEW OF TIMBER HARVESTING PLAN  
1-09-058 SON

Dates of Inspection: 6/16/09 and 2/16/10

Time Spent on Review:  
Field - 24 hr., Office -36 hr

County: Sonoma

Quadrangle: Annapolis 7.5'

Watershed: Grasshopper Creek, Little Creek,  
and Annapolis; CalWater version 2.2 Nos.  
1113.830003, 1113.830004 and 1113.830303

Timber and Timberland Owner:  
Codorniu Napa

Logging Method: Tractor, Skidder-Forwarder  
and Feller buncher

Silviculture: Conversion

EHR: Moderate

Geologic Concerns:

Potential impacts of timber harvesting on slope stability and sediment yield; erosion along proposed and existing roads and watercourse crossings; potential adverse impacts to water quality due to vineyard conversion development.

Participants-Affiliation:

Jeff Longcrier - RPF  
Mona Marlow - Artesa Winery  
Matt O'Connor - Consulting Geologist  
Nick Pappani - Raney Management EIR  
Geoff Monk - Monk & Associates  
Isabelle deGeofroy - Monk & Associates 2/16  
Lee Erickson - Erickson Engineering 2/16  
Gerri Finn - CF Forest Practice Inspector  
Brenda Blinn - DFG  
Cherie Blatt - NCRWQCB  
Scott Gergus - NCRWQCB  
Stephen Bargsten - NCRWQCB 2/16  
Don Braun - CGS 6/16  
C. Michael Huyette - CGS

Legal Description:

T. 10N, R. 13W, Sections 17 & 18:MD BL&M

Area: 171 acres

Slope: Ave. 2% to 35%, locally >35%

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*The Department of Conservation's mission is to protect Californians and their environment by:  
Protecting lives and property from earthquakes and landslides; Ensuring safe mining and oil and gas drilling;  
Conserving California's farmland; and Saving energy and resources through recycling.*

W. Snyder  
1-09-058 SON

March 4, 2010  
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- Blake, M.C., Jr., Smith, J.T., Wentworth, C.M., and Wright, R.H., 1971, *Preliminary Geologic Map of Western Sonoma County and Northernmost Marin County, California*: U.S. Geological Survey Basic Data Contribution 12, scale 1:62,000.
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- CAL FIRE, 2001, THP No. 1-01-171 SON Hydrologic Review: *Memorandum to Dave Driscoll, Region Chief, California Department of Forestry and Fire Protection* by Peter H. Cafferata, dated July 30, 2001, 6p.
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- Erickson Engineering, Inc; 2009, *Erosion Control and Mitigation Plan - Artesa Annapolis Vineyard*: Unpublished consulting engineering plan to Artesa Vineyards and Winery by Lee R. Erickson; dated November 12, 2009, 13 pages, 10 figures (Figure 10 consists of oversize blue-line Drainage and Erosion Control Plan Sheets C1 through C8 and W1, dated November 16, 2009).
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- Miller, V.C., and others, 1972, *Soil Survey of Sonoma County, California*: U.S. Department of Agriculture, Soil Conservation Service, 188 p., map scale 1:24,000.
- O'Connor Environmental, Inc., 2008(a), *Hydrologic Analysis, Artesa Fairfax THP and Conversion*: Unpublished consulting report to Raney Planning and Management, dated May, 2008 by Matthew O'Connor; Appendix M in *Fairfax Conversion Project Draft Environmental Impact Report, Volume II*; 61 pages, 3 Appendices.
- O'Connor Environmental, Inc., 2008(b), *Erosion Analysis, Artesa Fairfax THP and Conversion*: Unpublished consulting report to Raney Planning and Management, dated May, 2008 by Matthew O'Connor; Appendix N in *Fairfax Conversion Project Draft Environmental Impact Report, Volume II*; 31 pages, 2 Appendices.

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Raney Planning & Management, Inc; 2009, Fairfax Conversion Project Draft Environmental Impact Report, Volumes I and Volume II - Appendices: Unpublished Draft EIR prepared for the California Department of Forestry and Fire Protection, SCH# 2004082094, dated June 2009; Vol. I, 589 pages; Vol. II (Appendices A through Q), 704 pages.

Wagner, D.L., and Bortugno, E.J., 1982, Geologic map of the Santa Rosa Quadrangle, California: California Division of Mines and Geology Regional Geologic Map 2A, scale 1:250,000.

West Yost Associates, 2008, Hydrologic Analysis, Artesa Vineyards & Winery, Fairfax Timberland Conversion and Vineyard Development Project Hydrologic Evaluation: Unpublished consulting report to Raney Planning and Management, dated July 15, 2008 by S.R. Dalrymple; Appendix O in Fairfax Conversion Project Draft Environmental Impact Report, Volume II; 29 pages, 3 Attachments.

#### Aerial Photographs Inspected:

California Division of Forestry, 1981, Black and white aerial photographs: Flight 6-16-81 CDF-ALL-SR, Roll 10, Frames 9 and 10, nominal scale 1:24,000.

WAC Corporation, 1984, Black and white aerial photographs: Flight 4-20-84 WAC-84C, Roll 14, Frames 246 and 247, scale 1:31,000 (approx.).

WAC Corporation, 1988, Black and white aerial photographs: Flight 5-11-88 WAC-88CA, Roll 10, Frames 37 and 38, scale 1:31,000 (approx.).

WAC Corporation, 1992, Black and white aerial photographs: Flight 9-27-92 WAC-92CA, Roll 33, Frames 115 and 116, scale 1:31,000 (approx.).

WAC Corporation, 1999, Color aerial photographs: Flight 4-13-99 WAC-C-99CA, Roll 10, Frames 91 and 92, nominal scale 1:24,000.

#### Geologic Conditions:

Timber Harvesting Plan 1-09-058 SON, which is associated with the proposed Artesa Fairfax Vineyard conversion, is situated on the mostly north and south facing gentle slopes of Beatty Ridge that drain Class III and Class II watercourse tributaries into Grasshopper Creek (to the north) and the Wheatfield Fork Gualala River (to the south), approximately 1 mile east of the town of Annapolis in northwestern Sonoma County, California. The conversion THP area is underlain at depth by marine sandstone and siltstone bedrock of the Coastal Belt Franciscan Assemblage (TKfss; Blake and others, 1971; Fuller and others, 2002; Huffman and Armstrong, 1980; Wagner and Bortugno, 1982; see Map 1) which is exposed on the relatively steeper, lower slopes of the conversion area. The Coastal Belt Franciscan sandstone is generally a moderately- to well-consolidated gray-green greywacke that is variably fractured and moderately to deeply weathered in the upper few feet, becoming progressively harder and more competent with depth. The minor amount of shale observed is light red-brown, soft to moderately hard, and moderately to deeply weathered. Remnants of the Pliocene age Ohlson Ranch Formation (QTors) overlie most of the Franciscan basement rocks on the majority of the gently sloping ridge top in the THP conversion area (see Map 1). As observed during the PHI, The Ohlson Ranch Formation consists of uncemented and friable fine-grained silty sandstone. The formation is deeply weathered to an orange and light gray color with no distinct layering. The scattered Ohlson Ranch Formation ridge top outcrops are considered to be the remnants of a more continuous cover that locally

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eroded away after the land surface was uplifted (Fuller and Custis, 2002). Geologic conditions, including geomorphic setting, regional geologic setting, bedrock geology, geologic structure and seismicity, are described in the Fairfax Conversion Project Draft Environmental Impact Report, Chapter 3.6, Volume I (Raney Planning & Management, 2009) and consultant reports within the EIR Volume II Appendices (BACE Geotechnical; 2009; Brunsing Associates, 2002; O'Connor Environmental, 2008(a)(b)).

Site soils described by Miller (1972) are discussed in the THP on page 23, 110 and 111 (Estimated Surface Soil Erosion Hazard (EHR) map and worksheets). The soil profile and bedrock is well exposed in creek banks; old skid trails and road cuts, and appears consistent with the THP descriptions. Although Gold Ridge soils, derived from the underlying Ohlson Ranch Formation, cover most of the gentle ridge top slopes in the THP, no severe rill erosion or gullies were observed along the existing seasonal access roads in the THP area. O'Connor (2008(a)) notes that some areas of the Gold Ridge soils have shallow, clayey layers that create areas of shallow perched water table (wetland areas) and promote runoff rill and gully formation especially on the lower ridge slopes near their contact with underlying, less permeable, Franciscan Assemblage bedrock.

None of the published geologic references used for this review show landslides within the THP conversion area, nor does the RPF depict any unstable areas on the THP Maps. The potential effects of timber harvesting on the plan area slope stability are thoroughly discussed in the Draft EIR (O'Connor, 2008(a); West Yost Associates, 2008). O'Connor (2008(b)) discusses previous landslide assessments areas of low and high landslide potential and nearby rockslides, inner gorge and debris slides slopes but does not identify landslides on the slopes within the THP conversion area. The lack of evidence for landsliding at the site appears to be consistent with what was observed on the aerial photographs used for this review and with ground observations made during the PHI.

Agency Questions to be addressed at the PHI: (pertaining to the site geology)

22. **For CGS:** *Does the proposed 170-acre conversion, which includes operations on and adjacent to identified unstable areas, pose a potential of substantially reducing the stability of slopes on or adjacent to the property that could pose a risk to public safety, domestic water supplies, or water quality?*

CGS response: As noted above, no unstable areas were identified or observed on the proposed 170-acre conversion. Therefore, there appears to be no proposed operations that could possibly affect these unidentified unstable areas. The mitigations described in the THP and the other referenced Appendices of the Conversion Draft EIR appear reasonable to minimize impacts to public safety, domestic water supplies and water quality (Raney Planning & Management, Inc; 2009).

Specific Observations: (keyed to Map 2)

Comment Point 2) The outfall flow from a cross drain culvert under Annapolis Road has eroded a gully in the road fill on the north side of the conversion property outside of the planned vineyard location. The THP states on page E-10 that hand placed rock armor will mitigate and prevent further enlargement of a small channel scour area from the

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roadside drainage. The eroded gully appeared very steep and without proper keying and rock sizing, the armor may not remain in place during storm period discharge flows.

Comment Point 6) The THP describes repairs on an abandoned skid trail that is gullied by diverted Class III watercourse flows. The THP proposes to correct the diversion and drain the skid trail with rolling dips or water bars. During the PHI a wrecked old car body was observed on the skid trail about 60 feet from where the erosion gully crosses the skid trail and rejoins the watercourse. The gully along this last 60 feet is 4 to 6 feet wide and 6 to 8 feet deep. The skid trail along this last 60 feet is vegetated with mature ±50 year old Douglas fir and hardwood trees that are providing support to the gully side slopes. The RPF stated the old car body would be removed during construction of water breaks along the skid trail. Removing the existing mature vegetation along the last 60 feet of skid trail to drain the trail with dips or waterbars will likely cause increased gully erosion from loss of the existing root cohesion.

New Comment Point 12) During the PHI the proposed sump spillway outlet location was reviewed. The project consulting engineer said that specific detailed drawings of the sump overflow spillway have not been completed but the spillway would be a grouted rock channel down the side of the sump pond, discharging into a rock dissipater structure adjacent to the natural stream channel tributary to Patchett Creek. The tributary creek discharge location exposes mostly massive, well consolidated Coastal Belt Franciscan sandstone and appears appropriate for the planned dissipated sump pond outlet flows. However, the current THP does not describe the proposed sump pond outlet nor map its location. During the PHI the RPF stated an additional Comment Point 12 would be described in the THP and its location added to the THP Operations Map.

Specific Recommendations: (keyed to Map 2)

The following mitigation measures relating to the specific observations made during the PHI shall be made part of the THP.

Comment Point 2) Prior to Second Review the RPF shall add to the THP specific rock size and placement details to prevent movement from outlet flows discharging from the County road cross drain culvert.

Comment Point 6) Prior to Second Review the RPF shall add to the Comment Point 6 a description of the car body removal and state the trail shall not be reopened its last 60 feet from the diversion gully outlet.

New Comment Point 12) Prior to Second Review the RPF shall describe new Comment Point 12 in the THP and its location shall be added to the THP Operations Map.

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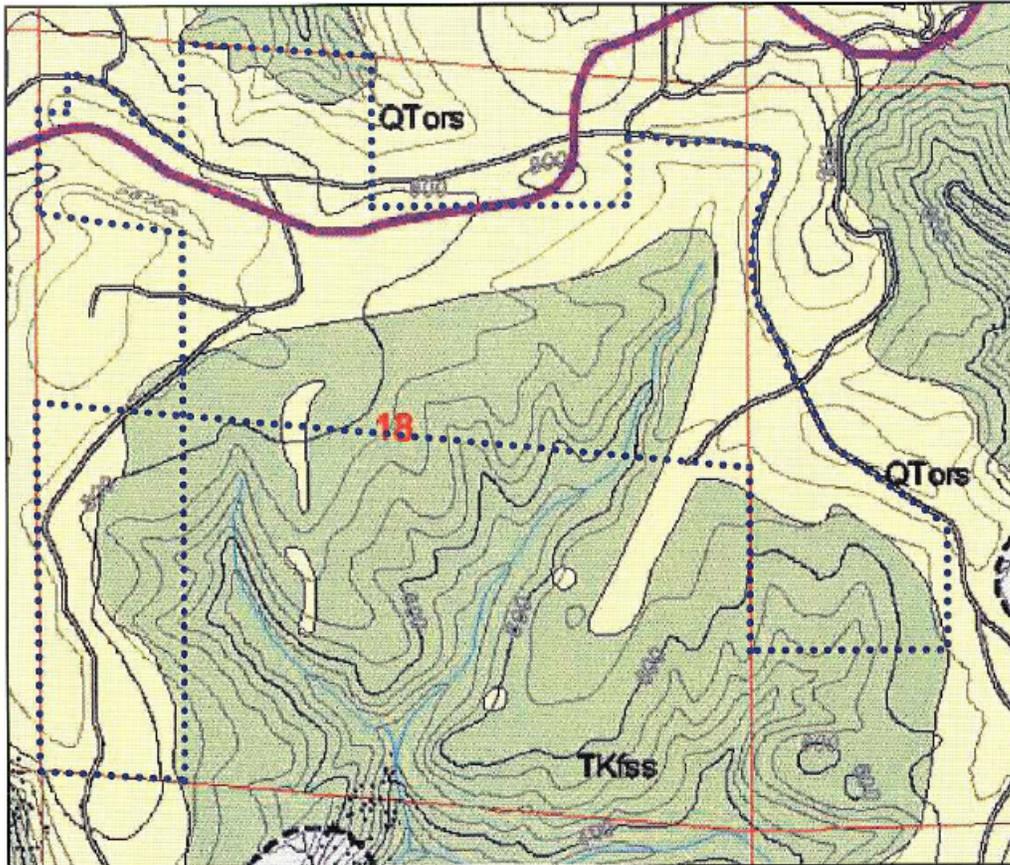


Original Signed By  
C. Michael Huyette, CEG 2035  
Certified Engineering Geologist  
Santa Rosa, California



Concur:  
3-4-10 Original Signed By  
Date, Thomas E. Spittler, CEG 1078  
Senior Engineering Geologist  
Attachments: Maps 1 and 2.

**Map 1**  
**Geology and Landslide Map to accompany**  
**Engineering Geologic Review**  
**Timber Harvesting Plan**  
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**EXPLANATION**

QTors Ohlson Ranch Formation  
 TKfss Coastal Belt Franciscan Assemblage  
 Geologic contact 

 Questionable  
 Unattributed  
 Landslide Deposits  
 Subbasin Boundary  
 Approximate Conversion  
 Project Boundaries

Bedrock Geology and Landslides from Fuller and Custis, 2002.

