



Agency
Comments
Response Letter
(Letter 5)

May 21, 2010

California Department of Forestry
Attn: Resource Management
135 Ridgway Ave
Santa Rosa, CA 95401

Re: 1-09-058 SON "Fairfax Conversion"

The following are my responses to recommendations made in the CAL FIRE,
Department of Fish and Game, Water Quality Control Board and California Geological
Survey (CGS) PHI reports:

CalFire PHI Recommendations:

- 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.

Please see revised THP pages E-2, 5, 15, 25-27, 81, and 84 accurately describing the updated plan acreage and plan boundaries. See also Water Quality Recommendation 5.

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

Please see revised THP pages E-8, through E-10 updating the rule references in Item 18 to the 2010 rule language.

- 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.

Please see revised THP page E-12, bullet point #10, including the requested language.

- 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

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when three inches of cumulative rainfall has been measured in the Annapolis area.

Please see revised THP page E-12 indicating that *all* operations shall cease following 3" of precipitation or up to 6" in consultation with CAL FIRE. It is also stated under bullet point #7 on THP page E-12 that operations are limited to dry rainless periods and mitigation measures limiting operations that could potentially discharge sediment are included on THP pages E-8 and 9.

- 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 1st and May 1st, 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.

Please see revised THP pages E-11&12 updating the winter operations plan to be consistent with 2010 FPR. The revised "winter operating plan" details erosion control measures for the period between October 15 and November 15, and between April 1st and May 1st which are in conformance with the agency permits and project ECP.

- 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.

Please see revised THP pages E - 14, and 26 deleting reference to map points 8 and 9 and accurately depicting project roads. Map point # 7 is actually still on the plan submitters property and while the small portion of road on the property will not be used for timber harvest or vineyard purposes and has been deleted from the maps, Map point #7 will be mitigated as previously described. Please see revised THP page E - 10 that references recent work conducted by the adjacent owner at this location. [See also Water Quality Recommendation 5.](#)

- 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.

Please see revised THP pages E-8 and 26 indicating that the landing location has been moved and adding language restricting the locations of landings and including mitigation measures for them. [See also DFG recommendation #14](#)

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- 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.

Please see revised THP page E-13 including the requested language.

- 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.

Please see revised THP pages E-26 & 27 accurately depicting the watercourses, ponds and wetlands. See also Water Quality Recommendation 1.

- 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.

Please see revised THP page E-14 updating the watercourse protection measures to be consistent with the 2010 Forest Practice rules.

- 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.

Please see revised THP page E-13 updating the mitigation measures for perimeter roads and vineyard avenues to be consistent with the ECP. See also DFG recommendation #12

- 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.

Please see revised THP pages E-14 and 26 identifying the DWS in question and

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showing the revised project boundary avoiding the location. See also [Water Quality recommendation #16](#).

- 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.

The potential impacts to NSO were evaluated for the biological assessment area as described on THP pages E-60 & 61 as well as THP pages E-128 through 148. The biological assessment area was determined to be 1.3 miles from the plan boundary which coincides with the home range of the NSO.

- 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 $\geq 75'$ /ac) or nesting/roosting ($\geq 60\%$ canopy cover of trees $\geq 11"$ DBH).

Please see response to DFG recommendation #2 below.

- 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.

Please see revised THP pages E-24 and 26 identifying the location of the tree in question and showing the revised project boundary avoiding the location. See also response to Water Quality Recommendation #13.

- 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.

Please see revised THP page E - 14 stating that Patchett Creek will receive a 100' WLPZ, which is consistent with the mitigation measure for protection of Foothill Yellow-legged Frog.

- Q. Flagging of the project boundaries/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.

Please see revised THP page E-24 adding a flagging code.

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- 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.

Please see revised THP page E-24 stating that an onsite pre operations meeting shall be arranged by the RPF and held to review archaeological protection measures.

2. The WLPZ boundary/ plan boundary shall be flagged by the RPF, to conform to the new rules, prior to timber operations.

Please see revised THP pages E- 14 & 24 stating that the WLPZ and plan boundaries shall be re-flagged prior to 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.

Please see revised THP pages E- 14 & 24 stating that the WLPZ and plan boundaries shall be re-flagged prior to operations.

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Department of Fish and Game PHI Recommendations:

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.

According to the Forest Practice Rules (FPRs), required buffers for Class II tributaries are between 50 and 100 feet from top of bank. Buffer widths are based upon tributary side slopes as follows: for 0 to 30 percent side slopes, 50 foot buffers are required; for 30 to 50 percent side slopes, 75 foot buffers are required; and for greater than 50 percent side slopes, 100 foot buffers are required. Pursuant to Section 1602 of the Fish and Game Code, CDFG's regulatory authority extends to the top-of-bank of any tributary, and in practice extends to the outside edge of riparian canopy associated with a tributary.

Sonoma County setback requirements are 100 feet for streams that have been designated in the 2020 General Plan (Figure OSRC-5a), and 25 feet for streams not designated in the General Plan. The Sonoma County Grading, Drainage and Vineyard and Orchard Site Development Ordinance (no. 5819) requires 25 foot setbacks from the top of bank for watercourses with slopes less than 15 percent; and wetland setbacks 50 feet from the delineated edges. Vegetative filter strips may be installed in wetland setback areas. Grassy avenues and turnarounds for agricultural crops may be located within vegetative filter strips.

The applicant has made every effort to comply with all regulatory requirements for creek setbacks. Sheet C1 of the project ECP provides a full description of setbacks along Patchett Creek. Protected buffers will average approximately 210 feet off the top-of-bank defined as where the near vertical cut banks of this creek meet slopes consistent with topography of the adjacent hillsides. As defined, the northern reach of Patchett Creek, which is very near the origin of this creek and thus relatively small compared with the reaches of this creek on the central project site and to the south, is approximately 3 to 6 feet wide between the top-of-banks.

The northern reach of Patchett Creek falls outside of the Timber Harvest Planning Area and thus local setbacks along this reach of Patchett Creek are not subject to the FPRs. This same reach of Patchett Creek is not designated in the 2020 General Plan (Figure OSRC-5a) and thus only a maximum 25 foot setback is enforceable under the General Plan. Finally, under Fish and Game Code 1602 the CDFG's jurisdiction would be to the bed, bank, and channel, and in practice to the outside edge of riparian vegetation. The bed, bank, and channel, and all riparian vegetation adjacent to harvested (planted) areas would be completely protected with a 50 foot setback from top-of-bank (see next paragraph for more detail). Regardless, to protect the biological functions and values of this creek that are important to the foothill yellow-legged frog, a 100 foot minimum setback from the top-of-bank as defined above is

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provided in this reach of creek as specified as a mitigation the DEIR prepared for this project. Accordingly, Patchett Creek on the entire project site has minimum setbacks of 100 feet from the top-of-bank.

Riparian vegetation will be fully protected by creek buffers that are established for Patchett Creek in accordance with Section 1602 of the Fish & Game Code and as otherwise prescribed as part of the proposed project analyzed in the Environmental Impact Report. The northern reach of Patchett Creek on the project site supports a weakly formed riparian community represented mostly by interior live oaks (*Quercus wislizeni*), California hazelnut (*Corylus cornuta* var. *californica*), and a few California bay laurels (*Umbellularia californica*). In the northeastern corner of the project site, this habitat occurs along the west side of Patchett Creek and follows up a side tributary east towards Annapolis Road. All of the riparian habitat in Patchett Creek (100 percent) will be preserved by the proposed project. In total, there is a 14.4 acre preserved set-aside over this portion of the project site to protect the upper reach of Patchett Creek and its riparian habitat. This protects almost all suitable yellow warbler nesting habitat on the project site. This preserved area is shown in the revised Vineyard Plan. This riparian habitat and all other preserved areas of the project site (equating to more than 42 percent of the entire project site acreage) will be preserved via a permanent deed restriction recorded on the title of the land that will follow the title of the property in perpetuity.

Within the 14.4 acre set-aside, between Annapolis Road and the first tributary entering Patchett Creek from the west, average creek buffer widths on Patchett Creek will be 154 feet from top of bank on the west side of the creek and 216 feet on the east side of the creek. Between the first tributary and the second western tributary further to the south, average setbacks on Patchett Creek will be 126 feet to the west and 243 feet to the east.

In the northeastern portion of the project site wetland setbacks are a minimum of 25 feet from the delineated edge. An additional 25 foot vegetated filter strip separates the wetland setback from the proposed vineyards. Thus, wetland setbacks are consistent with a request for 25 foot setbacks at this location from Mr. Stephen Bargsten of the RWQCB, as stated in the second Preharvest Inspection on February 16, 2010. Wetland setbacks in this area are also consistent with Sonoma County Grading, Drainage and Vineyard and Orchard Site Development Ordinance (no. 5819).

Further to the south, the portion of Patchett Creek that falls within the Timber Harvest Area is classified as a designated stream per the 2020 Sonoma County General Plan (Figure OSRC-5a). This stream designation starts east of the proposed sump pump, where a stream enters Patchett Creek from the east (see Sheet C3 of the Vineyard Plan). In accordance with Policy OSRC-8b of the 2020 General Plan, creek setbacks would be a minimum of 100 feet from top of bank from this point in Patchett Creek southward until it exits the project site. The 100-foot setback would also comply with the 2010 FPRs buffer requirements for Class II tributaries.

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South of the second tributary entering Patchett Creek from the west (OW34 on Sheet C3 of the Vineyard Plan), the forested reach of Patchett Creek will be protected by buffers that are a minimum of 150 feet from top of bank, and will extend as far out as 430 feet from top of bank due to the preserves that will be established along this creek. Average buffer width on the west side of the creek will be 214 feet from top of bank, and 287 feet on the east side of the creek. As such, creek setbacks in this portion of Patchett Creek easily exceed the 2010 FPRs buffer requirements for Class II tributaries and the 100 foot buffers required by Sonoma County General Plan requirements.

When the project was planned, the regulations for Class III stream protection in the FPRs required that riparian setbacks for Class III tributaries, as stated in CDFG's comment, be designated between 25 and 50 feet. Under the proposed project, all minimum Class III tributaries buffers were in compliance with the FPRs. Under the modified 2010 FPRs, the minimum buffer was revised to a minimum of 30 feet from Class III tributaries. Accordingly, all minimum buffers along Class III tributaries have been changed to reflect the new 2010 FPRs setback requirements. Pursuant to the 2010 Forest Practice Rules, the established setbacks for the proposed project on 0 to 30 percent side slopes are 30 feet. Similarly pursuant to the 2010 FPRs for slopes greater than 30 percent, minimum 50 foot buffers have been established. All Class III setbacks are now at a minimum of 30 feet from the top-of-bank, and in many cases extend much further up to 100 plus feet from the top of bank of Class III tributaries. For example, buffers established along a Class III tributary dubbed by residents as Red Fern Creek in the northwest corner of the project site will have an average protected buffer width of 85 feet.

No Class III tributary on the project site supports riparian vegetation. Rather, these tributaries support forested habitats that are non-distinguishable from the remainder of the second growth forested community on the project site. Thus, CDFG's jurisdiction pursuant to Section 1602 of the Fish and Game Code would be to the top-of-bank with respect to Class III tributaries on the project site. As such, buffers that will be established along tributaries all comply with the FPRs and with Fish and Game Code 1602 which exerts regulatory authority over the bed, bank, and channel of tributaries, and over riparian vegetation associated with tributaries.

Please see revised THP page E-14 updating the watercourse protection measures

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.

The habitat typing detailed on pages E-144 through E-148 is consistent with Attachment A of the new guidance document for CAL FIRE take avoidance determination, USFWS Take Avoidance Analysis-Coast (February 27, 2008). The

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habitat typing criteria are listed on THP page E-148 and retention standards and definitions are included on THP pages E-19 & 20.

Regarding the THP area north of Annapolis Road, the stand of timber in question provides what is likely greater than 60% cover of trees greater than 11" dbh. Please note that while this stand exhibits 60% cover or greater, it consists of second growth timber that has colonized the area in the last 40 plus years. The former clear cut area originally was colonized by brushy species prior to the time that forest canopy shaded the ground. This dense brushy understory is still present and is not typically a habitat condition where NSO nests are found. M&A would like to remind the CDFG that during our PHI, attendees of the meeting became widely separated navigating through the brush understory.

M&A principal biologist Mr. Geoff Monk has completed extensive NSO work in the past on the north coast of California. Mr. Monk typically found NSO roosting and nesting territories in old growth that classically shaded the forest floor for many hundreds if not thousands of years, and thus the forest floor where these owls mostly occur have relatively sparse mid-level vegetation. As NSO are not particularly strong fliers, they require open understory vegetation to successfully hunt for and capture prey. Thus the stand of timber in question is not suitable roosting/nesting habitat. Even Accipiters such as the Cooper's hawk (*Accipiter cooperi*), which are woodland nesters and relatively strong fliers, would have a difficult time navigating the understory vegetation in the stand of timber in question, owing to the dense nature of the understory. It is most unlikely that NSO would ever use this stand of timber for nesting/roosting.

As discussed in Section III (5) of the USFWS Take Avoidance Analysis-Coast (February 27, 2008), areas may contain the characteristics of nest/roost habitat, but if they are surrounded by unsuitable or low quality habitat, they function as foraging habitat at best. The area north of Annapolis Road has been typed as foraging habitat as the timber stand is surrounded by unsuitable or low quality habitat. Within ½ mile of this stand there are at least 7 permanent residences, open grasslands, actively farmed fields, an olive orchard, and other human activity. The surrounding open grasslands also provide excellent habitat for predators of NSO and foster human activities, particularly during the daytime hours when, if NSO were using this stand, it would be for nesting or roosting. The surrounding habitat types and land use patterns preclude the use of this stand for nesting/roosting purposes. During M&A's NSO surveys it was very near this stand that we determined barn owls (*Tyto alba*) live, and this owl would be a deterrent for use of this area by NSO. Therefore its classification as roosting habitat is consistent with the intent of Section III (5) of the USFWS Take Avoidance Analysis-Coast (February 27, 2008) where it states that areas may contain the characteristics of nest/roost habitat, but if they are surrounded by unsuitable or low quality habitat, they function as foraging habitat at best. Both M&A and North Coast Management agree that this stand of timber is unsuitable nest/roost habitat for NSO.

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Finally, please review the habitat maps on pages E-146 through E-147.2, which shows the 0.7-mile and 1.3-mile radii distances from known NSO locations in the region of the THP area. Most of the THP area north of Annapolis Road is located outside the 1.3-mile radius of known NSO locations. The great distance from known NSO territories, and the absence of suitable habitat conditions surrounding the stand of timber indicate that this stand of timber would be most unlikely to be used as nest/roost habitat by NSO. As such, M&A does not believe that detailed stand measurements of the area north of Annapolis Road are warranted. [See also CAL Fire Recommendation N.](#)

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.

Please see revised THP page E-21 that includes the requested language.

NSO surveys were conducted in 2006 and 2007 within the proposed Project area according to USFWS survey protocol. NSO were not detected; however, negative survey results for NSO are valid for two years only. Accordingly, negative findings during the NSO surveys remained valid through 2009. In 2010, commencing in April, M&A biologists are again conducting NSO surveys using a combination of the "Protocol for Surveying Proposed Management Activities that May Impact the Northern Spotted Owl" published by USFWS on March 7, 1991 as revised on March 17, 1992 [hereinafter the old protocol] and the revised "draft 2010 Protocol For Surveying Management Activities That May Impact Northern Spotted Owls" published by USFWS on February 23, 2010 [hereinafter the new protocol]. Since the old protocol remains valid until 2012, surveys would be conducted as follows: If timber harvesting would be completed in 2010 (very unlikely), a minimum of 3 site visits with negative findings would be completed prior to harvesting pursuant to the old protocol. If timber harvesting would occur in 2011 (most likely), 6 site visits would be completed in 2010 pursuant to the new protocol, and 3 surveys would be completed in 2011 pursuant to the old protocol all with negative findings prior to harvesting. Finally if timber harvesting would occur in 2012 through 2014, M&A would conduct 6 site visits in 2010 and 6 site visits in 2011 (completing a 2 year survey which extends the validity period of the NSO survey through 2014). If NSO are detected on or immediately adjacent to the project site at any time during these surveys, no timber harvesting will occur on the project site until the necessary permit(s) are acquired for the proposed project from the USFWS and/or CDFG.

It should be noted that there have already been multiple years of raptor nesting surveys by both North Coast Resource Management and Monk & Associates. Mr. Monk led these surveys for M&A and has extensive experience with nesting raptors. Not only was he a licensed Master Falconer in his early 20s, but he specialized in finding and using Accipiters and Buteos taken as eyasses (nestlings) for the sport of

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Falconry. While Mr. Monk no longer practices the sport of Falconry, his search image for nesting raptors was well honed even before he began practicing professional wildlife biology. As a professional wildlife biologist, Mr. Monk worked as a biologist at the Ukiah Bureau of Land Management Office leading NSO surveys and locating and managing nesting peregrine falcons (*Falco peregrinus*). This job spanned several years. Mr. Monk's career included working over a 3-year period at the Sacramento Endangered Species Office of the USFWS again locating and managing the peregrine falcon nesting population. Thus, raptor nesting surveys led by Mr. Monk on the proposed project site were thoroughly thought out and executed in a manner that would maximize opportunities for locating nesting raptors. M&A's systematic nesting surveys failed to identify any nesting raptor species on the project site in 2007 and 2008.

Aerial or stand watches are the most effective way to identify an Accipiter nesting territory in the early spring when survey broad expanses of habitat. Typically these methods are used on very large project sites (many hundreds if not thousands of acres). For smaller project sites like the proposed project site, there is no better method than simply walking systematic surveys over every portion of the project site looking for sign and territorial responses from Buteos and Accipiters at the time they are nesting.

The territorial response elicited from nesting diurnal raptors is a very effective means of detection on relatively small project sites. The 324 acre project site and its surrounding habitats were very effectively systematically surveyed for nesting diurnal raptors in 2007 and 2008 when these raptors could be expected to be nesting. No nesting Accipiters or Buteos were found on the project site. That said, complying with CDFG's request, M&A is again conducting nesting raptor surveys on the project site. These surveys will be completed in 2010 and again in 2011 in a pre-harvest format, or 30 days prior to clearing timber. Nest survey techniques will include stand watches and vocalization surveys, in addition to systematic transect surveys of the project site.

It should be noted that most raptors are "traditional nesters," nesting if not in the same nest from year to year, at least nesting within the same nesting territory from year to year. Buteos and Accipiters typically have alternate nesting sites that are reconstructed at or near the previous year's nesting site, provided there is no uncharacteristic or undue disturbance occurring within the nesting territory. If nesting raptors are found during the 2010 nesting season, allowances and management actions including the establishment of nest protection buffers will be established in the event that such nests are again active in 2011, or subsequent years when timber harvesting would occur. If an active raptor nesting site is identified, then non-disturbance buffers will be established per CDFG recommendations. That is, nest buffers will be a minimum of 500 feet for Accipiters and 1,000 feet for Buteos. These nest buffers and any modification in the size of nest buffers will be discussed with CDFG prior to harvesting timber or clearing vegetation any closer than 1,000 feet from located nests.

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Regarding potential impacts to nesting nocturnal raptors such as screech owls, barn owls, and great horned owls, M&A has been conducting NSO surveys and have heard these species during our surveys on occasion. One exception is the western screech owl that was heard routinely calling from timber located off the project site to the east of the proposed Horkelia preserve. M&A will continue to note calling locations of all owl species during NSO surveys. Any multiple survey responses will be regarded as an indicator that there could be a nesting territory of the species in question in the direction of the noted calls. At that point in time, diurnal nest detection methods would be implemented to locate nesting owls. This would include examination of all potential stick nests and tree hollows (including broken top trees). Finally, as a fail-safe, nest detection methods would be implemented as described in M&A's response to a comment letter from Cal Fire, *i.e.* if harvesting/conversion would occur between February 1st and August 31st, wildlife biologists would be required to conduct focused systematic bird nesting surveys within 100'x 100' plots of land immediately in advance of timber harvesting/land conversion. Thus, there will be intensive nesting bird surveys in advance of timber harvesting and measures detailed below will ensure that there are no impacts to nesting birds.

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.

Please see revised THP page E-21 stating that the nest buffers will be a minimum of 500 feet for Accipiters and 1,000 feet for Buteos and other raptor species. These non-disturbance buffers will be demarcated on the project site via flagging or construction fencing and may not be modified unless smaller buffers are allowed in consultation with CDFG. All raptor nest buffers will be discussed with CDFG prior to harvesting timber or clearing vegetation any closer than 1,000 feet from active nest sites. Nest buffers would be maintained until a qualified raptor biologist confirms that the nesting attempt is completed and that any young that fledge have reached independence from the nest site.

5. Prior to Second Review, the THP shall be revised to indicate that trees containing active raptor nests shall be retained.

Mitigation measure 3.4-5 listed under item 32 of the THP on page E-21 provides protections measures to nesting raptors. If an active raptor nesting site is identified, non-disturbance buffers will be established per Recommendation 4 above. However, if trees adjacent to the nesting tree are removed after the nesting attempt is complete, the raptor will not return to the tree in subsequent nesting seasons. As such, retention of a nesting tree would not preserve raptor nesting habitat. As an aside, there is no law, regulation, or policy that requires that nesting trees be preserved after raptors/nesting birds have completed nesting activities and are no longer using the nest site.

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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.

M&A's principal biologist Mr. Geoff Monk discussed this recommendation with Ms. Brenda Blinn of the CDFG during the second pre-harvest inspection site visit on February 16, 2010. In the onsite discussion, Mr. Monk stated that all riparian habitat associated with Patchett Creek will be preserved (see response to Recommendation #1 above) and thus there would be little chance that nesting yellow warbler could be impacted. Mr. Monk showed Ms. Blinn the protected habitat and acknowledged that in the western United States the yellow warbler is most commonly found nesting in riparian woodlands in northern California, but can also nest in coniferous forests with brushy understory. Typically when they nest in coniferous forests it is near riparian habitats. It should also be noted that only one yellow warbler has been observed on the project site during a survey conducted on April 27, 2006 in a forested area adjacent to Annapolis Road distant from the project site's riparian habitat which is located on the northwest side of the project site. This bird was likely a migrant passing through the site. Regardless, it was acknowledged that surveys could be completed in late spring and early summer that would effectively determine if yellow warblers are nesting on the project site in habitats within the riparian or adjacent habitats.

To comply with CDFG's request, in June 2010 M&A biologists will conduct a minimum of three tape-playback surveys in suitable yellow warbler nesting habitat. This timeframe is approximately one year in advance of any realistic timeframe for commencement of the proposed project. If territorial pairs are identified in 2010, an additional three surveys would be conducted using tape-playback triangulation detection methods to locate any nesting yellow warblers. Finally, if nesting yellow warblers are determined to occur on the project site in 2010 then prior to harvesting timber in subsequent years additional surveys would be conducted per above to determine if timber harvesting could impact nesting yellow warblers. If they are not found in 2010 then no special additional surveys in subsequent years would be conducted outside of the already prescribed intensive nesting bird survey efforts required to remain in compliance with the Migratory Bird Treaty Act. Please refer to Mitigation Measure 3.4-6 in the DEIR and in Item 32 in the THP for full details on the intensive nest survey methods.

In Sonoma County, the earliest confirmation date for start of breeding for yellow warblers is June 15 and the latest is June 29. Thus, after surveys are completed in June 2010, the project could commence in July 2010 after surveys establish the need or absence of a need to establish nest site protection buffers.

Please see revised THP page E-22 that includes the above language.

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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Please see revised THP page E-22 that states that any yellow warbler nest site identified during surveys would be protected with 150 foot buffers from disturbance. All nesting site protection buffers shall be discussed with CDFG prior to conducting timber or vegetation clearing any closer than 300 feet from the nest site. Nest buffers shall be maintained until a qualified biologist confirms that the nesting attempt is completed and that any young that fledge have reached independence from the nest site.

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.

Please see revised THP page E-23 that includes the requested language.

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.

Mitigation measure 3.7-2a listed under item 18 of the THP on page E-8 states that "only native grass species appropriate for the area and weed free mulch shall be used" and goes on to state that "Annual or Italian rye grass shall not be used."

10. Prior to Second Review, the THP shall be revised to include a detailed monitoring and adaptive management plan for the sensitive plant preserves.

Please see new THP pages E-32.1 through 32.4 which include a monitoring and management plan for the sensitive plant preserves and revised THP pages E - 20 & 21 which refer to the monitoring and management plan.

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.

The THP and Vineyard Plan have been revised to retain the isolated mature large-diameter redwood located in the eastern portion of the THP area. A second large-diameter redwood located in the western portion of the project site will also be preserved. Both large diameter redwoods have 25 foot buffers off the driplines and are otherwise preserved within minimum 100 foot wide corridors connecting the large-diameter redwoods with Class III tributary set-asides that constitute wildlife corridors within the project site. Please see new THP pages E-26 and 27 showing the revised plan boundaries excluding these sites. [See also Water Quality Recommendation 19.](#)

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.

THP items 18 and 25 (pages E-8 and E-13) provide erosion control methods to be used on permanent and temporary roads to prevent sediment run-off. In addition to the measures listed, the project ECP requires vineyard roads and avenues to be planted with a permanent cover crop and this requirement has been added to the measures

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listed under item 25 of the THP on revised page E-13. To prevent sediment runoff, all necessary erosion and sediment controls will be in place during activity associated with the construction of the access road west of the Horkelia Preserve. Note that there will be no vineyard blocks created north, west, and east of the Horkelia Preserve, and that a vineyard block that will be planted to the south does not drain towards the Horkelia Preserve. Thus, there are no expected erosion or sediment deposit issues from the proposed project in the Horkelia Preserve. [See also CAL Fire Recommendation K.](#)

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.

The Horkelia Preserve and the Manzanita and Wetland Preserve, shall be fenced according to the Fencing Plan prepared by Erickson Engineering. Wildlife-friendly fencing shall be installed along the northern and western perimeter of the Horkelia Preserve, with one gate at the northern road entrance (see the Fencing Plan prepared by Erickson Engineering). Wildlife-friendly fencing shall include a metal post and wire fence that would allow wildlife access to the preserves.

No fencing will be necessary along the southern Preserve boundary, as the Preserve will be contiguous with a protected Streamside Conservation Area. Likewise, no fencing will be required along the eastern Preserve boundary, as the adjoining forested lands are steep and undevelopable.

The Manzanita and Wetland Preserve will be protected by vineyard fencing where it abuts with Vineyard Unit 4. Vineyard fencing will consist of standard vineyard deer fencing. Wildlife-friendly fencing will protect the east and south side of the Manzanita and Wetland Preserve where it abuts with Annapolis Road and a dirt access road, respectively. Gates accessing the Manzanita and Wetland Preserve shall remain locked at all times. It should be noted that extra care has been taken to ensure that there is a cohesive wildlife corridor planning element in the vineyard plan. All tributary and other preserves are only fenced with vineyard fencing where vineyards abut these protected features. Otherwise all remain open to larger contiguous blocks of unfenced lands. Please see revised THP page E-15 indicating that all reserve areas shall be fenced according to the Fencing Plan prepared by Erickson Engineering. [See also Water Quality Recommendations 2 & 7.](#)

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. **Item 18, THP page E-8, (Mitigation 3.7-2(b) has been revised to include the requested mitigation measures. [See also CAL Fire Recommendation G.](#)**

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Water Quality Control Board Recommendations:

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.

Please see revised THP page E-26 accurately depicting the watercourses, ponds and wetlands. Please also see revised THP page E-14 describing the protection measures for the Taeffer DWS. See also CAL Fire Recommendation I.

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.

The existing seasonal roads across the Horkelia Preserve shall not be used for timber harvest operations. Road access into the Horkelia Preserve shall be limited to vehicles for the purpose of wetland creation, preserve management, maintenance, and scientific study. To protect the Horkelia Preserve from unauthorized access, wildlife-friendly fencing shall be installed along the northern and western perimeter of the Horkelia Preserve, with one gate at the northern road entrance (see the Fencing Plan prepared by Erickson Engineering). This gate shall remain locked at all times. Wildlife-friendly fencing shall include a metal post and wire fence that would allow wildlife access to the preserves. No fencing will be necessary along the southern Preserve boundary, as the Preserve will be contiguous with a protected Streamside Conservation Area. Likewise, no fencing will be required along the eastern Preserve boundary, as the adjoining forested lands are steep, undevelopable and are not part of the project site. Timber harvest operations vehicles will use the new road that will be constructed north and west of the Horkelia Preserve to access the area south of the Preserve. Please see revised THP page E-15 indicating that all reserve areas shall be fenced according to the Fencing Plan prepared by Erickson Engineering and revised THP page E-26 removing the roads through the Horkelia reserve from the map. See also DFG Recommendation 13.

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.

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Culvert 2 has a pre-construction tributary watershed of only 2.5 acres, which will not be changed by post-construction conditions. About 90% of the watershed will be converted from mixed deciduous second growth trees and brush to permanent grass cover cropped vineyard. 100-year peak flows would be expected to be on the order of 1 cfs/acre or 2.5 cfs for either situation based on Sonoma County Rational Hydrology computation methods. The existing 12" CMP would flow at non-erosive velocities between $\frac{1}{4}$ and $\frac{1}{2}$ full under Q_{100} conditions. The very small scour hole at the end of the existing culvert after likely 20 - 40 years of operation reflects this low peak flow rate. The small watershed also results in low-volume trickle flows and short duration runoff events. The culvert is hundreds of feet above the DWS noted with a discontinuous channel and overland sheet flow between the scoured area and canyon below. Rock riprap of s.g. 2.5 and D_{50} of 6-8" in a thickness of 8-12" in a 4' diameter basin is judged adequate to prevent additional scour at this location. Please see revised THP page E-10 stating the size and placement details for rock at Comment Point #2. [See also CGS Specific Recommendation.](#)

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.

The culvert in question shows no visual evidence of unsatisfactory performance under preconstruction conditions. Hydraulic loading at this location will be decreased by about 30% under post-construction conditions, so vineyard development will have beneficial rather than adverse impacts to the culvert, watercourse and road drainage system.

The culvert native tributary area is about 12.7 acres. This has been increased by at least 4.4 acres for many decades due to the presence of the poorly designed and inadequately maintained Wellman driveway (a source of sediment mobilization and transport), which captures and displaces the upland tributary area noted to the culvert in question. Vineyard drainage improvements will eliminate this problem and reduce the tributary area back to the native value. The presence of the irrigation reservoir will also serve to reduce the native tributary area by another half acre.

The detention basin will further reduce peak flows by the inherent damping stage discharge effect of a weir type overflow. Input flows must raise the elevation of the stored water before output flows can match the input flows, providing a peak flow damping effect, which is balanced over time by longer duration outflows at lower volume.

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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.

Please see revised THP pages E-14 and 26 deleting reference to map points 8 and 9 and accurately depicting project roads and boundaries. See also CAL Fire Recommendations A & F.

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 installed.

Please see revised THP page E-14 and new THP pages E-24.1 and 24.2 indicating that the rocked ford crossings at points 10 and 11 shall be constructed to the standards indicated in the ECP and that they shall only be used following installation to those standards.

7. 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.

The wetland mitigation areas, which include the Horkelia Preserve and the Manzanita and Wetland Preserve, shall be fenced according to the Fencing Plan prepared by Erickson Engineering. See Recommendation 2 above for a description of Horkelia Preserve fencing plan. The Manzanita and Wetland Preserve will be protected by vineyard fencing where it abuts with Vineyard Unit 4. Vineyard fencing will consist of standard vineyard fencing. Wildlife-friendly fencing will protect the east and south side of the Manzanita and Wetland Preserve where it abuts with Annapolis Road and a dirt access road, respectively. Wildlife-friendly fencing would include a metal post and wire fence that would allow wildlife access to the preserves. Gates accessing the Preserves shall remain locked at all times. Wildlife-friendly fencing will be monitored daily during THP operations in the area to ensure it is passable by wildlife but free of unauthorized human activities. Please see revised THP page E-15 indicating that all reserve areas shall be fenced according to the Fencing Plan prepared by Erickson Engineering. See also DFG Recommendation 13.

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

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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.

Please see revised THP page E-15 indicating that all reserve areas shall be fenced according to the Fencing Plan prepared by Erickson Engineering. Please also see revised THP page E-14 indicating that the rocked ford crossings at points 10 and 11 shall be constructed to the standards indicated in the ECP and that they shall only be used following installation to those standards.

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.

As a matter of record, the January 2010 modifications to the Forest Practice Rules (FPRs), required buffers for the Class III tributaries are 30 feet where side slopes are 0 to 30 percent, and 50 feet for greater than 30 percent side slopes. Accordingly, all minimum buffers along Class III tributaries have been changed to reflect the new requirements, and are now at a minimum of 30 feet. That said, M&A biologist Mr. Geoff Monk discussed the "Red Fern Creek" setbacks with Ms. Cheri Blatt at RWQCB and an agreement was reached that new setbacks would be established that exceed FPRs' required setbacks as follows: The minimum setback from "Red Fern Creek" shall be 50 feet from its top-of-bank, and the overall averaged setback shall be a minimum of 75 feet from top-of-bank. Accordingly, the project vineyard engineer provides the following setback information: The average setback along 2019 linear feet of the north side of "Red Fern Creek" is 92.9 feet. The average setback along 600 linear feet of the south side of "Red Fern Creek" is 56.9 feet. Please note that the linear footages correspond with the length of the creek where it interfaces with the THP and vineyard project. By weighted proportion, the average setback for the total vineyard project is $[(2019/2619)*92.9 + (600/2619)*56] = 84.4$ feet. Thus the setbacks have been revised to exceed the setbacks agreed to between Mr. Monk and Ms. Blatt on April 28, 2010. Regarding the seasonal wetlands above the "Red Fern Creek" Class III tributary, the buffer that was agreed upon with RWQCB on April 28, 2010 and that is now incorporated into the revised vineyard plan (Sheet C1) is a 50 foot buffer from the edge of wetland to the vineyard fencing. As a matter of record, the vineyard plan also calls for 20 to 25 foot vegetated vineyard avenues immediately adjacent to the wetland buffer and thus there would be a 70 to 75 foot buffer from the vineyard around this wetland. Please see revised THP page E-14 indicating that Red Fern Creek shall receive a 50' ELZ.

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

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all engineering plans. This is to ensure the engineering plans are consistent with the protection measures listed in the DEIR.

Vineyard planning is based on mapping resources available, which are variable. Drainage paths and patterns were carefully evaluated in all cases as part of the initial design. Sheet flow drainage perpendicular to apparent contours has been shown, with vee ditches sloped to drain across contour to receiving structures and erosion control components. Better topographic information will be generated in densely vegetated areas after site clearing takes place. Individual drainage system components will be adjusted at that time if needed, to conform with the overarching design philosophy and to optimize system performance. Both planning level and design level engineering plans will therefore remain consistent with protection measures listed in the DEIR. Fiber roll checks are placed on contour perpendicular to sheet flow, and will be field installed according to plan Detail in that manner.

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.

Mitigation measure 3.7-2(a) taken from the project EIR and included on THP page E-8 addresses erosion control measures following timber operations and prior to vineyard installation. Please see revised THP pages E- 14 & 24 stating that the WLPZ and plan boundaries shall be re-flagged prior to operations and revised THP page E-15 indicating that all reserve areas shall be fenced with wildlife friendly fencing prior to operations.

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 1st to May 1st 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.

Please see revised THP page E-12 indicating that *all* operations shall cease following 3" of precipitation or up to 6" in consultation with CAL FIRE. It is also stated under bullet point #7 on THP page E-12 that operations are limited to dry rainless periods and mitigation measures limiting operations that could potentially discharge sediment are included on THP pages E-8 and 9. See also [CAL Fire Recommendation D](#).

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 be retained to the extent feasible around the sediment basin. A 75 foot native

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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.

M&A biologist Mr. Geoff Monk discussed this old growth redwood and its setback, and protection for the Class III watercourse, with Ms. Cheri Blatt at RWQCB. While setbacks can be increased in size over what was formerly proposed, they cannot be increased to an extent that the setbacks will isolate and render unusable the area between the old growth tree and the property boundary to the west. Accordingly, the vineyard plan has been revised in accordance with an agreed upon setback and protection zone as follows: The old growth redwood will have a setback that is 25 feet off of its dripline. The vineyard fence shall be established at this boundary. As a matter of record, a vegetated vineyard lane that is not planted to grapes will increase the buffer width from the vineyard an additional 20 to 25 feet. In addition, the protection buffer around the redwood tree will continue to the Class III tributary and will be 50 feet from the centerline of the swale between the redwood tree and the top of the Class III tributary. Thus, there will be a 100 foot wide setback between the redwood and the top of the Class III tributary. As a matter of record, the vineyard plan also calls for 20 to 25 foot vegetated vineyard avenues immediately adjacent to the wetland buffer and thus there would be a 140 to 150 foot buffer from the vineyard around this wetland.

As water quality BMPs are a top priority for this project, RWQCB is allowing a sediment collection and hydromodification basin to be constructed within the setback between the old growth redwood and the beginning of the Class III setback. This is the environmentally correct position in the watershed to foster a maximum treatment area while minimizing erosion potential from storm water released from the basin. In addition, the project proponent will retain as much native vegetation in the buffer as is practicable. Finally, all barren areas will be hydroseeded with a northern California native species herbaceous seed mix. In lieu of a hydroseed, the same native species herbaceous seed mix will be hand-raked into all barren areas. In addition, straw or wood mulch shall be placed over hydroseed mix to prevent winter erosion. Mulch shall be applied at a rate of 500 lbs. per acre; straw shall be applied at a rate of 2 tons per acre. Jute matting or equivalent shall be landscape stapled on slopes greater than 9 percent. Please see revised THP pages E-24 and 26 identifying the location of the tree in question and showing the revised project boundary avoiding the location. See also CAL Fire Recommendation O.

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.

A biological monitor shall be present at all times during soil moving activities. The monitor will ensure that all vegetation and waters of the United States and State

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outside of the proposed impact areas are protected and that all equipment and personnel avoid impacting these areas. In addition, this monitor shall ensure that the Horkelia and Annapolis Manzanita Preserve fencing is installed and that there are no vineyard construction activities occurring within these preserves (See response to Recommendation 7 above). Please see revised THP page E-15 indicating that a biological monitor will be onsite during operations adjacent to wetlands.

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.

Please see response to Recommendation 9 above for new setbacks that will be established along "Red Fern Creek" and a seasonal wetland immediately to the east of this Class III tributary. Regarding the Taeffer DWS, a generous buffer is established that far exceeds the requirements of the FPRs. The project engineer examined this water supply and came to the following conclusion: "The Taeffer/Anderson DWS of concern is a low-grade system suitable only for non-potable uses. It is a shallow hand dug cistern with substandard-failing infrastructure and collapsing building." That said, as agreed upon with the RWQCB during a telephone call between Mr. Monk and Ms. Blatt, the buffer off of the Taeffer DWS is adjusted as set forth in the revised Vineyard Plan (Sheet C1) and as iterated as follows. A 100 foot setback shall be established around the DWS. Additionally, the seasonal wetland shall have a 50 foot setback from the edge of wetland that will be demarcated by vineyard fencing. As a matter of record, the vineyard plan also calls for 20 to 25 foot vegetated vineyard avenues immediately adjacent to the wetland buffer and thus there would be a 70 to 75 foot buffer from the vineyard around this wetland. Please see revised THP pages E-14 and 26 identifying the DWS in question and showing the revised project boundary avoiding the location.

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 need 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.

Please see revised THP page E-14 clearly indicating the protection measures for Domestic Water Supplies. See also CAL Fire Recommendation L.

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.

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Please see revised THP page E-14 clearly indicating the protection measures for Domestic Water Supplies.

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 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.

Please see revised THP pages E-154 through 157 updating the WDR ECP to conform to changes made in the THP and indicating that a SWPPP will be prepared to comply with the State Water Board Construction Stormwater Permit.

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 and the associated watercourse. 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.

Wildlife-friendly 100% biodegradable erosion control products/BMPs will be used wherever feasible. The use of erosion control products that contain synthetic (e.g., plastic or nylon) netting shall not be used or allowed. If erosion control netting or products are found by the biological monitor that has entrapped or harmed wildlife, the netting or product shall be immediately removed and replaced with wildlife-friendly biodegradable products.

A distinction is warranted for the created mitigation wetlands. Pyramat®, a formal channel liner material, will be used on spillways constructed as part of the wetland mitigation plan. Details on the use of this material are shown on Sheet W1 of the Vineyard Plan dated 02/03/09. Pyramat® is securely anchored to the ground and is then covered with a shallow soil layer. It is designed to encourage vegetation growth through the material and thus become virtually invisible except in relatively high volume flow zones. This material has been used by M&A for over 15 years and it does not constitute a wildlife hazard. This information was relayed to Ms. Blatt of the

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RWQCB via email on April 23, 2010. Ms. Blatt approved the use of Pyramat® at proposed locations within created wetlands in an email to Isabelle de Geofroy at M&A on April 23, 2010. Erosion control materials would not be installed in waters of the U.S. or State pursuant to the Clean Water Act.

Regarding the wetland south of Unit 3, this wetland area is not in the THP. Regardless, per the recommendation of the RWQCB both by Mr. Stephen Bargsten during the second PHI meeting on the project site and per Recommendation 19, there will be a minimum 25 foot wetland buffer from the wetland edge to where the vineyard fence will be constructed. In addition, as a matter of record, the vineyard plan also calls for a 20 to 25 foot vegetated vineyard avenue immediately adjacent to the wetland buffer and thus there would be a 45 to 50 foot buffer between the wetland and actual vineyard.

Finally, protective buffers for the “sacred redwood” and two seasonal wetlands below this redwood tree have been revised to reflect RWQCB Recommendation 19 as slightly modified during a telephone call between Ms. Blatt and Mr. Monk. The old growth redwood will have a setback that is 25 feet off of its dripline. The vineyard fence shall be established at this boundary. In addition there will be a vegetated vineyard lane that is not planted to grapes next to the wetland buffer that will increase the buffer width from the vineyard an additional 20 to 25 feet. The protection buffer around the redwood tree will continue southeasterly to the Class III tributary and will include two seasonal wetlands (Wetland 26 and Wetland 27- Sheet C1). The setbacks that incorporate these two seasonal wetlands shall be a minimum of 25 feet from the wetland edge, but per the revised Vineyard Plan (Sheet C1), the average setback from the seasonal wetlands will be approximately 40 feet. The actual protected corridor width below the redwood containing Wetland 26 and Wetland 27 will be approximately 115 feet wide.

Normal vineyard fencing will abut the vineyard, but the protection corridor containing the sacred redwood tree and Wetlands 26 and Wetland 27 will not be fenced where it connects to a Class III tributary to the south. The southern Class III tributary will be open all the way to Patchett Creek which has a protective buffer that averages 208 feet wide from the north to south end of the project site. Thus the sacred redwood is preserved within a broad scale wildlife corridor network established as part of the overall proposed project. Vineyard fencing will be installed prior to the commencement of grading to protect these wetlands and the sacred redwood tree from timber harvest and vineyard activities (see the Fencing Plan-Figure C15). Please see revised THP pages E-26 and 27 showing the updated plan boundaries excluding the “Sacred Redwood” site. [See also DFG Recommendation 11.](#)

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

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A 401 Water Quality Certification application is in preparation now and will be submitted to the RWQCB shortly. It should be noted that impacts to waters of the State have been reduced to comply with the recommendations of both the RWQCB and the California Department of Fish and Game. As now proposed, project impacts to waters of the state (and U.S.) have been reduced from 0.414 acre to 0.301 acre. The wetland mitigation plan has also been revised to create less wetland via the construction of fewer pools with greater spacing between pools. Regardless, wetland creation compensation will be at a minimum 2:1 replacement to impacts ratio. A detailed wetland impacts and compensation plan will be submitted to the RWQCB in the 401 Water Quality Certification application. Please see revised THP page E-15 stating that the project proponent must receive 401 Water Quality Certification.

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.

Upon CAL FIRE approval, the submitter agrees to 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 gulying. 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.

Please see revised THP pages E-154 through 157 updating the WDR ECP to include DWS monitoring.

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CGS California Geological Survey PHI Recommendations:

Specific Recommendations:

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.

Please see revised THP page E-10 stating the size and placement details for rock at Comment Point #2. See also Water Quality Recommendation 3.

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.

Please see revised THP page E-10 stating that the car body shall be removed from comment point 6 and the last 60 feet from the diversion gully outlet will not be reopened.

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.

Please see revised THP page E-15 and new THP pages E-24.3 and 24.4 describing Comment point 12.

Please replace existing THP pages 2, 5, 8-15, 20-27, 81, 84 and 154-157 with the attached revised pages and insert new THP pages 24.1-24.4, 32.1-32.4.

Please also note that responses to the Arch PHI Report have been submitted separately for confidentiality.

Sincerely,

Jeff Longcrier
Registered Professional Forester #2593

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