

**HODGSON FAMILY
TRUST
FOREST
MANAGEMENT
PLAN**



**PROFESSIONAL
FORESTRY
SERVICES**
1715 Grand Court
Paradise, CA 95969
(530) 321-1401

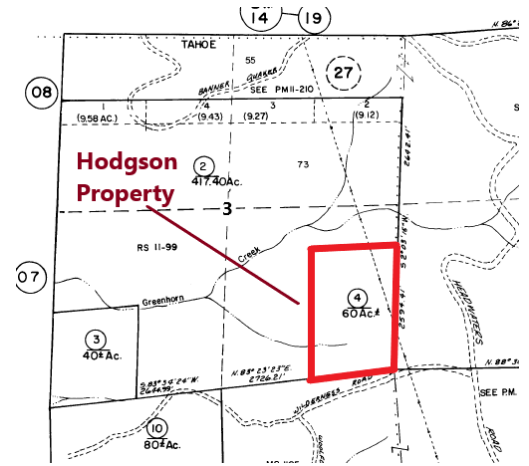


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PROPERTY SUBJECT TO ZONING INTO TPZ

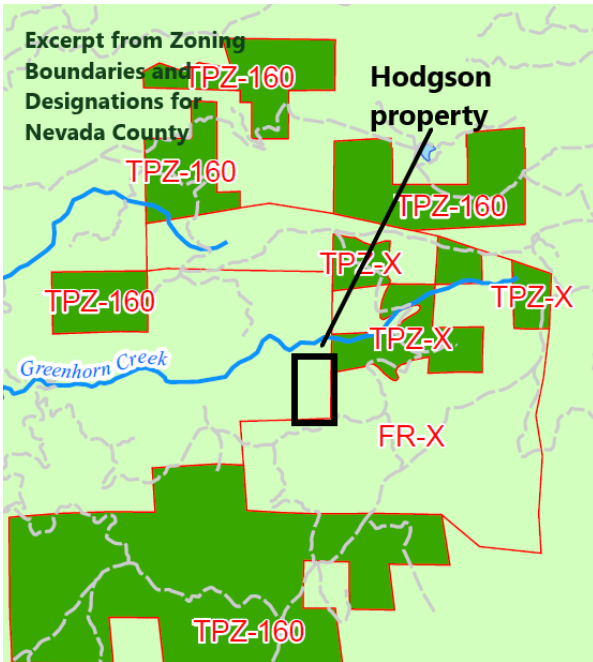
Ownership: Hodgson Family Trust
 12459 Slate Creek Road,
 Nevada city CA 95959
 530-205-9568

Parcel in Question: Nevada County - parcel number 065-090-004
 Parcel size: 60 acres
 Legal Description: SE ¼ of the SE ¼ of Section 3; T16N R10E, M.D.B.M.



CURRENT SITUATION

Purchased in November of 2023 by the Hodgson Family this 60-acre parcel is presently zoned FR-160. Danner Hodgson was raised in a “logging family” in the State of Washington as well as Burney, California. The intent of Mr. Hodgson is to manage this property for personal family use and as a future tree farm.



Nevada County Zoning Districts

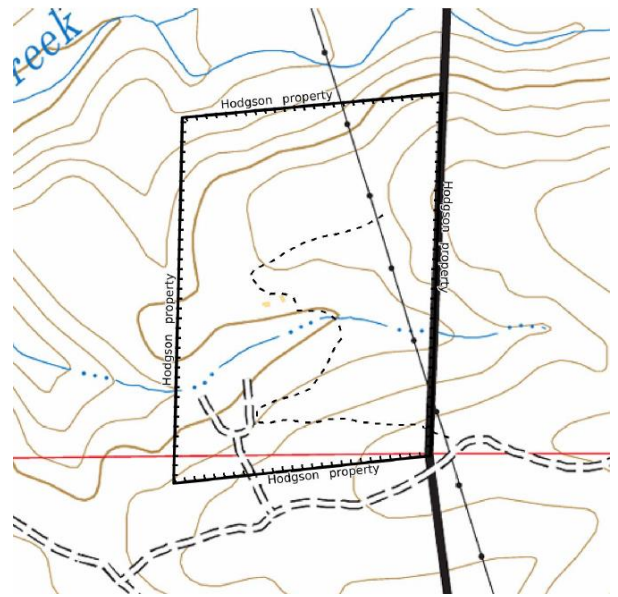
- | | |
|---|---|
| <ul style="list-style-type: none"> Agricultural Exclusive General Agricultural Business Park Neighborhood Commercial Community Commercial Highway Commercial Forest Grass Valley; Nevada City; Town of Truckee Interim Development Reserve Light Industrial | <ul style="list-style-type: none"> Office & Professional Open Space Public Single-Family Residential Medium Density Residential High Density Residential Residential Agricultural Recreation Timberland Production Zone |
|---|---|

Site Information		Property Details	Districts	Permits	Unrecorded Maps	Corner Records		
Site Address	Jurisdiction	Legal Description	Public Land Survey System					
N/A	NEVADA COUNTY	PTN SE 1/4 3-16-10	T16N-R10E-3					
Property Summary								
Assessor's Parcel Number	Acreage	Land Value	Improvement Value	Tax Rate Area				
065-090-004-000	60.00	personal	personal	068-007				
Property Context								
Zoning	Zoning District Map	General Plan	Census Tract	Census Block Group	Max Elevation	Ground Snow Load (lbs/sqft)	Climate Zone	Wind Exposure
FR-160	87	FOR-160	7.01	2	4,337	146	11	C

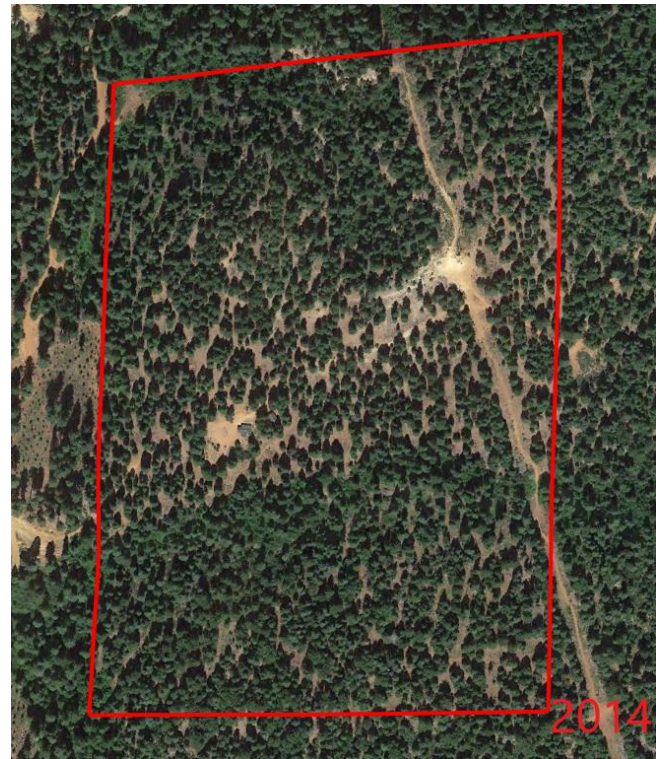
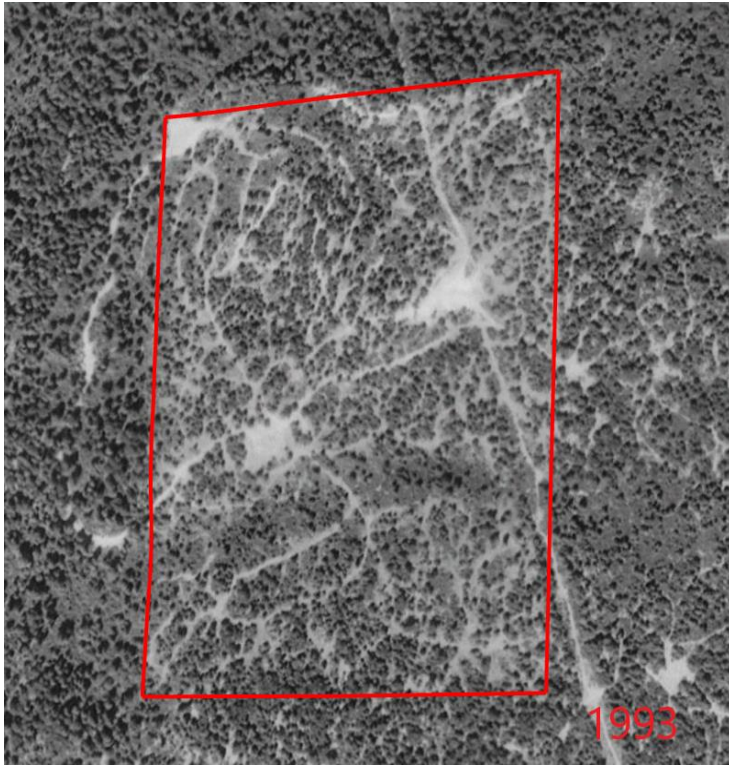
PAST TIMBER HARVESTING HISTORY

August 1993 Google Earth Historic Imagery (black and white) depicts 3-4 landing locations and numerous skid trails fanning out from the landings. It is difficult to determine what year the harvest was done. The Cal Fire website <https://forest-practice-calfire-forestry.hub.arcgis.com> was queried to verify if there were any timber harvest documents filed on the subject property which would be catalogued in the Cal Trees archives. There was no documentation of harvest for this parcel. I personally know who owned the property during the early 1990's and I believe there is a good chance a harvest may have been done from 1985 - 1992. My best guess (judging from existing old stumps on-site) is that some type of overstory removal was done at the time. There are very few residual older trees available for study on the property today.

The 1993 photo exhibited on the following page depicts a typical aerial view of a recent past timber operation for that year. Note the lighter area color for likely operational "landing" locations. The "vein" like light areas on the 1993 photo depict likely "skid trails" which were basically "arterial" trails to skid the logs from timber felled to the landing(s) for subsequent loading of logs on trucks. It is hard to determine the actual route for log removal from the property. I believe at that time all the land was under basically one ownership.



There is no documentation of any sanitation/salvage harvests, legal exemptions or conversions on this property in the last 30-35 years.



The harvest that was done in and around 1993 removed larger trees and provided better spacing of the residual intermediate trees left which did maximize overall growth.

As alluded to above evidence on the ground of past land use of timber harvesting can be seen in the range of ages of the tree stumps still visible on the property. The only improvements on the land were the establishment or promotion of a fair road system on-site.

It is anticipated that under continued Hodgens Trust land ownership, forest management and timber harvesting will continue to be a focus of the land use on the parcel.

PARCEL ACCESS

At this point access to the property is basically on an undeveloped (but existing) road named Wilderness Road. This road enters the parcel at the southeast portion of the property (utilizing a small portion of the powerline road) through a locked gate. The existing interior road system is adequate for any operations the Landowner may select for the property. For timber management the road system is very useful (with already existing landing areas). There is a 30" culvert already in place on the road system at the point of crossing the unnamed watercourses which is tributary to Greenhorn Creek. The culvert is (newer" and is fully functional. The associated ephemeral stream runs water during the spring because of rain and snow events of the immediate watershed

APPROPRIATE INVENTORY & SILVICULTURAL WORK

The forest stand of the Hodgson property in the upper reaches of Greenhorn Creek is a harvest-regenerated stand of Douglas-fir, White fir and Incense cedar with minor amounts of Ponderosa pine and Sugar pine. The stand is, nominally, 88 years old and before harvest has 174 ft² of basal area (including 2.8% of California black oak), 17.6 mbf/ac, and an incremental growth of 445 bf/ac/yr. The stand's specie percentages are found on page 5 of this report (pie chart).

At this point in time the prominent proposed silvicultural system is associated with uneven-aged timber management with an emphasis on single selection. This does not preclude the use of other prescriptions during the life of the property as needed. Without a crystal ball It is difficult to look very far into the future and determine what prescriptions will be needed to maintain the stand into a full state of proper regulation to meet maximum sustained production. Selection cutting", also known as 'selection system', or 'selection silviculture', manages the establishment, continued growth and final harvest of multiple age classes of trees within a stand. This type of silviculture is generally considered to be more difficult to implement and maintain than even-aged silviculture, due to the difficulty of managing multiple age classes in a shared space, but there are significant ecological benefits associated with it.

On-site there are some areas of pure hardwood stands but these areas are difficult to stratify, and soils of these areas



were indicative of conifer growth (most likely burned over many years ago - however conifer may be able to take over the site in the future succession if managed properly). Once California black oak matures, it requires decades without disturbance before successional replacement by understory conifers. However, as California black oak's crown grows upward, enough light eventually filters through to the forest floor to allow shade-tolerant conifers to establish. California black oak is a nurse tree in such situations, ameliorating soil temperature and moisture for conifer seedlings. California black oak cannot grow as tall as associated conifers, so conifers usually overtop California black oak in the absence of disturbance. Once California black oak is overtopped, conifers replace California black oaks of all size classes. In the absence of disturbance in the Sierra Nevada, California black oak is slowly replaced (40+ years) by understory Ponderosa pine and Douglas-fir at low elevations or by Ponderosa pine, Sugar pine, Incense-cedar, and White fir in mid-elevation mixed-conifer forests. Pure California black oak stands grow on low-productivity sites or sites with a history of multiple or severe past disturbances.

Uneven-aged forests generally exhibit higher levels of vertical structure (key for many species of birds and mammals), have higher levels of carbon sequestration, and produce a more constant flow of market and non-market forest resources than even-aged forests. This method of silviculture also protects forest soils from the adverse effects of many types of even-aged

silviculture, including nutrient loss, erosion and soil compaction and the rapid loss of organic material from a forested system. Selection silviculture is especially adept at regenerating tolerant species of trees (those able to function under conditions of low solar energy) but can also be modified to suit the regeneration and growth of intolerant and mid-tolerant species.

In single-tree selection, a landowner evaluates individual trees for harvest based on stand management needs and his/her land objectives. Seedlings develop where forest canopy openings and suitable seedbeds are provided. Single-tree selection is usually applied to forest types comprised of shade-tolerant species capable of regenerating and growing in the shade of overstory trees. Because of the small opening sizes, many people like the aesthetic qualities of single-tree selection, and to the untrained eye it can be difficult to know that harvesting has been done. Single-tree selection can provide continuous forest cover that may be of benefit to certain wildlife species. It also reduces temperatures and provides shade that can help limit invasive plant establishment and survival.

The proposed silviculture system also allows for sustained yield of high-quality timber while meeting the secondary management objectives indicated above. Areas harvested under the selection harvest method shall have a minimum of 75 square feet of basal area as indicated for Site II/III lands upon completion of harvest. During all proposed harvest activity, the proportion of Group A species will be maintained or increased.

Under all silviculture systems developed for this property (when using a California Licensed Forester) MSP (multiple sustained yield production) will generally always be met as indicated under Section 933.11(c)(2&3) of the California Forest Practice Rules. The areas harvested under a silviculture's selected in the future shall, along with meeting basal area requirements, meet the retention requirements of the seed tree method as specified in Section 933.1(c)(1)(A). The seed tree method stipulates the retention of at least 15 ft² of basal area per acre on Site II/III lands in trees 18 inches DBH or greater.

An inventory cruise was implemented on the property for the purposes of a standing timber assessment and use as a basis for a timber management plan in relation to future timber production. Random unbiased plots were identified in a GIS across the area, resulting in 20 inventory plots utilized for this analysis. The statistics were solid for this cruise as all trees (conifers and hardwoods) greater than or equal to 11" DBH were inventoried in a variable radius plot with a BAF of 20. For all trees, species, DBH, and defect by 16-foot log (conifers on BAF plot only) were recorded; on every other plot, height to a merchantable top of 7.6" minimum was recorded for all trees and suitable site trees were identified and recorded for all of the above information including total age at breast height.

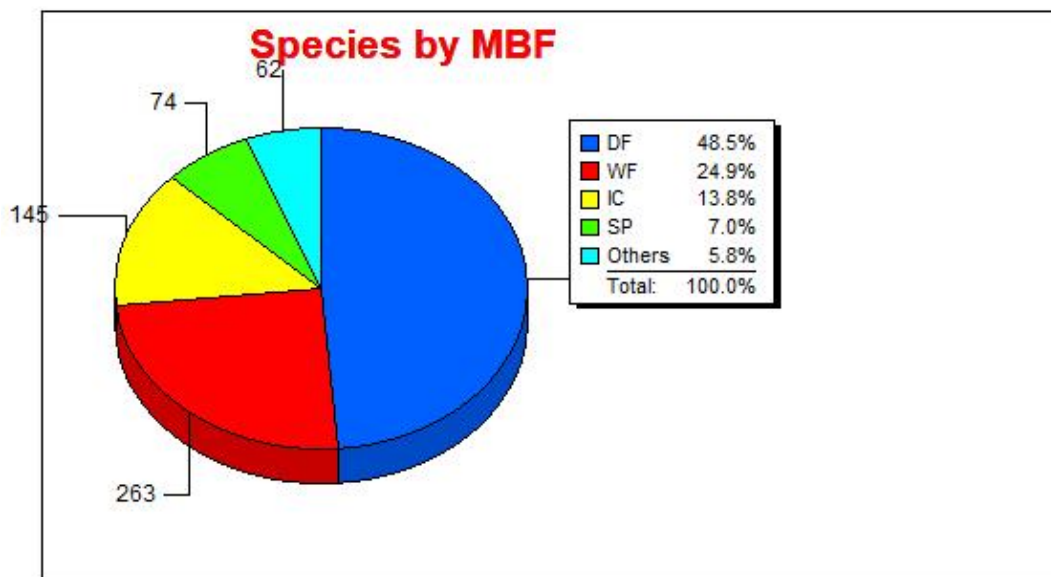
Prior to implementation of the inventory cruise, the project area had been evaluated for stratification. The entire stand was best represented as one unit. After assessing the stand conditions in the field and reviewing the species composition and average basal areas present on site the justification of the type of cruise performed for the overall inventory did not reduce statistical confidence to an unacceptable level.

On the ground inspection and inspection of aerial imagery from 1993 revealed that the harvest in this area may have been implemented more like a shelterwood removal step treatment, with an adequate proportion of seed trees left in addition to areas of aggregated retention. Thus, it is the opinion of the RPF that the stand inventory would be intensive enough to capture any variability to an acceptable level for the purpose of this assessment.

Cruise data was formatted and inputted into SuperAce (see page 6) for the western Sierra common conifer species including sugar pine (SP), Douglas-fir (DF), white fir (WF), incense-cedar (IC), and ponderosa pine (PP). Volumes were compiled in merchantable stem board feet (Scriber Decimal C) defined as a 1-foot stump to a 8" top. As mentioned above, visible defects were assessed in the field during the inventory cruise and deducted by SuperAce. Additionally, estimated scaling cull was removed from all volume totals in this assessment according to the average scaling cull by species group and diameter class as published in the USFS Timber Cruise Reference Guide (FSH 2409.12) for Region 5 (USDA, 2016).

INVENTORY

Species Summary - Logs and Volumes						
TC PSPCLOGV Danner Hodgson		Project HODGSON Acres 60.00		Page No 1 Date: 8/21/2024 Time 9:22:41AM		
T16N R10E S03 TyCAT 60.0						
Species	\$ T	Total Number Logs	Total Gross Cunits	Total Net Cunits	Total Gross MBF	Total Net MBF
DOUG FIR		6,504	1,173	1,173	539	512
CON FIR		4,086	641	641	280	263
INC CED		2,815	445	445	156	145
SUG PINE		760	158	158	76	74
PONDEROS		709	95	95	39	38
CABLK O		319	69	69	27	24
Totals		15,193	2,580	2,580	1,116	1,055
Average Per Acre =		253.21	43.00	43.00	18.608	17.590
Average Log Size =			17	17	73	69



Timber cruising is the process of measuring forest stands to determine stand characteristics, such as average tree sizes, volume, and quality. The primary purpose of cruising is to obtain volume estimations to appraise and prepare timber management information. Forests are generally too large and have too many trees for a 100% inventory of every tree. Limited time and money for cruising usually dictates that the population be sampled. Samples are collected that hopefully will represent the entire population. Sampling must be done in a way that the answers are still reliable. Reliability comes only when the stratification is done properly, the acres are calculated correctly, the right sampling method is used, the trees are measured or estimated correctly, and data are properly extended to useful information.

A timber cruise was done for the property. The entire Hodgson tract is a mixed conifer site and was cruised as one management unit, thus allowing for better statistics and a truer representation of the total mix of the stand. A total of 20 sample plots were established throughout the project area. A basal area factor of 20 was used on all conifers 9.5" dbh or greater.

SUPERACE

I use SuperAce for all my timber cruises. It has flexibility in building log stock tables according to what existing market conditions. This gives me the opportunity to gain knowledge of what the actual log scale for each harvestable tree will be based on today's market. SuperACE calculates and reports a "Statistical Summary" for each timber type. Variation and Standard Error are calculated for basal area, net cubic feet per acre, and net board feet per acre. The confidence limits are printed for each parameter for a given standard deviation. Usually foresters use one standard deviation, or that the average will fall in the confidence limits 67% of the time. The statistics of this cruise point to excellent stats for the inventory done (see right).

The principal tree species found on the parcel are Douglas-fir, White fir and Incense cedar with minor amounts of Ponderosa pine and Sugar pine (smaller amount of California black oak).

With a net of 17,590 board feet per acre the property has great potential as a representative of lands best suited for timber production zone designation.

TC PSTATS			PROJECT STATISTICS							DATE		
Danner Hodgson			PROJECT HODGSON							8/21/2024		
TWP	RGE	SC	TRACT	TYPE	ACRES			PLOTS	TREES	CuFt	BdFt	
16N	10E	03	HODGSON	CAT	60.00			20	174	S	C	
CL	68.1	COEFF				TREES/ACRE			# OF PLOTS REQ.	INF. POP.		
SD:	1.0	VAR.%	SE.%				LOW	AVG	HIGH	5	10	15
DOUG FIR	72.5	16.6		28	34	39						
CON FIR	135.0	31.0		17	24	32						
INC CED	149.0	34.2		13	20	27						
SUG PINE	151.7	34.8		2	4	5						
PONDEROS	239.9	55.0		3	7	11						
CA BLK O	185.5	42.5		2	3	4						
TOTAL	44.4	10.2		82	91	101	83	21	9			
CL	68.1	COEFF				BASAL AREA/ACRE			# OF PLOTS REQ.	INF. POP.		
SD:	1.0	VAR.%	SE.%				LOW	AVG	HIGH	5	10	15
DOUG FIR	66.4	15.2		58	68	78						
CON FIR	133.7	30.7		29	42	55						
INC CED	135.7	31.1		27	39	51						
SUG PINE	150.1	34.4		7	11	15						
PONDEROS	221.9	50.9		4	9	14						
CA BLK O	177.7	40.7		3	5	7						
TOTAL	43.7	10.0		157	174	191	80	20	9			
CL	68.1	COEFF				NET BF/ACRE			# OF PLOTS REQ.	INF. POP.		
SD:	1.0	VAR.%	SE.%				LOW	AVG	HIGH	5	10	15
DOUG FIR	67.8	15.5		7,203	8,529	9,855						
CON FIR	135.5	31.1		3,024	4,386	5,748						
INC CED	130.3	29.9		1,700	2,424	3,148						
SUG PINE	155.8	35.7		788	1,226	1,663						
PONDEROS	210.4	48.2		327	632	937						
CA BLK O	178.1	40.8		233	393	554						
TOTAL	48.9	11.2		15,617	17,590	19,564	101	25	11			

FIRE PROTECTION PLAN AND FUELS MANAGEMENT

Cumulative increase in wildfire risk and hazard can occur when the effects of two or more activities from one or more projects combine to produce a significant increase in forest fuel loading in the vicinity of residential dwellings and communities. The following elements have been considered in the assessment of impacts in relation to fire protection and fuels management:

According to CALVEG Mapping Zones the project area is found in a DOUGLAS-FIR-PINE ALLIANCE (DP). Douglas-Fir (*Pseudotsuga menziesii*) and Ponderosa Pine (*Pinus ponderosa*) are often found growing together below about 6400 ft (1952 m) elevation in this zone. The alliance of these two co-dominants has been mapped abundantly and very widely in five subsections and occasionally in nine more. At elevations as low as 900 ft (275 m) or less, this alliance is isolated to moist, shady north aspects and to riparian positions. In these riparian areas, these stands may be associated with hardwoods such as Willows (*Salix* spp.), Bigleaf Maple (*Acer macrophyllum*) and White Alder (*Alnus rhombifolia*). On south, east, and west facing aspects at low elevations, tree associates are more likely to be Gray Pine (*P. sabiniana*), Black Oak (*Quercus kelloggii*), Tanoak (*Lithocarpus densiflorus*), Canyon Live Oak (*Q. chrysolepis*) and Interior Live Oak (*Q. wislizenii*). On higher-elevation north aspects, a transition from this Alliance to the Mixed Conifer - Pine Alliance is evidenced by additional traces of Sugar Pine (*Pinus lambertiana*) and White Fir (*Abies concolor*). The shrub type most associated with it is the Lower Montane Mixed Chaparral Alliance containing mixtures of species such as Wedgeleaf Ceanothus (*Ceanothuscuneatus*), Whiteleaf Manzanita (*Arctostaphylos viscida*) and Poison Oak (*Toxicodendron diversilobum*).

During any future scheduled harvest, the proposed plans could easily utilize a variety of silviculture prescriptions tailored to each pocket of timber found on-site and the intention would be to create a more balanced stand of the healthiest and best example phenotypical trees from the preharvest stand(s). Sawlogs could be removed from the site and resulting vegetative material such as slash would be treated as per the California Forest Practice Rules and possibly as part of a California Forest Improvement Program. These actions would effectively reduce any additional hazardous fuels, providing a general horizontal and vertical continuity of fuels, which could reasonably be expected to reduce potential fire behavior in the event of wildfire. Further, the anticipated outcome of

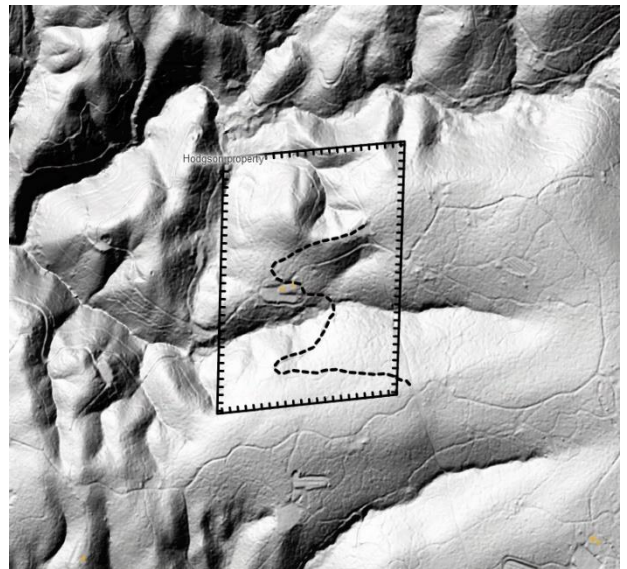
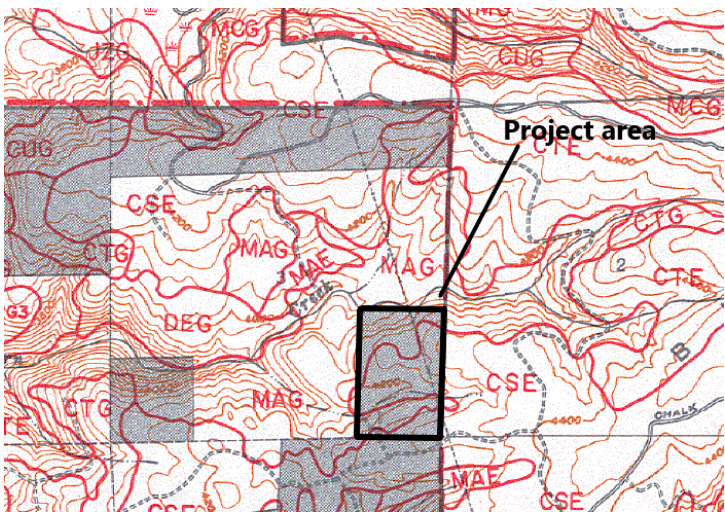


any proposed harvest could be consistent with "Defense Zone" treatments and could reasonably be expected to positively modify fire behavior such that the proposed project would not contribute to a significant increase in forest fuel loading.

Times have changed - but settlers in the mid 1800's knew what they had to do to try to keep the forest thinned for proper fire prevention. It is only when the weather moderates and appropriate fire control resources are directed at a wildland fire that it acts predictably and can be potentially controlled. This Management Plan does recommend the current road system be maintained to a standard so there is proper available access to fire-fighting personnel should a wildland fire threaten the area.

SOILS & TOPOGRAPHY

The Hodgson Trust area contains slopes ranging from 0-40% and has elevations ranging from 4,095' in the NW corner of the property to 4,340 feet in the SE corner (all above sea level). Aspect is southwest facing. Site productivity is a combination of Site Class 2 & Site Class 3. Soils within the project area are defined in the following:



LIDAR DEPICTION OF PROPERTY

CSE Crozier-Cohasset complex, 2 to 30 percent slopes

Elevation: 2,000 to 5,500 feet Annual Precipitation: 55 to 70 inches

Typical Vegetation	Mixed conifer series	
Soil Map Unit Components	Crozier	Cohasset
Proportion (percent)	60	25

Soil Profile Description

Surface Layer	0 to 15 inches; brown loam; moderate granular structure; slightly acid.	0 to 12 inches; brown loam; moderate granular structure; slightly acid.
Subsoil	15 to 38 inches; yellowish red gravelly clay loam; weak subangular blocky structure; medium acid.	12 to 61 inches; yellowish red clay loam; weak angular blocky structure; slightly acid.
Substratum	38 inches; weathered andesitic tuff breccia.	61 inches; andesitic conglomerate.

Soil Properties & Management Interpretations

Effective Rooting Depth (inches)	20 to 40	40 to 80
Available Water Capacity Class	Low to moderate	Moderate to high
AWC for top 20"	2.6-3.4	2.6-3.4
Permeability: Subsoil Substratum	Moderately slow Moderately slow	Moderately slow Slow
Drainage Class	Well drained	Well drained

MAG Mariposa-Jocal complex, 30 to 75 percent slopes

Elevation: 2,500 to 4,500 feet Annual Precipitation: 50 to 65 inches

Typical Vegetation	Hardwoods-Mixed conifer series; Mixed conifer-Black oak series.	
Soil Map Unit Components	Mariposa	Jocal
Proportion (percent)	55	30

Soil Profile Description

Surface Layer	0 to 6 inches; dark brown gravelly loam; strong granular structure; neutral.	0 to 18 inches; reddish brown loam; weak granular structure; slightly acid.
Subsoil	6 to 33 inches; yellowish red gravelly clay loam; massive; strongly acid.	18 to 70 inches; reddish yellow silty clay loam; moderate angular blocky structure; strongly acid.
Substratum	33 inches; hard and semi-hard metasediments.	70 inches; weathered slate and shale.

Soil Properties & Management Interpretations

Effective Rooting Depth (inches)	15 to 33	40 to 70
Available Water Capacity Class	Low	Low to high
AWC for top 20"	2.2-2.8	2.4-3.1
Permeability: Subsoil Substratum	Moderate Moderately slow	Moderately slow Moderately slow
Drainage Class	Well drained	Well drained

HODGSON TRUST FOREST MANAGEMENT PLAN

Estimated Surface Soil Erosion Hazard
Per RM-87 (4/87) State of California, Board of Forestry

							Factor Rating by Area				
L.		Soil Factors					CSE	MAG			
A.	Soil Texture	Fine	Medium	Coarse							
	Detachability	Low	Moderate	High							
1.	Rating	(1-9)	(10-18)	(19-30)							
					17	17					
2.	Permeability	Slow	Moderate	Rapid							
	Rating	(5-4)	(3-2)	(1)	2	2					
B.	Depth to Restrictive Layer or Bedrock										
	Depth	Shallow 1"-19"	Moderate 20"-39"	Deep 40"-60" (+)							
	Rating	(15-9)	(8-4)	(3-1)	1	1					
C.	Percent Surface Course Fragments Greater Than 2 mm in Size Including Rocks or Stones										
	Percent	Low (-)10-39%	Moderate 40-70%	High 71-100%							
	Rating	(10-6)	(5-3)	(2-1)	5	5					
Subtotal							25	25			
II.	Slope Factor										
	Slope	5-15%	16-30%	31-40%	41-50%	51-70%	71-80% (+)				
	Rating	(1-3)	(4-6)	(7-10)	(11-15)	(16-25)	(26-35)	4	8		
III.	Protective Vegetative Cover Remaining After Disturbance										
	Percent	Low 0-40%	Moderate 41-80%	High 81-100%							
	Rating	(15-8)	(7-4)	(3-1)	1	1					
IV.	Two-Year, One-Hour Rainfall Intensity (Hundredths Inch)*										
	Two-Year, One-Hour Rainfall Intensity (Hundredths Inch)	Low (-) 30-39	Moderate 40-59	High 60-69	Extreme 70-80 (+)						
	Rating	(1-3)	(4-7)	(8-11)	(12-15)	12	12				
Total Sum of Factors							41	46	0	0	
Erosion Hazard Rating											
		<50 Low (L)	50-65 Moderate (M)	66-75 High (H)	>75 Extreme (E)						
The determination is						L	L				

*Based on CA FPR TRA Appendix 1

EROSION CONTROL ON CURRENT ROAD SYSTEM

As the primary land use of the property will be forest management and timber harvesting, the rules and regulations of the State Board of Forestry and Fire Protection govern at a minimum must be done before, during and after any timber harvesting on the private forested lands within California. Immediately after any timber harvesting, waterbars must be installed on any logging skid trail at specific minimum distances, based on type of soil, slope %, amount of rock in soil, vegetation cover and potential rainfall intensity.

For existing seasonal private roads on the property, a combination of out sloped road surface and rolling dips can be used at appropriate intervals to control potential erosion off the roads. All roads were driven during the field inspection for this Management Plan and are in excellent shape with no visible rutting observed on any road surface. The only observed "problem" with the existing roads was that adjacent brush plants were starting to grow into some of the air space of road surface edges – but nothing that is not manageable.

The Landowners plan to treat roads eventually as a long-term goal. It has been recommended they widen back out the road widths to their original distances with no overhanging brush. The adjacent road brush is not a problem for erosion control, as it allows runoff from road surfaces to hit it and sink slowly into the ground, as opposed to concentrating runoff into a few channels.

COMMERCIAL TIMBERLAND AND SITE QUALITY

Based on soil mapping of the area by Tahoe National Forest, physical inspection of the entire project area, and review of past and current THPs covering the immediate vicinity, all areas of the parcel qualify as commercial timberland with a site quality measured and rated as Site Class II/III. The concept of "site" refers to an area considered in terms of its environment, particularly as it determines the type and quality of vegetation that an area can support. Soil nutrients, solar exposure, temperature regimes, and water availability are all variables that contribute to the overall "site" quality of an area. Regarding forestry, a site is measured to identify the potential productivity of forest stands, both in the present and in the future. Site quality is also used to provide a frame of reference for determining appropriate land management prescriptions and treatments. Site quality is known to significantly affect tree height, so measuring tree height in relation to tree age has been found to be the most practical and consistent indicator of site quality. Established mathematical formulas are used to correlate tree height at a given age to a "Site Class" determination ranging from Site Class I to Site Class V. Site class I is the highest quality/most productive site, and Site class V represents lands of the lowest quality. The designated forestland sites are normal and widespread site classifications throughout the Sierra Nevada. The left map found on page 10 has been included for reference of soil types present within the subject area with soil descriptions found on page 11.

SUMMARY AND RECOMMENDATIONS

As described in this report, site conditions of the property support the goals and objectives of Timber Production Zoning. Forest management infrastructure has been developed to support at least 80 years of land management (see insert map on page 14), including access roads and structures. To date, forest management infrastructure remains in place and viable as evidenced by data support from the timber cruise. Forest management and timber harvest can continue without any other significant infrastructure improvements or construction.

Maintaining the existing road system is significant to the overall management of the parcel. Necessary maintenance activities include maintaining effective surface drainage on the roads, such as critical dips, the slope of the surface of the road, and keeping any inside ditches and drainage structures cleared. A stable and passable road system is integral to supporting fire suppression efforts, should they be needed in the event of wildfire. This continued maintenance is also of utmost importance for reducing potential erosion of the roadways over time.

The parcel is bordered by parcels owned by SPI as well as other private landowners which provide for legal access into the subject area. The rezone of the property into TPZ will not affect legal access to the parcel, nor is forest management prevented by lack of access.

Continued efforts to control damage from insect and pathogen is recommended. Previous sanitation/salvage harvests may become necessary to keep potential insect and disease infestation levels to the feasible minimum and enhance overall stand health. Continued efforts to remove suppressed and infected trees from the timberlands is recommended to protect current and future forest health.

To ensure continued timber production, brush should be treated as feasible with current and future forest management activities, when necessary. Reducing brush where it presents a threat to conifer regeneration will provide for continued timber production. Further, continued periodic thinning will redistribute tree growth onto fewer stems per acre, providing for hastened average tree growth. Larger tree canopies will eventually provide shade, the most effective, long-term tool for controlling brush.

Regarding land use for timber sales of high-quality forest products there is a strong inclination that the Landowner's trust can use their own portable sawmill on-site. By milling their own lumber, they will be able to significantly reduce or even eliminate the expense of purchasing lumber from suppliers (prices for lumber have skyrocketed since 2019). The trust (with all proper permits in place) will have the ability to sell boards, which can provide a positive return on investment in the land.

Their portable sawmill will allow them to process logs according to their needs as well as neighbors and friends. Not only can they cut boards to whatever thickness and width they need (within a mill's capacity), but they also can plan cuts around a board's grain pattern. Being able to move their sawmill (this is why it is referred to as "portable") also lets them mill logs on this property or at other locations. Their portable sawmill will allow them to use locally sourced wood, often from their own land. Processing trees that already fell or must be cut for safety reasons is more environmentally friendly than harvesting trees commercially and this will be a target for material in the future. There's also a carbon emissions reduction since logs don't need to be transported far (if at all). They shall have complete control over the way their logs are cut.

