

## 2.4 PROJECT CONSTRUCTION

### 2.4.1 General Construction Procedures

The following construction approaches described below would be incorporated under the Project. Construction activities would be carried out in accordance with all County noise policy and standards. An attempt would be made to avoid high peak traffic times whenever possible. On occasion, there may be a need for longer work hours to meet specific constructability issues that cannot otherwise be accomplished in the standard 8-hour work period (e.g., construction of a difficult stream crossing). Such work would be closely coordinated with area residents, property owners/operators, and emergency service providers.

#### CONSTRUCTION ACCESS

Access for construction is an important consideration for this Project, due to the various types of terrain and habitats throughout the Project Site. Most access would occur using two- to ten-ton trucks. For construction access on private roads, access to private property would be maintained at all times and flag personnel would help guide access for local residents.

#### HEAVY EQUIPMENT AND MACHINERY

Anticipated equipment for most phases of this project would consist of excavators and/or brush rakes, backhoes, D-8 bulldozers or equivalent, and trucks (dump and hauling). Additional equipment could include a mobile crane and delivery trucks.

Diesel fuel is required for machinery and heavy equipment; refueling such equipment would be limited to designated areas (such as one of the staging areas) so as not to expose sensitive habitats to the possibility of a fuel spill. Additionally, BMPs, such as a spill contingency plan and containment areas, would be incorporated during the construction period. Other BMPs such as vegetable oil-based hydraulic fluids, which are standard for operating construction equipment near environmentally sensitive areas, would be used for construction in those areas.

#### VEHICLE TRIPS AND TRAFFIC COORDINATION

Vehicle trips and construction-related traffic (equipment delivery, worker traffic, and movement of equipment and workers) would increase on county (i.e., Stewarts Point-Skaggs Springs Road, Annapolis Road, Soda Springs Road, and Rockpile Road) and private roads (i.e., Kelly Road) leading up to or throughout the Applicant's property. Traffic coordination with California Department of Transportation (Caltrans), county public works, local agricultural and industrial operations, and local residents would occur on an as-needed basis. Any partial road closures and traffic control would be coordinated with the County's Public Works Department. Local residents who may be affected would be informed of potential traffic controls. The County would also ensure adequate emergency access at all times and would notify local emergency service providers of any road closures at least 48 hours in advance.

### CONSTRUCTION STAGING AREAS

The staging areas for vineyard construction would likely be located at each vineyard block. Primary staging areas for road construction would likely be established at several locations along the access roads to the Project Site. The specific locations and dimensions of the staging areas are yet to be determined. In general, the staging areas would be established on relatively level ground. These staging areas would be used for materials and equipment storage and project management. These areas would also support daily activities related to vineyard development.

### 2.4.2 Design Elements of the Project

As described in Section 2.3.4, the Project proposes a number of measures to avoid and minimize potential impacts to vegetation, soil, habitat, and wildlife occurring within and/or adjacent to the construction areas. These construction-related measures are as follows:

- Temporary erosion control measures in compliance with federal, state, and local regulations/ordinances such as: (1) geotextile fence barriers would be placed where significant earthwork occurs next to WLPZs; (2) the cleared areas would be straw mulched with small grain straw at a rate of 2 tons/acre and all disturbed slope areas would be seeded for erosion control prior to the start of the wet season (approximately October 15); (3) fiber rolls and jute netting check dams would be placed in runoff swales where erosion potential is significant; (4) sediment barriers (i.e., silt fences, straw bales, etc.) would be installed to protect watercourses near the vineyards by October 15; (5) vineyard activities using heavy equipment would only occur during April 1 to October 15 to avoid operations in the wet seasons, with no equipment operations on saturated soils year round; (6) temporary hillside “V” ditches would be installed on variable slopes to piped outlets to catch runoff; (7) temporary overland corrugated plastic pipes would be installed to convey V-ditch flows into armored outlets; (8) the outlets would flow into reservoir/catch basins where feasible; (9) geotextile fence barriers would be installed in low slope field edge areas where significant earthwork may occur next to existing channels at watercourse crossings; and (10) straw blanket or fiber netting mulch would be installed on cut and fill slopes where straw retention is unlikely.
- Permanent erosion control measures would be designed, to the extent feasible, to mimic mature forest runoff and drainage conditions and would include the following: (1) establishment of a permanent cover crop within one year using erosion control seed mix; (2) installation of permanent drainage improvements per finalized project plans and construction specifications; (3) installation of permanent road way drainage improvements per final project plans and specifications; and (4) installation of rock armor ditches and pipe outfalls into the drainage channel areas.
- A stormwater monitoring plan would be developed and implemented to verify the effectiveness of the erosion control measures.
- Class I streams would be permanently protected with 200-foot (400-foot total) WLPZs and Class II streams would also be permanently protected with 100-foot (200-foot total) buffer WLPZs.
- Use of multiple smaller aggregate borrow pit sites located in proximity to existing roads away from streams and sensitive resources.

- Excavation of reservoirs would take place during the dry season period of May 1 to October 15.
- Aggregate excavation would not be conducted during the winter months and would not occur until a minimum of seven days after significant rainfall events.
- The section of road closed for aggregate excavation operations and other Project-related construction activities would be clearly marked during operations.
- Upon completion of aggregate mining activities, the areas would be restored to their original conditions; although, except for two sites (Oak Ridge and Tabor-Buckwheat), the aggregate borrow sites are predominantly exposed rock outcrops with little to no soil vegetation cover.

In addition to implementing the above BMPs, the Applicant would also comply with the following local regulations affecting water and biological resources that are contained in the Sonoma County Code and related ordinances.

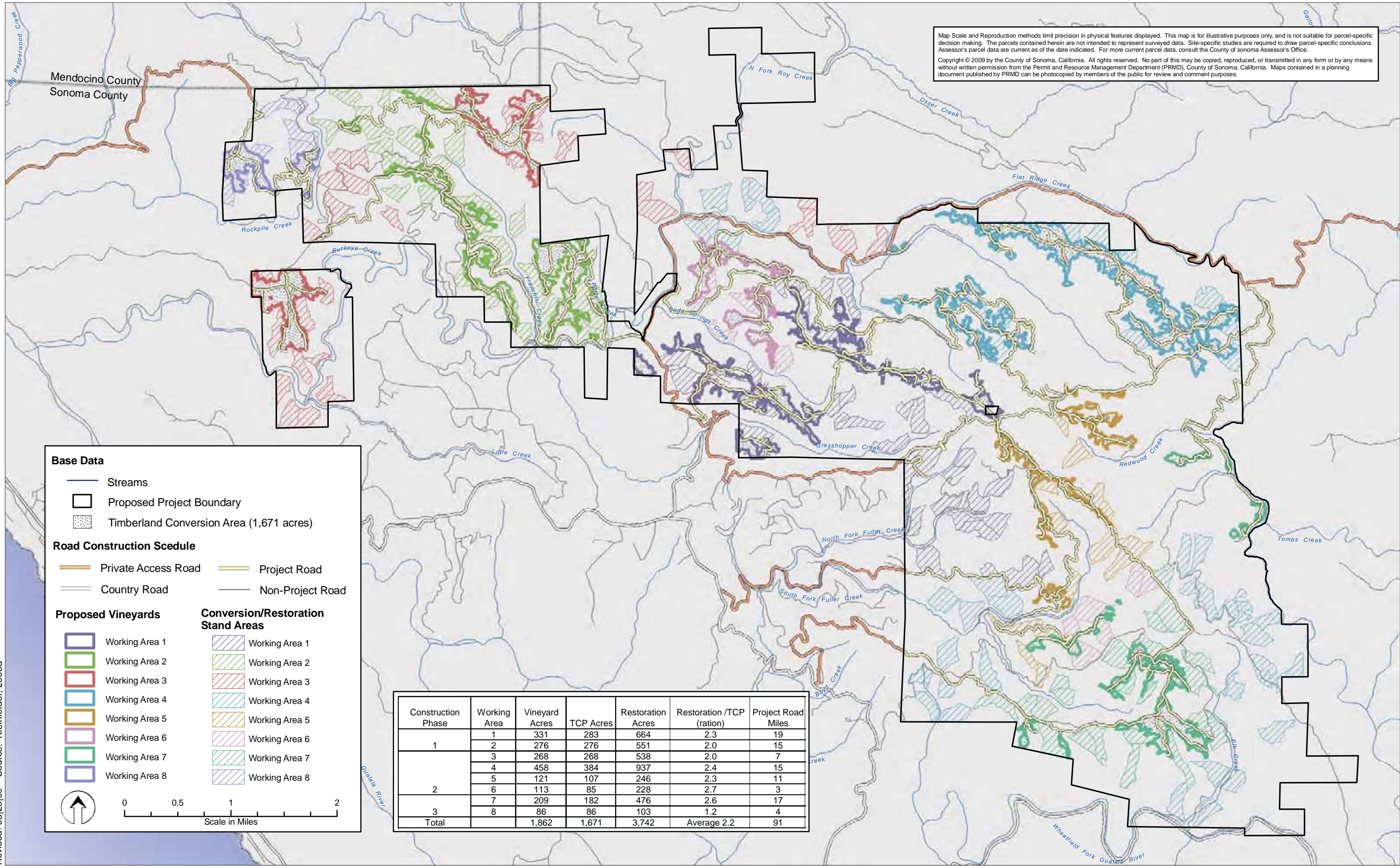
- Grading, Drainage, Vineyard and Orchard Site Development Ordinance [Chapter 11 of the County Code; Ordinance No. 5819] is intended to address soil erosion problems from vineyard planting on steep slopes and erosion prone soils throughout the County.
- Flood Damage Prevention Ordinance (Chapter 7B) of the Sonoma County Code discusses general and specific flood prevention standards to prevent flood damage within the County.
- Groundwater Well Permits pertain to any proposed commercial or industrial projects that would rely on water well(s) and require a use permit. Such projects must include a groundwater use estimate prepared by a civil engineer or registered geologist as part of the application.
- Open Space Element of the existing General Plan and the Sonoma County Zoning Code designate certain Streamside Conservation Areas along 54 major rivers and perennial streams and designate Critical Habitat Areas encompassing some of the know sensitive natural communities and wetlands in the County.

### 2.4.3 Construction Phasing and Project Schedule

Figure 2-9 shows the estimated construction timeframes for each of the Project components. The vineyard/timberland conversion and associated timber harvests would take place over a three-year period, with the potential for two, one-year extensions. The phasing and timing of conversion activities, vineyard development, and implementation of erosion control measures is provided in Table 2-8.

Map Scale and Reproduction methods limit precision in physical features displayed. This map is for illustrative purposes only, and is not suitable for parcel-specific decision making. The parcels contained herein are not intended to represent surveyed data. Site-specific studies are required to draw parcel-specific conclusions. Assessor's parcel data are current as of the date indicated. For more current parcel data, consult the County of Sonoma Assessor's Office.

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**Base Data**

- Streams
- Proposed Project Boundary
- Timberland Conversion Area (1,671 acres)

**Road Construction Scedule**

- Private Access Road
- Country Road
- Project Road
- Non-Project Road

**Proposed Vineyards**

- Working Area 1
- Working Area 2
- Working Area 3
- Working Area 4
- Working Area 5
- Working Area 6
- Working Area 7
- Working Area 8

**Conversion/Restoration Stand Areas**

- Working Area 1
- Working Area 2
- Working Area 3
- Working Area 4
- Working Area 5
- Working Area 6
- Working Area 7
- Working Area 8

Scale in Miles: 0, 0.5, 1, 2

Construction Phase	Working Area	Vineyard Acres	TCP Acres	Restoration Acres	Restoration /TCP (ration)	Project Road Miles
1	1	331	283	664	2.3	19
	2	276	276	551	2.0	15
	3	268	268	538	2.0	7
2	4	458	384	937	2.4	15
	5	121	107	246	2.3	11
	6	113	85	228	2.7	3
	7	209	182	476	2.6	17
3	8	86	86	103	1.2	4
<b>Total</b>		<b>1,862</b>	<b>1,671</b>	<b>3,742</b>	<b>Average 2.2</b>	<b>91</b>

Revised: 03/20/09 Source: Kleinfelder, 2008a



**Table 2-8. Phasing and Timing of Conversion Activities, Vineyard Development and Implementation of Erosion Control Measures**

Activity	Responsible Contractor	On-Site Professional Monitoring	Earliest Start Date	Completion Date	Responsible Agency
Timber Harvest	LTO	RPF	April 1	October 15*	CAL FIRE, RWQCB, DFG
Timber Harvest Erosion Control	LTO	RPF	October 1	October 15	CAL FIRE, RWQCB, DFG
Site Preparation	LTO	RPF	May 1	October 1	CAL FIRE, RWQCB, DFG
In lieu and Farm-over Watercourse Clearing	LTO	RPF	June 1	September 1**	CAL FIRE, RWQCB, DFG
Timber Operations Final Completion Inspection	LTO	RPF	Not applicable	October 1	CAL FIRE, RWQCB, DFG
Vineyard Grading	Vineyard Contractor	Engineer	April 1	October 7	PRMD/County Ag, RWQCB, DFG
Temporary Erosion Control	Vineyard Contractor	Engineer	June 1	October 15	PRMD/County Ag, RWQCB, DFG
In lieu and Farm-over Watercourse Construction	Vineyard Contractor	Engineer	June 1	October 1**	PRMD/County Ag, RWQCB, DFG
Reservoir Construction	Vineyard Contractor	Engineer	April 1	October 7**	PRMD/County PRMD, RWQCB, DFG
Irrigation System and Vineyard Planting	Vineyard Contractor	Engineer	April 1	October 15**	PRMD/County Ag
Permanent Erosion Control	Vineyard Contractor	Engineer	June 1	October 15	PRMD/County Ag, RWQCB, DFG

\*No Timber Harvest of >30 acre units after October 1

\*\*Permanent Erosion Control measures required by October 15

Project construction would be staged so that road upgrades would occur over a 3-year construction period prior to, or concurrent with, associated vineyard development. Roads that access vineyards scheduled to be constructed during the first two years of the Project would be upgraded to storm-proof condition the first year of the Project. During the second year, roads that access vineyards to be constructed during the third year of the Project would be upgraded to storm-proof condition. In general, road improvement work would be completed in phases to ensure that ingress and egress for timber harvesting activities and conversion utilize upgraded internal roads. Road construction monitoring would be performed with regular visits to construction sites by the responsible Registered Professional Forester (RPF). During road construction activities, status reports of road upgrades would be submitted to CAL FIRE and the North Coast Regional Water Quality Control Board (NCRWQCB) on a regular basis. During the wet season fall, winter, and spring inspections would be made by the responsible RPF and monitoring reports would be submitted to CAL FIRE and NCRWQCB. Restoration efforts would be spread over approximately a 30- to 50-year time period to reduce the potential for losses from seedling mortality in exceedingly dry years and to reduce potential short-term environmental impacts.

In summary, timber conversion, road improvements, forest restoration actions, and necessary GHG offset goals would occur over a three- to five-year period in coordination with proposed timber conversion and vineyard development activities. Parcel merger, park expansion, trail

easement, Windy Gap Preserve easements and the working forest conservation easements are proposed to be conditioned on Project approval including County, CAL FIRE, and resolution of potential litigation and implemented prior to conversion activities being initiated.

## 2.5 PUBLIC BENEFITS IDENTIFIED BY THE APPLICANT

The public benefits identified by the Applicant for the Preservation Ranch Project are described below:

- Establish a 14,590-acre Sustainable Timber Management Area that includes preservation and enhancement of 11,355 acres of commercial timberland within Sonoma County, approximately 1,878 acres of Large Tree Management Areas and approximately 1,635 acres of Riparian Management Areas (refer to Section 2.3.9);
- Establish a 2,702-acre wildlife preserve (Windy Gap Preserve) on which no commercial timber harvest would be permitted;
- Dedicate 221 acres for the expansion of the existing Soda Springs Reserve;
- Create a 5-mile public trail easement;
- Reduce development potential by reducing the number of existing parcels via voluntary merger (extinguish 97 legal parcels via voluntary merger on the Project Site) and resulting fragmentation of natural resources;
- Generate increases in tax revenues for Sonoma County by producing higher quality varietal wine grapes on the Project Site;
- Provide the economic means to restore the forest stands on the Project Site, repair the roads, dedicate parkland, preserve wildlife habitat, and protect water quality conditions in the Gualala River Watershed with the vineyard development component of the Project; and
- Seek CCAR registration as a means to protect and promote early actions to reduce GHS.

In addition, the “Timber Management” component of the Project would:

- Restrict future timber conversions by preserving the timber resource in perpetuity on approximately 17,500 acres of the approximately 19,652-acre Preservation Ranch Project Site via conservation easements and/or deed restrictions.
- Provide an integrated forest management strategy covering over approximately 15,000 acres of timberlands.
- Plant approximately 1 million conifers as part of the proposed restoration actions.
- Restore 3,738 acres of timberland that includes thinning dense stands of tanoak and planting approximately one million new conifers (three trees planted for every tree cut for vineyard development) and a working forest conservation easement on 14,590 acres that requires sustainable/environmentally sensitive management of the timber resource by one or more entities holding timber rights over all TP acreage.

- Require long-term, uneven-aged, and sustained yield timber management for the entire forest resource (approximately 15,000 acres) via restrictive easement beyond current CAL FIRE requirements to enhance wildlife habitat and reduce fire risk and lower the potential impacts of large-scale wildfires.

The “Road Improvements and Maintenance” component of the Project would:

- Upgrade approximately 93 miles of roads on the Project Site to reduce future sediment delivery to the Gualala River Watershed and compensate for any new sediment contribution from conversion activities.
- Provide safe, all-weather access to the Project Site.
- Reduce existing and Project-related erosion impacts to water quality by upgrading roads and instituting long-term road management maintenance plans to improve and maintain water quality.

The “Forest Restoration” actions of the Project would:

- Offset all carbon impacts associated with the conversion of timberland to vineyards by restoring 3,738 acres of forest including planting approximately 1 million conifers, sustainably managing 14,590 acres of forest, creating a 2,702-acre Windy Gap Preserve, and dedicating 221 acres to expand the existing Soda Springs Park, resulting in a carbon neutral project from day one with increased carbon storage over time.
- Increase the Project Site’s carbon sequestration potential over time, as the proposed working forest and conservation easements, park expansion, and restoration action benefits are realized.
- Implement stream management practices and restoration activities that improve riparian and in-stream habitat values and protect water quality to benefit fisheries and wildlife.
- Substantially increase the size of the Soda Springs Reserve providing increased watershed and viewshed protection.
- Provide more employment for local workers in the coming decade. Increasing the long-term growth and production of timber from the Project Site would increase employment and economic stimulus for local sawmills, local harvesting and trucking companies, and the local economics of the rural communities supported by these businesses.
- Reduce overall fire hazard, the effective rate of fire spread, fire duration and intensity, fuel ignitability, and the potential ignition of tree crowns with the creation of a more open forest canopy.

## 2.6 SUMMARY OF PROJECT PERMITS/APPROVALS

The Project would require permits and review from various agencies, such as those listed in Table 2-9.

Table 2-9. Potentially Required Federal, State and County Permits and Approvals/Reviews

Agency	Permit/Approval
<b>Federal</b>	
U.S. Army Corps of Engineers	<ul style="list-style-type: none"> <li>▪ Section 404 Excavation or Discharge of Fill Material into Waters of the U.S., including Wetlands</li> </ul>
Environmental Protection Agency	<ul style="list-style-type: none"> <li>▪ Region IX, Title V (CAA) Operating Permit</li> <li>▪ Section 402 National Pollutant Discharge Elimination System Notification for Stormwater Management during Construction</li> <li>▪ Section 402 National Pollutant Discharge Elimination System Notification for Stormwater Management during Operation</li> </ul>
U.S. Fish and Wildlife Service	<ul style="list-style-type: none"> <li>▪ Endangered Species Act Section 7 Consultation and Biological Opinion</li> </ul>
NOAA Fisheries	<ul style="list-style-type: none"> <li>▪ Endangered Species Act Section 7 Consultation and Biological Opinion</li> </ul>
<b>State</b>	
California Department of Forestry	<ul style="list-style-type: none"> <li>▪ Timberland Conversion Permit Pursuant to Sections 4621-4628, Resources Code, and regulations contained in Title 14, CCR</li> </ul>
California Department of Fish and Game	<ul style="list-style-type: none"> <li>▪ Fish and Game Code, Sections 1601 and 1603, regulates changes made to the bed, channel or banks of streams or rivers</li> <li>▪ Sections 2081(b) and (c) of the California Endangered Species Act incidental take permit for a State listed threatened and endangered species (Fish and Game Code Sections 3505, 3511, 4700, 5050, 5515, and 5517)</li> </ul>
California North Coast Regional Water Quality Control Board	<ul style="list-style-type: none"> <li>▪ NPDES General Permit for Stormwater Discharges Associated with Construction Activity (General Permit) WO Order 99-08-DWQ; also development of SWPPP required</li> <li>▪ Statewide General Permit for Stormwater Discharges Associated with Construction Activity from Small Linear Underground/Overhead Projects Order # 2003-0007-DWQ (Small LUP General Permit)</li> <li>▪ Section 401 Water Quality Certification</li> </ul>
Department of Water Resources, Division of Safety of Dams	<ul style="list-style-type: none"> <li>▪ Dam (reservoir) safety permit (if design requires)</li> </ul>
<b>Local</b>	
Sonoma County	<ul style="list-style-type: none"> <li>▪ Erosion Control Plan to comply with Sonoma County Grading, Drainage, Vineyard and Orchard Site Development Ordinance</li> <li>▪ Rezone</li> <li>▪ Well Permits</li> <li>▪ Grading Permits</li> <li>▪ Agricultural Building Approvals</li> <li>▪ Septic permits</li> </ul>

Additionally, if the Project is approved in some form or another, then a development agreement (DA) may possibly be entered between the Applicant and the County to carry out the Project. Also, the final CEQA document prepared for the Project will be used in preparation of the THP approval and to satisfy necessary permitting requirements for Project purposes.

In general, Sonoma County has jurisdiction over General Plan amendments, zone changes, subdivisions, conditional use permits, and other discretionary development approvals. The U.S. Army Corps of Engineers issues federal Section 404 permits for individual projects and public works projects. The Regional Water Quality Control Board issues Water Quality Certifications (pursuant to Section 401 of the CWA) and NPDES permits for non-point source (i.e., stormwater discharges from individual private development projects and public projects). The CDFG issues state Section 1600 et seq. permits for individual private development projects and public works projects. NOAA Fisheries Service (National Oceanic & Atmospheric Administration National Marine Fisheries Service) Office of Protected Services and the U.S. Fish and Wildlife Service (USFWS) work together to protect species listed as endangered or threatened under the Endangered Species Act (ESA) of 1973. USFWS implements programs and regulations for terrestrial and freshwater species, while NOAA Fisheries is charged with marine and

anadromous species. Both agencies are involved in the issuance of incidental take permits for threatened and endangered species under Sections 7, 9, and 10 of the ESA.

Over the course of the last 15 years, a number of other federal, state, regional, and local plans and other laws have been adopted that would affect land use and development in Sonoma County pursuant to the Sonoma County General Plan 2020. In some cases, compliance with these plans/laws would provide additional reduction of impacts of future land uses and development. In other cases, these plans/laws may pre-empt county jurisdiction, resulting in environmental impacts that may not occur in their absence.

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