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Planning, Building & Environmental Services

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David Morrison
Director

MEMORANDUM

| | |
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| To: Chair Pedroza and Board Members | From: David Morrison, Director Brian Bordona, Supervising Planner |
| Date: December 5, 2016 | Re: Walt Ranch Appeal Hearing – 12/6/16 |

Attached please find the following documents for consideration as the Board begins its deliberations on the Walt Ranch appeal hearing:

- 1) Revised Conditions of Approval (dated December 6, 2016) which include the following as recommended by staff and agreed to by the Applicant:
 - a) COA No. 2 requires the Applicant and any subsequent property owner to fully comply with the Mitigation Measures contained in the Updated Mitigation Monitoring and Reporting Plan (MMRP), which includes five conditions of approval. To help reduce any confusion between the Conditions of Approval in the Updated MMRP and the Conditions of Approval contained in the PBES Director's approval package, this condition has been revised to consolidate all of the conditions into a single document.
 - b) COA No. 2 (a) reflects the Applicant's agreement to reduce the weight limit of vehicles on Circle Oaks Drive to 64k pounds and clarifies that all heavy equipment (anything over 64k pounds) for construction and operation shall only access the site from Highway 121.
 - c) COA No. 8 clarifies that the Road Maintenance Plan shall be implemented in full within three years of commencement of development.
 - d) COA No. 10 requires the Applicant and any subsequent property owner to fully comply with the Walt Ranch Water Quality Monitoring Program (Monitoring Program) prepared by AES dated July 2016. The Monitoring Program was updated and therefore the date has been changed to reflect the more current August 2016 date.
 - e) COA No. 15 was added to require the Walt Ranch groundwater monitoring efforts be consistent with other County approved projects and as required by the Updated MMRP.

f) COA No. 16 was added to require pre and post soil testing to identify the natural/undisturbed and modified hydrologic soil group to confirm that the soils have in fact been modified in a manner that increases infiltration on a long term basis. If the testing shows that the soils have not been modeled in the manner expected, additional best management practices will be required and a revised ECP. Additional CEQA review may also be required.

g) COA No. 17 has been added to limit the burning of vegetation resulting from vineyard construction and development from occurring within 2,000 feet of the Circle Oaks neighborhood.

h) COA No. 18 has been added to acknowledge that the project will be developed over four phases which allow groundwater monitoring data to be collected and assessed by the County in consultation with a qualified hydrogeologist before the next phase of development may occur.

2) The Revised MMRP (December 2016) with the following revisions agreed to by the Applicant:

a) MM 4.6-4 was revised to remove the need for a hearing before remedial measures are implemented. Appendix R (the Groundwater Monitoring and Mitigation Program) already contains a process which provides for implementation of the mitigation measures if there is a decrease in the production rates of the offsite wells. No hearing is needed; the County will simply implement one of the measures recommended by the qualified professional. Staff also recommends the language on page 13 of Appendix R be revised as shown in the attached document to clarify that an independent third party retained by the County will determine based on substantial evidence whether the Walt Ranch wells are the cause of a decrease in the production rate of offsite wells.

b) MM 4.7-4 has been revised to clarify the credentials of the independent third party conducting the evaluation.

3) A Technical Memorandum dated December 2, 2106, from AES regarding GHG analysis of biogenic carbon emissions. The results of the analysis will be discussed in more detail at the hearing.

Attachments

- Revised COA (December 6, 2016)
- Revised MMRP (December 2016)
- Revised Page 13 of Appendix R
- AES GHG Memo dated December 2, 2016

Revised Conditions of Approval
WALT RANCH APPEAL HEARING
BOARD OF SUPERVISORS
~~November 18~~December 6, 2016

1. The permittee shall strictly conform to all provisions of the approved revised Agricultural Erosion Control Plan #P11-00205-ECPA (dated July 5, 2016). It is the responsibility of the permittee to communicate the requirements of all conditions and mitigation measures to all designers, contractors, and professionals related to the implementation and maintenance of the ECP to ensure compliance is achieved.
2. The permittee shall fully comply with the Mitigation Measures contained in the Updated Mitigation Monitoring and Reporting Program (dated December 2016) and the ~~four~~ive (45) Conditions of Approval listed in Table 2 as follows:
 - (a) All ~~heavy~~eConstruction eEquipment shall access the Walt Ranch Property at the northernmost access point directly off of State Route 121 ("Gate 1"). No eConstruction eEquipment or vehicles weighing greater than 64,000 pounds shall use~~may be delivered via~~ Circle Oaks Drive. ~~All extra legal loads (defined as anything greater than 80,000 pounds that requires special Caltrans permits per Mitigation Measure 4.7-4) and~~ eConstruction eEquipment is defined deliveries (defined as any construction equipment listed in Table 3-5 of the EIR, including: excavators, graders, rubber tired dozer, tractors, loaders, and backhoes)~~shall utilize Gate 1.~~
 - (b) Western Pond Turtle (WPT) Exclusionary Fence Specifications. Consistent with Mitigation Measure 4.2-10, exclusion fencing shall be installed along the length of the access road. Recommended fencing for exclusion of WPT consists of silt fencing with a minimum height of 18 inches, trenched and backfilled to a depth of 6 inches. The exclusion fencing shall be placed on both sides of the portions of the access road that run through WPT nesting and upland habitat, including across the four existing stream crossings. WPT exclusion fencing shall be installed in early April to allow WPT hibernating in upland habitat to return to aquatic habitat. The portions within the stream crossings shall be removed during the winter period (October 16 through March 31) of each year, and shall be reinstalled in early April prior to equipment delivery.
 - (c) Specimen Tree Trimming. A qualified arborist or biologist shall monitor any limbing of the specimen tree located approximately 200 feet from the access gate.
 - (d) The following protective measures shall be followed for the protection of archeological and cultural resources:
 - i) No construction machinery or construction machinery transport shall occur unless the dirt access road is hard and dry; normal vehicles may continue to use the access road as

needed, ~~though it is recommended that the road is~~ but the road shall be avoided when wet, slippery, or otherwise in a condition where tires would dig in deeply;

ii) No vehicles shall drive or park off of the access road anywhere within Site CA-NAP-257 Locus A boundaries;

iii) No construction equipment, materials, or other goods shall be stockpiled or stored within Site CA-NAP-257 Locus A boundaries;

iv) Prior to use of the access road for project construction, a qualified professional archaeologist shall walk the access road, documenting and removing any typologically distinctive artifacts, adding them to any collections already held by the archaeologist;

v) Prior to use of the access road for project construction, a qualified professional archaeologist shall assist a qualified biologist in the establishment of exclusion fencing for the western pond turtle; this fencing shall also be used to restrict construction equipment access to the archeological site;

vi) Any alteration or improvement of the dirt road or access gate that may be required within the boundaries of CA-NAP-257 shall be overseen by a qualified professional archaeologist;

vii) Prior to use of the access road for project construction, a qualified professional archaeologist shall train construction workers in the recognition of prehistoric site features and burials;

viii) If any prehistoric site features or burials are uncovered during use of the access road through CA-NAP-257, all use of the road shall halt immediately, and a qualified professional archaeologist shall be retained to identify and assess the find, providing mitigation as necessary;

ix) Following each year's construction season on the project, a qualified professional archaeologist shall walk the access road, documenting and removing any typologically distinctive artifacts unearthed by heavy equipment, adding them to any collections database already held by the archaeologist; and

x) Following the end of vineyard construction, the artifact collections shall be given to the property owner or their designated representative, or any local Tribe with a claim to local area.

3. The permittee shall, ~~Adhering~~ throughout the duration of the project, adhere to the Oversight and Operation regulations specified in County Code Section 18.108.135-~~enclosed~~, which deal with among other things installation oversight, erosion control measure maintenance, monitoring, failure response, and non-compliance. Prior to the first winter

rains after construction begins and each year thereafter until the project has received a final inspection from the county or its agent and been found complete, a qualified professional shall inspect the site and certify in writing to the director that all of the erosion control measures required at that stage of development have been installed in conformance with the plan and related specifications. The report shall be provided to the Director of Planning, Building, and Environmental Services ("Director") within 7 days from the inspection.

4. Pursuant to County Code Section 18.108.140(A)(2), a financial security shall be submitted by the permittee to the Director within ten days of approval (or prior to earthmoving) of the erosion control plan for the portions of the project within the Milliken watershed. The financial security shall be in a form approved by County Counsel and shall be in an amount as determined by the Director, sufficient to guarantee restoration of any site disturbance, should the County be required to do so in case of default by the permittee.

5. The permittee shall implement the following measures to avoid encroachment into specified creek setbacks and associated riparian features:

(a) The location of creek setbacks shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. Temporary fencing shall be installed prior to any earthmoving activities. The precise locations of said fences shall be inspected and approved by the Engineering and Conservation Division prior to any earthmoving and/or development activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion control plan installation and vineyard installation. The protection fencing shall remain in place during the duration of project implementation and until wildlife exclusion fencing is installed as shown on the approved plans.

(b) All construction and related traffic shall remain on the inside (vineyard block side) of the protective fencing to ensure that the creek, buffer zones, and associated riparian habitat and/or woodland remain undisturbed.

(c) In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement), trees that are inadvertently removed which are not within the boundary of the project and/or not identified for removal as part of P11-00205-ECPA shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the ~~PBES~~ Director.

6. The following measures shall be implemented to protect trees/woodlands:

(a) Prior to any earthmoving activities, the permittee shall place temporary fencing ~~shall be placed~~ at the edge of the dripline of all trees to be retained that are located within 50-feet of the project area. The precise locations of said fences shall be inspected and approved by the Engineering and Conservation Division prior to the commencement of any earthmoving

activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated area for the duration of erosion control plan installation and vineyard installation.

(b) The permittee shall refrain from trimming the trees and vegetation to be retained adjacent to the vineyard conversion areas.

7. As described in the Updated Mitigation, Monitoring and Report Program (dated December 2016) and the Biological Resources Management Plan, the areas required for permanent protection shall be identified and placed into~~as such in~~ a conservation easement with an organization accredited by the Land Trust Accreditation Commission as the grantee, or other equivalent means of permanent protection as approved by the Director ~~of PBES~~. Areas placed in protection shall be restricted from development and other uses that would degrade the quality of the habitat (including, but not limited to conversion to other land uses such as agriculture or residential development, and excessive off-road vehicle use that increases erosion) and should be otherwise restricted by the existing goals and policies of Napa County. Upon County Counsel's review and approval as to the form of the conservation easement, the ~~applicant~~ permittee shall record the conservation easement prior to any ground disturbing activities, grading, or vegetation removal or within 12 months of project approval, whichever occurs first.
8. The permittee shall fully implement "The Walt Ranch Long Term Vineyard and Road Maintenance Plan," prepared by the Napa County Resource Conservation District, dated February 11, 2013 (the "Plan") ~~shall be fully implemented~~ (including all watercourse crossings) on all roads to be used for vineyard development traffic prior to September 15th of the year development is commenced (or prior to October 15th for road segments within the Capell Creek Watershed). The permittee shall fully implement the Plan on all roads on the property within 3 years of commencement of development.~~prior to the construction of any vineyard blocks. The measures specified in the Plan shall be maintained, and maintained~~ throughout the life of the vineyard. Upon completion, all road treatments and watercourse crossings shall be inspected by the Napa County RCD and approved by Napa County. In addition, a Letter of Completion shall be submitted to the Engineering and Conservation Division prepared by a licensed design professional, prior to the construction of any vineyard blocks.
9. Prior to any ground disturbing activities, grading, or vegetation removal, the permittee shall revise the draft Biological Resources Management Plan (BRMP) ~~shall be revised~~ to be consistent with and to reflect changes resulting from approval of the Reduced Intensity Alternative, the Updated MMRP and voluntary reductions in the scope of the project. The BRMP shall be reviewed and approved by the ~~Planning~~ Director prior to any ground disturbing activities, grading, or vegetation removal or within 12 months of project approval, whichever occurs first.

10. The Walt Ranch Water Quality Monitoring Program prepared by Analytical Environmental Services, dated ~~July~~August 2016 shall be implemented by the permittee and any subsequent property owners.
11. No blasting shall occur within 775 feet of any offsite residence.
12. The disposal of debris, storage of materials, or construction/operation of vineyard avenues outside the boundaries of the approved plan is prohibited.
13. The permittee shall install and maintain ~~W~~wildlife exclusion fencing ~~shall be maintained and installed~~ as specified in approved Erosion Control Plan #P11-00205-ECPA.
14. All persons working on-site shall be bound by contract and instructed in the field to adhere to all provisions and restrictions specified above.

15. Groundwater Management

(a) The permittee shall (at the permittee's expense) maintain data regarding monthly well monitoring and report groundwater use to the County pursuant to Mitigation Measure 4.6-4 and the Groundwater Monitoring and Mitigation Plan. Water usage shall be minimized by use of best available control technology and best water management conservation practices.

(b) Any new on-site, off-site water sources for vineyard use not evaluated as part of the ECPA (existing or proposed in ECPA) or required by Mitigation Measure 4.6-4 and the Groundwater Monitoring and Mitigation Plan shall be subject to the following requirements, as determined to be necessary by the County prior to approval:

1. New Water Availability Analysis;
2. Environmental Review, and
3. ECPA modification.

For the purposes of this condition of approval, a new water source shall include but not be limited to wells, imported water, new or existing ponds/reservoir(s) proposed or used to serve the vineyards. A new water sources does not include any water source, including wells and reservoirs, evaluated as part of the ECPA (existing or proposed in ECPA) or required by Mitigation Measure 4.6-4 and the Groundwater Monitoring and Mitigation Plan.

(c) Permittee shall limit groundwater use for vineyards to 144.5 acre-ft. per year.

(d) The permittee shall be required to include the vineyard wells in the County's Groundwater Monitoring program upon the County's request.

16. Prior to any ground disturbing activities, grading, or vegetation removal, the permittee shall:

(a) Confirm Baseline Hydrologic Soil Group (HSG) and Related Conditions by performing a site evaluation of those vineyard blocks with a modified HSG to verify that the unmodified natural HSG of the soil is assigned HSG 'D' due to the depth to a water impermeable layer being less than 50 centimeters [20 inches] per Chapter 7 of the National Engineering Handbook. The evaluation shall consist at a minimum of 5 (five) evaluation sites evenly spaced on a transecting line located approximately along the middle portion of each of the proposed vineyard blocks on an alignment that is roughly perpendicular to the natural drainage pattern of the area. Evaluations shall be conducted in accordance with general engineering standard practices.

(b) Perform laboratory and or field testing to determine the soil classification and conduct an evaluation of the soil to determine hydraulic conductivity per general engineering standard practices. The information obtained from these evaluations shall be used to confirm the reassignment of the HSG per Table 7-1 of the National Engineering Handbook.

(c) Identify the Modified HSG and Related Conditions: The permittee shall prepare and submit a scope of work to the Engineering and Conservation Division describing the methods to be utilized to modify the natural soil profile for reassignment of the HSG within vineyard blocks. Upon completing the modification of the natural soil profile, the permittee shall perform a minimum of 5 (five) evaluation sites evenly spaced on a transecting line located approximately along the middle portion of each of the proposed vineyard blocks on an alignment that is approximately perpendicular to the natural drainage pattern of the area, but not in the same location as the pre-development site evaluation transecting line. All testing locations and sampling shall be done in accordance with general engineering standard practices to confirm the reassignment of the vineyard block HSG per the criteria set forth in Table 7-1 of the National Engineering Handbook.

(d) Field testing, laboratory procedures, reports and conclusions shall performed by a qualified professional registered in the State of California having experience in engineering or science related to soils and shall provide for verification of correct material usage and correct selection of reference standards. All inspection and testing parameters shall be conducted in accordance with accepted professional standards. Soil reports shall be provided to the Engineering and Conservation Division prior to vineyard planting to evaluate and determine if any additional recommendations are necessary. The permittee shall promptly implement the recommendations of the Engineering and Conservation Division.

(e) If the results of the soil testing does not show reassignment of the HSG to 'C' or better, the permittee shall immediately stop vineyard development and stabilize the site so that best management practices may be developed and processed to show compliance with the

County's Conservation Regulations and General Plan Policy CON-50(c). A revised ECP and additional CEQA review may be required.

17. The Permittee shall not burn vegetation removed as part of vineyard construction within 2,000 feet of the Circle Oaks neighborhood boundary. This encompasses all or part of the following vineyard blocks: 12B, 13-16, 25-27, 36-37, and 53-54. Vegetation from these blocks shall be either burned outside of the 2,000-foot radius or chipped.
18. Development of the Walt Ranch vineyard project will be performed in phases as described herein to plant the total 209 acres of vines. Development activities are limited by other project conditions and Napa County requirements to occur only between April and September of each year.

In the initial phase of development ("year one"), work will include development of the initial vineyard areas and associated roads and pipelines, and the construction of reservoirs proposed for the project. Groundwater use during "year one" would include groundwater used for construction and the filling of reservoirs, and shall not exceed the allotted 144.5 AF. Following the end of "year one", monitoring data that will have been collected over time in accordance with the existing Groundwater Monitoring and Mitigation Plan (GWMMP) from Walt Ranch and from other concerned Parties that surround Walt Ranch (such as COCWD) will be evaluated by a qualified hydrogeologist in accordance with the GWMMP to determine whether or not there have been any identifiable groundwater impacts, and include recommendations on whether or not the next phase of development should continue. Those opinions/recommendations will be provided to Napa County for its approval.

"Year two" will include planting of vines in the areas of the property prepared during "year one". Assuming no identified groundwater impacts following "year one", the second phase of development preparing new areas of the property to accommodate vineyards (including associated roads and pipelines), and possible additional reservoir construction will commence. Groundwater use during "year two" will include water for filling reservoirs/irrigating the existing vineyard areas, and for development activities; groundwater use shall not exceed the allotted 144.5 AF. Following the end of "year two", a qualified hydrogeologist will assess the available monitoring data collected over time pursuant to the GWMMP, and provide opinions and recommendations as to whether or not there have been any identifiable groundwater impacts in accordance with the GWMMP, and whether or not the next phase of development should continue. Those opinions/recommendations will be provided to Napa County for its approval.

"Year three" will include planting of vines in the areas of the property prepared during "year two". Assuming no identified groundwater impacts following "year two", the third and final phase of development will include development of the remainder of the proposed vineyard areas (including associated roads and pipelines), and possible reservoir construction. Groundwater use during "year three" will include water for filling

reservoirs/irrigating the existing vineyard areas, and for final development activities; groundwater use shall not exceed the allotted 144.5 AF. Following the end of the “year three”, a qualified hydrogeologist will assess the available monitoring data collected over time pursuant to the GWMP, and provide opinions and recommendations as to whether or not there have been any identifiable groundwater impacts in accordance with the GWMP. Those opinions/recommendations will be provided to Napa County for its approval.

“Year four” will include the planting of the remainder vineyard areas that were developed during the previous year, for a total vineyard acreage of 209 acres of vines. Groundwater monitoring will continue as stipulated in the GWMP developed for the project.

195. All staff costs associated with monitoring compliance with the above conditions shall be borne by the permittee and/or property owner. The permittee shall make an initial deposit of \$5,000 within 30 days of this letter to fund staff monitoring. Costs associated with conditions and mitigation measures that require monitoring, including investigation of complaints, other than those costs related to investigation of complaints of non-compliance that are determined to be unfounded, shall be charged at the rate in effect at the time monitoring occurs. Violations of conditions of approval or mitigations measures caused by the permittee’s contractors, employees, and guests are the responsibility of the permittee.

ATTACHMENT A

UPDATED MITIGATION, MONITORING, AND REPORTING PLAN AND CONDITIONS OF APPROVAL

CEQA requires that a Lead Agency establish a program to report on and monitor measures adopted as part of the environmental review process to mitigate or avoid significant effects on the environment. This Mitigation Monitoring and Reporting Plan (MMRP) is designed to ensure that the mitigation measures identified in the Environmental Impact Report (EIR) for the Walt Ranch Agricultural Erosion Control Plan Application (ECPA) #P11-00205-ECPA (Proposed Project) are fully implemented. The MMRP, as presented **Table 1**, describes the timing and frequencies of mitigation implementation responsibilities and standards, and verification of compliance for the mitigation measures identified in the Proposed Project EIR.

Table 1 presents all recommended mitigation measures and is organized by topic in the same order as the contents of the EIR. Several entities have been assigned monitoring responsibilities under this MMRP. All monitoring actions, once completed, will be reported (in writing) to Napa County, which will maintain mitigation monitoring records for the Proposed Project. The MMRP will be considered by the Lead Agency in conjunction with review and approval of the project, and will be adopted as a condition of project approval. The components of this table are as follows:

Mitigation Measure: The mitigation measures are taken verbatim from the Final EIR. Mitigation measures are assigned the same numbers they have in the EIR.

Responsible for Monitoring and/or Reporting: Identifies the responsible party for monitoring the measure and, if applicable, reporting to the party responsible for verifying.

Responsible for Verifying Compliance: Identifies the responsible party for verifying that the measure was completed appropriately and in compliance with the performance criteria.

Timing of Action: Identifies the timing or frequency for the implementation of each action.

Duration of Monitoring: Identifies how often each measure should be monitored.

Performance Criteria: Identifies to what standard each measure must be completed.

Proposed Funding: Identifies party with financial responsibility for each measure.

Immediately following the Updated MMRP, **Table 2** presents Conditions of Approval that the County will adopt if the Proposed Project, or an alternative, is approved. CEQA does not require mitigation measures to be adopted to address impacts that are determined to be less than significant. (*Cal. Oak Foundation v. Regents of U. of Cal.* (2010) 188 Cal.App.4th 227, 282). Nevertheless, Napa County has exercised its discretion to require implementation of various additional "Conditions of Approval" to further reduce or avoid impacts that the Final EIR determined to be less than significant without mitigation. **Table 2** includes the following components:

Condition of Approval: The mitigation measures are taken verbatim from the Final EIR. Mitigation measures are assigned the same numbers they have in the EIR.

Responsible for Monitoring and/or Reporting: Identifies the responsible party for monitoring the measure and, if applicable, reporting to the party responsible for verifying.

Responsible for Verifying Compliance: Identifies the responsible party for verifying that the measure was completed appropriately and in compliance with the performance criteria.

Timing of Action: Identifies the timing or frequency for the implementation of each action.

Duration of Monitoring: Identifies how often each measure should be monitored.

Performance Criteria: Identifies to what standard each measure must be completed.

Proposed Funding: Identifies party with financial responsibility for each measure.

TABLE 1
MITIGATION MONITORING AND REPORTING PROGRAM

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
|--|---|--|----------------------|--|-----------------------------|------------------|
| 4.1 AIR QUALITY | | | | | | |
| <p>4.1-1: The owner shall implement a fugitive dust abatement program during the construction of #P11-00205-ECPA, which shall include the following elements:</p> <ul style="list-style-type: none"> • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard; this mitigation is included in the BAAQMD-approved CalEEMod. • Cover all exposed stockpiles. • Sweep Circle Oaks Drive daily (with water sweepers) if visible soil material is carried onto adjacent streets. • Limit traffic speeds on unpaved roads to 15 miles per hour (mph); this mitigation is included in the CalEEMod. • Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph. • Any burning of cleared vegetation shall be conducted according to the rules and regulations of the BAAQMD's Regulation 5 (BAAQMD, 2006). Prior notification to BAAQMD shall be made by submitting an Open Burning Prior Notification Form to BAAQMD's office in San Francisco. <p>Prior to approval of P11-00205-ECPA, the above measures shall be incorporated into the ECP narrative and applicable plan sheets.</p> | Applicant | <p>Napa County Planning, Building, and Environmental Services Department (PBES)</p> <p>Bay Area Air Quality Management District (BAAQMD)</p> | Project Construction | Project Construction through Operation | County and BAAQMD Standards | Applicant |
| <p>4.1-2: The owner shall implement the required basic construction mitigation measures as recommended by the BAAQMD and mitigation measures used in the CalEEMod during the construction of the Proposed Project, which shall include the following elements:</p> | Applicant | <p>Napa County PBES</p> <p>BAAQMD</p> | Project Construction | Project Construction | County and BAAQMD Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
|--|---|--------------------------------------|--------------------------------------|---|-------------------------------|------------------|
| <ul style="list-style-type: none"> Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. Post a publicly visible sign with the telephone number and person to contact at Napa County regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. The owner shall equip all construction equipment with a horsepower rating greater than 50 with a diesel particulate filter; this mitigation is included in the CalEEMod. <p>Prior to approval of P11-00205-ECPA, the above measures shall be incorporated into the ECP narrative and applicable plan sheets. Signage shall be installed and documentation from a certified mechanic that construction equipment has been checked and particulate filters installed shall be submitted to the County prior to the commencement of vegetation removal and grading.</p> | | | | | | |
| 4.2 BIOLOGICAL RESOURCES | | | | | | |
| 4.2-1: Prior to the approval of #P11-00205-ECPA, the plan shall be modified to include the following (any associated project features that become unnecessary as a result of the avoidance, such as proposed roads, shall also be reflected in the revised plan): | Applicant | Napa County PBES | Prior to Approval of #P11-00205-ECPA | Pre-construction through Operation (annual for 5 years) | County Standards: 80% Success | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
|---|---|--------------------------------------|------------------|------------------------|----------------------|------------------|
| <p>Impacts to native grasslands shall be reduced to a less-than-significant level and result in the greatest quality of native grassland mitigation through a combination of avoidance, preservation, and enhancement. Specifically, mitigation for the removal of an estimated 4.45 acres of native grassland on the property would be accomplished through a combination of 1) avoidance of high-quality native grasslands within the project area and the immediate vicinity; 2) preservation and conservation of native grasslands having the highest habitat value and species composition; and 3) through the restoration and enhancement of existing non-native grasslands implemented through the Walt Ranch Biological Resources Management Plan (BRMP).</p> <p>Avoidance In order to maintain biodiversity of native grasslands on the property, approximately 3.30 acres of native grasslands shall be avoided. To the maximum extent feasible, access road development shall be relocated as necessary to avoid populations of native grasslands. Specifically, avoidance shall occur at the locations detailed in Table 4.2-5 and shown on Figure 4.2-4 (please refer to Section 4.2). These populations shall be avoided with a buffer of not less than 10 feet. Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities.</p> <p>The avoidance proposed in Table 4.2-5, in combination with the native grasslands already outside of the clearing limits, will result in the preservation of approximately 8.65 acres (88.3 percent) of native grasslands mapped on the property. Therefore, the Proposed Project will impact 1.15 acres of native grasslands in the avenue around block 13, the avenue around blocks 16A and 16B2, and in blocks 16A, 16B1, 16B2, and 18A5. These impacted areas shall be mitigated at a 2:1 ratio as discussed below.</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
|---|---|--------------------------------------|------------------|------------------------|----------------------|------------------|
| <p><u>Preservation and Enhancement</u></p> <p>The direct impact of 1.15 acres of native grasslands shall be mitigated by preserving the remainder of the native grasslands mapped onsite and enhancing existing non-native grassland to in-kind native reference grasslands at a 2:1 ratio (2.30 acres). The 8.65 acres of native grasslands mapped on the property shall be preserved in perpetuity. All acreage designated for preservation shall be identified as such in a conservation easement with an accredited land trust organization such as the Land Trust of Napa County as the grantee, or other equivalent means of permanent protection acceptable to the Director. Land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limited to, conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should otherwise be restricted by the existing goals and policies of Napa County. The areas to be covered by the conservation easement shall be determined by a qualified botanist or biologist, and submitted to Napa County for review and approval. The conservation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>Replacement of native grasslands shall occur on 2.30 acres on the property, and shall be designated in the Walt Ranch BRMP. In order to provide for habitat continuity, the 2.30 acres of native grassland replacement shall occur in suitable areas in proximity to native grassland areas to the maximum extent feasible. This may include, but is not limited to, areas near vineyard blocks</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>13, 16, 19, or 29. Replacement plantings shall be consistent with the dominant native grassland type (blue wildrye, purple needle grass, and/or California fescue) that was impacted. Any new transplants for replacement shall be propagated from seed found on site. Replanting areas for native grasslands shall be protected with a buffer of not less than 10 feet. Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities.</p> <p>Prior to ground disturbing activities associated with the Proposed Project, the Walt Ranch BRMP shall be developed by a qualified professional biologist, and submitted to Napa County for review and approval. The Walt Ranch BRMP shall cover multiple sensitive habitat types, sensitive or special-status species, and other biological considerations on the property, as discussed elsewhere in Section 4.2.6 of this EIR. Required performance criteria to be included in the Walt Ranch BRMP are as follows:</p> <ul style="list-style-type: none"> • Management goals: Goals shall include habitat enhancement criteria, such as increased native grass cover, native plant diversity, and wildlife values. If in the event that population totals of the sensitive resources identified within this EIR are determined to have changed during preconstruction surveys, the Applicant and/or the Applicant's representative shall provide an assessment sufficiently explaining the reason(s) resources are no longer present or are in increased or reduced numbers. The assessment shall be prepared by a qualified biologist, subject to review and approval by the Director; • Identification of suitable habitat: The BRMP shall clearly identify sufficient areas of suitable habitat for each species subject for replanting. In the event the property lacks adequate suitable habitat area, equivalent additional resources shall be avoided in order to meet the specified avoidance criteria; • Restoration and enhancement techniques: | | | | | | |

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| <p>Identification of transplanting and mitigation planting techniques for various species and habitat types covered by the BRMP;</p> <ul style="list-style-type: none"> Implementation schedule: restoration, enhancement, and planting shall begin during the year following ground disturbance; Planting goals: A qualified biologist shall work with vineyard personnel to ensure that the spacing of plantings and other requirements of the overall BRMP are met; Monitoring criteria: Restoration and enhancement areas shall be monitored by a qualified botanist or biologist annually for a minimum of five years. As part of the first year monitoring report, each area planted to offset that years' impacts, the final replacement total, exact location, and size of the replacement plantings shall be recorded; Reporting criteria: Annual monitoring reports shall be submitted to Napa County by January 1 of each year for five years after the successful completion of the replanting efforts and plan implementation; and Success criteria: Restoration and enhancement areas must have at least an 80 percent success rate after five years. | | | | | | |
| <p>4.2-2: Prior to the approval of #P11-00205-ECPA, the plan shall be modified to include the following (any associated project features that become unnecessary as a result of the avoidance, such as proposed roads, shall also be reflected in the revised plan). All features requiring avoidance shall be field verified by a qualified professional biologist prior to ground disturbing activities, including the placement of construction fencing delineating the areas to be avoided:</p> <p>The Carex spp. – Juncus spp. – Wet Meadow Grasses NFD Super Alliance is only located in Block 16. This habitat type shall be avoided in its entirety. Therefore, the portion of Block 16 that contains the Carex spp. – Juncus spp. – Wet Meadow Grasses NFD Super Alliance shall be removed from the</p> | Applicant | Napa County PBES | Prior to Approval of #P11-00205-ECPA | Pre-construction through Operation | County Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>Proposed Project. This will ensure 100 percent avoidance of this sensitive habitat.</p> <p>The California Buckeye/Poison Oak/Moss Woodland Alliance is only located in Block 33. This habitat type should be avoided in its entirety, as shown on Figure 4.2-5. Therefore, the portion of Block 33 that is the California Buckeye/Poison Oak/Moss Woodland habitat type shall be removed from the Proposed Project. This will ensure 100 percent avoidance of this sensitive habitat. The total acreage of this habitat type (0.16 acres) on the property shall be placed in permanent protection through the recordation of a conservation easement approved by the Director, held by an accredited land trust organization, prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>Valley Oak (California Bay – Coast Live Oak – Walnut – Ash) Riparian Forest NFD Association is located in select areas throughout the property, associated with streams and creeks. The portions of vineyard blocks and avenues 21B, 29A1, 29A2, 29B2, 30A, 42, 43, 45B, 57B, and 58A that contain this sensitive habitat type should be removed from the Proposed Project, resulting in 6.3 acres of gross area removed from the Proposed Project. Avoiding these areas will also protect upland habitat for the western pond turtle (discussed further in Impact 4.2-10) and wildlife corridors along riparian areas. After mitigation, 30.8 acres (100 percent) of this habitat type will be preserved on the property.</p> <p>Approximately 2.5 acres of Black Oak Alliance habitat will be avoided in the following vineyard blocks and surrounding avenues: 12, 15B, 16B1, 16B2, 17A, 17B, 31A, 31B, 37A, 37C, 37D, 43, and 60A3, as shown on Figure 4.2-5. The blocks</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>chosen for avoidance will provide additional habitat continuity benefits and will also protect certain specimen trees, in addition to conserving Black Oak Alliance. Specimen trees are also discussed in Impact 4.2-16 below. After mitigation, 35.8 acres of this habitat type will be impacted by the project, and 281.7 acres (88.7 percent) will remain on the property. These impacts shall be mitigated by preserving Black Oak Alliance habitat elsewhere on the property at a 2:1 ratio. This will result in 71.6 acres of Black Oak Alliance preserved in permanent protection on the property. Protection shall be achieved through the recordation of a conservation easement approved by the Director, held by an accredited land trust organization, prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Approximately 3.6 acres of Blue Oak Alliance will be avoided in the following vineyard blocks and surrounding avenues: 28, 29B1, 29B2, 37A, 37D, and 47A1, as shown on Figure 4.2-5. Avoiding these blocks will also protect specimen trees, interspersed Fescue Alliance, and wildlife corridors along creeks and tributaries. After mitigation, 2.6 acres of this habitat type will be impacted on the property. The 2.6 acres that will be impacted shall be mitigated by preserving Blue Oak Alliance habitat elsewhere on the property at a 2:1 ratio. This will result in 5.2 acres of Blue Oak Alliance preserved in permanent protection on the property. Protection shall be achieved through the recordation of a conservation easement approved by the Director, held by an accredited land trust organization, prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>Approximately 1.75 acres of Coast Live Oak (Foothill Pine) Alliance will be avoided in vineyard Block 18 and surrounding</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>avenues, as shown on Figure 4.2-5. Avoiding portions of this block chosen for avoidance will provide additional habitat continuity benefits and will also protect specimen trees and western pond turtle habitat, in addition to conserving Coast Live Oak (Foothill Pine) Alliance. After mitigation, 20.1 acres of this habitat type will be impacted by the project, which shall be mitigated by preserving Coast Live Oak (Foothill Pine) Alliance habitat elsewhere on the property at a 2:1 ratio. This will result in 40.2 acres of Coast Live Oak (Foothill Pine) Alliance preserved in permanent protection on the property. Protection shall be achieved through the recordation of a conservation easement approved by the Director, held by an accredited land trust organization, prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>Approximately 11.25 acres of Coast Live Oak-Blue Oak-(Foothill Pine) NFD Association will be avoided in the following vineyard blocks and surrounding avenues: 1B, 2A and 2B, 5A, 17B, 18A, 19A, 20A, 36A and 36B, 37E and 37F, 45B, 48, 51C, 57B, 62A, 63, 64, and 69, as shown on Figure 4.2-5. The blocks chosen for avoidance will provide additional habitat continuity benefits and will also protect specimen trees, western pond turtle habitat, northern black walnut, and wildlife corridors, in addition to conserving Coast Live Oak-Blue Oak-(Foothill Pine) NFD Association. After mitigation, 100.2 acres of this habitat type will be impacted by the project, which shall be mitigated by preserving Coast Live Oak-Blue Oak-(Foothill Pine) NFD Association habitat elsewhere on the property at a 2:1 ratio. This will result in 200.4 acres of Coast Live Oak-Blue Oak-(Foothill Pine) NFD Association preserved in permanent protection on the property. Protection shall be achieved through the recordation of a conservation easement approved by the</p> | | | | | | |

UPDATED MITIGATION MONITORING AND REPORTING PLAN

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>Director, held by an accredited land trust organization, prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>Approximately 13.01 acres of Mixed Oak (Foothill Pine/Ponderosa Pine) Alliance will be avoided in the following vineyard blocks and surrounding avenues: 1B and 1C, 12, 16A, 16B, 16C, 19A, 24, 25A, 37D, 51C, and 55B, as shown on Figure 4.2-5. The blocks chosen for avoidance will provide additional habitat continuity benefits and will also protect specimen trees, notable oak woodland stands, and interspersed native grasslands, in addition to conserving Mixed Oak (Foothill Pine/Ponderosa Pine) Alliance. After mitigation, 103.8 acres of this habitat type will be impacted by the project, which shall be mitigated by preserving Mixed Oak (Foothill Pine/Ponderosa Pine) Alliance habitat elsewhere on the property at a 2:1 ratio. This will result in 207.6 acres of Mixed Oak (Foothill Pine/Ponderosa Pine) Alliance preserved in permanent protection on the property. Protection shall be achieved through the recordation of a conservation easement approved by the Director, held by an accredited land trust organization, prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>To the maximum extent feasible, access road development shall be relocated as necessary to avoid sensitive habitats.</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| After avoidance of the proposed vineyard blocks described above, the impacts to sensitive habitats are reduced to a less-than-significant level and the Proposed Project is consistent with General Plan Policy CON-17 and Policy CON-24. | | | | | | |
| <p>4.2-4: Project site plans will avoid or mitigate for direct impacts to jurisdictional waters of the U.S, as described below.</p> <p>A Department of the Army nationwide permit (Section 404 permit) shall be obtained from the USACE prior to the discharge of any dredged or fill material within jurisdictional wetlands and other waters of the U.S. If needed, a Streambed Alteration Agreement (SAA) shall be obtained from CDFW prior to construction activities that impact riparian zones. A Clean Water Act Section 401 Water Quality Certification will be obtained from the Regional Water Quality Control Board (RWQCB) prior to any discharge into waters of the United States. Copies of all approved permits shall be submitted to the County prior to any ground disturbance, vegetation removal, and grading in areas involving waters of the U.S. and/or riparian zones. Direct impacts to waters of the U.S., specifically the 0.25 acres of jurisdictional "other waters" shown in Table 4.2-6, shall be mitigated by creating or restoring waters of the U.S. onsite. Compensatory mitigation shall occur at a minimum of 1:1 ratio and shall be approved by the USACE prior to any discharge into jurisdictional features. Protection shall be achieved through the recordation of a conservation easement approved by the Director, held by an accredited land trust organization, prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>Prior to development of Block 31 (which will result in the direct</p> | Applicant | <p>Napa County PBES</p> <p>U.S. Army Corps of Engineers (USACE)</p> <p>CDFW</p> <p>Regional Water Quality Control Board (RWQCB)</p> | Prior to Approval of #P11-00205-ECPA | Pre-construction through Operation | County Standards and Permit Conditions | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>impact of 0.02 acres of wetland as shown in Table 4.2-6), necessary permits by the appropriate agencies will be obtained to remove the isolated wetland inside the proposed block, and mitigation at a minimum of 1:1 will be applied to the Capell Creek drainage area on the property. Protection shall be achieved through the recordation of a conservation easement approved by the Director, held by an accredited land trust organization, prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>To avoid indirect impacts to all other wetlands, avoidance buffers of 50 feet shall be established around each of the wetlands, which include a 24-foot vegetated turnaround avenue and a 26-foot undisturbed filter strip. Temporary orange construction fencing, or other method acceptable to Napa County, shall be installed around all wetlands and any drainage features in the vicinity of and outside of the construction area. Fencing shall be located a minimum of 26 feet from the edges of wetlands as identified by a qualified biologist. All fencing shall be installed prior to the commencement of any earthmoving activities and shall be field verified by Napa County. The fencing shall remain in place until all construction activities in the vicinity have been completed.</p> <p>Vineyard development near streams that meet the Napa County definition of a stream will maintain setbacks in compliance with the Napa County Conservation Regulations and Code 18.108.025 (see Table 4.2-7). For drainages which do not meet the Napa County definition of a stream, 20-foot minimum setbacks shall be maintained from the top of bank. Minimum 50-foot setbacks (which includes a 24-foot vegetated</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>turnaround avenue and a 26-foot undisturbed filter strip) shall be maintained around all wetlands. The proposed BMPs shall be implemented throughout the life of the project. These include cover crop management and integrated pest management, which in addition to the proposed setbacks, would effectively filter sediments, agricultural chemicals, and nutrients to a less-than-significant level. Any changes to the BMPs shall be submitted to the Director for approval prior to implementation.</p> <p>Additional buffers are recommended in two locations to provide extra protection to sensitive habitats and species. The buffer around a portion of the wetland in Block 5A3 should be increased by 25 feet as shown on Figure 4.2-6 in order to provide additional protection to the wetland and the population of Gairdner's yampah immediately adjacent to it. In addition, the buffer surrounding the drainage in the south of Block 8 should be expanded by 50 feet, as shown on Figure 4.2-6 (please refer to the figure in Section 4.2). Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities.</p> <p>Construction activities, including, but not limited to earthmoving and staging activities, within 50 feet of any USACE jurisdictional features shall be conducted during the dry season (April 1 to September 15 or October 15) to minimize impacts related to erosion, water quality, and aquatic resources, and activities shall be conducted consistent with Mitigation Measure 4.2-10 to protect western pond turtle and Mitigation Measure 4.2-11 for California red-legged frog (CRLF). All disturbed areas shall be seeded and mulched to prevent erosion and sediment deposit into wetlands and waters of the U.S.</p> <p>Staging areas shall be located within approved clearing limits and a minimum distance of 100 feet away from the areas of jurisdictional waters that are fenced off and the ECP (P11-00205-ECPA) shall be modified to indicate this prior to</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>approval. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas within the gross acres allocated for vineyard development (i.e., approved vineyard blocks and associated acreage). Excess excavated soil shall be used onsite or disposed of at an approved facility or site. Stockpiles that are to remain on the site through the wet season shall be protected to prevent erosion (e.g. with tarps, silt fences, or straw bales) prior to September 15 or October 15 of each year.</p> <p>Standard precautions shall be employed by the construction contractor to prevent the accidental release of fuel, oil, lubricant, or other hazardous materials associated with construction activities into jurisdictional features. A contaminant program shall be developed and implemented in the event of release of hazardous materials (as detailed in Mitigation Measure 4.5-1).</p> | | | | | | |
| <p>4.2-5: As part of the Walt Ranch Biological Resources Management Plan (BRMP) required in Mitigation Measure 4.2-1, the following measures will be taken to ensure a less-than-significant impact to northern California black walnut:</p> <ul style="list-style-type: none"> An untagged black walnut stump with sprouts that obviously was rootstock for English walnut, located north of the road on the eastern edge of the grassland, may be removed. This tree is in poor health and was not producing nuts in 2009. If feasible, the three trees on the western edge of the grassland (tag numbers 8628, 8268, and 8795) should not be removed unless they are demonstrated to the satisfaction of the Director that they are of hybrid origin. If it is determined that the trees must be removed, and they are determined by the County not to be of hybrid origin, walnuts should be collected prior to removing the trees. Walnuts collected from these trees should then be distributed randomly throughout the native walnut preserved area shown in Figure 4.2-7. If the three trees are demonstrated to be of hybrid | Applicant | Napa County PBES | Prior to Approval of #P11-00205-ECPA | Pre-construction through Operation | County Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>origin, no mitigation would be necessary for their removal.</p> <ul style="list-style-type: none"> No additional northern California black walnut trees shall be removed from the property. The Applicant is encouraged to remove the grafted English walnut stand adjacent to the northern California black walnut stand to minimize hybridization. Prior to construction in Block 37, temporary construction fencing shall be placed along the avoidance area shown in Figure 4.2-7 (please refer to the figure in Section 4.2). The temporary fencing shall remain throughout construction activities. The area shown in Figure 4.2-7 shall be avoided in permanent protection in order to provide sufficient habitat for potential future regrowth and expansion of the population of northern California black walnut trees. Protection shall be achieved through the recordation of a conservation easement approved by the Director, held by an accredited land trust organization, prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first. Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension. | | | | | | |
| <p>4.2-6: After implementation of avoidance measures required in Mitigation Measures 4.2-1, 4.2-2, 4.2-7, 4.2-8, and 4.2-9, some deer fencing proposed in #P11-00205-ECPA may not be necessary due to alterations in vineyard layout. Prior to the approval of P11-00205-ECPA, the plan shall be modified so that proposed vineyard blocks shall be fenced individually or in small clusters, with corridors of no less than 100 feet in width.</p> | Applicant | Napa County PBES | Prior to Approval of #P11-00205-ECPA | Pre-construction through Construction | County Standards | Applicant |
| <p>4.2-7: Prior to the approval of #P11-00205-ECPA, the plan shall be modified to include the following (any associated project features that become unnecessary as a result of the</p> | Applicant | Napa County PBES | Prior to Approval of #P11-00205- | Pre-construction through | County Standards: 80% Success | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>avoidance, such as proposed roads, shall also be reflected in the revised plan):</p> <p>Impacts to CEPU2 would be reduced to a less-than-significant level through a combination of avoidance, preservation, and replanting. Specifically, the mitigation for the removal of an estimated 24.84 acres of holly-leaf ceanothus would be accomplished through a combination of 1) avoidance of high-quality ceanothus populations within the project area; 2) preservation and conservation of CEPU2 with the highest density and greatest health; and 3) through the restoration and enhancement of CEPU2 elsewhere on the property as part of the Walt Ranch Biological Resources Management Plan (BRMP).</p> <p>Avoidance</p> <p>In order to maintain the health and viability of the holly-leaf ceanothus populations on the Walt Ranch property, approximately 11.94 acres of CEPU2 shall be avoided in order to protect 80 percent of the population on the property. Proposed avoidance locations are detailed in Table 4.2-8 and shown on Figure 4.2-8 (please refer to Section 4.2). The locations shown in Figure 4.2-8 include a 25 foot buffer to protect the populations. Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities. To the maximum extent feasible, access road development shall be relocated as necessary to avoid populations of CEPU2; any acreage that is impacted in order to access blocks shall be mitigated in the final Walt Ranch BRMP.</p> <p>Some of the avoidance proposed in Table 4.2-8 has been targeted to preserve areas where holly-leaf ceanothus and narrow-anthered brodiaea co-occur (narrow-anthered brodiaea is discussed in Impact 4.2-8, below). Therefore, some of the avoidance areas proposed in Table 4.2-8 are also recommended for avoidance in Table 4.2-9, below.</p> | | | ECPA | Operation (annual for 5 years) | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>The avoidance proposed in Table 4.2-8, in combination with the populations of CEPU2 already outside of clearing limits, will result in the preservation of approximately 53.35 acres (80.52 percent) of CEPU2 on the property. Therefore, the Proposed Project will impact 12.90 acres of holly-leaf ceanothus, which shall be mitigated at a 1:1 ratio as discussed below.</p> <p><u>Preservation and Replanting</u></p> <p>The 53.35 acres of preserved CEPU2 on the property shall be preserved in perpetuity. All acreage designated for preservation shall be identified as such in a conservation easement with an accredited land trust organization such as the Land Trust of Napa County as the grantee, or other equivalent means of permanent protection acceptable to the Director. Land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limited to, conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should otherwise be restricted by the existing goals and policies of Napa County. The areas to be covered by the conservation easement shall be determined by a qualified botanist or biologist, and submitted to Napa County for review and approval. The conservation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>The direct impact of 12.90 acres of holly-leaf ceanothus should be mitigated by preserving the remainder of the CEPU2 population onsite and replanting at a 1:1 ratio (12.90 acres). Mitigation replanting shall be designated in the Walt Ranch</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>BRMP. In order to provide for habitat continuity and population viability, the replanting areas shall occur within the Milliken Reservoir watershed within areas in close proximity to existing populations of holly-leaf ceanothus. The density of mitigation replanting shall be determined by the qualified biologist during preconstruction surveys and shall be similar to the density that is impacted by the project after avoidance mitigation.</p> <p>Additional measures, specific to CEPU2, that shall be included in the Walt Ranch BRMP include:</p> <ul style="list-style-type: none"> • Transplants shall be planted in suitable areas ecologically similar to the original site as determined by a qualified biologist and approved by Napa County. • A 25-foot buffer shall be established around preserved populations and replanting sites. This buffer shall be flagged in the field by the qualified biologist and inspected by Napa County prior to project commencement. Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities. • A qualified biologist or botanist will monitor the BRMP area annually for a minimum of five years to ensure at least an 80 percent success rate for preservation and replanting of CEPU2. • Annual monitoring reports shall be submitted to Napa County by January 1 of each year for five years after the successful completion of the replanting efforts and plan implementation. | | | | | | |
| <p>4.2-8: Prior to the approval of #P11-00205-ECPA, the plan shall be modified to include the following (any associated project features that become unnecessary as a result of the avoidance, such as proposed roads, shall also be reflected in the revised plan):</p> <p>Impacts to BRLE would be reduced to a less-than-significant level through a combination of avoidance, preservation, and</p> | Applicant | Napa County PBES | Prior to Approval of #P11-00205-ECPA | Pre-construction through Operation (annual for 5 years) | County Standards: 80% Success | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>replanting. Specifically, the mitigation for the removal of an estimated 26.4 acres of narrow-anthered brodiaea would be accomplished through 1) avoidance of high-quality BRLE populations within the project area; 2) preservation and conservation of narrow-anthered brodiaea with the highest density and greatest health; and 3) through the restoration and enhancement of BRLE elsewhere on the property as part of the Walt Ranch Biological Resources Management Plan (BRMP).</p> <p>Avoidance In order to maintain the health and viability of the narrow-anthered brodiaea populations on the Walt Ranch property, approximately 17.74 acres of BRLE shall be avoided in order to protect approximately 80 percent of the population on the property. Proposed avoidance locations are detailed in Table 4.2-9 and shown on Figure 4.2-9 (please refer to Section 4.2). The locations shown in Figure 4.2-9 include a 25 foot buffer to protect the populations. To the maximum extent feasible, access road development shall be relocated as necessary to avoid populations of BRLE; any acreage that is impacted in order to access blocks shall be mitigated in the Walt Ranch BRMP.</p> <p>Some of the avoidance proposed in Table 4.2-9 has been targeted to preserve areas where hollyleaf ceanothus and narrow-anthered brodiaea co-occur. Therefore, some of the avoidance areas proposed in Table 4.2-9 are also required for avoidance in Table 4.2-8, above.</p> <p>The avoidance proposed in Table 4.2-9, in combination with the populations of BRLE already outside of clearing limits, will result in the preservation of approximately 33.2 acres (79.5 percent) of BRLE on the property. Therefore, the Proposed Project will impact 8.63 acres of narrow-anthered brodiaea, which shall be mitigated at a 1:1 ratio as discussed below.</p> <p>Preservation and Replanting The 33.2 acres of preserved BRLE shall be preserved on the</p> | | | | | | |

UPDATED MITIGATION MONITORING AND REPORTING PLAN

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>property in perpetuity. All acreage designated for preservation shall be identified as such in a conservation easement with an accredited land trust organization such as the Land Trust of Napa County as the grantee, or other equivalent means of permanent protection, acceptable to the Director. Land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limited to, conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should otherwise be restricted by the existing goals and policies of Napa County. The areas to be covered by the conservation easement shall be determined by a qualified botanist or biologist, and submitted to Napa County for review and approval. The conservation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>The direct impact of 8.63 acres of narrow-anthered brodiaea shall be mitigated by preserving the remainder of the BRLE population onsite and replanting at a 1:1 ratio (8.63 acres) in locations designated in the Walt Ranch BRMP. In order to provide for habitat continuity and population viability, the replanting areas shall occur within the Milliken Creek watershed within areas in close proximity to existing populations of narrow-anthered brodiaea. The density of mitigation replanting shall be determined by the qualified biologist during preconstruction surveys and shall be similar to the density that is impacted by the project after avoidance mitigation.</p> <p>Additional measures, specific to BRLE, that shall be included in</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>the Walt Ranch BRMP include:</p> <ul style="list-style-type: none"> Transplants shall be planted in suitable areas ecologically similar to the original site as determined by a qualified biologist and approved by Napa County. Annual monitoring reports shall be submitted to Napa County by January 1 of each year for five years after the successful completion of the replanting efforts and plan implementation; A 25-foot buffer shall be established around preserved populations and replanting sites. This buffer shall be flagged in the field by the qualified biologist and inspected by Napa County prior to project commencement. Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities. A qualified biologist or botanist will monitor the BRMP area annually for a minimum of five years to ensure at least an 80 percent success rate for preservation and replanting of BRLE. | | | | | | |
| <p>4.2-9: Prior to the approval of #P11-00205-ECPA, the plan shall be modified to include the following (any associated project features that become unnecessary as a result of the avoidance, such as proposed roads, shall also be reflected in the revised plan):</p> <p>For all of the species discussed below, buffers of no less than 25 feet shall be established around any preserved or replanted areas. All populations of species designated shall be identified in a conservation easement held by an accredited land trust organization such as the Land Trust of Napa County as the grantee, or other equivalent means of permanent protection, acceptable to the Director. Land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limited to, conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should otherwise be restricted by the</p> | Applicant | Napa County PBES | Prior to Approval of #P11-00205-ECPA | Pre-construction through Operation (annual for 5 years) | County Standards: 80% Success | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>existing goals and policies of Napa County. The areas to be covered by the conservation easement shall be determined by a qualified botanist or biologist and submitted to Napa County for review and approval. The conservation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any ground disturbance, grading, or vegetation removal, or with 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>All mitigation plantings shall conform to the same five year annual monitoring and 80 percent success criteria standards found in the Walt Ranch BRMP. To the maximum extent feasible, access road development shall be relocated as necessary to avoid impacts to sensitive plant species.</p> <p>Prior to development of the Proposed Project, a botanical survey for narrow-leaved daisy shall be conducted to re-locate the identified plants on the property. Any plants that are not relocated by the qualified biologist or botanist do not require further mitigation. For any of the six narrow-leaved daisies that are relocated, seeds shall be collected in the fall, between August and September, and a test transplant shall be conducted in winter. Provided that the plant survives after one year of monitoring by a qualified biologist or botanist, the Applicant may proceed with mitigation replanting for narrow-leaved daisy. If the mitigation transplant does not survive, the Applicant shall protect the three isolated populations in Block 16.</p> <p>Provided that mitigation is successful, the one isolated population of narrow-leaved daisy that occurs in Block 16 may be removed for vineyard development under the Proposed Project without impacting overall population viability. The five</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>populations outside of vineyard blocks (located north of Block 10, just east of Block 16B2, east of Block 1A, within a portion of 2A2 avoided per WPT mitigation, and just south of Block 16A2) shall be preserved. The three impacted populations shall be mitigated through replanting and seed collection in a protected and appropriate habitat elsewhere on the property, as determined by a qualified botanist. The replanting areas shall be designated in the Walt Ranch BRMP.</p> <p>All eight populations designated for preservation shall be identified in a conservation easement held by an accredited land trust organization, or other equivalent means of permanent protection, subject to approval by the Director. Land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limited to, conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should otherwise be restricted by the existing goals and policies of Napa County. The areas to be covered by the conservation easement shall be determined by a qualified botanist or biologist, and submitted to Napa County for review and approval. The conservation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>Additional measures, specific to narrow-leaved daisy, that shall be included in the Walt Ranch BRMP include:</p> <ul style="list-style-type: none"> Transplants shall be planted in suitable areas ecologically similar to the original site as determined | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>by a qualified biologist and approved by Napa County.</p> <ul style="list-style-type: none"> A 25-foot buffer shall be established around preserved populations and replanting sites. Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities. A minimum of approximately a two-foot diameter by one foot deep plug of soil should be transported intact with the plant. Transplanting of narrow-leaved daisy shall occur between November and January. A qualified biologist or botanist will monitor the BRMP area annually for a minimum of five years to ensure at least an 80 percent success rate for preservation and replanting of narrow-leaved daisy. Annual monitoring reports shall be submitted to Napa County by January 1 of each year for five years after the successful completion of the replanting efforts and plan implementation. <p>All populations of Jepson's leptosiphon shall be preserved by removing portions of the following vineyard blocks from the Proposed Project: 20A, 48, 55B, and the avenue surrounding 55B. The populations shall be protected with a 50 foot buffer. Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities. These areas provide additional benefits by preserving western pond turtle upland habitat (discussed further in Impact 4.2-10) and Gairdner's yampah habitat. Therefore, 0.8 acres of vineyard will be required to be removed from the Proposed Project to protect Jepson's leptosiphon, which will result in 100 percent avoidance on the property.</p> <p>Approximately 1.54 acres of Napa bluecurls occurs in one isolated wetland near Block 16. The other isolated population is located outside of the proposed clearing limits. The Proposed Project would impact 0.3 acres (16.5 percent) of the Napa bluecurls on the property. Due to the rarity and extremely limited range of this species, Napa bluecurls shall be avoided in</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>their entirety. Preserving the 0.3-acre population by removing this portion of Block 16 shall result in 100 percent avoidance of this species. Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities. Prior to the issuance of any grading plans, the Erosion Control Plan shall be modified to remove the above referenced areas from development.</p> <p>Populations of Gairdner's yampah occur throughout the property and within several proposed vineyard areas (see Figure 4.2-3). Not all populations on the property were mapped. Populations shall be preserved in vineyard blocks 51C; 5A1, 5A3, and 8A (will also provide for additional stream and wetland buffers, as well as brodiaea and ceanothus protection); 16A and 16C1 (will also protect Napa bluecurls); 17B (will protect specimen trees); 20A (will protect Jepson's leptosiphon); 36A, 37F, and 37G (will also protect black walnut habitat); and 2A, 34A1, 34A2, 43, 45A, and 49 (will also protect western pond turtle upland habitat). Therefore, approximately 1.10 acres of vineyard have been removed from the Proposed Project to protect Gairdner's yampah, and a total of 6.85 acres (76.1 percent) will be preserved on the property. Prior to any ground disturbing activities, grading or vegetation removal, the temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities.</p> <p>As stated above, this plant occurs throughout the property, and mapping focused predominantly within proposed vineyard blocks; therefore, it is likely that additional populations exist outside of the clearing limits and greater than 80 percent avoidance has been achieved. Preservation of existing appropriate habitats for natural regeneration and persistence of existing perennial populations is sufficient to maintain this species on site.</p> <p>There are five populations of redwood lily on the property. All populations shall be avoided with a 25 foot buffer and preserved</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>in the conservation easement on the property. Prior to any ground disturbing activities, grading or vegetation removal, the temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities.</p> <p>All five populations of redwood lily designated for preservation shall be identified in a conservation easement held by an accredited organization, or other equivalent means of permanent protection, subject to approval by the Director. Land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limited to, conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should otherwise be restricted by the existing goals and policies of Napa County. The areas to be covered by the conservation easement shall be determined by a qualified botanist or biologist, and submitted to Napa County for review and approval. The conservation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any ground disturbing activities, grading or vegetation removal, or within six months of project approval, whichever occurs first.</p> <p>Green monardella occurs in Blocks 16A, 16B1, and 16B2, as well as areas outside of clearing limits just northwest of Block 16A. The green monardella that overlaps with native grassland in Block 16B1, 16B2, and the avenues outside these blocks shall be avoided. Prior to any ground disturbing activities, grading or vegetation removal, the temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities.</p> <p>Therefore, approximately 1.11 acres of vineyard has been removed from the Proposed Project to protect this species. This will result in a total of 2.20 acres (48.8 percent) of green monardella preserved on the property. Preservation of existing</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| appropriate habitats for natural regeneration and persistence of existing perennial populations is sufficient to maintain this species on site, and replanting is not required. | | | | | | |
| <p>4.2-10: Prior to the approval of #P11-00205-ECPA, the plan shall be modified to include the following (any associated project features that become unnecessary as a result of the avoidance, such as proposed roads, shall also be reflected in the revised plan):</p> <p>Impacts to western pond turtle would be reduced to a less-than-significant level through a combination of avoidance and preservation of prime nesting and upland habitat. This is accomplished in through the stream setbacks provided in the project design and in Mitigation Measure 4.2-4, as well as the additional avoidance measures discussed below.</p> <p>Avoidance and Preservation</p> <p>In order to maintain sufficient nesting habitat for western pond turtle populations on the Walt Ranch property, approximately 4.07 acres of nesting habitat shall be avoided in Blocks 18A1, 18A2, 18A3, 18A5, 19B, 21B, 42, 45A, 45B, and 69, as well as in the vineyard avenues surrounding those blocks. These avoidance locations shall occur at the locations shown on Figure 4.2-10. This avoidance, in combination with other nesting habitat outside of clearing limits, will result in the preservation of approximately 20.27 acres (97.93 percent) of the western pond turtle nesting habitat on the property.</p> <p>Upland habitat is also important for natural species behaviors. Portions of vineyard blocks 29B2, 30A, 42, 43, 45B, 57B, and 58A shall be removed from the Proposed Project in order to provide continuous tracts of western pond turtle upland habitat in the Capell Creek watershed. These areas will also protect the sensitive Valley Oak (California Bay – Coast Live Oak – Walnut – Ash) Riparian Forest NFD habitat type. In the central portion of the property, portions of Block 18A3, 18A5, 34A2, 48, 52, and 69 will be avoided in order to provide a larger corridor of unbroken upland habitat. Block 34A2 will also protect Gairdner's yampah, while Block 48 will also protect populations</p> | Applicant | Napa County PBES | Prior to Approval of #P11-00205-ECPA and Pre-construction | Pre-construction through Construction | County Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>of Jepson's leptosiphon. In the Milliken Creek watershed, portions of blocks 1B, 1C, 2A1, 2A2, 2B1, 2B2, 8C, 9A4, and 24 will be removed. Approximately 16.9 acres of western pond turtle upland habitat has been removed from the Proposed Project. The avoidance shown in Figure 4.2-10, in combination with the other upland habitat outside of clearing limits, will result in the preservation of 486.56 acres (95.44 percent) of western pond turtle upland habitat on the property.</p> <p>Prior to the issuance of any grading plans, the Erosion Control Plan shall be modified to remove the above referenced nesting and upland habitat areas for the western pond turtle from development.</p> <p>The above referenced nesting and upland habitat areas for the western pond turtle designated for preservation shall be identified in a conservation easement held by an accredited land trust organization, or other equivalent means of permanent protection, subject to approval by the Director. Land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limited to, conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should otherwise be restricted by the existing goals and policies of Napa County. The areas to be covered by the conservation easement shall be determined by a qualified botanist or biologist, and submitted to Napa County for review and approval. The conservation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>Other Protective Measures</p> <p>In addition to avoiding sensitive habitats as discussed above, various additional mitigation measures will ensure a less-than-significant impact to this species:</p> <ul style="list-style-type: none"> A preconstruction survey shall be conducted by a qualified biologist within two weeks prior to commencement of any groundbreaking activities within 100 feet of Capell and Milliken Creeks and their tributaries. Prior to groundbreaking activities, all construction personnel will receive training on western pond turtle. During the training, the biologist shall designate a representative to check for presence of western pond turtle beneath all construction equipment prior to daily construction activities. The representative shall be informed as to the location that any western pond turtle be relocated should one be observed. Construction and vineyard activities involving loud equipment should be minimized to the extent feasible from February through November within 100 feet of aquatic habitat where the turtles are found. Some habituation to noise is more likely if the noise is sustained (background) rather than in irregular bursts. Human disturbance within potential habitat should be minimized late afternoon through early evening from May through July to avoid disturbing egg laying activities. The use of BMPs as required in Mitigation Measures 4.5-1, 4.5-2, 4.5-3, and 4.5-4, as well as the use of Integrated Pest Management (IPM), will minimize agrichemical drift into turtle habitat. Turtle exclusion fencing will be installed from May through July around all grading and construction activities within or bordering nesting habitat to prevent impacts. From October through March, a turtle | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| exclusion fence shall be installed around all activities within or bordering overwintering habitat to prevent impacts and the fencing shall be field verified by Napa County annually throughout the construction period. The fence shall be constructed from silt fencing to avoid turtle injury and entrapment. | | | | | | |
| <p>4.2-11: The wetland and stream setbacks and mitigation provided in Mitigation Measure 4.2-4 and Mitigation Measure 4.2-10, in combination with the overall avoidance in the project design, will reduce impacts to a less-than-significant level. In addition, the applicant shall implement the following measures to ensure that bullfrogs do not become established in the four proposed groundwater reservoirs:</p> <ul style="list-style-type: none"> Project applicant shall conduct appropriately timed surveys each year to determine if bullfrogs have become established in any of the onsite reservoirs. If any bullfrog adults, eggs, and/or tadpoles are detected at any time, they shall be managed promptly as to prevent colonization. All surveys and direct removal efforts (of adult bullfrogs only) must be made by a person knowledgeable in species identification using a method approved by CDFW. Direct removal efforts of egg masses, larva, or sub-adult life stages shall be conducted by a qualified biologist only. Copies of the annual surveys and recommended measures shall be provided to the Director, within 30 days of completion. If bullfrogs are detected, the applicant shall implement direct removal efforts until adults and/or sub-adults can no longer be detected and are believed to be gone for the season. Bullfrog management efforts shall target the bullfrog's life history stage: 1) egg mass removal, 2) larval removal, and 3) adult and juvenile frog. These bullfrog control methods remove individuals and break the reproductive cycle. Removal methods include manual take of adults and sub-adults, collecting egg masses, capturing larvae, and | Applicant | Napa County PBES | Construction through Operation | Pre-construction through Operation | County and CDFW Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>draining ponds to strand larvae.</p> <ul style="list-style-type: none"> Removal efforts shall occur during the active/breeding season occurring (April – July) with at least three efforts done a few days apart and another two efforts separated by two weeks. Direct removal efforts should be completed with at least two people using a small boat, spotlights, and appropriate tools to capture and contain the bullfrogs. Capture and disposal shall be done in compliance with CDFW codes and regulations using appropriate gear. Bullfrog egg mass removal efforts shall occur late June through August. Bullfrogs may be taken under the authority of a sport fishing license (California Code of Regulations, Title 14 (T-14) section 5.05(a)(28)). There is no daily bag limit, possession limit or hour restriction, but bullfrogs can only be taken by hand, hand-held dip net, hook and line, lights, spears, gigs, grabs, paddles, bow and arrow, or hook and line fishing tackle. Alternatively, California Fish and Game Code Section 5501 allows CDFW to issue a permit to destroy fish that are harmful to other wildlife. The regulations have addressed this under Section CCR T-14 226.5 Issuance of Permits to Destroy Harmful Species of Fish in Private Waters for Management Purposes. This allows the CDFW to issue free permits to destroy harmful aquatic species. <p><u>Other Protective Measures</u></p> <ul style="list-style-type: none"> Prior to groundbreaking activities, all construction personnel will receive training on California red-legged frog. During the training, the biologist shall designate a representative to check for presence of California red-legged frog beneath all construction equipment prior to daily construction activities. No pile burning shall occur within 300 feet of suitable red-legged or yellow-legged frog habitat. | | | | | | |

UPDATED MITIGATION MONITORING AND REPORTING PLAN

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <ul style="list-style-type: none"> Frog exclusion fencing (silt fencing or other exclusionary fencing deemed acceptable by a qualified biologist) shall be installed from April through October around all grading and construction activities within or bordering California red-legged frog habitat to prevent impacts. The fence shall be constructed from silt fencing to avoid turtle or red-legged frog injury and entrapment. | | | | | | |
| <p>4.2-13: The Applicant shall implement the following measures to avoid disturbing any special status species nesting above ground. Vegetation removal conducted during the nesting period shall require a pre-construction survey for active bird nests, conducted by a qualified biologist. A copy of the pre-construction survey shall be submitted to the Director prior to approval of any grading permits within surveyed areas. No known active nests shall be disturbed without a permit or other authorization from USFWS and/or CDFW.</p> <ul style="list-style-type: none"> For earth-disturbing activities occurring during the breeding season (March 1 through September 1), a qualified biologist shall conduct pre-construction surveys of all potential nesting habitat for all birds within 500 feet of earthmoving activities. If active special status bird nests are found during pre-construction surveys 1) a 500-foot no-disturbance buffer will be created around active raptor nests during the breeding season or until it is determined that all young have fledged, and 2) a 250-foot buffer zone will be created around the nests of other special status birds and all other birds that are protected by California Fish and Game Code 3503. These buffer zones are consistent with CDFW avoidance guidelines and CDFW buffers required on other similar ECPA projects; however, they may be modified in coordination with CDFW based on existing conditions at the project site. Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout | Applicant | Napa County PBES CDFW | Pre-construction | Pre-construction | County and CDFW Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>construction activities.</p> <ul style="list-style-type: none"> If pre-construction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, no further mitigation is required. Shrubs and trees that have been determined to be unoccupied by special status birds or that are located 500 feet from active nests may be removed. If vegetation removal activities are delayed or suspended for more than two weeks after the pre-construction survey, the areas shall be resurveyed. | | | | | | |
| <p>4.2-14: Implementation of the following mitigation measures would reduce the potential impact to a less-than-significant level.</p> <ul style="list-style-type: none"> For earth-disturbing activities occurring during the breeding season (March 1 through August 31), a qualified wildlife biologist shall conduct pre-construction surveys of all potential bat-roosting habitat for special status bats within 200 feet of earthmoving activities. Roosting habitat surveys shall focus on a) trees slated for removal that have loose bark, or holes/crevices in the trunk and b) rock piles slated for removal that contain crevices. A copy of the pre-construction survey shall be submitted to the Director prior to approval of any ground disturbance, vegetation removal, or grading within surveyed areas. If active special status bat roosts are found during pre-construction surveys, the biologists shall submit an avoidance plan to CDFW for review and acceptance. A copy of CDFW acceptance of the avoidance plan shall be submitted to the Director prior to any ground disturbance, vegetation removal or grading within surveyed areas. A no-disturbance buffer (acceptable in size to CDFW) will be created around active bat roosts during the breeding season or until it is determined that all young have become sufficiently volant to change roosts. The avoidance plan shall evaluate the length of time of disturbance, equipment | Applicant | <p>Napa County PBES</p> <p>CDFW</p> | Pre-construction | Pre-construction | County and CDFW Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>noise, and type of habitat present at the project site. Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities.</p> <ul style="list-style-type: none"> If pre-construction surveys indicate that roosts are inactive or potential habitat is unoccupied during the construction period, no further mitigation is required. Trees that have been determined to be unoccupied by special status bats may be removed. If vegetation removal activities are delayed or suspended for more than two weeks after the pre-construction survey, the areas shall be resurveyed. | | | | | | |
| <p>4.2-16: Prior to the approval of #P11-00205-ECPA, the plan shall be modified to include the following (any associated project features that become unnecessary as a result of the avoidance, such as proposed roads, shall also be reflected in the revised plan):</p> <p>As discussed in Mitigation Measure 4.2-2 above, oak woodlands [Black Oak Alliance, Blue Oak Alliance, Coast Live Oak (Foothill Pine) Alliance, Coast Live Oak-Blue Oak-(Foothill Pine) NFD Association, and Mixed Oak (Foothill Pine/Ponderosa Pine) Alliance] and other sensitive woodlands [Valley Oak (California Bay-Coast Live Oak-Walnut-Ash) Riparian Forest NFD Association] will be preserved in permanent protection. This will result in a total of 524.8 acres of woodland in permanent protection.</p> <p>Protected woodlands shall be identified in a conservation easement held by an accredited land trust organization such as the Land Trust of Napa County as the grantee, or other equivalent means of permanent protection, subject to approval by the Director. Land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limited to, conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should otherwise be restricted by the existing</p> | Applicant | Napa County PBES | Prior to Approval of #P11-00205-ECPA | Pre-construction through Operation (annual for 5 years) | County Standards: 80% Success | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>goals and policies of Napa County. The areas to be covered by the conservation easement shall be determined by a qualified botanist or biologist, and submitted to Napa County for review and approval. The conservation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>In addition, as part of the Walt Ranch Biological Resources Management Plan (BRMP) required in Mitigation Measure 4.2-1, the following measures will be taken to ensure a less-than-significant impact as a result of tree removal:</p> <ul style="list-style-type: none"> • Implementation of Mitigation Measure 4.4-2 will ensure that woodlands shall be preserved at greater than a 1:1 ratio on the property. Blocks 12 and 19A contain notable oak woodland stands that shall be avoided (Figure 4.2-2). Parts of Block 37 shall be avoided to protect a very rare stand of Northern California black walnut, as shown in Figure 4.2-7 (see Mitigation Measure 4.2-6). To the degree feasible, individual specimen trees (36 inch dbh or above) shall be avoided in the areas adjacent to block boundaries or vineyard avenues. • Seventy-four specimen trees shall be avoided as shown on Figure 4.2-5. These specimen trees have been chosen for preservation because they may be preserved compatibly with vineyard development due to their location on the edge of blocks or adjacent to vineyard avenues. Included in these 74 trees are tagged valley oak specimen trees numbered 28403 | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>and 25644 that occur in Valley Oak (California Bay/Coast Live Oak/Walnut/Ash) Riparian Forest NFD Association, a biotic community that Napa County has identified as particularly rare on the project site, shall be avoided.</p> <ul style="list-style-type: none"> • Temporary fencing shall be installed around the areas to be avoided, at the outer edge of the buffer, and shall remain in place throughout construction activities. • Thirty-four specimen trees that will be removed for vineyard development shall be mitigated by compensation at a 5:1 ratio (5 replanted seeds or saplings per every 1 specimen tree removed) of the same species, with the ultimate goal of an 80 percent success rate after the end of 5 years of monitoring. In the event it is determined that the site lacks sufficient suitable habitat acreage for replanting, the project area shall be reduced to meet the avoidance criteria. <p>Protected specimen trees shall be identified in a conservation easement held by an accredited land trust organization such as the Land Trust of Napa County as the grantee, or other equivalent means of permanent protection, subject to approval by the Director. Land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limited to, conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should otherwise be restricted by the existing goals and policies of Napa County. The areas to be covered by the conservation easement shall be determined by a qualified botanist or biologist, and submitted to Napa County for review and approval. The conservation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension. | | | | | | |
| 4.3 CULTURAL RESOURCES | | | | | | |
| <p>4.3-1: The following measures will all be taken to minimize impacts to cultural resources:</p> <ul style="list-style-type: none"> WR-2, WR-3, WR-4, and CA-NAP-867 shall be avoided. All ground disturbing activities during project implementation and operation shall avoid mapped boundaries of the resource. A permanent 16-foot buffer around the perimeters (including vineyard avenues) shall be established. Temporary fencing shall be installed around each area, at the outer edge of the buffer, and shall remain throughout construction activities. No grading or disturbance shall occur within these buffers. WR-5 (rock wall) shall be avoided by all ground disturbing activities during project implementation and operation with a permanent 10-foot buffer around the perimeter (including vineyard avenues), with the exception of the three areas identified in Figure 4.3-1 where rock walls would be opened. The openings shall be limited to 20 feet each and shall provide necessary access consistent with General Plan Policy CC-21. Aside from these three 20-foot openings, the rock wall shall not be disturbed. Prior to the approval of Erosion Control Plan P11-00205-ECPA, the applicant shall revise the plan to clearly delineate the 10-foot buffer around the perimeter of the rock wall. Temporary fencing shall be installed around the rock wall, at the outer edge of the buffer, and shall remain throughout construction activities. Prior to construction of vineyard blocks in the vicinity of CA-NAP-257, a presence and absence test shall be conducted by a qualified archeologist to determine the boundaries of the historical resource. If a proposed | Applicant | Napa County PBES | Pre-construction | Construction | State Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>vineyard block will impact CA-NAP-257, the block's boundaries will be redrawn to avoid the historic resource. If no vineyard blocks will impact CA-NAP-257, the resource will be fenced off and avoided with a permanent 16-foot buffer.</p> <ul style="list-style-type: none"> The Applicant shall install and maintain protective fencing along the outside of the buffers to ensure protection during construction, project implementation, and operation. The precise locations of protective fencing shall be inspected and approved by the County prior to the commencement of any ground disturbance, vegetation removal, or grading and shall be maintained and remain in place until all grading, earthmoving, and vineyard development activities are completed. <p>Implementation of this mitigation measure would eliminate the potential impacts or reduce them to less-than-significant levels. In particular, the implementation of this measure would result in avoiding the identified resources, and would establish a buffer to ensure that the resources are not disturbed during project construction and operation. There is one resource that would be disturbed, WR-5 (rock wall). The implementation of this measure, however would limit the impact to the wall to three 20-foot openings. This alteration would not materially alter the historic integrity of the remaining wall. For this reason, the implementation of Mitigation Measure 4.3-1 would avoid significant impacts to WR-5.</p> | | | | | | |
| <p>4.3-2: In accordance with CEQA Guidelines § 15064.5, subd. (f), should any previously unknown historical or unique archeological resources, such as, but not limited to, obsidian and chert flaked-stone tools or toolmaking debris; shellfish remains, stone milling equipment, concrete, or adobe footings, walls, filled wells or privies, deposits of metal, glass, and/or ceramic refuse be encountered during onsite construction activities, earthwork within 100 feet of these materials shall be immediately stopped, County planning staff shall be immediately notified, and the owner shall consult with a professional archaeologist. The archaeologist shall evaluate the significance of the find and recommend appropriate</p> | Applicant | Napa County PBES | Construction | Construction | State Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>measures to protect the resource, as necessary, to the Director for consideration. Those measures that are approved by the Director shall be carried out prior to resuming any construction within the area where work had been halted. All significant cultural resource materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.</p> <p>If an unanticipated discovery is found to meet the eligibility criteria for listing on the CRHR, then the resource must either be protected in place and the project altered to preserve the resource, or data recovery excavations must be conducted to mitigate the impact of the resource. The professional archeologist shall prepare a Historic Properties Treatment Plan (HPTP) for submittal to the County for approval. The HPTP shall detail how much excavation is required and what excavation methods and other analytical tests would be required to mitigate the impact on the resource if avoidance or preservation in place is not feasible. The HPTP shall provide for reasonable efforts to be made to permit the resource to be preserved in place or left in an undisturbed state. Methods of accomplishing this may include capping or covering the resource with a layer of soil. To the extent that resource cannot feasibly be preserved in place or not left in an undisturbed state, excavation as mitigation shall be restricted to those parts of the resource that would be damaged or destroyed by the project. Excavation as mitigation shall not be required for a unique archaeological resource if the treatment plan determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource. After data recovery excavations are complete, a technical report detailing the results of the excavation and analysis of results shall be prepared by the cultural resources consultant and submitted to the Director. All artifacts and documentation pertaining to the data recovery effort shall be cleaned, cataloged, analyzed, and curated at an approved repository.</p> | | | | | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>4.3-3: If human remains are encountered, Health & Safety Code § 7050.5 and CEQA Guidelines § 15064.5, subd. (e) state that no further disturbance can occur within the vicinity of the discovery until the county coroner has made a determination of origin and disposition pursuant to Pub. Resources Code § 5097.98. In the event that human remains are discovered, earthwork within 100 feet of the find shall immediately be stopped and the provisions of the California Health and Safety Code Section 7050.5 (b) shall be followed. The construction contractor shall protect discovered human remains remaining in the ground from additional disturbance. The Napa County Coroner shall be contacted within 24 hours of the find. Upon recognizing the remains as being Native American in origin, the Coroner shall be responsible for contacting the Native American Heritage Commission (NAHC) within 24 hours so that a Most Likely Descendant (MLD) can be identified, as required under California Pub. Resources Code § 5097.98. The NAHC has various powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned MLD.</p> <p>If the county coroner determines that the human remains are not Native American and not evidence of a crime, project personnel shall coordinate with a qualified archeologist to develop an appropriate treatment plan. A copy of the treatment plan shall be submitted to the Director for review and approval prior to implementation. This shall include contacting the next-of-kin to solicit input on subsequent disposal of the remains. If there is no next-of-kin, or recommendations by the next-of-kin are considered unacceptable by the property owner, the property owner shall work with the county coroner to reinter the remains in a location outside the project area and where they would be unlikely to be disturbed in the future.</p> <p>Implementation of this mitigation measure would reduce the impact to a less-than-significant level.</p> | Applicant | Napa County PBES | Construction | Construction | State Standards | Applicant |
| <p>4.3-4: In the event that any paleontological resources are discovered during construction-related earth-moving activities,</p> | Applicant | Napa County PBES | Construction | Construction | State Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| all work within 50 feet of the resources shall be immediately halted and a qualified paleontologist shall be consulted to assess the significance of the find. If any find is determined to be significant by the qualified professional under the criteria of the SVP, then appropriate agency and project representatives and the qualified paleontologist shall meet to determine the appropriate course of action. All significant cultural or paleontological materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified paleontologist according to current professional standards. | | | | | | |
| 4.4 GEOLOGY AND SOILS | | | | | | |
| 4.4-2: During construction of the Proposed Project, to avoid potential slope instability impacts associated with adverse construction vibrations, blasting shall be limited to only areas of volcanic rock (Gilpin Geosciences, 2013b). No blasting shall occur in Blocks 15, 16, and 68. | Applicant | Napa County PBES | Construction | Construction | State Standards | Applicant |
| 4.4-3: Prior to approval of #P11-00205-ECPA, the plan shall be modified to include the following measures to avoid potential slope instability and associated sedimentation impacts, per Gilpin Geoscience's recommendations in Table 1 of Appendix F: <ol style="list-style-type: none"> For Blocks 20-22, 28-30, 31B, 34, 36, 37D, 37E, 40, 45, 51B, 52, 55D, and 56-58, grading shall not exceed a depth of 24 inches in order to maintain the current level of stability on the east-facing slopes of the site, and trees on the steeper (greater than 30 percent) slopes of the site shall be left in place where possible. Rock repositories shall be prepared by grubbing and excavating a keyway at the toe of the proposed storage area on areas with slopes greater than 4:1 (horizontal:vertical). The keyway shall extend two feet into firm soil or bedrock at the downslope edge of the keyway. Two depressions within Blocks 31B and 37C are proposed as potential rock storage sites, and further | Applicant | Napa County PBES | Prior to Approval of #P11-00205-ECPA | Pre-construction through Operation | County Standards | Applicant |

UPDATED MITIGATION MONITORING AND REPORTING PLAN

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>subsurface exploration and geotechnical analysis shall be performed to determine the feasibility of these two rock storage areas from a slope stability standpoint. A copy of the geotechnical analysis shall be reviewed and approved by the County prior to any work within Blocks 31B and 37C.</p> <p>4. For Blocks 5B, 5C, 25, 27, 40, 45A, 45B, 46, 57, and 58, subdrains shall be constructed to reduce saturated conditions that could trigger rockfalls.</p> <p>5. For Blocks 18A-18D and 28, headcut repair and a rock-lined channel shall be implemented to prevent further channel bank erosion and to repair active slumps.</p> <p>6. For Block 20, the surface/subsurface drain shall be directed to drain to the east.</p> <p>7. For Block 22A, there shall be a setback from the active landslide and the surface/subsurface drain shall be directed to drain to the northeast.</p> <p>8. For Blocks 29, 45A, 45B, and 49, the slope shall be buttressed from toe to mid-slope. A grading permit shall be obtained as necessary from Napa County prior to this work.</p> <p>9. For Blocks 55A-55D, 59, 60A, and 60N, drainage shall be directed away from the active landslide or scarp.</p> <p>10. For Block 65, the poor road drainage shall be improved by relocating the road and directing drainage to a protected outlet.</p> <p>11. Should unstable landslide deposits be encountered and/or localized slope failures occur during construction, the slope shall be restored to a stable configuration using specifications provided by the project's engineering geologist. Napa County approval and/or grading permits will be obtained as necessary.</p> | | | | | | |
| 4.5 HAZARDOUS MATERIALS | | | | | | |
| 4.5-1: Prior to the development of the Proposed Project, the property owner shall submit and obtain approval of a Hazardous Materials Business Plan (HMBP) from the PBES Division of | Applicant | Napa County PBES | Pre-construction through | Construction through Operation | County Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| Environmental Health and CERS. The HMBP will document all proposed hazardous materials to be used onsite during construction and operation. If storage amounts or the use of hazardous materials change during project operation, the project owner shall update, as necessary, the HMBP. The plan will be on file with the PBES Division of Environmental Health and with CERS. The PBES Division of Environmental Health will review the plan and may conduct inspections to ensure that the HMBP is being followed during project operations. Updates to the HMBP, if warranted, would be made through CERS. The HMBP shall be prepared in accordance with County standards and California 40 CFR, Part 355, Appendix A. | | | Operation | | | |
| <p>4.5-2: Vineyard personnel shall follow the SOPs described below for filling and servicing construction equipment and vehicles. A copy of the SOPs shall be submitted to the County prior to any ground disturbance, vegetation removal, or grading. The SOPs, which are designed to reduce the potential for incidents involving hazardous materials, shall include:</p> <ul style="list-style-type: none"> • Refueling shall be conducted only with approved pumps, hoses, and nozzles. • Catch-pans shall be placed under equipment to catch potential spills during servicing. • All disconnected hoses shall be placed in containers to collect residual fuel from the hose. • Vehicle engines shall be shut down during refueling. • No smoking, open flames, or welding shall be allowed in refueling or service areas. • Refueling and all construction work shall be performed outside of the stream buffer zones to prevent contamination of water in the event of a leak or spill. • Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents. • A spill containment kit that is recommended by the Napa County PBES or local fire department shall be onsite and available to staff if a spill occurs. | Applicant | Napa County PBES | Construction through Operation | Construction through Operation | County and State Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| In the event that soil and/or groundwater are contaminated by hazardous materials or if pre-existing hazardous materials are encountered during construction, all work shall be immediately halted in the affected area, CDEH staff shall be notified, and the type and extent of the contamination shall be determined. Should a spill contaminate soil, the soil shall be put into containers and disposed of in accordance with appropriate regulations, including Title 22 of the California Code of Regulations (CCR) (66262.34(f)). If the size of the spill and containment is beyond the scope of the contractor, CDEH staff shall be immediately notified. | | | | | | |
| 4.5-3: Chemical mixing and loading areas shall be established outside the proposed stream setbacks and wetland areas and away from any areas that could potentially drain off site or potentially affect surface and groundwater quality. Prior to approval, P11-00205-ECPA shall be revised to identify areas designated for chemical mixing and loading areas. When equipment is cleaned at the existing facility, only rinse water that is free of gasoline residues, pesticides and other chemicals, and waste oils shall be allowed to diffuse back into vineyard areas. Contaminated rinse water will be collected and properly disposed of off-site through methods similar to waste oil management standards provided under Mitigation Measure 4.5-5 . | Applicant | Napa County PBES | Construction through Operation | Construction through Operation | County and State Standards | Applicant |
| 4.5-4: The owner shall apply for a private applicator certificate and a restricted materials permit from the Napa County Agricultural Commissioner. The owner shall comply with the Napa County Agricultural Commissioner's regulations, such as renewing the private applicator certificate every three years, renewing the restricted materials permits annually, and reporting pesticides use to the Agricultural Commissioner by the 10 th of every month following application. All vineyard employees shall be trained annually in the proper use of pesticides. In addition, personnel shall follow the SOPs as described below when applying pesticides to the vineyard. SOPs for pesticide | Applicant | Napa County PBES | Prior to Operation | Construction through Operation | County Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
|---|---|--------------------------------------|--------------------------------------|--------------------------------|----------------------|------------------|
| <p>use shall include the following:</p> <ul style="list-style-type: none"> Purchase only enough pesticide that would be used per season. Utilize IPM techniques where feasible, such as for fungicides, the use of a permanent cover crop, beneficial insects, and minimal to no use of pesticides except when found necessary from monitoring. Store all pesticides in their original containers. Do not remove labels on the containers. Keep pesticides in a well-ventilated locked area. The best way to dispose of a small amount of pesticide is to use it. If a pesticide must be disposed of, contact the Napa County Agricultural Commissioner to locate a hazardous waste facility for proper disposal. Never pour pesticides down the sink, toilet, or stream. Utilize proper personal protection equipment when working with pesticides. | | | | | | |
| <p>4.5-5: Waste oil containers shall be stored in secondary containment that includes an oil-impervious liner or an impervious concrete floor, and berms or retaining walls that fully enclose the containment area. The waste oil containers shall be covered during rain events and shall not be stored within the setbacks described in Impact 4.5-3 above. Waste oil containers shall be labeled "waste oil". The containers shall also be labeled with the following information: accumulation start date; the hazardous properties of the waste (i.e. flammable, corrosive, reactive, toxic, etc.); and the name and address of the facility generating the waste. All waste oil containers shall be transported offsite by a licensed transporter and taken to a Certified waste oil recycling facility.</p> | Applicant | Napa County PBES | Construction through Operation | Construction through Operation | County Standards | Applicant |
| 4.6 HYDROLOGY AND WATER QUALITY | | | | | | |
| <p>4.6-1: Prior to approval of #P11-00205-ECPA, the plan shall be modified to include the following measures to avoid potential runoff increases and associated sedimentation impacts, per RiverSmith Engineering's recommendations in Appendix F of</p> | Applicant | Napa County PBES | Prior to Approval of #P11-00205-ECPA | Construction through Operation | County Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>Appendix G:</p> <ol style="list-style-type: none"> For Blocks 1, 3, 17, 19-20, 24, 26, 30, 33-36, 38, 42, 43, 46, 53-63, and 65-68 install a gravel berm on the downslope edge of the turnaround avenue; For Blocks 31, 40 and 64 install a small detention structure or gravel berm on downslope edge of the turnaround avenue; For Block 37, install a gravel berm on the downslope edge of the turnaround avenue, or reduce the area of forest removed; For Blocks 48-52, install a localized detention structure of appropriate size to reduce predicted increases in runoff to pre-project levels; For Block 69, install a gravel berm on the downslope edge of the turnaround avenue or install rock checks in the drainage swales. <p>Prior to the approval of #P11-00205-ECPA, RiverSmith Engineering shall provide specifications of the above measures to the Applicant for inclusion in the ECP.</p> <p>Potential impacts to flooding hazard could result from increases in peak flow and volume of runoff from implementation of the Proposed Project. However, with the implementation of Mitigation Measure 4.6-1, potential impacts to flooding hazards and drainage system capacity would be reduced to a less-than-significant level.</p> | | | | | | |
| <p>4.6-2: There are 21 existing stream crossings, listed in Table 3-4 and shown on Figure 3-11 of this Draft EIR that will be upgraded to rocked water crossings under the Proposed Project. The Applicant shall not use any of these crossings to transport construction equipment prior to completion of the proposed upgrades.</p> | Applicant | Napa County PBES | Pre-construction | Construction | County Standards | Applicant |
| <p>4.6-4: The Applicant shall be required (at the Applicant's expense) to provide well monitoring data and analyses of the collected data from a qualified professional Geologist or a</p> | Applicant | Napa County PBES | Pre-construction through | Pre-construction through | County Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>Certified Hydrogeologist to Napa County PBES Department on a semi-annual basis during the baseline period, and on a quarterly basis after irrigation development work begins at the Walt Ranch property. Refer to Appendix R for a detailed description of the Groundwater Monitoring and Mitigation Plan (GWM&MP). Such data shall include, but not be limited to, static water levels, pumping water levels, instantaneous flow rates, and cumulative pumped volumes for each of the three existing onsite irrigation wells and any other wells used for vineyard irrigation that may be developed in the future on the Walt Ranch property. These wells are each located in separate geographic areas of the project site (Figure 4.6-2); therefore, monitoring of these wells would help to provide data on groundwater conditions generally representative of the entire project site. Once constructed, water level data from onsite dedicated monitoring wells will also be collected. Pumping rates and volumes shall be monitored by the use of a totalizer flow dial (or similar technology) and water levels shall be monitored by the use of an automatically recording pressure transducer (or similar technology). The automatically-recording water level data loggers shall be set to collect data at a frequency of approximately every 60 minutes for the first year after new vineyards have been planted to provide sufficient data for the purpose of operational monitoring; the frequency of data collection and recording by the logging device may be increased in the future at the request of Napa County. These data shall be downloaded every month for the first year of project development. This will help to provide a quantity of data that is reasonable to review, as well as capture variations in seasonal groundwater conditions (Refer to Appendix R for the GWM&RMP details).</p> <p>As described in Appendix R, data collected by COCWD will be included in the GWM&MP. COCWD, at their request, will be responsible for providing the COCWD specific monitoring data to the qualified professional Geologist or a Certified Hydrogeologist tasked with analyzing those data and reporting those analyses to the Napa County.</p> | | | Operation | Operation | | |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| Water usage shall be minimized by use of best available control technology and best management conservation practices. In the event that changed circumstances, or significant new information, or the results of the monitoring data, provide substantial evidence that use of the onsite wells and the groundwater systems referenced in the ECP would significantly affect the groundwater basin, an amendment to the ECP may be initiated by the County to consider additional reasonable conditions on the Applicant, revision to the number of acres allowed to be planted, or revocation of this permit, as necessary to meet the requirements of the Napa County Groundwater Ordinance and protect public health, safety and welfare. Such additional mitigation might include shifting of groundwater production to other onsite wells for a period of time. Any recommendations made to address impacts to the groundwater basin shall not become final unless and until the Director has provided notice and the opportunity for a hearing in compliance with County Code Section 13.15.070 (G)-(K). | | | | | | |
| <p>4.6-5: In order to ensure preservation of regional water quality and local stream conditions, prior to installation of irrigation infrastructure, the Irrigation Plans for the Proposed Project shall be provided to the County for review and approval and shall include the following measure:</p> <ul style="list-style-type: none"> The construction of irrigation pipeline stream crossings shall only occur within roadways or vineyard avenues. No irrigation pipelines shall cross a stream or creek outside of roadways or vineyard avenues designated in the ECP (Appendix A). The necessary permits by the appropriate agencies will be obtained and copies shall be provided to the County prior to construction of proposed underground or aboveground pipelines where there will be disturbance to the bed and bank of any onsite drainages or streams. | Applicant | Napa County PBES | Pre-construction | Construction | County Standards | Applicant |
| 4.7 TRANSPORTATION AND TRAFFIC | | | | | | |
| 4.7-1: All construction trips (both equipment and worker trips) | Applicant | Napa County | Construction | Construction | County | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| shall be scheduled outside of the daily AM and PM peak hours. The applicant shall prepare a schedule for work shifts and equipment transport for review and approval by the Director prior to any ground disturbance, grading or vegetation removal. | | PBES | and Operation | and Operation | Standards | |
| 4.7-2: Compliance with Mitigation Measure 4.7-1 would reduce operations related traffic impacts by scheduling worker trips outside of the peak AM and PM hours. | Applicant | Napa County PBES | Construction and Operation | Construction and Operation | County Standards | Applicant |
| 4.7-3: Advance warning signs (e.g., "Intersection Ahead" and/or "Truck Crossing Ahead") shall be posted on Circle Oaks Drive and Country Club Lane consistent with Napa County sign placement standards to alert motorists of an intersection ahead with turning vehicles. The signs shall be installed in compliance with County road standards, subject to an Encroachment Permit issued by the County, with the costs to be paid by the applicant. | Applicant | Napa County PBES | Construction and Operation | Construction and Operation | County Standards | Applicant |
| 4.7-4: The following measures shall be followed during construction activities: <ul style="list-style-type: none"> Heavy truck construction traffic shall comply with the CVC sections related to vehicle weight and width. Any extra legal loads needed for specialized deliveries shall be subject to special permit requirements from Napa County. Project applicant shall obtain any necessary Caltrans traffic permits for movement of equipment. Circle Oaks Drive shall be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. The consultant shall be <u>a licensed geotechnical engineer under contract with</u> the County, with costs paid for by the applicant. If the third party determines that roadway deterioration, or deterioration of infrastructure located underneath Circle Oaks Drive, has occurred as a result of construction traffic, the applicant shall pay to have the roadway resurfaced to restore the pavement to at least pre-construction condition, unless the resurfacing is already expected to occur within a year or sooner in conjunction with other planned or proposed roadway | Applicant | Napa County PBES | Construction and Operation | Construction and Operation | County and State Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| improvements, and shall repair the identified damage to sub-surface infrastructure. | | | | | | |
| 4.8 NOISE | | | | | | |
| <p>4.8-1: The following measures shall be enacted during construction of the Proposed Project to minimize noise impacts to all nearby sensitive receptors:</p> <ul style="list-style-type: none"> Stationary equipment and staging areas shall be located as far as practical from noise-sensitive receptors. All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and acoustical shields or shrouds, in accordance with manufacturers' recommendations. Construction shall occur only between the hours of 7 a.m. to 7 p.m. For construction occurring less than 150 feet from sensitive receptors, temporary sound walls shall be constructed to shield residents from construction noise. No temporary sound walls are necessary for construction occurring greater than 150 feet from sensitive receptors. Applicant shall install mufflers on any wind machines located less than 150 feet from existing residences. A map showing the location of affected wind machines shall be provided to the Director prior to installation and issuance of building permits. Mufflers shall be installed and inspected by County staff prior to use. | Applicant | Napa County PBES | Construction | Construction | County Standards | Applicant |
| <p>4.8-2: Blasting within 775 feet of a residence exceeds Caltrans significance thresholds for vibration. Therefore, no blasting shall occur within vineyard blocks 15, 16, and 68. The approved project map shall be revised to include a note stating that no blasting shall occur within these blocks.</p> | Applicant | Napa County PBES | Construction | Construction | County Standards | Applicant |
| 6.0 CUMULATIVE IMPACTS | | | | | | |
| <p>6-1: In order to offset the construction emissions from development of the Proposed Project, the Applicant shall place</p> | Applicant | Napa County PBES | Pre-construction | Construction | County Standards | Applicant |

| Mitigation Measure | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
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| <p>in permanent protection no less than 248 acres of woodland habitat. All acreage designated for preservation shall be identified as such in a conservation easement with an accredited land trust organization such as the Land Trust of Napa County as the grantee, or other means of permanent protection. The conservation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any ground disturbing activities, grading or vegetation removal, or within 12 months of project approval, or whichever occurs first.</p> <p>Any request by the permittee for an extension of time to record the conservation easement shall be considered by the Planning Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.</p> <p>Land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limited to, conversion to other land uses such as agriculture, residential, or urban development, and excessive off-road vehicle use that increases erosion), and should otherwise be restricted by the existing goals and policies of Napa County.</p> | | | | | | |

TABLE 2
CONDITIONS OF APPROVAL [BB 1]

| Condition of Approval | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
|--|---|--------------------------------------|----------------------|------------------------|----------------------|------------------|
| CP-1: All heavy construction equipment shall access the Walt Ranch Property at the northernmost access point directly off of State Route 121 ("Gate 1"). No construction equipment may be | Applicant | Napa County PBES | Pre-construction and | Construction | N/A | Applicant |

| Condition of Approval | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
|---|---|--------------------------------------|------------------|------------------------|----------------------|------------------|
| delivered via Circle Oaks Drive. All extra-legal loads (defined as anything greater than 80,000 pounds that requires special Caltrans permits per Mitigation Measure 4.7-4) and construction equipment deliveries (defined as any construction equipment listed in Table 3-5 of the EIR, including: excavators, graders, rubber tired dozer, tractors, loaders, and backhoes) shall utilize Gate 1. | | | Construction | | | |
| CP-2: Western Pond Turtle Exclusionary Fence Specifications. Consistent with Mitigation Measure 4.2-10 , exclusion fencing shall be installed along the length of the access road. Recommended fencing for exclusion of WPT consists of silt fencing with a minimum of height of 18 inches, trenched and backfilled to a depth of 6 inches. The exclusion fencing shall be placed on both sides of the portions of the access road that run through WPT nesting and upland habitat, including across the four existing stream crossings. WPT exclusion fencing shall be installed in early April to allow WPT hibernating in upland habitat to return to aquatic habitat. The portions within the stream crossings shall be removed during the winter period (October 16 through March 31) of each year, and shall be reinstalled in early April prior to equipment delivery. | Applicant | Napa County PBES | Construction | Construction | N/A | Applicant |
| CP-3: Specimen Tree Trimming. A qualified arborist or biologist shall monitor any limbing of the specimen tree located approximately 200 feet from the access gate. | Applicant | Napa County PBES | Construction | Construction | N/A | Applicant |
| CP-4: The following protective measures shall be followed for the protection of archeological and cultural resources: 1) No construction machinery or construction machinery transport shall occur unless the dirt access road is hard and dry; normal vehicles may continue to use the access road as needed, though it is recommended that the road is avoided when wet, slippery, or otherwise in a condition where tires would dig in deeply; 2) No vehicles shall drive or park off of the access road anywhere within Site CA-NAP-257 Locus A boundaries; 3) No construction equipment, materials, or other goods shall be stockpiled or stored within Site CA-NAP-257 | Applicant | Napa County PBES | Construction | Construction | N/A | Applicant |

UPDATED MITIGATION MONITORING AND REPORTING PLAN

| Condition of Approval | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
|--|---|--------------------------------------|------------------|------------------------|----------------------|------------------|
| <p>Locus A boundaries;</p> <p>4) Prior to use of the access road for project construction, a qualified professional archaeologist shall walk the access road, documenting and removing any typologically distinctive artifacts, adding them to any collections already held by the archaeologist;</p> <p>5) Prior to use of the access road for project construction, a qualified professional archaeologist shall assist a qualified biologist in the establishment of exclusion fencing for the western pond turtle; this fencing shall also be used to restrict construction equipment access to the archeological site;</p> <p>6) Any alteration or improvement of the dirt road or access gate that may be required within the boundaries of CA-NAP-257 shall be overseen by a qualified professional archaeologist;</p> <p>7) Prior to use of the access road for project construction, a qualified professional archaeologist shall train construction workers in the recognition of prehistoric site features and burials;</p> <p>8) If any prehistoric site features or burials are uncovered during use of the access road through CA-NAP-257, all use of the road shall halt immediately, and a qualified professional archaeologist shall be retained to identify and assess the find, providing mitigation as necessary;</p> <p>9) Following each year's construction season on the Project, a qualified professional archaeologist shall walk the access road, documenting and removing any typologically distinctive artifacts unearthed by heavy equipment, adding them to any collections database already held by the archaeologist;</p> <p>10) Following the end of vineyard construction, the artifact collections shall be given to the property owner or their designated representative, or any local Tribe with a claim to local area.</p> | | | | | | |
| CP-5: The applicant has voluntarily proposed to perform water | Applicant | City of Napa | Pre- | Pre- | Water Quality | Applicant |

UPDATED MITIGATION MONITORING AND REPORTING PLAN

| Condition of Approval | Responsible for Monitoring and/or Reporting | Responsible for Verifying Compliance | Timing of Action | Duration of Monitoring | Performance Criteria | Proposed Funding |
|--|---|--------------------------------------|--------------------------------|--------------------------------|------------------------------|------------------|
| quality monitoring in the Milliken Creek watershed. The monitoring program is set forth in AES, <u>Water Quality Monitoring Program</u> (2016). The applicant shall carry out the program. | | | construction through Operation | construction through Operation | Monitoring Program Standards | |

APPENDIX R (Groundwater Monitoring and Mitigation Program) – page 13:

7. Potential Mitigation Measures

The ongoing monitoring of key data as described above will not only help to address the temporary decline in local water levels due to the active pumping by the project wells, but will also aid in defining water level changes that could be possibly caused by a depletion of water in the aquifer system not related to drought or other factors (although the latter is not expected). Should any of these unexpected decreases in static water levels or pumping water levels continue to occur over time, the collected pumping rate, pumped volumes, rainfall data, and water level data can be used to develop an appropriate response to any observed trends. If, at the time of review of the monitoring data, it is determined by a qualified Professional Geologist or a Certified Hydrogeologist retained by the County based on substantial evidence that the production rate of pre-existing nearby offsite well(s) would drop to a level which would not support existing land uses or planned uses for which permits have been granted and the cause of the decrease in production rate in the offsite well(s) can be attributed in whole or in part to pumping of the Walt Ranch wells ~~by the Geologist and not attributable to other factors unrelated to the project, such as increased pumping at the offsite well(s) or lack of offsite well rehabilitation and maintenance~~, then the Geologist or Hydrogeologist shall recommend, and the County shall implement one or more of the following mitigation measures to the extent necessary determine, the steps to be taken to avoid the observed impact to these wells, as necessary, depending on the magnitude of the observed impact:

- a. Reducing the instantaneous pumping rate in all or in selected project wells (the specific wells will be determined by the RCS geologist after determining which project wells may be causing the impact).
- b. Reducing the volume of groundwater pumped in each irrigation season by all or by selected project wells (the specific wells will be determined by the Geologist after determining which project wells may be causing the impact).
- c. Sifting of the rates and/or volumes of groundwater extraction by existing project wells to different portions of the subject property.
- d. Ceasing production from certain onsite wells and replacing that lost production by constructing new onsite wells at the project property.
- e. Lowering the pump, if possible, in an offsite well that has been shown to have been impacted.
- f. Constructing a new water well to replace an offsite well that has been shown to have been impacted.
- g. Providing an alternative source of water to the owner of the impacted well in order to allow the owner to maintain the quantity and quality of the groundwater that has been otherwise lost by impacts.



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TECHNICAL MEMORANDUM

TO: Brian Bordona, Napa County Planning, Building, and Environmental Services
Laura Anderson, Napa County Counsel

FROM: Erin Quinn, Senior Air Quality Analyst
Trent Wilson, Project Manager

DATE: December 2, 2016

RE: Revised Walt Ranch Greenhouse Gas Emissions Analysis: Analysis of Biogenic Carbon Emissions.

Introduction

This Technical Memorandum addresses concerns raised during the appeals hearing regarding the greenhouse gas (GHG) analysis conducted as part of the Environmental Impact Report for the Walt Ranch Agricultural Erosion Control Plan Application (ECPA) #P11-00205-ECPA (Proposed Project). Specifically, biogenic emissions from tree removal associated with construction of the Proposed Project is discussed within this Technical Memorandum. Please refer to the Technical Memorandum dated March 28th, 2016 regarding the GHG analysis for the revised Proposed Project and validity of the methodology utilized to determine GHG emissions. While, the Bay Area Air Quality Management District's (BAAQMD's) CEQA Guidelines do not require the inclusion of biogenic emissions in a GHG analysis to meet CEQA requirements, loss of sequestration due to the removal of woodlands was quantified in response to concerns raised early in the environmental review process. In response to the comments received during the appeals hearing, this Technical Memorandum provides a methodology for estimating GHG emissions from tree removal and soil biogenic sources and presents the resulting project-related (revised project before the Board of Supervisors for approval) GHG emissions.

Methodology

Due to a lack of recommended methodologies from a resource agency concerning biogenic emissions of GHGs, AES utilized the methodology applied in the Leff Vineyard Conversion Project, #PO9-00396-ECPA (Leff Project). The methodology entails identifying the estimated carbon stock per tree using the Carbon On-Line Estimator (COLE) (<http://www.ncasi2.org/COLE/XLS/>). The resulting pounds (lbs) of carbon per tree is then multiplied by the total number of trees to be removed and then converted to metric tons. The resulting total carbon content is then assumed to be converted to carbon dioxide (CO₂) at a 1 carbon to 1 CO₂ equivalent (CO₂e) ratio. Based on COLE, the carbon content of one dry blue oak tree is 172.24 pounds (lbs) or 0.08372 metric tons (MT). To determine GHG (CO₂) emissions from tree removal, this carbon content was then multiplied by the total number of trees to be removed by the Proposed Project (14,281 trees).

To estimate emissions associated with soil organic carbon and below ground biomass of each tree, the Leff Project assumed 48 percent of the total above ground tree mass (40 percent of the COLE estimation) was equivalent to the soil organic carbon and below ground biomass. To be conservative, AES assumed that 60 percent of the above ground biomass was represented by soil organic carbon and below ground biomass. As with tree removal, it was assumed all soil organic carbon and below ground biomass converts to CO₂ at a 1 carbon to 1 CO₂e ration. Accordingly, AES assumed 0.05023 MT of GHG emissions for soil organic carbon and below ground biomass for each of the 14,281 trees.

Results

Table 1 provides the construction activities, annual loss of sequestration, and GHG emission reduction measures provided in the Final EIR. Refer to Section 6.1.4-1 of the Final EIR for a discussion of the GHG emissions reduction measures. **Table 1** also includes an estimate of GHG emissions due to the direct loss of carbon from tree removal and soil organic carbon. Changes from Table 1 of the March 28, 2016 Technical Memorandum are provided in italics for clarity.

TABLE 1
GREENHOUSE GAS CONSTRUCTION EMISSIONS

| Proposed Project | GHG Emissions (MT of CO₂e/year) |
|---|---|
| Construction Activities (Maximum Annual Emissions) | 192 |
| Annual Loss of Sequestration due to Tree Removal ¹ | 29,768 |
| <i>Direct Loss of Carbon due to Tree Removal⁴</i> | <i>1,195</i> |
| <i>Direct Loss of Carbon to Atmosphere from Soil Organic Carbon⁵</i> | <i>718</i> |
| <i>Total Construction GHG Emissions</i> | <i>31,873</i> |
| GHG Emission Reduction Measures | |
| Preservation of 524.8 acres of Woodland ² | <67,967> |
| <i>Construction GHG Emissions after Woodland Preservation Measures</i> | <i><36,094></i> |
| <i>Percent Reduction from BAU</i> | <i>113</i> |
| Construction GHG Emissions Threshold³ | 1,100 |
| Significant | No |

MT = metric tons; CO₂e = carbon dioxide equivalent, < > = negative number.

¹ Based on USEPA emissions factor for sequestration loss of 1.22 MT of CO₂/acre/year over 100 years for of 244 acres of woodland (USEPA, 2012).

² Based on USEPA emissions factor for land use change of 129.51 MT of CO₂/acre/year for an estimated 524.8 acres.

³ Based on the SMAQMD's construction GHG emissions threshold, which is the nearest jurisdiction to the project site, which has adopted a construction GHG emissions threshold.

⁴ Based on COLE biomass estimator for one tree of 172.24 pounds per tree (Black Oak) and 14,281 trees. To be conservative it is assumed that 100 percent of the direct loss of carbon due to tree removal is emitted into the atmosphere.

⁵ The soil organic carbon and below ground biomass is assumed to equal 60 percent of the above ground biomass identified from COLE. To be conservative it is assumed that 100 percent of the direct loss of carbon due to soil organic carbon is being emitted to the atmosphere.

Source: AES, 2016; Leff project, 2010; USEPA, 2012.

Conclusion

The resulting calculations indicate soil organics and subsurface biomass loss from tree removal would result in a one-time emission of 1,913 MT of CO₂e, or 10% of non-biogenic and biogenic (loss of sequestration) GHG emissions during construction. Accordingly, the revised total Walt Ranch Project GHG emissions would be 31,873 MT of CO₂e. As discussed in Section 6.1.4-1 of the Final EIR and shown above in Table 1, the Applicant will place 524.8 acres of woodlands into permanent protection, resulting in sequestration of 67,967 MT of CO₂e. This approach is consistent with California's approach to reduce GHG emissions in accordance with Assembly Bill 32 and implementation of the Cap and Trade system which allows forest conservation to be sold as GHG offset credits on the GHG credit market. Under the current protocols to qualify for offset credits, a land owner may harvest portions of their trees while placing others under a conservation easement. Accordingly, the implementation of the Walt Ranch Project and conditions of approval would result in a net decrease in global GHG emissions of 36,094 MT of CO₂e compared to existing condition. As shown in **Table 1**, the inclusion of biogenics in the estimate of GHG emissions from construction does not alter the conclusions of the Final EIR.

References

- Analytical Environmental Services (AES), 2016. Technical Memorandum: Revised Walt Ranch Greenhouse Gas Emissions Analysis per Newhall Ranch Decision. March 28, 2016.
- Leff Vineyard Conversion Project Response to comment (Leff project), 2010. Response to February 22, 2010 Application Completeness Determination e-mail letter, Leff Vineyard Conversion Project, #PO9-00396-ECPA, Napa County, California, April 22, 2010.
- U.S. Environmental Protection Agency, 2012 (USEPA, 2012). Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2010. U.S. Environmental Protection Agency, Washington DC. U.S. EPA #430-R-12-001. Available online at: <https://www.epa.gov/energy/ghg-equivalencies-calculator-calculations-and-references>. Viewed on March 14, 2016.