



County of San Mateo - Planning and Building Department

ATTACHMENT A

COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

RECOMMENDED FINDINGS

Permit File Number: PLN 2015-00203

Board Meeting Date: December 15, 2015

Prepared By: Rob Bartoli, Planner II

For Adoption By: Board of Supervisors

RECOMMENDED FINDINGS:

Regarding the Environmental Review, Find:

1. That the rezoning is statutorily exempt pursuant to Section 15264; local agencies are exempt from the requirement to prepare an Environmental Impact Report (EIR) or Negative Declaration on the adoption of timberland preserve zones.

Regarding the General Plan Map Amendment, Find:

2. That the General Plan Land Use Map Amendment is compatible with adjacent land uses and will not be in conflict with the policies of the General Plan in that surrounding land uses and designations are similar and the existing use and development is consistent with the General Plan.

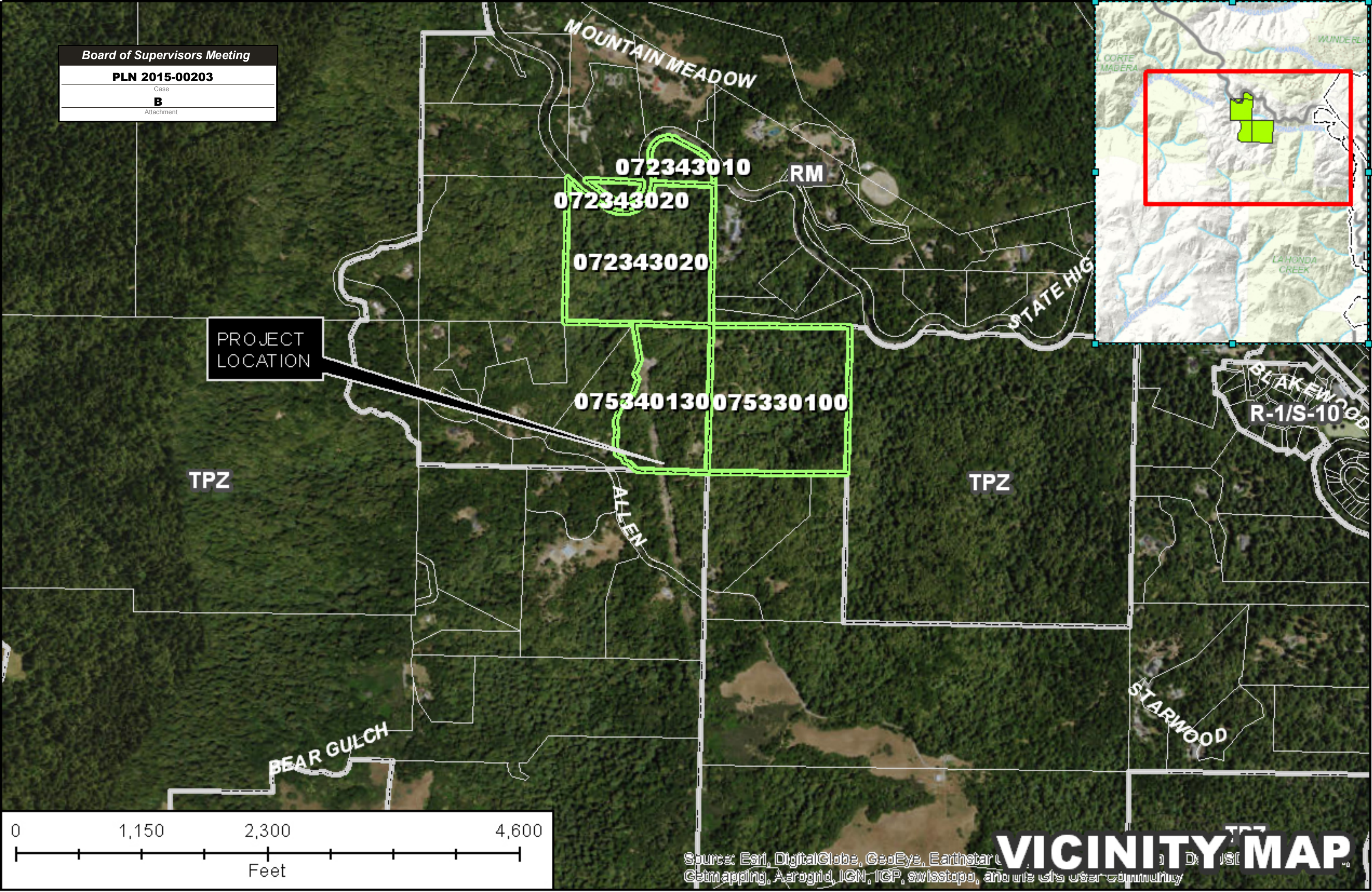
Regarding the Zoning Map Amendment, Find:

3. That the proposed rezoning of the subject parcels meets the public necessity, convenience, and the general welfare of the community in that forest resources and timberlands are a valuable natural renewable resource and the County desires to encourage proper management of such uses.



County of San Mateo - Planning and Building Department

ATTACHMENT B



TPZ

RM

STATE HIGH

SLAKEWATER
R-1/S-10

STARWOOD

BEAR GULCH

ALLEN

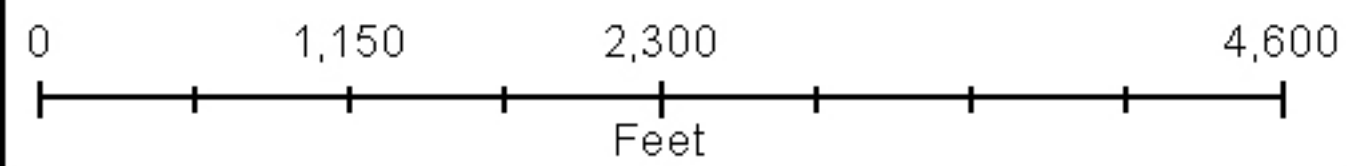
072343010

072343020

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075340130 075330100

PROJECT
LOCATION





County of San Mateo - Planning and Building Department

ATTACHMENT C

California Cooperative Forest Management Plan (FMP)

(Version 2-22-12)

Lands of The Eberhard Family Trust

Property Name: The Eberhard Family has dubbed the property "Howk Forest".

Property Location Address: The gated entry to the property is located immediately opposite 350 Allen Road, Woodside, CA 94062, in the unincorporated area of San Mateo County. There is currently no physical address. The County Assessor identifies each of the five FMP parcels (075-340-290, 075-340-130, 075-330-100, 072-343-010, and 072-343-020.) as "Vacant Land".

Owner Name (s): Martin & Carolyn Eberhard

Plan Author: Cassady Bill Vaughan

Signature: 

Phone: (831) 566-5955

RPF#: 2685

This management plan outlines the conditions and capability of property resources, documents the landowner's objectives and decisions and identifies potential resource improvement projects. It is meant to be a flexible and educational document that considers a planning horizon of at least 5 years but may include objectives that require a much longer time period.

This management plan template meets management plan requirements for grant agreements and other provisions available through CAL FIRE, NRCS, USFS, and the American Tree Farm Association. Signature Pages are provided to document acceptance of this management plan in meeting those requirements.

This management plan is a tool for and belongs to the landowner. Signatures are only required for that entity providing funding as requested by the landowner.

Board of Supervisors Meeting

PLN 2015-00203

Case

C

Attachment



SIGNATURES AND APPROVALS

This FMP is provided as a guide to help you accomplish the objectives that you have for your forest. The FMP will guide you in achieving the benefits of managing your forest and forest related resources. With this Forest Management Plan, you are eligible to participate in the California Department of Forestry and Fire Protections California Forest Improvement Program (CFIP), US Forest Service's Forest Stewardship Program (USFS), the American Forest Foundation's American Tree Farm System (ATFS) and The Natural Resources Conservation Service (NRCS) programs. This plan will need to be reviewed and approved by representatives for each of the programs that are providing funding.

We have reviewed this plan and approve its content:

Martin Eberhard

Date

Carolyn Eberhard

Date

USFS Forest Stewardship Program

I certify that this FMP meets the requirements of the federal Forest Stewardship Program.

Plan Preparer

Date

I certify that this FMP meets the requirements of the federal Forest Stewardship Program.

Stewardship Forester

Date

Forest Stewardship Tracking Number: _____

NRCS Cost Share Programs including EQIP

I certify that this FMP meets the requirements of the USDA-NRCS Programs and/or the Quality Criteria for forest activity plans in Section III of the USDA NRCS Field Office Technical Guide.

Technical Service Provider

Date

RPF Number

I certify that this FMP meets the requirements of the USDA-NRCS Programs and/or the Quality Criteria for forest activity plans in Section III of the USDA NRCS Field Office Technical Guide.

District Conservationist

Date

ATFS Program

I certify that this FMP meets the requirements of the American Forest Foundation's American Tree Farm System.

ATFS Inspecting Forester

Date


Number

Certified Tree Farm Number: (e.g. AL 1234) _____ Date of ATFS Certification: _____

CAL FIRE CFIP MANAGEMENT PLAN CERTIFICATION PAGE

California Registered Professional Forester (RPF) Certification: I certify that I, or my supervised designee, personally inspected this California Forest Improvement Program (CFIP) plan area, and that the plan fully complies with the CFIP and Professional Foresters Law, and meets Federal Forest Stewardship Management Plan Standards. I further certify that this plan is based upon the best available site and landowner information, and if followed, will not be detrimental to the productivity of the natural resources associated with this property.

Name (print or type): Cassady Bill Vaughan

Signature: 

Date: 2/25/15

Organization or Company: Vaughan Forestry & Land Management

Address: 6010 Highway 9, Suite #6
Felton, CA 95018

Phone: (831) 335-1452

RPF#: 2685

CAL FIRE Unit Certification: I certify that I, or my supervised designee, personally inspected this California Forest Improvement Program (CFIP) plan area, and that the plan fully complies with the CFIP and Professional Foresters Law, and meets Federal Forest Stewardship Management Plan Standards.

Name (print or type): _____

Signature: _____

Date: _____

California Department of Forestry and Fire Protection

Unit: _____

Address: _____

CAL FIRE STATE OR REGION CFIP COORDINATOR: I certify that the plan fully complies with the CFIP and Professional Foresters Law, and meets Federal Forest Stewardship Management Plan Standards.

Name (print or type): _____

RPF#: _____

Signature: _____

Date: _____

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This Multi-Agency Cooperative Forest Management Plan was developed for use in California by CAL FIRE, the US Forest Service and Natural Resources Conservation Service using information from a national joint Forest Stewardship, American Tree Farm System, NRCS Planning Process and the California Forest Improvement Act.

Landowner Information

Landowner(s): Martin & Carolyn Eberhard

Mailing Address: 300 Allen Road
Woodside, CA 94062

Phone: (650) 851-4972

E-Mail: eberhard@allenroad.com

Landowner's Representative (if applicable): Cassady Bill Vaughan

RPF# (if applicable): 2685

Mailing Address: 6010 Highway 9, Suite #6
Felton, CA 95018

Phone: (831) 566-5955

E-Mail: billyv76@att.net

Management Plan History

Does a Management Plan exist for this property?: **Yes** _____ **No:** X

If Yes:

Type of Plan: (CFIP, EQIP, NTMP, FSP, CAP, Other): _____

Date of Original Plan Completion: _____

Revision Dates: _____

PROPERTY FACTS

Legal Description: Portions of Sections 22 & 27, T 6S, R 4W, MDB&M. USGS Woodside Quad.

Nearest city or Town: The small town of Sky Londa is located 1.4 miles east of the property.

County: San Mateo

Assessor's Parcel Numbers (APNs): 075-340-290, 075-340-130, 075-330-100, 072-343-010, and 072-343-020.

GPS Coordinates: Entry gate on Allen Road is at Lat: 37.384244, Long: -122.289603

Total ownership acreage: 120 acres

Total forested acreage: 120 acres

The Eberhards own and live on a separate parcel west of the FMP west side of Allen Road.

Does Landowner reside on the property?: Yes _____ No: X (but does live adjacent)

Describe the overall topography including slope, aspect and elevation:

The property is located in the headwaters of La Honda Creek along the western slope of Skyline Ridge. Skyline Ridge trends north-south and forms the backbone of the Santa Cruz Mountains. The property is best described as steep hardwood and conifer timber ground. Aspect is generally east facing and the western property line more or less corresponds with Allen Road and Allen Ridge. Allen Ridge defines the western edge of the La Honda Creek drainage and associated sub-watersheds. The property receives drainage from several small watercourses and associated drainage, collection, and discharge features along Highway 35 (Skyline Boulevard). Slopes along the ridge near Allen Road and a few of the flatter depositional areas along La Honda Creek average 0-20%, but most of the terrain averages 40-60%. There are also some exceptionally steep areas in excess of 100%. The property reaches its highest elevation of 2,220' along Allen Road at the property's southwest corner. The lowest point on the property is 1650' where the watercourse, which later forms La Honda Creek, exists east.

Estimate percent of total acreage that is:

Simple topography (few ravines and changes of aspect): 20%

Percent of Land: Flat (< 5%): 10% Gentle (< 20%): 15% Steep (> 35%): 75%

Transportation System:

Vehicle Access (check):

Excellent (60%+) Good (at least 50%) Fair (at least 25%) Poor (less than 10%)

Estimated improved road length (rock surface): 2,000 feet

Estimated unimproved road length: 2.8 miles

CALWATER 2.2 planning watershed: La Honda Creek Watershed (V2.2 CalWater ID#2202.300001)

Acres within this watershed: Approximately 117 acres of the FMP acreage is located in the La Honda Creek Watershed, with the remaining 3 acres draining westerly to Harrington Creek (V2.2 CalWater ID#2202.300002). The 3 acres located in the Harrington Creek watershed is ridge top ground with no watercourses.

Tract and Farm number (if suitable):

PROPERTY HISTORY

Based on discussions with the current landowner, the Allen family settled the area in the 1910s. The USGS Woodside Quadrangle bears the names Allen Road and Allen Lookout, both near the subject property. An old wellhead located on an adjoining property is dated 1916, and also bears the Allen name. Based on local logging history, the Allen family may have purchased the property after it had been logged near the turn of the century. It is possible the Allen family logged as well, and may have engaged in limited agriculture. Orchards and vineyards were common along Skyline, much more so than we see today. There were no doubt cabins and structures on the property from the original settlement, but the only one present today is an old dilapidated cabin that was recorded as part of the Confidential Archaeological Addendum for the 1989 Timber Harvest Plan (THP). There are three wells on the property; two near the western-gated entry at Allen Road, and third on APN #072-343-010.

The Chisholm family purchased the property from the Allens in the early 1970s, and held it until selling it to Martin and Carolyn Eberhard in 2011. As noted above, the property was selectively harvested under an approved THP, which likely saw upgrades to the road and trail system. The Chisholms were also avid dirt bike riders and developed a network of riding trails. The Eberhards are attempting to abandon many of these trails, and repurpose others to provide hiking opportunities. The Chisholm's appeared to use the property for private recreation and timber production. Since acquiring the property, the Eberhards have worked tirelessly to maintain roads, decommission dirt bike trails, and generally improve the overall condition of the property from an erosion standpoint. The property has a deeded right of way over lands Mid-Peninsula Regional Open Space District (Mid-Pen). The right of way coincides with the access road that exits the south end of the property and climbs to Skyline Boulevard. The property also has an access road that exits onto Skyline Boulevard in the northern portion of the property. The Eberhards enjoy the natural wonders of the property, and spend time there gathering firewood, recreating, and generally appreciating the great outdoors.

As with much of this portion of the Santa Cruz Mountains, the property was subject to an economic clear-cut sometime around the turn of the century (circa 1880's-1910). The property was likely left to grow for 80 years or more before the selective harvest of 1990 (THP # 1-89-382 SMO). There may have been incidental tree removals during the Allen's ownership, and there are a few remnant old-growth trees scattered about, but for the most part the redwood stand we see today is a mix of second and third-growth sprout clumps. The goal is to continue to manage the stand using selective silviculture in an effort to maintain sufficient numbers of trees of all sizes to permit long-term, sustained production of redwood timber. Hardwoods will be managed for incidental release of conifers, while maintaining representative numbers of broadleaf trees for wildlife and aesthetic values. While not much is known about the 1990 harvest, I estimate the harvest removed about 500,000 board feet (500 MBF) of redwood. Douglas-fir, present in modesty amounts through the property, is not expected to contribute much in the way of timber harvest volume or value unless there is a dramatic shift in its market value. Future harvests may see 200-300 MBF harvestable over a 15-20 year harvest cycle, but this should be verified by a statistically defensible timber cruise. Evidence of harvest infrastructure is easily identified by existing skid trails, roads, and landings. Since the 1990 timber harvest there has been one Exemption filed on the property (1-12EX-308 SMO) which permitted commercialization of wood products associated with maintenance along portions of the PGE line which runs through the Hawk Forest. A copy of the Exemption is included as Appendix 3.

CURRENT PROPERTY CONDITIONS

Property Infrastructure

There are no dwellings located on the property. The primary access to the property is via State Highway 35 to Bear Gulch Road West to Allen Road. The southwestern edge of the property is bound by Allen Road and accessed by a locked gate across from 350 Allen Road (G1 on Road Infrastructure Map). There are two additional access points to the property: the Mid-Pen access road mentioned in the section above leading to gate G4, and gated access road at the northernmost tip of the property (gate G5). Both G4 and G5 allow access directly on to Highway 35. There are additional locked gates as noted on the FMP Maps.

There are approximately 2.8 miles of existing seasonal roads, and approximately 2,000 feet of existing permanent road. The permanent road was the result of rocking upgrades, drainage work, culvert installation, and slide repairs undertaken by Stanford Linear Accelerator (SLAC) contractors in 2012. The upgraded road was fitted with erosion control features through a series of inside ditches with cross drains, and rolling dips combined with road outslowing consistent with current best management practice (BMP) standards. The running surface has been rocked with Langley Hill Quarry base rock. This work was done under my supervision.

There are no structures on the property that are maintained for human habitation. Two, small storage sheds are located on APN #075-340-290. There are remnant fences here and there that generally accord with property lines both within the ownership and along the external boundaries. The majority of the old fences are heavily deteriorated and indiscernible in most locations. All roads into the property are restricted with locked gates, and most public visible areas have been posted with red "No Trespassing" signs, including along Skyline Boulevard.

There are three wells located within the property. The first is located approximately 80 feet northeast of access gate (G1), and is owned and maintained by the Eberhards. The second is located approximately 200 feet northeast of the primary access gate mentioned above and is maintained under the ownership of APN#s 075-340-140 & 075-340-350. A third well is located on APN #072-343-010.

There is one PG&E transmission line and one SLAC transmission line that cross through the property. The PG&E line trends more or less north-south and spans approximately 3,590 feet. North of the property, this line eventually reach a substation located in foothills near the junction of Canada Road and Highway 280. Running south from the property, the PG&E line cross back over Highway 35 to a substation located near the end of Stevens Creek Boulevard. The SLAC transmission line spurs off the PG&E line mentioned above and runs northeasterly. Maintaining adequate line clearance while not impacting aesthetics and the growth potential of the site has already proven challenging. 2012 saw a massive vegetation removal project under and alongside the transmission line segment that runs from Allen Road to the SLAC switch tower, and 2013 saw a similar denuding by PG&E along the span north of the SLAC switch. The FMP Maps locates both of the transmission lines.

Forest Infrastructure

Commercial redwood forests occupy approximately 75-80 acres of the 120 acres. The remaining 35-40 acres are forested, but the species mix tends towards Douglas-fir and mixed evergreen hardwoods such as tanoak, live oak, and madrone. Within the commercial redwood stands, redwood canopy cover averages 50-75%, with most non-conifer openings being occupied by tanoak and madrone. Douglas-fir may account for as much as 10% of the overall timber volume. Forest understory species include blue blossom ceanothus, evergreen huckleberry, poison oak, sword fern, chain fern, bracken fern, flowering currant, and a variety of forbs and grasses. The 1990 timber harvest has begun to transition the redwood stand to what is commonly referred uneven-aged, or multi-storied stand structure. The 1990 harvest appears to have been relatively heavy by most local, selective standards, but the resulting sprout clumps have done quite well due to the available light and growing space. The resulting 25 year-old sprouts are dire need of thinning. Thinning and removal of sapling and pole sized trees that have lost their tops to rats and squirrels should be prioritized. The redwood overstory is composed of dominant and co-dominant 100-110 year old trees that were not harvested in 1990. In addition to being a heavy cut, the 1990 harvest also left behind a number of suppressed and intermediate stems that will need to be removed to improve the success of smaller, healthy sprouts and volunteer seedlings. There are scattered trees with old-growth characteristics that will generally be retained in perpetuity for novelty and wildlife.

The site productivity of the property (measured as the height of the dominant redwoods at 100 years of age) varies from Site II in the moist draw bottoms, to Site IV and V along the ridge tops. Current redwood stocking is estimated to range between 10 and 25 MBF per acre, with an average of 18 MBF/Ac. Average annual growth is probably just under 3%, yielding an average per acre volume contribution of about 500 board feet per acre per year (5 MBF/ac/yr) across about 75-80 acres of commercial redwood ground.

Insects take a toll on the timber stands each year depending on drought conditions, although redwood forests are somewhat more resistant to insect attack than most other conifer forests found elsewhere in the State. The two primary concerns associated with forest health within the property are Sudden Oak Death (SOD), a disease carried by the pathogen *Phytophthora ramorum*, and leader damage from forest rodents (mostly woodrats and squirrels). Forest products that are removed from the site should be handled in conformance with the regulatory guidelines for SOD, and not shipped outside of the quarantine area established for the disease (See California Forest Practice Rules).

Roads (See attached Road Infrastructure Map)

Most of the access roads on the property were probably installed when the Allen family owned the property, though some of the original turn-of-the-century roads may have been repurposed as well. The 1990 timber harvest likely saw upgrades to all roads, as well as construction of some new roads, skid trails, and landings. There are approximately 2,000 feet of permanent road, which was upgraded to allow all-weather access to the SLAC transmission line and improve the Mid-Pen access to the south. This Mid-Pen access road is a deeded easement and is generally used only for emergency purposes. There are two locked gates on this road; one at Highway 35, and one at the southern property line. There are about 2.8 miles of existing, seasonal roads that permit access to the property for both recreation and timber management purposes. There are 11 watercourse crossings on the property; 7 of which are culverted and 4 that are considered permanent dip crossings. Each crossing should be monitored regularly and replaced and/or upgraded as necessary.

Roads are generally maintained in an outsloped condition, and fitted with rolling dips and waterbars to maintain proper drainage. Despite the absence of rock on the seasonal roads, they are generally accessible throughout most of the year. Vehicles should not travel on seasonal roads when the road surfaces are saturated. Rocked road surfaces can be used year-round. ATV use, mostly the owner's vintage jeep, is restricted to the established road and trail network. There are ample opportunities for road drainage upgrades and mitigation of trail and non-functional harvest infrastructure.

Access and Security

Nine of thirteen property corners were located during field survey efforts, and the property is considered to have well-defined boundaries with adequate signage. There are small, remnant fence sections that correspond to a few of the parcel boundaries, both between ownership parcels and on adjacent parcels that share a common property line. These fence lines are generally consistent with property boundaries in most areas but not everywhere.

While there is occasional trespass, it is usually by foot since all road access points to the property is via maintained locked gates. There had been a few instances of dirt bike trespass, but this is thought to involve friends of the previous owner, and this has ended with improved gates and signage.

Stray hikers from adjoining lands of MidPen are uncommon, as this portion of MidPen is closed to the public and is often patrolled by MidPen rangers.

Trespass from the adjacent retreat center has been a constant but manageable problem. The property is patrolled regularly by the landowners, who live on an adjacent parcel across Allen Road. The landowners have added signage and spoken with the retreat owners to discourage this trespassing. There are also several permanent residents close-by who watch for trespass activities when owners are not present.

Recreation

The property is primarily used for private recreation: walking, hiking, nature study, closing old trails and clearing others, Jeeping, and discovery. Aside from the developed areas along Allen Road, the property is largely open space land that lies adjacent to other wildland parcels. A system of roads and trails provides good access to nearly all portions of the property. Opportunities for recreating, camping, and communing with nature are considered above average for this particular area. A diverse palate of wildlife and wildlife habitats can be found throughout the property; providing unique opportunities for both habitat improvement and ecological study.

Invasive Species

Invasive species found on the property include: French broom, thistle, and pampas grass. If any major outbreaks of the above species are identified, they will be pointed out to the landowner along with recommendations for treatment options such as hand-pulling, herbicide treatment, and localized cutting and piling.

Soils (See attached Soils Map)

The entire property is underlain by Hugo and Josephine sandy loams. The attached Soils Map divides the soil type into three sub-classes: moderately steep, steep, and very steep. The Soils Map is a bit misleading, as much of the property's terrain near Allen Road is gentle to rolling, and even a few of the prominent ridges on the property would be considered "moderately sloped" by most standards. That said, most of the property is quite steep and averages 40-80% slopes, with some ground in excess of 100%.

Where slopes are less than 40%, erosion hazard is considered moderate to high depending on the amount of surface litter on the ground and the vegetation growing there. Where slopes exceed 40%, erosion hazard ranges from high to extreme depending on these same factors. There are some areas where equipment limitations should be observed, especially near watercourses and unstable areas. Current and future management will aim to stabilize and improve road and trail drainage features and minimize the extent to which heavy equipment operates off of the established road network. Recreational trails will be similarly located and maintained, except where relocation would involve significant construction or would cross unsuitable terrain.

The property's forest soils are generally deep, well-drained sandy loams well-suited for timber production. On the whole, nearly all of the property is capable of producing high quality timber. When duff and organic litter is scraped away, the soil layer beneath provides a rich seedbed for planting and volunteer seedlings. Competition from tanoak limits the establishment of conifer seedlings in many areas, but the soils will support conifers where gaps in the canopy exist. Soil compaction is generally considered low, and limited mainly to permanent roads, trails and landings. Downcutting and associated instability is evident along nearly all of the classifiable watercourses. Mass wasting is also evident on steeper slopes. Active geologic conditions are not unexpected because of the site's relatively young geology, the presence of sandstone derived soils, and high rainfall intensities.

Streams, Wetlands, and Ponds

There are basically 5 watercourses on the property. Using Cal Fire's watercourse classification system, two of the five are considered Class II watercourses, and the remaining drainages and tributaries are Class III watercourses. There are no springs to speak of, but there are a few wet areas that support water loving ferns of the Woodwardia genus. The most significant hydrologic feature is the primary Class II watercourse that exits the southern boundary of the property and forms the headwaters of La Honda Creek. The mid and lower reaches of this watercourse hold water year-round, and contain a number of 2-3' deep pools. There are no upland ponds or reservoirs on the property.

Most of the watercourses on the property are high gradient Class III watercourses with narrow, (2-4'), confined channels with bolder and cobble-sized substrate. The Class II watercourse shown on the Water Resources Map has year-round water that becomes intermittent by late summer. Several large pools persist and provide aquatic habitat. Dense redwood canopy cover limits the presence of significant riparian vegetation, but there are a few patches of elk clover and woodwardia ferns where sunlight allows. There is a fair amount of in-stream and near-stream large woody debris along the main Class II. The steep canyon that defines the upper end La Honda Creek and the concentrated flows from Skyline Boulevard drainage features have combined to produce a number landslides and debris flows that have introduced large chunks of wood.

Air Resources

There has not been an active vegetation management program on this property for some time. Slash from 1990 logging operation was lopped and scattered in place. Following the logging, it appears there was a fair amount of recreational grading to open roads and create dirt bike trails. In most cases the resulting debris was simply shoved into piles and run over with a bulldozer. There does not appear to have been, nor is there intended to be, an active program of piling and burning.

Fish & Aquatic Species

The primary Class II watercourse on the property, which forms the headwaters of La Honda Creek, does not provide habitat for anadromous fish. The lower portions of La Honda Creek, and also San Gregorio Creek into which La Honda Creek feeds, are purported to contain steelhead trout (Federally listed as Threatened, California Natural Diversity Database (CNDDB), Version 3.1.1, dated July 1, 2012). The CNDDB is a statewide depository of rare, threatened, and endangered species. Most likely there are impassible barriers downstream of the Eberhard property that prevent anadromy this far upstream, although discussions with a few of the old-timers in the area suggest there may never have been fish this far up La Honda Creek. In any event, the available habitat on-site would be considered marginal because the stream flow necessary to successfully breed this far upstream would have to be perfect. Furthermore, water temperature over the summer would have to be cold enough to allow survival of juvenile fish, which is also questionable due to low flow conditions. Fish or no fish, management should always aim to mitigate potential sediment inputs and loss of shade canopy over watercourses, as these can have a cumulative effect habitat on suitable downstream habitat.

Upland Wildlife

Upland species that are likely to be present at various times of year on the on the property include: Mountain Lion, Bobcat, Coyote, Grey Fox, Black Tail Deer, Skunk, Cottontail Rabbit, Raccoon, California Ground Squirrel, Western Grey Squirrel, Bats, San Francisco Dusky Footed Wood Rat, Gopher, Various mouse species, Red Tail Hawk (nesting & foraging habitat), Coopers Hawk (nesting & foraging habitat), Great Horned Owl (nesting habitat), California Quail, Various song birds, Mourning Dove, Band-Tail Pigeon, Western Yellow-Bellied Racer, Western Rattlesnake, Mountain King Snake, Gopher Snake, Garter Snake, Ringneck Snake, Rubber Boa Snake, Alligator Lizard, Blue Belly Lizard, and Western Skink.

Habitat conditions favor use by these and other forest animals. There are numerous snags and downed logs, and ample water along the lower portions of the property. It is very likely that the main watercourse provides migration corridors and refuge for dozens of local animal species.

Threatened or Endangered Species: See Appendix #5: Rare, Threatened, and Endangered species.

LANDOWNER MANAGEMENT OBJECTIVES

Desired Forest Condition

Fire protection objectives:

In this part of the Santa Cruz Mountains, fires are almost always started by humans. Ignition sources locally include roads, houses, campsites, recreational trails, and the power lines.

The property is bordered on the south and west by Allen Road and on the north and east by Skyline Boulevard. It's always wise to reduce fuel loading in areas of the property that border public roads, but to date very little has been done to achieve an adequate buffer. While both of these public roads provide access for fire suppression equipment and defense against fire, they also represent an ignition source from things like cigarette butts and faulty mufflers.

While most mountain residents are aware of the risks of fire, and some do an adequate job maintaining adequate clearance around their homes, houses in the woods are probably the single biggest ignition source. As Smokey says, fire prevention is everyone's job. Some take this job more seriously than others, however, so the diligent landowner must defend against this risk. Keeping internal roads serviceable and maintaining adequate clearance along road edges will greatly increase the chances of defending against wildfire; primarily because there is a greater chance that Cal Fire will enter the property if they feel they have a fighting chance at defending a fire road. Also, sources of water (tanks, hydrants, wells, etc.) should be clearly marked in the event no one is around to guide fire response teams to the source.

Internal property roads have accumulated moderate to heavy fuel loads along their edges as a result of conifer and hardwood regrowth from the 1990 harvest. Forest improvement projects should continue to reduce fuel loading along the edges of these roads to provide defensible space. Projects should prioritize treating roadways that are most critical to emergency fire response, with an ultimate goal of establishing fuelbreaks on all roads and trails. Perhaps the most critical internal road is the section that runs from Allen Road (Gate G-1) to Skyline Boulevard (G4). A good portion of this road (G1 to X2) was treated in 2013 to achieve defensible space and created a shaded fuelbreak. This road provides the landowners and close-by neighbors an alternative route to safety should a fire block the opening portion of Allen Road, or if a fire approached from the west.

Forest Health objectives including insects and disease concerns:

Perhaps the biggest local concern from a disease standpoint is SOD. Skyline Boulevard has been hit very hard by the disease; wiping out entire stands of tanoaks in some instances. Once the disease has set in, it is very difficult to eradicate. Treatment should be done in accordance with the latest guidelines and recommendations from Cal Fire. Infected material should never be allowed to leave the quarantine area established by the County and/or Cal Fire, and should generally remain on the property.

Thinning or pruning to promote drier conditions and encourage wind flow may help reduce ambient humidity and fungal growth. Thinning will also reduce competition and improve the vigor of the residual trees; reducing stress and improving resilience.

Invasive plant and animal concerns:

Plants: French broom, pampas grass, and thistle are the primary non-native plants (not counting a host of on-native grasses) that often take hold on wildland parcels with moderate to high disturbance with long intervals in between. This property is no exception, but the populations are not beyond control, and appear quite manageable. The property's proximity to public and private roads, the presence of the power lines and their roaded access, and the relatively large number of adjoining parcels makes eradication very difficult. Steep, inaccessible ground that is difficult to treat also causes problems. It has and will remain a high priority to control non-native plants on all portions of the property.

Animals: By far the most pervasive animal pests affecting conifer trees are woodrats and squirrels. This property has above average leader damage as a result of girdling by these woodland rodents. Impacts have been especially focused on redwood sprouts that resulted from the 1990 harvest. The ability for damage control is limited as woodrats (probably dusky-footed woodrats) are protected, and well, terminating squirrels is a tough sell. Nonetheless, efforts to remove damaged tops, thin overcrowded clumps, and chip or scatter debris are encouraged. Both of these rodents prefer deep vegetative cover and thickets of debris, though squirrels are mostly found nesting in trees.

Trespass:

Maintaining existing fencing, gates, and proper signage along high-use public and private areas adjacent to the property has greatly helped with trespass issues. The landowner's effort to locate all of his property lines revealed a few encroachments here and there, but communication and a constant presence has helped ease trespass concerns. The landowner plans to maintain and construct additional deterrents as necessary.

Wildlife

Desired species habitat improvement:

Providing for and improving habitat for wildlife is certainly an objective of the landowners, but there are no active enhancement projects on the calendar. Passive management such as leaving snags and reducing erosion by maintaining waterbars on roads and trails do have their benefit, but mostly these are the byproduct of good management.

I would argue that active management in the form of "forest stand improvement" efforts provides for a more diverse plant palate and therefore a more diverse animal palate. Pre-commercial and commercial thinning will establish healthy trees of all sizes and encourage a heterogeneous understory. Gaps and openings will provide edge effects and generate more diversity across the landscape.

Threatened and Endangered species habitat concerns:

Appendix 5, attached hereto, identifies one "threatened" and two "endangered" species that have been positively identified within a 3-mile radius of the property, though none have been specifically noted on the property. From past experience with submitting timber harvest plans in the area, the California red-legged frog, marbled murrelet, and Townsend's big-eared bat should also be

considered. It's worth noting too that manzanita is found on the dry upland portions of the property, and that the specimens may well be one or both of the two listed manzanita species identified by the CNDDDB (*Arctostaphylos andersonii*, and *Arctostaphylos regismontana*). Management activities shall be planned to avoid impacts to or improve habitat for these species.

For the most part mitigation for plant species will involve avoidance. Where manzanita is involved, it is often best to encourage some level of disturbance as the natural fire regimes have been disrupted and in the absence of disturbance manzanita populations generally begin to decline. Restoration management of manzanita should be done in consultation with a qualified botanist. For large-scale ground disturbing projects, it may be best to have a botanical survey done anyway.

There are no grasslands on the property that would provide suitable habitat for the San Francisco garter snake. There are no ponds, and only limited breeding opportunities for California red-legged frogs, though it is possible that the property provides fall/winter dispersal habitat. Historical accounts and stream surveys do not indicate presence of steelhead trout. There are a few residual old-growth trees on the property, but there are no contiguous stands of old-growth that would indicate even a modest likelihood of marbled murrelets.

Concerted efforts at controlling erosion and protecting watercourse will help serve aquatic species of all kinds. Retention of old-growth trees and snags, and other trees with unique features such as large basal hollows, bifurcated tops, platforms, large branches, etc. shall be retained as feasible with consideration given to overall timber management objectives.

Additional Objectives

Aesthetics: Aesthetics are an extremely important consideration for the current landowners. The presence of high voltage transmission lines running through the property highlights this point. Recent line clearance efforts have left a large, unsightly swath of cleared area beneath the lines, and there may be some consideration given to mitigating the visual impacts. Projects under the control of the landowner, whether part of this FMP or not, will be done in a manner that respects the forested character of the landscape. Cost-share projects will be done to the highest standard possible.

Stewardship: My involvement to date suggests the Eberhards are most interested in rehabilitating and making improvements to their land. Stewardship and environmental ethics are the driving factors influencing land management decisions.

Income: While the Eberhards have given some thought to submitting plans for a selective timber harvest, economics is not the driving force behind decision making on this property. Experience with the landowner thus far suggests that land stewardship is at the fore.

Family Legacy: Retaining the land for future generations ranks high on the priority list. The property is currently held in the "Eberhard Family Trust", which gives some indication of this commitment.

MANAGEMENT PLAN IMPLEMENTATION

Land Use Alternatives

The Eberhard family purchased the subject property in 2011. The near term goal was to improve the property and manage it more or less as a demonstration forest; rehabilitating and decommissioning unnecessary road and trails and upgrading features that would be used regularly. It appears the Cooperative Forest Management Plan requires the Forester to consider land use alternatives other than the growing timber, so here are a few:

Alternative 1: The property could be sold to the Mid Peninsula Open Space District (MidPen). They own large tracts of land throughout the Skyline area, including parcels that adjoin the Hawk Forest on the south. It is conceivable that the property could be combined with their existing ownership and used for public recreation.

Alternative 2: The collective parcels that make up the entire ownership could be sold individually for retreat purposes and/or private recreation that did not involve large scale development.

Alternative 3: The property could be turned into a single large retreat, similar to the adjoining ownership of "Stillpath" off Skyline Boulevard. Zipline courses and eco-tours are a possibility, particularly given the proximity to the San Francisco Bay Region.

Alternative 4: The property could be sold for development purposes, where each parcel could potentially have a home built on it. Roads would likely be widened and paved, and the overall forested character would diminish proportionate to the level of development on each parcel.

Alternative 5: This alternative would see nothing done. The property would be left as is in an unmanaged state. Roads and trails would be left untreated and eventually degrade. Fuel loading would accumulate over time and become more susceptible to wildlife. Trespass would go unchecked, and the property would likely see unsanctioned trespass and overnight camping, various degrees of vandalism, and dirt bike traffic.

Alternative 6: The property would be managed under the careful guidance of both government and non-government resource professionals. A comprehensive Forest Management Plan would be prepared to provide opportunities for forest stand improvements, fire hazard reduction, sediment control, and wildlife management. This is the proposed and preferred alternative.

While Alternatives 1-4 likely represent the most lucrative options, this does little to further the notion of stewardship and forest legacy. From a purely financial standpoint, the chosen alternative ranks second to last behind doing nothing. There are financial opportunities that are compatible with the landowner's objectives, however. In addition to sustainable timber harvesting, some consideration should be given to: carbon markets, education and outreach, private recreation and camping, private events, equestrian outings, Christmas tree farming, and non-conventional forest products such as mushrooms, boughs, cones, mulch production, etc.

Land use opportunities, and for that matter development are severely constrained by San Mateo County planning and zoning regulations. Steep slopes, access constraints, road gradients, and watercourse setbacks would all serve to limit the nature and extent of any development.

Economic Sustainability

Because the property is located in Woodside, California, real estate prices are dramatically inflated compared with most other timbered areas of the state, making it nearly impossible to even pay property taxes by selling traditional forest commodities. If sustainable timber management is truly a long-term objective, and future land use decisions recognize compatibility constraints, the most effective means of reducing the property tax burdens is to rezone the parcels to TPZ. Similarly, if the owners expect to maintain ownership and pass the property on to the next generation, it would be wise to consider a Non-industrial Timber Management Plan (NTMP) as a means of both clarifying management objectives, and estimating cash flow from future harvests.

Desired Forest Condition (Reforestation and Afforestation)

As mentioned above, the property was selectively logged in 1990 and has not been thinned since. To my knowledge, there have been no timberstand improvement efforts in 22 years. The Hawk Forest is a moderately stocked redwood stand, with scattered Douglas-fir and dense patches of tanoak and madrone. Coast and canyon live oak and scattered black oak are found in the more xeric ridge top area with a few bigleaf maples near water. Not all of the property should necessarily be considered for timber production. Instead, efforts should focus on the areas that already support redwoods; improving spacing, removing defective redwood sprouts, and releasing smaller conifers by removing competing hardwoods.

As budgets allow, tanoak dominated areas with good soils, draw bottoms, and north facing slopes could be opened up and prepared to plant coast redwood. On drier sites where redwood is not expected to do well, Douglas-fir can be planted, but this should be done sparingly as the market for Douglas-fir is likely to be soft into the near future. Thinning, site preparation, and debris disposal practices would fit this kind of project. Follow-up treatments to reduce encroachment from understory species such as tanoak are recommended to improve seedling survival.

Thinning is recommended throughout the timbered area to reduce competition among individual redwood sprout clumps and thin seedling patches of Douglas-fir. Redwood sprout clumps associated with a single stump shall be thinned so that the number of sprouts is roughly equal to the diameter of the cut stump in feet. Seedling patches of both Douglas-fir and redwood which occur naturally, or have resulted from disturbance associated with more recent harvest activity will be thinned to achieve spacing of approximately 14 feet. The RPF or his supervised designee shall meet on-site with the contractor prior to pre-commercial thinning activities to direct the thinning crew as to appropriate leave tree spacing, individual tree selection with regard to health and seating, and lopping or other debris disposal requirements.

Soils

Soils were adequately discussed above under Current Forest Conditions. Steep slopes, high erosion hazard ratings, relatively young geology, an extensive road and trail infrastructure will require diligence when it comes to installing and maintaining erosion control features on the property. In general, current waterbar spacing should be tighter. Most of the roads on the property would benefit from doubling the number of rolling dips and accentuating the outsloped cant of the road prism. Rock surfacing would also help minimize sediment discharge and would make the roads more suitable for year-round use. Dirt bike trails that are not being used for hiking should be decommissioned and

recontoured as feasible. Aside from roads, trails, and landings, there are not too many on-going soil impacts that require mitigation. Retaining large wood and chipping and lopping slash in place will assist in maintaining proper nutrient cycling. The overall management goals are to stabilize bare soils to avoid erosion, maintain functional drainage on roads, trails, and landings to avoid chronic sediment production and mass wasting, and encourage nutrient cycling by reincorporating organic matter back into the soil.

Roads

All of the existing roads on the property are identified on the attached Road Infrastructure Map. Some of the roads were used as haul roads during the 1990 timber harvest, and others are upgraded skid trails that provide 4X4 access for the owner. As mentioned above in the Soils section, the number of waterbars and rolling dips on the primary roads could easily be doubled to prevent erosion and maintain an intact running surface. Drainage installation and maintenance applies to most recreational roads and trails as well.

Since purchasing the property in 2011, the landowner has worked to maintain neglected roads on the property. The landowner hopes to replace Crossings X1 (perhaps a bridge), X5, and X6 as budget allows, and will size them to accommodate a 100-year flood event. The road section leading north from X6, and the left spur of that same road section is in dire need of drainage work. The existing inside ditch is far too long and leads directly to the inlet of X6. This section of road is arguably the worst on the property and the most significant source of controllable sediment. All things consider the road system on the subject property is in relatively good shape. However, a few crossing upgrades, some bulldozer work to improve drainage and increase the number of road drainage features, and additional rock surfacing would greatly improve the overall condition of the road system.

Pests

Invasive species found on the property include: French broom (*Genista monspessulana*), bull thistle (*Cirsium vulgare*), and pampas grass (*Cortaderia selloana*). If any major outbreaks of the above species are identified at anytime, they will be pointed out to the landowner with recommendations on treatment options. Such options are not limited to but include a combination of: hand-pulling and localized cutting and piling with follow-up treatment. Like many things, controlling non-native plant species is about diligence and early treatment before small outbreaks become unmanageable. While the Hawk Forest is not overrun with non-native species, its proximity to public roads and the presence of the high voltage transmission lines (and their required access and trimming requirements) creates opportunities for introduction of non-native species.

As mentioned previously, rodents are girdling the tops of smaller redwood sprouts and the damage is well above average relative to most other stands I work in. It may be worth talking with the California Department of Fish and Wildlife to investigate control options.

Fire Protection

In 2012, the Eberhards completed the practices listed below. Initially the practices were expected to receive cost-share monies from the State under CFIP, but the Eberhards elected to pay out-of-pocket until they better understood restrictions imposed by the Program.

"RPF Supervision (9.5 acres): An RPF will supervise implementation of the three Practices described below (Thinning, Pruning, and Slash Disposal). The RPF will ensure that the Practices are carried out in conformance with CFIP standards and applicable Forest Practice Rules. The RPF must recognize that the combination of the three Practices is ultimately designed to reduce fire hazard and create a fuelbreak, and shall use his or her professional judgment in meeting this goal. The RPF is expected to orient the crew prior to getting started so that the project goals and objectives are clearly understood, and follow up periodically as work is being completed to ensure the work meets the standards described herein. The treatment area totals 9.5 acres; therefore the request is for 9.5 acres of RPF Supervision. CFIP's RPF Checklist recommends the RPF work with the landowner to select a contractor and monitor the project during operations to ensure it meets CFIP standards. If the work does not meet program requirements, the RPF shall identify corrective action necessary to bring the project into conformance. In most cases, the RPF will also assist the landowner in organizing invoices, and filing the necessary paperwork to receive reimbursement from the State.

Pre-commercial Thinning (9.5 acres): This Practice proposes thinning trees within a 40' swath either side of the primary access road shown on the attached CFIP Treatment Area Map. The goal is to reduce the overall number of stems within the treatment area, focusing primarily on dense patches of young tanoak sprouts. Well-formed, well-spaced conifers and individual healthy hardwoods will be retained as directed by the RPF. Trees greater than 14" in diameter should generally be retained except when there is evidence of disease, they affect roadside clearance, or complicate overall fire defense goals. Many roadside areas are carrying in excess of 1,000 trees per acre (tpa), and the goal will be to reduce this number to approximately 300 tpa (12' spacing). When thinning redwood stump sprouts, the general rule of thumb is to retain one sprout per one foot of stump diameter. The resulting roadside areas will be more open, maintain lower fuel loading, and will retain healthier, faster growing trees. Thinning is the first phase in an effort to create a fuelbreak along the mapped road section that makes up a good portion of an internal road system connecting Allen Road and Highway 35. The RPF or his supervised designee shall meet on-site with the contractor prior to pre-commercial thinning activities to direct the crew as tree spacing, redwood sprout thinning, and desirable leave-tree characteristics. Thinning work is expected to commence as soon as CFIP funds have been confirmed.

Pruning (9.5 acres): This Practice proposes pruning trees that remain within the thinned area described above. Limbs shall be removed from standing trees to achieve 10' (or however high one can reach with a chainsaw) clearance between the surface of the ground and the lowest limbs. This will reduce ladder fuels, overall fuel loading, and break up the vertical continuity of woody fuels. Trees immediately adjacent to road edges will also be pruned to maintain vertical clearance for both personal and fire response vehicles/engines. These treatments will reduce the risk of a ground fire climbing into the upper forest canopy, and will improve the chances of successfully defending the road in the event of a forest fire. In general, trees to be pruned will be less than 18" in diameter and limb removal will not reduce the live crown by more than 1/3. The RPF or his supervised designee shall meet on-site with the contractor prior to pruning activities to direct the crew as to which trees should be pruned and discuss maintaining a healthy crown on leave trees. Pruning is expected to occur concurrently with thinning operations, and will commence as soon as CFIP funds have been confirmed.

Follow-up/Slash Disposal (9.5 acres): This Practice proposes to chip debris that is generated from the thinning and pruning projects discussed above. Some pile burning is allowed, but the RPF must confer with the local CalFire station to establish pile size, fuel moisture content, burn days, fire tools, and a response plan. In either case, debris that is greater than 1" in diameter and 4' long shall be chipped or burned. Chipping should occur concurrently with its creation, and burning must wait until fuel moisture content is right and it is a sanction burn day. Debris that does not result from thinning or pruning activities can be left if it appears the debris is sufficiently decomposed as determined by the RPF.

Fire is a natural, recurring process in the Santa Cruz Mountains; the extent and severity of which are a function of vegetation type and the ability to access and defend the site with conventional fire response vehicles. Steepness of slope, slope position, aspect, fuel loading, understory composition and vertical structure, fuel moisture content, wind conditions, and a host of other factors obviously influence fire, but the item we currently have the most control over is fuel loading near accessible roads. A more comprehensive response plan, water storage and wharf hydrant capabilities, additional fuel treatment, and access improvements should be contemplated. Depending on available funds and applicable programs, State and Federal assistance monies may prove useful.

The opening discussion about fire in Current Forest Conditions is a fair assessment of the forest setting, but is not intended to suggest a particular fire defense strategy. A list of agencies and groups that may provide additional assistance and community networking opportunities are identified below, along with contact information. These include Cal Fire's Sky Londa station, the local Fire Safe Council, Kings Mountain Association, and others. A comprehensive fire response plan that includes neighboring properties and an emergency broadcast network is a good start. Good signage and an easily identifiable address are also very helpful for fire response teams. Identification of the location, capacity, and fittings for all water tanks on the property is advisable. Locating and mapping all wells, ponds, pools, developed springs, and hydrants on the property are also important.

The need to prepare for wildfires exceeds the breadth of this report. The best start may be contacting neighbors and local fire response teams to introduce the property and take advantage of and add to what is already in place.

Security

Security and boundary issues were as adequately discussed above in Current Forest Conditions.

Life threatening or extreme emergency situations call 911.

Non-life-threatening, non-emergency situations on Skyline Boulevard should be reported to CHP.

The San Mateo County Sheriff's office should be contacted for general enforcement complaints.

MidPen has a law enforcement presence on Skyline as well, and borders the property on the south. It may be helpful to contact MidPen regarding incidental trespass issues and general queries regarding stray members of the public.

Streams, Wetlands, and Ponds

Watercourse features were adequately discussed above in Current Forest Conditions. There are no known ponds and only a few wet areas on the property. In-stream enhancement projects, pond considerations, major crossing upgrades, and decommissioning of roads and trails near watercourses should be considered as funds become available. Some projects will require engineering that exceeds the professional license of an RPF. There are more opportunities than there is funding to support improvement to the property's established road and trail network and reduce sediment inputs to watercourses; though the landowners seem to have a willingness to fund and tackle significant erosion issues out-of-pocket. The most immediate and controllable sediment sources are addressed above in the roads Section. At this point the landowners should assess priorities and costs and begin with road upgrades; then phase into restoration, decommissioning, and/or engineered in-stream habitat improvements. The FMP should really be a work in progress to identify and achieve attainable goals that meet the landowners' ecological management objectives.

Wildlife

The discussion of Wildlife in Current Forest Conditions above, and the CNDDDB information in Appendix 5 provide sufficient context for both flora and fauna. The Hawk Forest is more or less a defacto wildlife preserve. Human activity is limited almost exclusively to the landowners' patrols, and traffic associated with maintenance of the two high voltage transmission lines that run through the property. Since the 1990 selective harvest and until the Eberhards acquired the property, it was used almost exclusively for recreational dirt bike and camping excursions. Since taking ownership, the Eberhards have attempted to mitigate the impacts of past use and have made great strides in creating a healthier, more fire safe environment. Aside from this presence, the property is left to wildlife, and is presumed to be fully occupied by species that are dependent on the kinds of habitats available in the Hawk Forest.

Stream crossing replacements (notably X1, X5, and X6) would reduce sediment delivery potential to watercourses and other aquatic habitats. This would result in a proportionate decrease in the cumulative totals further downstream where steelhead trout depend on clean water. Diligent maintenance of roads and a regular storm monitoring program are as important as the drainage feature itself.

Habitat for non-aquatic species could be improved by installing nest boxes for owls and bats. Recruitment and retention of large woody debris, particularly near watercourses will provide nurse logs, cover, and food source for a variety of animals. Retaining and recruiting snags and trees with valuable wildlife features such as reiterated tops, large limbs, basal cavities, bark fissures, etc. will help improve habitat diversity. Funding for specific practices should be considered carefully; with some thought to "Safe Harbor" or other agreements that protect the landowner when dealing with threatened or endangered species.

Recreation and Aesthetics

The landowners' recreational use of the property is adequately discussed above. Forest stand improvement efforts will continue to produce a cleaner looking forest with fewer concentrations of debris. Thinning efforts and roadside clearance will provide more glimpses into the forest and better vistas along a few of the higher points. Future projects or practices will be a function of the landowners' vision for the property as not everyone sees the forest the same.

Hawk Forest is bordered by properties that see moderate public recreation, most notably walking trails from the Stillpath Retreat in the northeast and Mid-Pen's tract to the south (though currently not open to the public). Some of the land use alternatives discussed in the opening of this section explore recreational uses that might involve the public, but at this time, there are no immediate plans make drastic recreational improvements.

Air Resources

Slash from the most recent harvest in 1990 was lopped and scattered in place throughout the harvest area. Future thinning projects will likely see the same treatment, but roadside fuelbreaks will require that slash be chipped. While piling and burning may be considered as an alternate means of debris disposal, it is not being proposed or recommended yet.

Biomass removal as an alternative is a costly proposition and until biomass becomes at least a break even without depending on government incentives, it is not a recommended alternative. Bigger thinning projects that involve larger size and bulk of material that could be chipped into a trailer might be worth exploring.

Climate Considerations and Carbon Sequestration

One of the most significant GHGs contributing to global warming is carbon dioxide (CO₂). CO₂ is a naturally occurring atmospheric gas that is utilized by trees as a building block for tree growth and creation of wood fiber (cellulose). Trees build cellulose through processes that break CO₂ molecules into carbon and oxygen. During these processes, trees keep the carbon molecule for the formation of sugars, which are used to form cellulose. The O₂ portion of the CO₂ molecule is released back into the atmosphere. The net result is that CO₂ is removed from the air by trees and the carbon is stored in wood, roots, and foliage. It is this utilization of CO₂ and storage of carbon that is referred to as "sequestration" which forests are generally known for. The amount of carbon that is sequestered over time is reported as tons of carbon per 1,000 board feet (dry weight).

Stored carbon represents approximately 50% of the dry weight by volume of wood and is most commonly measured in cubic feet, cubic meters, or board feet. Carbon is most often reported in tons per acre when assessing forestry emissions and sequestration. Generally, sustainably managed forests sequester carbon at a faster rate because the harvest leaves behind an intact forest with healthy trees throughout all diameter classes. In addition to increased rates of sequestration, the lumber produced from these forests is stored in wood products, buildings, and landfills.

The active physiological process of carbon sequestration is closely linked to the individual growth rate of trees and can be measured cumulatively on a forest-wide basis. In general, younger stands tend to maintain higher growth rates and will be actively capturing more atmospheric carbon, although older forests can still maintain high levels of growth and sequestration. The dominant second-growth trees within the property are approximately 100 years old. Hawk Forest is characterized by multi-storied canopies resulting from past selective management. Management has also resulted in canopy gaps and small openings that provide in-growth opportunities.

Sustainable timber management is an excellent way of maintaining and improving the forests ability to sequester carbon. Maintaining forest health and optimizing stocking is arguably the most effective means of improving the forest's ability to store carbon. Incremental losses of stored carbon resulting from plant death and decomposition is ever-present and expected. Preventing catastrophic wildfire and the wholesale loss of stored carbon is equally important, and is highlighted as a goal of this FMP.

Family Legacy

Family legacy often develops over time. In general, the longer the family owns a property, the greater the bond with the land. In this particular instance however, the Eberhard family has developed a very strong bond in a very short time. Presently the property is actually held by The Eberhard Family Trust.

Ensuring that a property will remain with the same family for future generations takes good planning. If the goal is to keep all of the parcels in a single, contiguous ownership and not develop the land, a Conservation or Open Space Easement may be a helpful tool to reduce long-term tax burdens. Conservation easements allow private landowners to permanently retire development rights to protect

significant natural resources and eco-systems. Enhanced conservation easement tax incentives have opened doors to voluntary conservation efforts on millions of acres of wildlife habitat and natural areas.

If development is being contemplated, or the landowners are considering selling off one or more of the parcels, it may still be worth investigating rezoning all the parcels to Timber Preserve (TP). This will reduce the annual tax, and ensure that future development is done in a manner that is compatible with forest resource management.

FOREST MANAGEMENT UNIT INFORMATION:

Add as many pages of this section as there are management units designed for the ownership

For each forest management unit, write management objectives and a brief description of the management unit and its condition. Further detailed inventory/plot data can be included if desired. FVS or CRPTO forest modeling outputs can be appended to each unit description.

Name or Unit #: Howk Forest

Acres: 120

Location (describe and map): This FMP is comprised of a single Management Unit that will be treated to achieve the objectives outlined below.

Objectives:

- Reduce erosion on all roads within the property.
- Upgrade and replace failing or undersized culverts.
- Maintain and improve rocked dip/non-culverted forded crossings.
- Replace Crossing X1 with a bridge.
- Develop a useful fire defense plan.
- Decommission unused dirt bike trails, and stabilize those that remain for hiking purposes.
- Thin small tanoak sprouts and understory brush to release coast redwood and establish a fuelbreaks.
- Reduce slash by lopping in place and chipping to reduce fuel loads and the vertical continuity of the fuels.
- Increase forest health by removing trees that are dead, dying, or diseased in excess of basic wildlife needs.
- Encourage coast redwood regeneration through sprout management, and reforestation.
- Encourage and recruit special habitat elements to improve conditions for wildlife.
- Locate and define all property boundaries, and discourage trespass whenever feasible.
- Upgrade gates and fences to restrict unwanted visitors.

Description

Stand history, age and desired rotation cycle:

The opening section of this FMP contains a description of the property history that addresses stand history and stand age from a cutting standpoint. The goal is to continue to manage the stand using selective silviculture in an effort to maintain sufficient numbers of trees of all sizes to permit long-term, sustained production of redwood timber. Harvesting will focus on dominant and co-dominant redwood and Douglas-fir trees that are affecting the success of well-formed individuals or sprout clumps, which are expected, become crop trees over time. There is not real "rotation age" in selection silviculture. Individual tree removal decisions are based on spacing, crown closure, release, and removal of defect more so than a targeted age class; though in most cases sawlogs come from trees that are 40 years of age or more. Hardwoods will be managed for incidental release of conifers, while maintaining representative numbers of hardwoods for wildlife and aesthetic values. Future harvests may see 200-300 MBF harvestable over a 15-20 year harvest cycle, but this should be verified by a statistically defensible timber cruise. The cruise should gather information needed to prepare and submit and Non-industrial Timber Management Plan, as that may well represent a future goal.

Tree species present, forest type and/or ecological site description (ESD):

The Hawk Forest is comprised of two basic forest types: Redwood Forest and Mixed Evergreen Hardwood. The two types co-exist in some areas, but generally the redwood type occupies favorable northerly microsite and draw bottoms, and the hardwood type occurs on more exposed ridge top locations. Douglas-fir is found throughout all portions of the property, and is better suited to some of the drier sites. For purposes of this FMP, no further vegetation stratification is proposed, but the standing timber volume percentages are estimated as follows:

Percent volume by Species

50% coast redwood

30% tanoak/live oak

10% madrone

10% Douglas-fir

Site index, soil type, elevation, slope:

Site index varies from Site II in the low lying portions of the property nearest La Honda Creek, but decreases quickly moving upslope where much of the ground exhibits Site IV characteristics. On average the Hawk Forest is moderately productive Site III ground. Except one tiny inclusion of Gazos fine sandy loam, the property is underlain by Hugo and Josephine sandy loams on the upper end of the slope range.

The property is located in the headwaters of La Honda Creek along the western slope of Skyline Ridge. Skyline Ridge trends north-south and forms the backbone of the Santa Cruz Mountains. The property is best described as steep hardwood and conifer timber ground. Aspect is generally east facing as the ridge that more or less corresponds with Allen Road defines the western edge of the La Honda Creek drainage and its smaller sub-watersheds. The property also receives drainage from several small watercourses and associated drainage collection and

discharge features along State Highway 35 (Skyline Boulevard). Slopes along the ridge near Allen Road and a few of the flatter depositional areas along La Honda Creek average 0-20%, but most of the terrain averages 40-60%, with some areas in excess of 100%. The property reaches its highest elevation of 2,220' at Allen Road at the property's southwest corner. The lowest point on the property is 1650' where the watercourse, which later forms La Honda Creek, exists to the east.

DBH/size class, basal area, trees/acre, stocking, growth/yield potential:

Current redwood stocking is estimated to range between 10 and 25 MBF per acre, with an average of 18 MBF/Ac. Average annual growth rate is probably just under 2.5%, yielding an average per acre volume contribution of about 450 board feet (5 MBF) over about 75-80 acres of commercial redwood ground. Douglas-fir occupies another 15 acres or so, but harvesting will likely amount to removal of individual trees that are affecting the growth of adjoining redwood clumps. No formal growth and yield modeling is expected for Doug-fir, though it represents about 10-15 square feet of stocking per acre.

Overall redwood stocking is estimated to be around 100 square feet per acre. Within the redwood type, there are probably 100-120 trees per acre, ranging in size from 6" to 60" in diameter. Dominant tree heights vary with site productivity, but on average it is estimated that trees will grow 15 feet in 10 years. Therefore, the 20+ year-old sprouts from the 1990 harvest are between 30 and 40 feet in height, and the dominant 100" second-growth trees are upwards of 150 feet tall, with some reaching 200'. Management which emphasizes retention of healthy well-formed trees throughout a broad range of size classes (including a good portion of the largest specimens) may actually increase per acre redwood volume production over time.

Regeneration and stand improvement needs:

Sprout thinning and culling of deformed and defective stems that have been girdled by forest rodents is probably the most important stand improvement project. Selective removal of tanoaks to release adjoining redwood sprout clumps is a close second. From a timber production standpoint, focusing the initial efforts on the best growing ground with the greatest potential for positive results is the best investment. Because trees take so long to grow, planting efforts should also begin as soon as possible. For this particular property, controlling competing vegetation (mainly tanoak) will be a big part of any successful planting program.

Riparian, meadows, aquatic habitat, stream and other watercourses:

There are essentially 5 primary watercourses on the property. Using Cal Fire's watercourse classification system, two of the five are considered Class II watercourses, and the remaining drainages and tributaries are Class III watercourses. There are no springs to speak of, but there are a few wet areas that support water loving ferns of the Woodwardia genus. The most significant hydrologic feature is the primary Class II watercourse that exits the south end of the property, which forms the headwaters of La Honda Creek. The mid and lower reaches of this watercourse hold water year-round, and contain a number of 2-3' deep pools. There are no upland ponds or reservoirs on the property.

Most of the watercourses on the property are high gradient Class III watercourses with narrow, (2-4'), confined channels with bolder and cobble-sized substrate. The Class II watercourse shown on the Water Resources Map has year-round water that becomes intermittent by late summer. Several large pools persist and provide aquatic habitat. Dense redwood canopy cover limits the presence of significant riparian vegetation, but there are paths of elk clover and woodwardia ferns where sunlight allows. There is a fair amount of in-stream and near-stream large woody debris along the main Class II. The steep canyon that defines the upper end La Honda Creek and the concentrated flows from Skyline Boulevard drainage features have combined to produce a number landslides and debris flows that have introduced large chunks of wood to various watercourses.

There are no wet meadows to speak of, and no significant wetland areas that require specific protection. There are no ponds, but this could be a potential project worth discussing with the landowners. As specific projects are contemplated and budget allows, it would be worth conducting a more detailed stream inventory.

Understory, downed woody debris, snags, wildlife habitat:

Understory management will be specific to any given project. For the most part understory modifications will involve thinning of tanoak sprouts and dismantling down trees. Natural recruitment of downed woody debris, and the remnant wood chunks from harvesting will provide a continuous source of wood for invertebrates and vertebrates alike. Based on the current rodent population, understory conditions seem ideal for these forest mammals. Rodents provide a food source for mountain lions, bobcats, coyotes, and birds of prey. Snags will be retained for wildlife purposes where they do not represent a safety hazard, threaten to spread unwanted pests and disease, or where they exist in numbers that exceeds the needs of dependent species.

Unit Management Resource Concerns and Recommendations:

Specific erosion control and road infrastructure improvements will be implemented as funding becomes available. The landowners may well undertake projects without the benefit of cost-share monies. Dollar for dollar I believe adding extra waterbars and rolling dips on all travelled roads is the first order of business. The first section to attack is the seasonal road that runs north out of Crossing X6. This is an on-going preventable situation that needs to be addressed. Rocking roads that are within +/- 100' of watercourses is probably the next priority. Targeted culvert replacement might be third, followed by decommissioning of unused or unwanted trails.

Forest stand improvement efforts have already been discussed. I would recommend applying for thinning, pruning, release, and debris disposal monies to sanitize the 1990 sprout clumps, and maybe get control of the rodent populations within the treated areas. Generating a more complete picture of harvest layout, and overall forest stocking and growth information would assist in directing management efforts, though this kind of activity is not likely to be funded by any government program.

(Copy additional pages if needed)

29

PLANNED MANAGEMENT ACTIVITIES AND REQUIRED PERMITS

Management recommendations:

Future activities under this FMP will include a discussion of project specifications, priorities, feasibility and alternatives as well as a project map and a schedule of proposed activities covering at least five years. They will identify which management unit/stand you are describing for your activities. If a subset of the stand is being treated, the area can be described and/or identified on a project map. Design an orderly timeline using the Management Activity and Tracking Form below.

Once a conservation project is selected, the site specific environmental/cultural (CEQA/NEPA) documentation will need to be completed with the schedule of activities, project map and project specifications.

Harvest Documents:

Most commercial biomass removal activities need a CAL FIRE permit or other entity permit. Identify needed or current Cal Fire THP, NTMP and/or Categorical Exclusion for proposed timber management activities. Other agency permits may be necessary for proposed management activities related to other types of conservation projects such as but not limited to water drafting, ponds, road maintenance, crossing replacements and dust control.

Monitoring:

Monitoring project results, including before and after pictures, are recommended for larger project in order to evaluate successes, failures, and changes over time. Actively monitoring all roads and crossings before and during storm events is perhaps the most important item of all. At this point, there are too many unknowns in terms of project specificity to guess about their monitoring possibilities.

California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA)

Forest management activities including conservation practices may impact special environmental and/or cultural values such as threatened or endangered species and archaeological sites. Landowners need to know their locations and what they can do to protect them. Landowners also need to know that environmental and cultural reviews by regulatory agencies are required when a ground practice is proposed, and a permit and/or government assistance becomes part of the project.

Appendix 5 includes the results of the CNDDDB search for the subject property and a 3-mile radius. Where projects are expected to potentially impact listed species, the RPF or the landowner will contact CDFW to discuss whether the project will require a pre-consultation or a specific survey.

A Confidential Archaeological Addendum (CAA) was prepared for THP # 1-89-382 SMO. It did not identify any prehistoric resources, but did note an old, dilapidated cabin on the property located on the east edge of the existing seasonal road between Crossings X9 and X10. This site was reviewed during field layout and does not appear to contain any significant historic resources. There are no anticipated projects that would affect this cabin in any event.

- In this section the Plan Preparer should summarize, discuss, and show on a map those "known" historical, archaeological, and cultural sites. Furthermore there should be a discussion to inform the landowner about the process of "discovery" or survey for unknown sites and discuss possible mitigations that should occur if ground disturbing events are prescribed in the future. (If available, please attach existing record checks or surveys in a Confidential Archaeological Report in Appendix #5)
- Additionally, the Plan Preparer should summarize, discuss, and show on a map any threatened and/or endangered species that are known to exist. Furthermore there should be a discussion to inform the landowner about the process of "discovery" or survey for unknown species that have the potential to reside on the property and discuss possible mitigations that should occur if ground disturbing events are prescribed in the future.

The following confidential information is to be included in Appendix #5.

Environmental

- Map the location of **known** geological, biological or ecological values sites.
- Discuss T&E species observed or known and provide the results of the CNDDDB and BIOS information sites for within three miles of the property boundaries.
- Provide guidelines on how proposed practices might affect or be affected by observed or known species.
- Provide possible mitigation practices to protect those species.

Archaeological

- Include landowner information about **known** archeological, cultural, or historical sites along with location maps.
- If available from the landowner, attach existing record checks, surveys, or Confidential Archaeological Report(s).
- Provide guidelines on how proposed practices might effect or be affected by observed or known sites.
- Provide possible mitigation practices to protect those sites.

ADDITIONAL CEQA/NEPA NOTIFICATION FOR GROUND DISTURBING PRACTICES.

Any future ground practice to implement this plan using public entity reimbursement funds requires a signed CAL FIRE CFIP Environmental Checklist (CEQA) or an NRCS CPA-52 (NEPA) Checklist. Along with this checklist a process of "discovery" or survey for unknown values along with a discussion of possible mitigations is required. Additionally the checklist must be filled out by an RPF or Certified Planner. Archaeological values require an Archaeological Records Check, an entity Archaeologist review and Native American notification for the practice area.

A PROJECT NOTIFICATION MAY GO TO THE FOLLOWING AGENCIES

County Clerk, CA Department of Fish and Game, Regional Water Quality Control Board, US Fish and Wildlife Service, National Marine and Fishery Service. If the project adjoins public land, that agency may be noticed (for example, the US Forest Service, US Fish and Wildlife Service, BLM, public parks) or a State Highway, (CALTRANS), or in the Coastal Zone, (Coastal Commission).

FOR GROUND-DISTRUBING PROJECTS, AGENCIES MAY PROVIDE A PROJECT NOTIFICATION TO:

Native American Heritage Commission, Tribal contacts and the Local Historical Society.

ADDITIONAL PROFESSIONAL ASSISTANCE

CAL FIRE, Sky Londa Station: (650) 851-1860

Kings Mountain Association: kingsmountainonline.com

San Mateo Fire Safe Council: (415) 454-4212

Scott Bullock, Felton Cal Fire: (831) 335-6740

Jill Butler, Santa Rosa Cal Fire: (707) 576-2959

NRCS, Half Moon Bay: (650) 740-7271

San Mateo RCD, Half Moon Bay: (650) 712-7765

Appendix 1: Selected Standards and Specifications

None to date.

Appendix 2: Tax and Business Management

See Family Legacy discussion above in Management Plan Implementation.

- Timber harvest and other revenue generating activities generally produce a federal and state income tax liability. Tax credits may be available for some management activities.
- Good estate planning can help to lessen tax liability when passing land to heirs and that landowners should seek good planning and tax advice.
- Good record keeping can help landowners manage their assets; increase their revenues; and minimize their tax liability.

Appendix 3: Past Plans, Amendments, and Updates

PUBLIC AGENCY, PUBLIC AND PRIVATE UTILITY RIGHT OF WAY EXEMPTION

STATE OF CALIFORNIA
DEPARTMENT OF FORESTRY AND FIRE PROTECTION
NOTICE OF TIMBER OPERATIONS THAT ARE EXEMPT FROM
CONVERSION AND TIMBER HARVESTING PLAN REQUIREMENTS
RM-73 (1104.1b) (12/08)

FOR ADMIN. USE ONLY ☒ ES

Ex. # 1-12-EX-3085MO

Date Rec'd NOV 07 2012 NOV 27 2012

Date Expires NOV 26 2013

VALID FOR ONE YEAR FROM DATE OF RECEIPT BY CAL FIRE

The Director of the Department of Forestry and Fire Protection (CAL FIRE) is hereby notified of timber operations under the requirements of 14 CCR § 1104.1(b) or (c): Harvesting of trees in order to construct or maintain a right of way by a public agency, public or private utility that is exempt from the requirements to obtain a Timberland Conversion Permit or file a Timber Harvesting Plan. This notice is not required nor should it be submitted if timber is not sold, bartered or traded for commercial purposes by the timber owner. The timber owner shall complete items 1 through 5 of this notice and sign below.

1. TIMBER OWNER(S) OF RECORD: Name Martin Eberhard

Address 300 Allen Road

City Woodside, CA State CA Zip 94062 Phone 650-851-4972

TIMBER TAX EXEMPTION: Timber owners owe timber yield tax when they harvest trees unless the harvest is exempt (Revenue and Taxation Code sec. 38116). Some small or low value harvests may be exempt from timber yield tax: timber removed from an operation whose value does not exceed \$3,000 within a quarter, according to BOE Harvest Value schedules, Rule 1024. If you believe your harvest may qualify for this exemption, please complete items A, B, C, and D. For timber yield tax information or for further assistance with these questions call 1-800-400-7115, or write: Timber Tax Section, M/C: 60, State Board of Equalization, P.O. Box 942879, Sacramento, California 94279-0080; or contact the BOE Web Page on the Internet at <http://www.boe.ca.gov>.

A. Circle the option that most closely estimates the total volume for this harvest, in thousands of board feet (mbf - Net Scribner short log):

Under 8 mbf 8-15 mbf 16-25 mbf Over 25 mbf

B. Estimate what percentage of timber will be removed during this harvest:

Redwood 100%; Ponderosa/Sugar pine %; Douglas-fir %; Fir %;

Port-Orford Cedar %; Cedar (IC, WRC) %; Other conifer %; Other hardwood %.

C. Fuelwood over 150 cords? Yes No D. Christmas trees over 3,000 lineal feet? Yes No

2. TIMBERLAND OWNER(S) OF RECORD: Name Martin Eberhard

Address 300 Allen Road

City Woodside, CA State CA Zip 94062 Phone 650-851-4972

2. LICENSED TIMBER OPERATOR(S): Name Sean's Tree Service, Sean Hammes

Lic. No. A9212

Address 16658 Dutch Mine Road

City Jamestown State CA Zip 95327 Phone 209-768-9340

3. PUBLIC AGENCY, PUBLIC OR PRIVATE UTILITY REMOVING TREES:

Name Pacific Gas & Electric Contact Person Joe Stewart

Address 1455 E. Shaw Avenue

City Fresno State CA Zip 93710 Phone 559-263-5122

Page One. NOTE: This form has two pages. Continue on and complete page two. Read instructions on page two before attempting to complete

RECEIVED

NOV 27 2012

COAST AREA OFFICE
RESOURCE MANAGEMENT

RECEIVED

NOV 07 2012

COAST AREA OFFICE
RESOURCE MANAGEMENT

PUBLIC AGENCY, PUBLIC AND PRIVATE UTILITY RIGHT OF WAY EXEMPTION, Page Two

4. Designate the legal land description of the location of the timberland conversion and the timber operation. Attach a map showing the location of the timberland conversion and the timber operation. Map shall be a 7 1/2 minute quadrangle or equivalent. In addition, smaller scale maps designating the length of rights of way are acceptable. It is helpful to describe the access route to the timber operation so that it can be easily located, and/or include an assessor's parcel map for small areas.

Section(s)	Township	Range	Base & Meridian	County	Logging Area Acreage (Estimated)	Assessors Parcel # (Optional)
27	6S	4W	MDM	San Mateo	5	75-34-29

Public Resources Code (PRC) Section 4628 and California Code of Regulations (CCR) Title 14 Section 1104.1(b) exempt public agencies from the requirement to file an application for timberland conversion (TLC) or a timber harvesting plan (THP) when they construct or maintain rights of way on their own property or that of another public agency. This exemption extends to easements over lands owned in fee by private parties. This exemption is not available for rights of way granted from one private landowner to another.

If the harvested trees are sold, bartered or traded for commercial purposes a timber operation has occurred per PRC Section 4527, and a notice of exemption is required to be filed by the timber owner. This is true if the timber is owned by the public agency, sold or given by the agency to another party, or the timber is owned by a private landowner subject to a public agency easement. A licensed timber operator is required in order to remove the harvested trees from the property. If the harvested trees are not sold, bartered or traded for commercial purposes, a notice of exemption is not required. The timber owner is responsible to pay all yield taxes for timber harvested. Timber yield tax information can be obtained from the State Board of Equalization, P.O. Box 94979, Sacramento, California 94279-0001.

14 CCR § 1104.1(c) exempts public and private utilities from the TLC and the THP requirements for construction and maintenance of gas, water, sewer, oil, electric and communications rights of way. 14 CCR § 1104.1(d), (e), (f), and (g) contain specifications of allowable right of way widths and supplemental clearances. If the harvest is a timber operation per PRC § 4527, a notice of exemption is required to be filed by the timber owner. A licensed timber operator is required in order to remove the harvested trees from the property. If the harvested trees are not sold, bartered or traded for commercial purposes, a notice of exemption is not required. The timber owner is responsible to pay all yield taxes for timber harvested.

14 CCR § 1104.1 requires that all timber operations conducted according to exemptions granted under this section abide by all operating regulations pertaining to a timber harvesting plan. There are special requirements for timber operations conducted in Coastal Commission Special Treatment Areas, the Tahoe Regional Planning Agency area, and in counties with special rules adopted by the Board of Forestry and Fire Protection. These rules should be reviewed prior to submitting this notice to CAL FIRE.

The following suggestions may help ensure your compliance with the Forest Practice Rules.

1. Timber owners, timberland owners, and timber operators should obtain and review copies of the Forest Practice Rules pertaining to the Notice of Exemption. Copies may be obtained from BARCLAYS LAW PUBLISHERS, P.O. BOX 3066, SO. SAN FRANCISCO, CA. 94080, or from CAL FIRE, Forest Practice Section, P.O. BOX 944246, Sacramento, CA 94244-2460; or from CAL FIRE's Web Page on the Internet at <http://www.fire.ca.gov>.
2. Contact the CAL FIRE office listed below for questions regarding the use of this notice.

FILE THIS NOTICE WITH THE NEAREST CAL FIRE OFFICE BELOW FOR THE COUNTY IN WHICH THE OPERATION WILL OCCUR:

Alameda, Colusa, Contra Costa, Del Norte, Humboldt, Lake, Marin, Mendocino, Napa,
San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, western Trinity and Yolo Counties.

⇒
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Forest Practice Program Manager
CAL FIRE
135 Ridgway Avenue
Santa Rosa, CA 95401

RECEIVED

NOV 27 2012

COAST AREA OFFICE
RESOURCE MANAGEMENT

Butte, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Shasta,
Sierra, Siskiyou, Sutter, Tehama, eastern Trinity and Yuba Counties.

⇒
⇒

Forest Practice Program Manager
CAL FIRE
6105 Airport Road
Redding, CA 96002

RECEIVED

NOV 07 2012

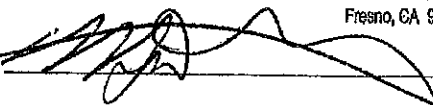
COAST AREA OFFICE
RESOURCE MANAGEMENT

Alpine, Amador, Calaveras, El Dorado, Fresno, Imperial, Inyo, Kern, Los Angeles,
Madera, Mariposa, Merced, Mono, Monterey, Orange, Riverside, San Benito, San Bernardino,
San Diego, San Luis Obispo, Santa Barbara, Stanislaus, Tuolumne, Tulare, and Ventura Counties.

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⇒

Forest Practice Program Manager
CAL FIRE
1234 East Shaw Avenue
Fresno, CA 93710

SIGNATURE OF THE TIMBER OWNER OR AGENT THEREOF:



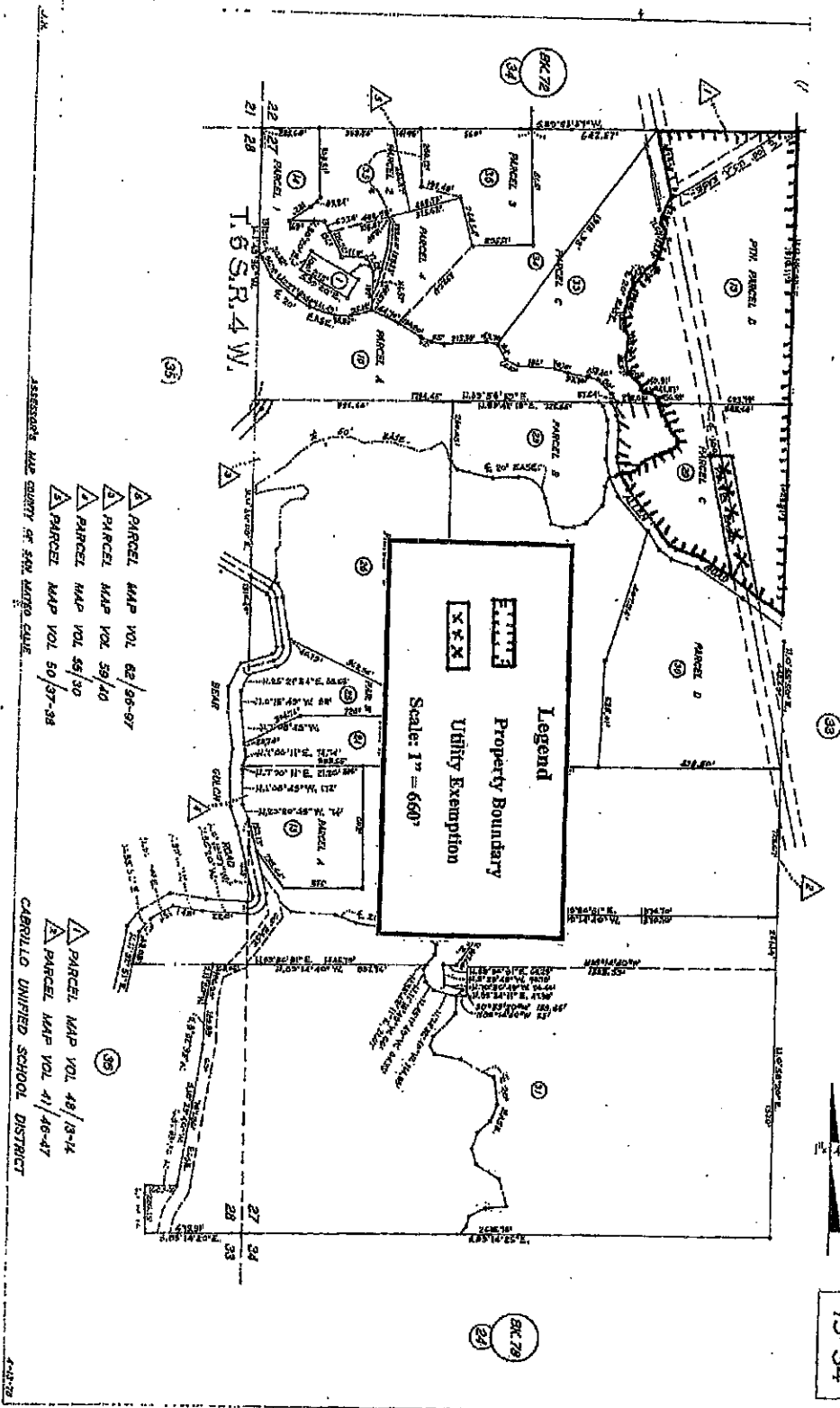
Printed Name: Martin Eberhard

Title: Timber Owner

Date: 11/07/12

Address: 300 Allen Road City: Woodside State: CA Zip: 94062 Phone: 650-851-4972

Eberhard Property
 Section 27, T6S, R4W
 APN: 75-34-29, 13
Woodside Quad



- △ PARCEL MAP VOL 62/96-97
- △ PARCEL MAP VOL 59/40
- △ PARCEL MAP VOL 55/30
- △ PARCEL MAP VOL 50/37-38

- △ PARCEL MAP VOL 48/18-14
- △ PARCEL MAP VOL 41/46-47

75-34

RECEIVED

NOV 27 2012

COAST AREA OFFICE
 RESOURCE MANAGEMENT



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

135 Ridgway Ave.
Santa Rosa, CA 95401
Website: www.fire.ca.gov
(707) 576-2959



Date: November 30, 2012

Ref.: 1-12EX-308-SMO

MARTIN EBERHARD
300 ALLEN RD
WOODSIDE, CA 94062

Dear Mr. EBERHARD:

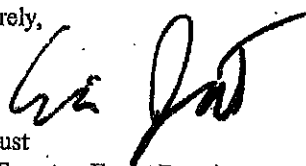
This is to acknowledge that your **Public Agency, Public & Private Utility Right of Way Exemption** was accepted on **November 27, 2012**. It has been assigned the above listed Exemption number. All timber operations must be complete within one year.

Compliance with all provisions of the Forest Practice Act, and rules pursuant to Section 1104.1(b or c) --Title 14 of the California Code of Regulations, will be determined by future inspection(s).

*****Please read enclosed information regarding Listed Anadromous Salmonids,
Sudden Oak Death and Pitch Canker*****

If you have any questions you may contact your local CAL FIRE Forest Practice Inspector, or me at (707) 576-2959.

Sincerely,



Eric Just
Staff Forester, Forest Practice
RPF #2913

cc: Unit
Fish & Game
Water Quality
County Planning
Board of Equalization
NMFS
LTO - *San's Tree Service*
PG&E
File

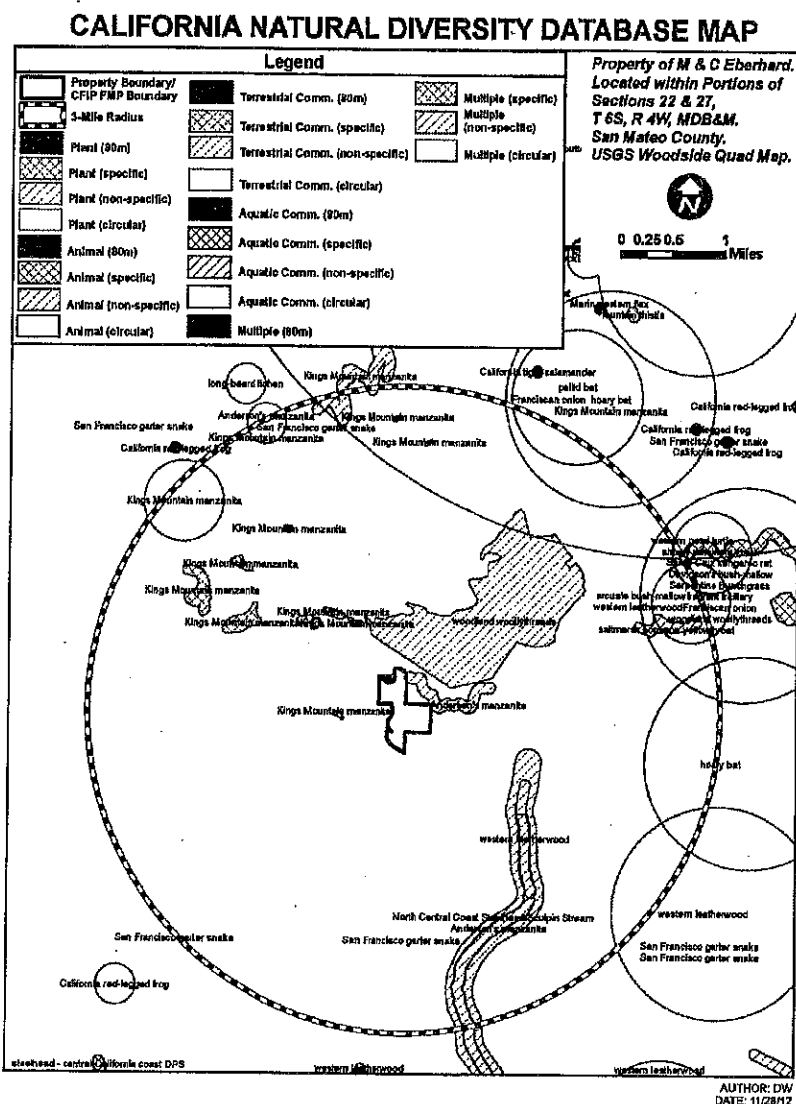
CONSERVATION IS WISE-KEEP CALIFORNIA GREEN AND GOLDEN

PLEASE REMEMBER TO CONSERVE ENERGY. FOR TIPS AND INFORMATION, VISIT "FLEX YOUR POWER" AT WWW.CA.GOV

Appendix 4: Supporting Data

There are no supplemental pages, reports, charts, graphs, growth models, etc. Future management interests and directives will determine the extent to which such supplements are necessary.

Appendix 5: Rare, Threatened, and Endangered Species



A tabular list of all plants and animals identified using the California Natural Diversity Database Rarefind 3 Version 3.1.1 is found below. This list was generated by querying all CNDDDB plants and animals located within the Woodside, La Honda, Palo Alto, and Mindego Hill quad maps, which cover the entirety of the required 3-mile radius search. The list of species identified within the four quad maps listed above was cross-referenced with the 3-mile radius depicted on the map above. The CNDDDB does not identify any occurrence of Threatened or Endangered species within the property boundary, but there are 3 such species within the 3-mile radius: San Francisco garter snake, showy *Ranunculus* clover, and the steelhead trout. All CNDDDB species located within the 3-mile radius were assigned a red asterisk (*) on the attached lists below. If any of the listed species below are found during the implementation phase of the project, work will cease immediately and the appropriate agency will be contacted to establish mitigation measures.

This information is not to be used as public information and will remain as part of this plan.

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Portrait

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 <i>Acanthomintha duttonii</i> San Mateo thorn-mint	PDLAM01040	Endangered	Endangered	G1	S1	1B.1
* 2 <i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	PMLIL021R1			G5T2	S2.2	1B.2
* 3 <i>Arctostaphylos andersonii</i> Anderson's manzanita	PDERI04030			G2	S27	1B.2
* 4 <i>Arctostaphylos rogersmontana</i> Kings Mountain manzanita	PDERI041C0			G2	S2.2	1B.2
5 <i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i> coastal marsh milk-vetch	PDFAB0F7B2			G2T2	S2.2	1B.2
6 <i>California macrophylla</i> round-leaved filaree	PDGER01070			G2	S2	1B.1
7 <i>Centromadia parryi</i> ssp. <i>congoloni</i> Congdon's tarplant	PDAST4R0P1			G4T2	S2	1B.2
8 <i>Chorizanthe cuspidata</i> var. <i>cuspidata</i> San Francisco Bay spheflower	PDPGN04081			G2T2	S2.2	1B.2
9 <i>Cirsium fontinale</i> var. <i>fontinale</i> fountain thistle	PDAST2E181	Endangered	Endangered	G2T2	S1	1B.1
10 <i>Cirsium praetoriense</i> lost thistle	PDAST2E2B0			GX	SX	1A
11 <i>Clarkia concinna</i> ssp. <i>automixa</i> Santa Clara red ribbons	PDONA050A1			G57T3	S3.3	4.3
12 <i>Collinsia multicolor</i> San Francisco collinsia	PDSCR0H0B0			G2	S2.2	1B.2
* 13 <i>Dirca occidentalis</i> western leatherwood	PDTHY03010			G2G3	S2S3	1B.2
14 <i>Eriogonum nudum</i> var. <i>decurrans</i> Ben Lomond buckwheat	PDPGN08492			G5T2	S2.1	1B.1
15 <i>Eriophyllum latifolium</i> San Mateo woolly sunflower	PDAST3N060	Endangered	Endangered	G1	S1	1B.1
16 <i>Eryngium arislatum</i> var. <i>hooveri</i> Hoover's button-celery	PDAP10Z043			G5T2	S2.1	1B.1
* 17 <i>Fritillaria liliacea</i> fragrant fritillary	PMJLDV0C0			G2	S2	1B.2
18 <i>Hesperolinon congestum</i> Marin western flax	PDLIN01060	Threatened	Threatened	G2	S2	1B.1
19 <i>Legenere limosa</i> legenere	PDCAM0C010			G2	S2.2	1B.1
20 <i>Lessingia arachnoides</i> Crystal Springs lessingia	PDAST5S0C0			G1	S1.2	1B.2
* 21 <i>Malacothamnus arcuatus</i> arcuate bush-mallow	PDMAL0Q0E0			G2Q	S2.2	1B.2
* 22 <i>Malacothamnus davidsonii</i> Davidson's bush-mallow	PDMAL0Q040			G1	S1.1	1B.2
23 <i>Malacothamnus hallii</i> Hall's bush-mallow	PDMAL0Q0F0			G2Q	S2	1B.2

Commercial Version -- Dated November 02, 2012 -- Biogeographic Data Branch
Report Printed on Wednesday, November 28, 2012

Page 1
Information Expires 05/02/2013

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Portrait

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
* 24 <i>Monolopia gracilis</i> woodland woollythreads	PDAST6G010			G2G3	S2S3	1B.2
25 <i>Pedicularis dudleyi</i> Dudley's lousewort	PDSCR1K0D0		Rare	G2	S2.2	1B.2
26 <i>Pentachaeta bellidiflora</i> white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	G1	S1	1B.1
27 <i>Piperia candida</i> white-flowered rein orchid	PMORC1X050			G3?	S2	1B.2
28 <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower	PDBOR0V061			G3T2Q	S2.2	1B.2
29 <i>Silene virecunda</i> ssp. <i>virecunda</i> San Francisco campion	PDCAR0U213			G5T2	S2.2	1B.2
30 <i>Stuckenia filiformis</i> slender-leaved pondweed	PMPOT03090			G5	S1S2	2.2
* 31 <i>Trifolium amoenum</i> showy rancheria clover	PDFAB40040	Endangered		G1	S1	1B.1
32 <i>Usnea longissima</i> long-beard lichen	NLLEC5P420			G4	S4.2	

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Portrait

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 <i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	SC
2 <i>Antrozous pallidus</i> pallid bat	AMACC10010			G5	S3	SC
3 <i>Asio otus</i> long-eared owl	ABNSB13010			G5	S3	SC
4 <i>Calicula minor</i> Edgewood blind harvestman	ILARA13020			G1	S1	
5 <i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened		G4T3	S2	SC
6 <i>Dipodomys venustus venustus</i> Santa Cruz kangaroo rat	AMAFD03042			G4T1	S1	
7 <i>Emys marmorata</i> western pond turtle	ARAAD02030			G3G4	S3	SC
8 <i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	IILEPK4055	Threatened		G5T1	S1	
* 9 <i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A			G5T2	S2	SC
10 <i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IIICOL5V010			G1G2	S1S2	
* 11 <i>Lasius cinereus</i> hoary bat	AMACC05030			G5	S4?	
12 <i>Laterallus jaliscoensis coturniculus</i> California black rail	ABNME03041		Threatened	G4T1	S1	
13 <i>Melospiza melodia pusillula</i> Alameda song sparrow	ABPBXA301S			G5T2?	S2?	SC
14 <i>Microcina edgewoodensis</i> Edgewood Park micro-blind harvestman	ILARA47010			G1	S1	
15 <i>Neotoma fuscipes annexens</i> San Francisco dusky-footed woodrat	AMAFF08082			G5T2T3	S2S3	SC
* 16 <i>Oncorhynchus mykiss irideus</i> steelhead - central California coast DPS	AFCHA0209G	Threatened		G5T2Q	S2	
17 <i>Rallus longirostris obsoletus</i> California clapper rail	ABNME05016	Endangered	Endangered	G5T1	S1	
18 <i>Rana boylei</i> foothill yellow-legged frog	AAABH01050			G3	S2S3	SC
19 <i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3	SC
20 <i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	
21 <i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	AMABA01071			G5T1	S1	SC
22 <i>Speyeria adalste adalste</i> unsilvered fritillary	IILEPJ6143			G1G2T1	S1	
23 <i>Sterna antillarum browni</i> California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2S3	

MAPS:

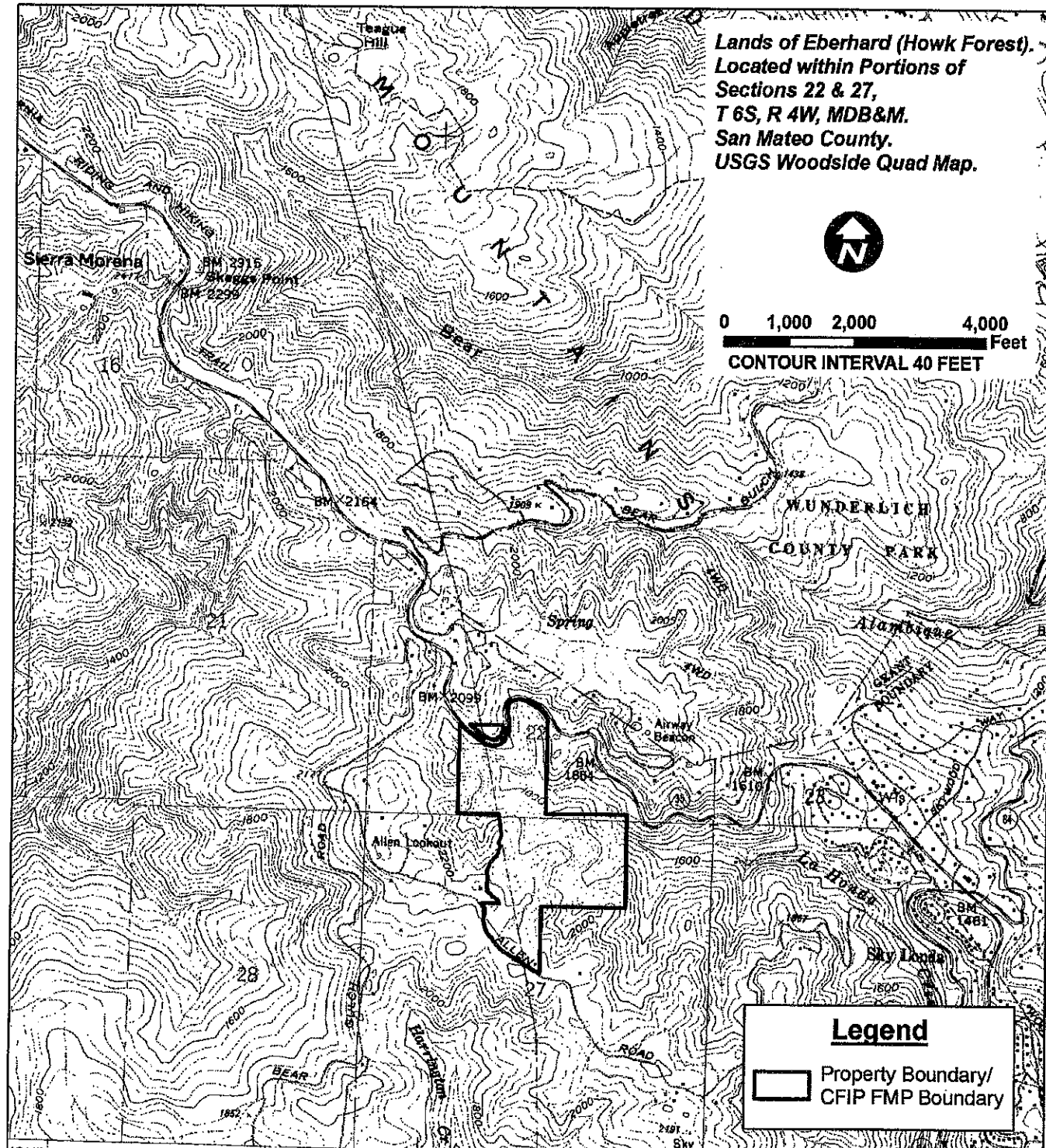
- Property Location Map
- Road Infrastructure Map
- Water Resources Map
- Parcel Map
- Soils Map
- Shaded Fuel Break Map (2012 CFIP MAP)

PROPERTY LOCATION MAP

Lands of Eberhard (Howk Forest).
Located within Portions of
Sections 22 & 27,
T 6S, R 4W, MDB&M.
San Mateo County.
USGS Woodside Quad Map.



0 1,000 2,000 4,000 Feet
CONTOUR INTERVAL 40 FEET



Legend

Property Boundary/
CFIP FMP Boundary

HONDA
IV SE
1:24,000

0 1000 4000 5000 6000 7000 FEET
0 1 KILOMETER

CONTOUR INTERVAL 40 FEET
ROAD CLASSIFICATION INTERVAL 20 FEET
VERTICAL DATUM OF 1929

INTERIOR-GEOLOGICAL SURVEY, R

ROAD CLASSIFICATION

Primary highway, hard surface Light-duty improved
Secondary highway, hard surface Unimproved
 Interstate Route U. S. Route

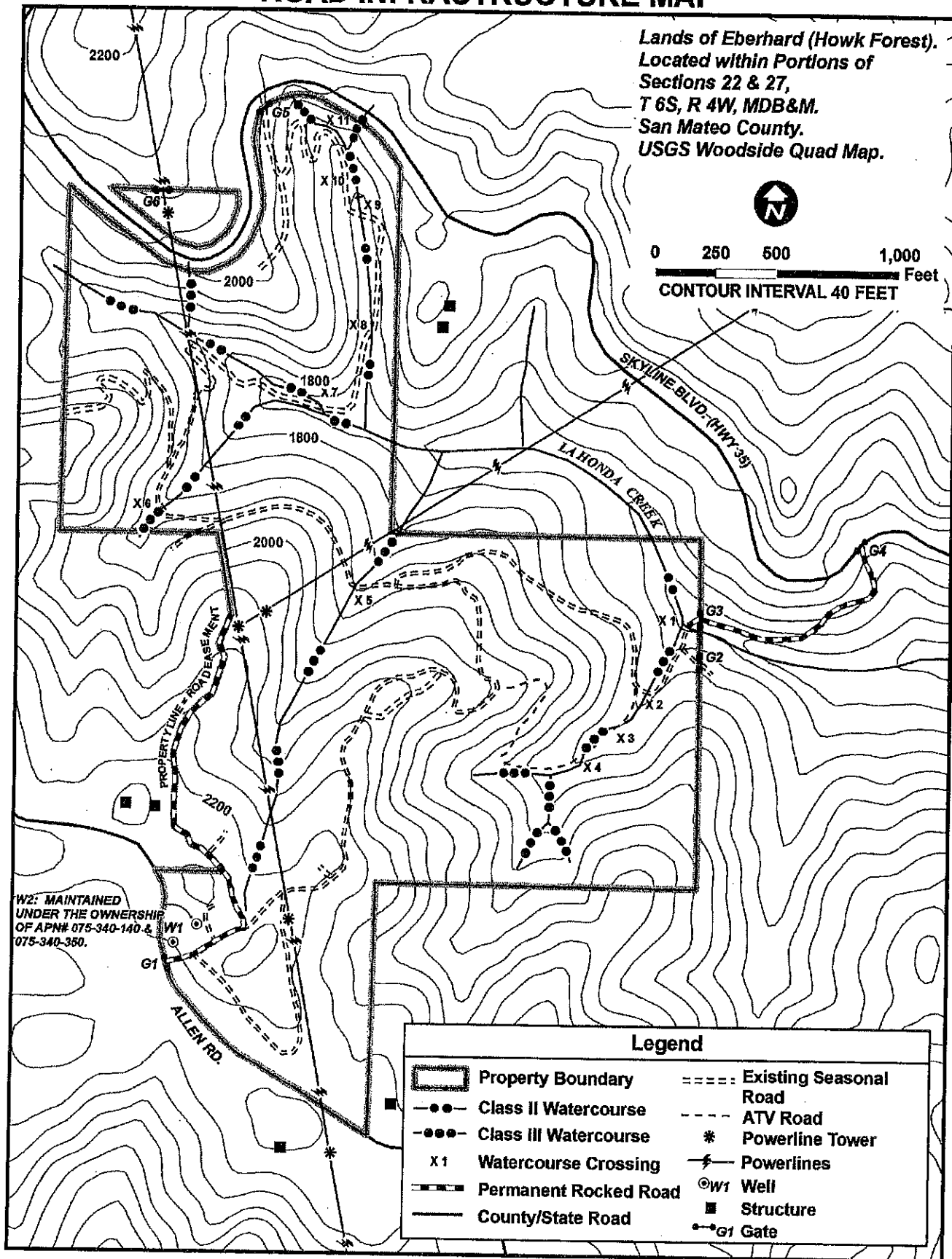
AUTHOR: DW
DATE: 2/11/13

ROAD INFRASTRUCTURE MAP

Lands of Eberhard (Howk Forest).
Located within Portions of
Sections 22 & 27,
T 6S, R 4W, MDB&M.
San Mateo County.
USGS Woodside Quad Map.



0 250 500 1,000 Feet
CONTOUR INTERVAL 40 FEET



Legend

- | | |
|-----------------------|------------------------|
| Property Boundary | Existing Seasonal Road |
| Class II Watercourse | ATV Road |
| Class III Watercourse | Powerline Tower |
| Watercourse Crossing | Powerlines |
| Permanent Rocked Road | Well |
| County/State Road | Structure |
| | Gate |

Author: DW
Date: 2/11/13

WATER RESOURCES MAP

Lands of Eberhard (Howk Forest).
Located within Portions of
Sections 22 & 27,
T 6S, R 4W, MDB&M.
San Mateo County.
USGS Woodside Quad Map.



0 250 500 1,000 Feet
CONTOUR INTERVAL 40 FEET

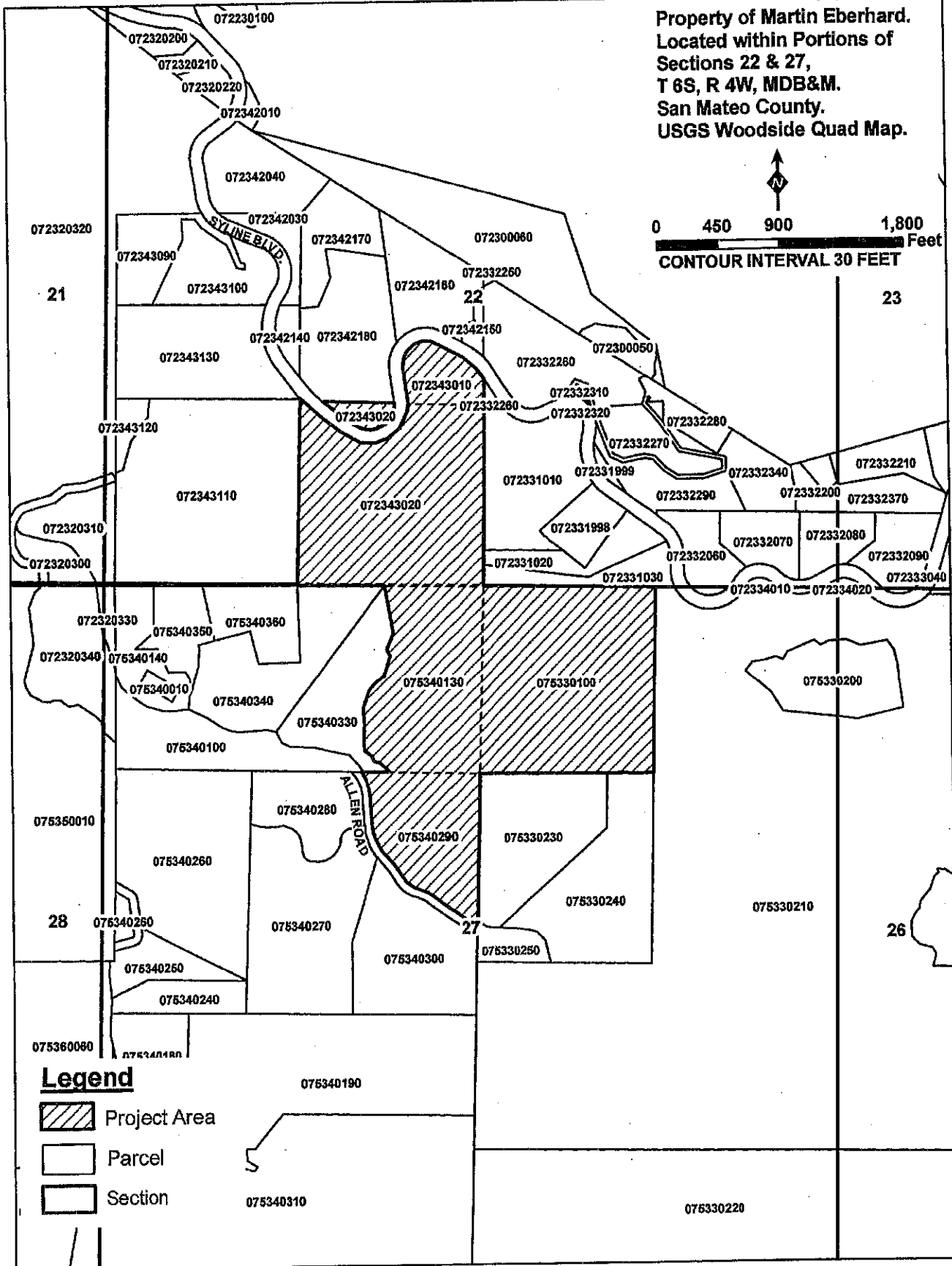
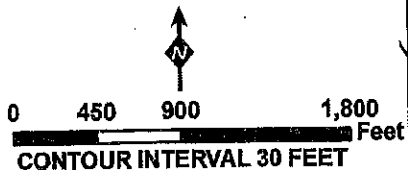
W2: MAINTAINED
UNDER THE OWNERSHIP
OF APN# 075-340-140 & W1
075-340-350.

Legend	
	Property Boundary
	Class II Watercourse
	Class III Watercourse
	Watercourse Crossing
	County/State Road
	Powerline Tower
	Powerlines
	W1 Well
	Structure
	G1 Gate

Author: DW
Date: 2/11/13

PARCEL MAP

Property of Martin Eberhard.
Located within Portions of
Sections 22 & 27,
T 6S, R 4W, MDB&M.
San Mateo County.
USGS Woodside Quad Map.



SOILS MAP

