STATE OF CALIFORNIA - THE RESOURCES AGENCY GRAY DAVIS, *Governor*

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
6105 Airport Road
Redding, CA 96002
(530) 224-2445

February 28, 2002

Non-Industrial Timber Management Plan
No. 2-01NTMP-4 LAS(2)

JAMES NAGEL
P O BOX 243
SUSANVILLE, CA 96130

Enclosed is a true copy of your Non-Industrial Timber Management Plan identified by date and file number shown above. The Director of Forestry finds that the plan conforms with the rules and regulations of the Board of Forestry pursuant to the provisions of the Z'Berg-Nejedly Forest Practice Act of 1973. Conformance is indicated by the facsimile signature of his duly constituted representative being shown on the attached copy of the plan.

You may begin the timber operations proposed on the plan when a Notice of Timber Operations has been submitted as prescribed in 14 CCR 1090.7. Operations must be conducted according to the conditions specified in your NTMP, and subject to the Forest Practice Act, Forest Practice Rules of the Forest District in which the operations will take place, related Board of Forestry regulations and other applicable laws, regulations and ordinances.

The Forest Practice Act requires the filing of the two reports listed below for each Notice of Timber Operations filed:

1. Timber Operations Work Completion Report – within one month after completion of work described in the Notice of Timber Operations, excluding work for stocking, a report shall be filed by the timber owner or his agent with the Director that all work, except stocking, has been completed.

2. Report of Stocking - within five (5) years after completion of timber operations covered by a Notice of Timber Operations, a report of stocking shall be filed by the timber owner or his agent with the Director.

In future correspondence, please refer to the number in the box in the upper right corner of the plan.

Very truly yours,

Shane Cunningham

Shane P Cunningham
Division Chief, Forest Practice
RPF #2599

cc: Unit Chief
FGI
WQVI Phillip Nemir
Frederick & Barbara Nagel James F & Gladys A Nagel Revocable Family Trust

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

PART OF PLAN

N-2 01- 004-2-LAS

FREDERIC & BARBARA NAGEL REVOCABLE FAMILY TRUST PROPERTY
JAMES F. & GLADYS A. NAGEL PROPERTY

Lassen County, California

NONINDUSTRIAL TIMBER MANAGEMENT PLAN

September 21, 2001

prepared for

Frederic & Barbara Nagel Revocable Family Trust
James F. & Gladys A. Nagel

by

Philip E. Nemir
Forestry & Appraisal Services
Susanville, California

Philip E. Nemir

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FOR ADMIN. USE ONLY
Amendments-date & S or M
1. LMU 7. _____
2. FGI 8. _____
3. WOVI 9. _____
4. N/A 10. _____
5. SHEEHY 11. _____
6. _____ 12. _____

N - 2

NONINDUSTRIAL TIMBER MGMT PLAN
STATE OF CALIFORNIA
DEPARTMENT OF FORESTRY
AND FIRE PROTECTION
RM - 68 (Rev. 01-00)

NTMP Name: **Nagel Family**

FOR ADMIN. USE ONLY
THP No. 01- 004 - 2 - LAS
Dates Rec'd OCT 0 9 2001
Date Filed OCT 1 9 2001
Date Approved FEB 2 8 2002
Date Expires _____

onindustrial Timber Management Plan (NTMP) form, when properly completed, is designed to comply with the Forest Practice Act (FPA) ard of Forestry and Fire Protection rules. If financial assistance is requested to cover some of the expenses of the NTMP, contact the DF Forestry Assistance Specialist prior to preparation of the NTMP. See separate instructions for information on completing this form. The form must be printed legibly in ink, typewritten, or electronically printed. The NTMP is divided into six sections. If more space is ary to answer a question, continue the answer at the end of the appropriate section of your NTMP. However, if writing an electronic , insert additional space for your answer. Distinguish answers from questions by font change, bold, or underline.

SECTION I - GENERAL INFORMATION

MP conforms to my/our plan and upon approval, I/we agree to conduct harvesting in accordance therewith. Consent is hereby given to ctor of Forestry and Fire Protection, and his or her agents and employees, to enter the premises to inspect timber operations for nce with the Forest Practice Act and Forest Practice Rules.

TIMBERLAND OWNER(S) OF RECORD: Name **Frederic & Barbara Nagel Revocable Family Trust**
James F. & Gladys A. Nagel

Address **P.O. Box 243**

City **Susanville** State **CA** Zip **96130** Phone **530-257-5251**

Signature _____ Date 12/1/01

Signature _____ Date _____

Signature _____ Date 12/1/01

TIMBER OWNER(S) OF RECORD: Name **Same as Timberland Owner**

LICENSED TIMBER OPERATOR: **CDF to be notified In Notice of Operations**

PLAN SUBMITTER(S): **James F. Nagel**

ON-SITE CONTACT: **CDF to be notified In Notice of Operations**

Will the timber operator be employed for the construction and maintenance of roads and landings during the conduct of timber operations? **yes**

Who is responsible for erosion control maintenance after timber operations have ceased and until certification of the Work Completion Report? If not the LTO, then a written agreement must be provided per 14 CCR 1050 (c).

LTO

PECTED DATE OF COMMENCEMENT OF TIMBER OPERATIONS: **Unknown. CDF to be notified when Notice of ber Operations filed.**

REST DISTRICT in which NTMP is located : **Northern Forest District**

FOR ADMIN. USE ONLY
Amendments-date & S or M

1. _____	7. _____
2. _____	8. _____
3. _____	9. _____
4. _____	10. _____
5. _____	11. _____
6. _____	12. _____

NONINDUSTRIAL TIMBER MGMT PLAN
STATE OF CALIFORNIA
DEPARTMENT OF FORESTRY
AND FIRE PROTECTION

RM - 68 (Rev. 01-00)

NTMP Name: **Nagel Family**

FOR ADMIN. USE ONLY

THP No. _____
Dates Rec'd _____
_____
Date Filed _____
Date Approved _____
Date Expires _____
Extensions 1) [ ] 2) [ ]

This Nonindustrial Timber Management Plan (NTMP) form, when properly completed, is designed to comply with the Forest Practice Act (FPA) and Board of Forestry and Fire Protection rules. If financial assistance is requested to cover some of the expenses of the NTMP, contact the local CDF Forestry Assistance Specialist prior to preparation of the NTMP. See separate instructions for information on completing this form. NOTE: The form must be printed legibly in ink, typewritten, or electronically printed. The NTMP is divided into six sections. If more space is necessary to answer a question, continue the answer at the end of the appropriate section of your NTMP. However, if writing an electronic version, insert additional space for your answer. Distinguish answers from questions by font change, bold, or underline.

SECTION I - GENERAL INFORMATION

This NTMP conforms to my/our plan and upon approval, I/we agree to conduct harvesting in accordance therewith. Consent is hereby given to the Director of Forestry and Fire Protection, and his or her agents and employees, to enter the premises to inspect timber operations for compliance with the Forest Practice Act and Forest Practice Rules.

1. **TIMBERLAND OWNER(S) OF RECORD**: Name **James Frederic Nagel & Gladys Ann Nagel, trustees of the James &** Gladys Nagel Revocable Living Trust dated March 8, 2011; Shirley Nagel Lee; and Frederic R Nagel & Theresa K. Nagel, trustees under the Frederic R. Nagel & Theresa K. Nagel Family Revocable Trust dated August 30, 1995

   Address **700-100 Wingfield Road**

   City **Susanville** State **CA** Zip **96130** Phone **530-257-5251**

   Signature _____ Date _____

   Signature _____ Date _____

   Signature _____ Date _____

   Signature _____ Date _____

   Signature _____ Date _____

2. **TIMBER OWNER**(S) OF RECORD: Name **Same as Timberland Owner**
3. **LICENSED TIMBER OPERATOR**: **CDF to be notified In Notice of Timber perations**
4. **PLAN SUBMITTER(S)**: **James F. Nagel**

5. a. **ON-SITE CONTACT**: **CDF to be notified In Notice of Operations**
   b. Will the timber operator be employed for the construction and maintenance of roads and landings during the conduct of timber operations? **yes**

   c. Who is responsible for erosion control maintenance after timber operations have ceased and until certification of the Work Completion Report? If not the LTO, then a written agreement must be provided per 14 CCR 1050 (c).
   LTO

6. **EXPECTED DATE OF COMMENCEMENT** OF TIMBER OPERATIONS: **Unknown. CDF to be notified when Notice of Timber Operations filed.**

7. **FOREST DISTRICT** in which NTMP is located : **Northern Forest District**

7/25/11

8. **LOCATION** of the timber operations by legal description:

TOPOGRAPHIC QUADRANGLES: Janesville 7.5', Diamond Mtn 7.5'

Base and Meridian: **Mount Diablo**

Section	Township	Range	Assessor Parcel #	County	Owner
3	28N	12E	129-020-39	Lassen	F&T Nagel Family RT
22	29N	12E	116-180-77	Lassen	F&T Nagel Family RT
23&26	29N	12E	116-410-84	Lassen	Shirley Nagel Lee
			116-410-80		Shirley Nagel Lee
26	29N	12E	116-410-83	Lassen	J & G Nagel RLT
26&27	29N	12E	116-410-86	Lassen	J & G Nagel RLT
27	29N	12E	116-410-03	Lassen	Shirley Nagel Lee
			116-410-87		J & G Nagel RLT
28	29N	12E	116-390-06	Lassen	J & G Nagel RLT
			116-400-04		J & G Nagel RLT
29	29N	12E	116-390-06	Lassen	J & G Nagel RLT
34	29N	12E	116-410-69	Lassen	J & G Nagel RLT

TOTAL ACREAGE **870** (Logging Area Only)

9. **PLANNING WATERSHED**: CALWATER Version, Identification Number, and Name -

CALWATER 2.2
8637.200802 Lassen Creek
8637.200901 Sand Slough
8637.200906 Elysian Valley

10. A **TIMBERLAND CONVERSION CERTIFICATE is not in effect.**

11. TIMBER HARVESTING PLAN ON FILE: **None currently on file. All prior THP's have been completed and have satisfied stocking requirements.**

12. **A Notice of Preparation as required by 14 CCR 1090.2(g) has been posted by the RPF.**

7/25/11

13. RPF preparing the NTMP: Name **Philip E. Nemir** RPF Number **1666**

Address **P.O. Box 1717**

City **Susanville** State **CA** Zip **96130** Phone **530-257-2294**

a. I have notified the plan submitter(s), in writing, of their responsibilities pursuant to Title 14 CCR 1090.9-.10 of the Forest Practice Rules, of their responsibilities for compliance with the Forest Practice Act and Board rules, and where applicable, Board rules regarding site preparation, stocking, and maintenance of roads, landings, and erosion control facilities.

b. I or my supervised designee will meet with the LTO prior to commencement of operations to advise of sensitive conditions and provisions of the plan pursuant to 14 CCR 1090.11

c. I will provide the LTO with a copy of the approved NTMP and Notice of Timber Operations (NTO) as per 14 CCR 1090.09(e) and (g).

d. I have the authority and responsibility for preparation and administration of the NTMP and future timber operations, including but not limited to road location, timber marking, sale of timber and administration of Timberland Owners Contract with LTO. Authority to amend, or modify this NTMP.

e. I am not responsible for property boundary surveys. I do not have the authority or responsibility for LTO's logging, including failure to comply with THP or LTO failure to comply with State Forest Practice Act Rules and Regulations. I am not responsible for actions of the Timberland Owner, the Timber Owner, or the Plan Submitter not in conformance with this NTMP, or the Forest Practice Act and its rules and regulations, or that could be construed to be a conversion of timberland.

After considering the rules of the Board of Forestry and the mitigation measures, I have determined that the timber operation will **not** have a significant adverse impact on the environment.

I certify that I, personally inspected the THP area, and the plan complies with the Forest Practice Act, the Forest Practice Rules and the Professional Foresters Law.

Signature P.E. Nemir Date 12/8/10

12/8/10

SECTION II & III - PLAN OF TIMBER OPERATIONS

NOTE: If a provision of this NTMP is proposed that is different than the standard rule, the explanation and justification required must be included in Section III of the NTMP

14. SILVICULTURAL METHODS

a. Check the Silvicultural methods or treatments allowed by the rules that are to be applied under this NTMP. Specify the option chosen to demonstrate Maximum Sustained Production (MSP) according to 14 CCR 913 (933, 953).11. If more than one method or treatment will be used show boundaries on map and list approximate acreage for each.

[X] Selection 580 ac. [X] Group Selection 195 ac. [X] Transition 0 ac.

[X] Commercial Thinning 42 ac. [ ] Road Right of Way _____ac. [X] Sanitation Salvage 53 ac.

[ ] Special Treatment Area_____ ac. [ ] Rehab of Understocked Area_____ac. [ ] Fuelbreak _____ac.

[ ] Alternative _____ac. [ ] Conversion _____ac. [ ] Non Timberland area_____ac.

Treatment areas and acreage shall also be shown on Notices of Operations.

Total acreage 870 ac.: Explain if total is different than in Item 8. MSP option chosen: (a) [ ] (b) [ ] (c) [X]

b. If Selection, Group Selection, Commercial Thinning, Sanitation Salvage or Alternative methods are selected, the post harvest stand stocking levels (differentiated by site if applicable) must be stated in the NTMP. Note mapping requirements of 14 CCR 1090.5 (x) (12).

The over-riding objective of silvicultural methods used shall be to develop stands suitable for long-term management on an uneven-aged basis. This means that the predominant silvicultural methods used will be individual and group selection. As defined by the Forest Practice Act (4593.2), uneven-aged management means "the management of a specific forest, with the goal of establishing a well stocked stand of various age classes and which permits the periodic harvest of individual or small groups of trees to realize the yield and continually establish a new crop.

Pages 77 through 79 of the Confidential Addendum, project harvesting over a twenty year period that is within the reliability range for using the CACTOS growth model. The author of the model does not consider it reliable beyond 20 to 30 years. The projections are based on recent inventory data and the RPF's knowledge of the stand conditions. Some of the areas proposed for commercial thinning have actually been completed in 2000. Thus, the acreage above and mapped areas shown on the "Silvicultural Methods" maps (p. 47a & 47b) display the RPF's best estimate of the silviculture to be used on the first entry. It is important to recognize that over time, climate, ecological factors, market conditions and new scientific knowledge may dictate that differing silvicultural methods may be used or that timing of the methods will deviate to account for differing ecological and economic variables. Nevertheless, all silvicultural methods utilized shall meet the primary definition of "uneven-aged management" as provided in Section 4593.2 of the Forest Practice Act. Any one acre on the harvest area may have a variety of silvicultural methods used over the long-term life of the NTMP.

Under Option C, it is clear that all unevenaged silvicultural methods (selection, group selection and transition) shall comply "with the seed tree retention standards pursuant to 933.1(c)(1)(A)" and by "meeting minimum stocking and basal area standards for the selected silvicultural methods with group A species, and protecting the soil, air, fish and wildlife, water resources and other public trust resources through the application of these rules." (14 CCR 933.11(c)(2)). Post-harvest stocking shall comply with the minimum requirements for number, size and phenotypic quality of leave trees for the seed tree method (933.1(c)(1)(A)). i.e. "Retention of at least 8 seed trees per acre which are 18 inches dbh or greater. Each seed tree 24 inches or greater shall be equivalent to 2 seed trees less than 24 inches dbh. The seed trees must be of full crown, capable of seed production and representative of the best phenotypes available in the preharvest stand."

For intermediate treatments, MSP is primarily achieved by "complying with the stocking requirements of the individual treatment or prescription". In addition, commercial thinning and sanitation-salvage prescriptions will meet the seed tree retention standards of 14 CCR 933.1(c)(1)(A). Intermediate treatments proposed include commercial thinning and sanitation-salvage. For a portion of the ownership these methods will probably be used at the first entry. In later decades, it is difficult to predict where use of intermediate methods will be most suitable. Commercial thinning may used to thin young stands developed by group selection cutting, in dense pole stands to improve forest health, increase stand diameter, growth and vigor of crop trees. Sanitation-salvage will be used in cases of insect and disease infestations, or natural disasters such as fires or wind storm damage.

SELECTION STOCKING STANDARDS -

Stocking standards to be met shall comply with 14 CCR 933.2(a)(2)(A). For "Selection" regeneration method basal area to be retained after harvest is:

(i). Site II & Site III - 75 square feet of basal area

(ii). Site IV - 50 square feet of basal area

GROUP SELECTION STOCKING STANDARDS -

Stocking standards to be met shall comply with 14 CCR 933.2(a)(2)(B). For "Group Selection", regeneration method basal area to be retained after harvest is:

(i). at least 80% of the plots must meet standards for Selection.

(ii). not more than 20% of the plots meet stocking standards utilizing the 300 point count for trees 10 years or older.

(iii). offset of 8 out of 40 plots allowed where plots fall within small clearings created during current harvest.

COMMERCIAL THINNING STOCKING STANDARDS -

Stocking standards to be met immediately after harvest shall comply with 14 CCR 933.3(a)(1)(A) where preharvest dominant and codominant crown canopy is occupied primarily by trees greater than 14" dbh:

(i). Site II mixed conifer lands - 100 sq ft of basal area

(ii). Site II, pine > 50% basal area - 75 sq ft of basal area
Site III mixed conifer lands
Site III pine > 50% basal area

(iii). Site IV - 50 sq ft of basal area

Stocking standards to be met immediately after harvest shall comply with 14 CCR 933.3(a)(1)(B) where preharvest dominant and codominant crown canopy is occupied primarily by trees less than 14" dbh:

(i). Site II & III - A minimum of 100 trees per acre over 4" dbh.

(ii). Site IV - A minimum of 75 trees per acre over 4" dbh.

SANITATION-SALVAGE STOCKING STANDARDS -

Stocking standards to be met immediately after harvest shall comply with 14 CCR 933.3(b) and 932.7(b):

(i). Site II & III - A minimum point count of 300.

(ii). Site IV - A minimum point count of 150.

2/12/02

TRANSITION STOCKING STANDARDS -

Stocking standards to be met immediately after harvest shall comply with 14 CCR 932.7(b)(2):

(i). Site II & III - A minimum point count of 300.

(ii). Site IV - A minimum point count of 150.

c. Trees to be harvested or retained must be marked by or marked under the supervision of the RPF. Specify how the trees will be marked/designated:

Harvest trees to be marked by RPF hired by landowner, or someone under his/her direction. If leave trees are to be marked, that shall be specified in the Notice of Operation.

[ ] Yes [**X**] No Is a waiver of marking by the RPF requirement requested? If yes, how will LTO determine which trees will be harvested or retained? If more than one silvicultural method or Group Selection is to be used, how will LTO determine boundaries of different methods or groups?

d. **Forest Products** to be harvested: **Sawlogs primarily, secondary products may include poles, fuelwood, chips.**

e. [**X**] Yes [ ] No Are group B species proposed for management?
[**X**] Yes [ ] No Are group B or non-indigenous A species to be used to meet stocking standards?
[ ] Yes [**X**] No Will group B species need to be reduced to maintain relative site occupancy of A species?

If any answer is yes, list the species, describe treatment, and provide the LTO with necessary felling and slash treatment guidance. Explain who is responsible and what additional follow-up measures of manual treatment or herbicide treatment is to be expected to maintain relative site occupancy of A species. Explain when a licensed Pest Control Advisor shall be involved in this process.

LOW SITE - EXCEPTION FOR INCLUSION OF BLACK OAK TO MEET STOCKING -

California Black Oak (Quercus Kelloggii) is a native and natural part of the ecosystem on this property. For the entire property, it comprises approximately 7% of the trees. It is more prevalent as a percentage of the stand basal area on the drier and lower site areas. It is an important contributor to species diversity and wildlife species.

The standard rule is 933.11(c) which requires that minimum stocking and basal area standards only be met with group A species.

For those areas rated as Dunning's Site IV, Black Oak (a group B species) shall be used to meet stocking standards, but the percentage shall not be greater than the pre-harvest percentage of total basal area stocking. Because Black Oak does not pose a serious invasion threat, it shall be managed to a limited extent by cutting a few trees for fuelwood as determined by the timberland owner. No herbicide treatment is recommended. Thus a licensed Pest Control Advisor will not be necessary.

4/12/02

f. Other instructions to LTO concerning felling operations.

Retain all unmarked snags which do not pose a safety problem or could fall on a road surface. To the maximum extent feasible, fell trees away from watercourses and spring areas. Avoid damage to conifer and hardwood leave trees to the maximum extent feasible.

g. [ ] Yes [**X**] No Will artificial regeneration be required to meet stocking standards?

h. [ ] Yes [**X**] No Will site preparation be used to meet stocking standards? If yes, provide the information required for a site preparation addendum, as per 14 CCR 915.4 (935.4, 955.4).

Site preparation for artificial reforestation should not be necessary because of the selective nature of the proposed timber harvesting. Stocking standards should be met immediately after harvesting. Ground disturbance from skidding should enhance natural regeneration success. Careful logging will prevent damage to existing densely stocked reproduction understory. Natural regeneration should begin the season immediately following harvest.

i. If the rehabilitation method is chosen, provide a regeneration plan as required by 14 CCR 913 (933, 953) .4(b). **NA**

PESTS

15. a. [ ] Yes [**X**] No Is this NTMP within an area that the Board of Forestry and Fire Protection has declared a Zone of Infestation or Infection pursuant to PRC 4712-4718? If yes, identify feasible measures being taken to mitigate adverse infestation or infection impacts from the timber operation. See 14 CCR 917 (937, 957) .9 (a).

b. [ ] Yes [**X**] No If outside a declared zone, are there any insect, disease or pest problems of significance in the NTMP area? If yes, describe the proposed measures to improve the health, vigor and productivity of the stand(s).

HARVESTING PRACTICES

16. Indicate type of yarding system and equipment to be used:

GROUND BASED*	CABLE	SPECIAL
a. [**X**] Tractor, including end/long lining	d. [ ] Cable, ground lead	g. [ ] Animal
b. [**X**] Rubber tired skidder, Forwarder	e. [ ] Cable, high lead	h. [ ] Helicopter
c. [**X**] Feller buncher	f. [ ] Cable, Skyline	i. [ ] Other

* All tractor operations restrictions apply to ground based equipment.

GENERAL YARDING METHODS -

It is planned that all log skidding shall be conducted by tractor or skidder. Feller bunchers may be used for tree felling and bunching for biomass operations.

STEEP SLOPES -

Any operations on steeper slopes (greater than 50%) shall be limited to use of the pre-existing skid trail network. This will allow for a selective harvest with greater forest canopy retention than would be required by a cable logging system. Use of a cable system is generally not feasible because of the small area with steep slopes. Should a Licensed Timber Operator desire to construct any additional skid trails on slopes greater than 50%, they must be flagged and approved in advance by the supervising RPF.

RESIDUAL TREES -

Yarding shall minimize damage to residual trees. Per 14 CCR 934.2(h) "Timber operators shall exercise due diligence so that desirable residual trees and seedlings will not be damaged or destroyed in tractor operations."

12/19/01

WATERCOURSE CROSSINGS -

Yarding operations at watercourse crossing shall comply with the requirements of 14 CCR 934.8 including:

(i). Maximum use of existing crossings. Minimize number of crossings.

(ii). Prepared crossings (Humboldt or culvert) where skid roads cross a watercourse in which water is present.

(iii). Temporary crossing facilities to be removed prior to the winter period.

Yarding operations at watercourse crossing shall comply with the following requirements of 14 CCR 936.3(b):

(i). Accidental depositions of soil and debris at crossings of Class I, II and III watercourses shall be removed immediately after deposition.

In addition, all watercourse crossings shall be flagged by the RPF prior to use for skidding operations. Watercourse crossings of Class I & III streams are shown on the THP Map. All crossings of Class III streams shall be grass seeded and straw mulched at the conclusion of logging and prior to the winter period.

For Class III watercourses, tractor crossings are allowable at locations flagged in advance by the RPF provided they are kept to a minimum and existing crossings are utilized to the greatest extent possible. All current locations of skid trail crossings of Class III watercourses are shown on the Watercourse Crossings Map.

17. **EROSION HAZARD RATING**: Indicate Erosion Hazard Ratings present on NTMP. (Must match EHR worksheets)

Low [**X**] Moderate [**X**] High [ ] Extreme [ ]

If more than one rating is checked, areas must be delineated on map to 20 acres in size (10 acres for high and extreme EHRs in the Coast District).

18. **SOIL STABILIZATION**:

In addition to the standard waterbreak requirements describe soil stabilization measures or additional erosion control measures to be implemented and the location of their application, as per requirements of 14 CCR 916.7 (936.7, 956.7) and 923.2 (943.2, 963.2) (m), and 923.5 (943.5, 963.5) (f).

A map of "Soil Types" and a description of the different types is included in this section. The map and soil descriptions are from Soil Vegetation Survey covering part of Diamond Mtn and Janesville 7.5 minute Quadrangles (35A-3) and (35A-4).

Soils of the forest area of Nagel Family property are characterized as having a weathered granite rock origin. Parent rock is from the Tertiary era. Depths are shallow (15") to deep (up to 64"). Topography is gentle to steep. Soils have the potential to gully without proper diversions. Soils are well-drained and water-holding capacity is low. Soil erosion hazard rating is low to moderate.

At the lower elevations of the Happy Valley Unit, soils belong to the Bonta family. These sandy loams have a depth to bedrock of approximately 36". There are a few areas along Wingfield Road and on both sides of the main branch Class III which are classed as deeper (up to 60") sandy loams of the Chirpchatter family and which are the best site for growing conifer trees. They tend to be alluvial/colluvial deposits. Soils above 4,600 feet elevation typically belong to the Toiyabe-Lasco-Quartzberg complex. These soils are coarse loamy sands with depths between 15" to 49". Soils of the Chimney-Janile-Waterman association are located along the west side of the southern portions of the Happy Valley Unit. These loamy sands vary from 18" to 60" in depth.

2/12/02

The meadow area of the Lost Meadows Unit has the deepest soils (Plinco) but is not forested due to its higher water table. Soils below 4,600 elevation on this Unit are in the Lasco-Bonta complex. These sandy loans range in depth from 36" to 48". A small area adjacent to the meadow is classed as Chirpchatter. As for the Happy Valley Unit, soils on the south end and at the higher elevations belong to the Chimney-Janile-Waterman association and shallower, loamy sands which are more erosive.

Erosion hazard ratings range from "low" to "moderate". Even though some flatter areas at lower elevations may be "low" in EHR, the standards of "moderate" shall be applied for all slopes under 25% in this NTMP because of the potential for gully erosion on granitic soils. Similarly, the standards of an erosion hazard rating of "high" shall be applied to all areas rated as "moderate" and for all slopes greater than 25%. Drainage on constructed and reconstructed roads shall be rolling dips suitable for passage by a passenger vehicle. Spacing requirements are as follows:

Road or Trail Gradient

Map Estimated Hazard Rating	<11%	11-25%	25-50%	>50%
Low	200	150	75	50
Moderate	150	100	75	50

19. [ ] Yes [**X**] No Are tractor or skidder constructed layouts to be used? If yes, specify the location and extent of use:

20. [ ] Yes [ ] No Will ground based equipment be used within the area(s) designated for cable yarding? If yes, specify the location and for what purpose the equipment will be used? See 14 CCR 914.3 (934.3, 954.3) (e).

NA

21. Within the NTMP area will ground based equipment be used on:

a. [ ] Yes [**X**] No Unstable soils or slide areas? Only allowed if unavoidable.
b. [ ] Yes [**X**] No Slopes over 65%?
c. [ ] Yes [**X**] No Slopes over 50% with high or extreme EHR?
d. [ ] Yes [**X**] No Slopes between 50% and 65% with moderate EHR where heavy equipment use will not be restricted to the limits described in 14 CCR 914 (934, 954) .2 (f) (2) (i) or (ii)?
e. [ ] Yes [**X**] No Slopes over 50% which lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a watercourse or lake?

If " a." is yes, provide site specific measures to minimize effect of operations on slope stability and provide explanation and justification in Section III as required per 14 CCR 914 (934, 954) .2 (d). CDF requests the RPF consider flagging tractor road locations if " a." is yes.

If "b, c., d., or e." is yes:

1) the location of tractor roads must be flagged on the ground prior to the PHI or start of operations if a PHI is not required, and
2) you must clearly explain the proposed exception and justify why the standard rule is not feasible or would not comply with 14 CCR 914 (934, 954).

The location of heavy equipment operation on unstable areas or any use beyond the limitations of the standard rules must be shown on the map. List specific instructions to the LTO below.

22. [ ] Yes [**X**] No Are any alternative practices to the standard harvesting or erosion control rules proposed for this plan? If yes, provide all of the information as required in 14 CCR 914.9 (934.9, 954.9) and 1090.5 (ee) in Section III. List specific instructions to the LTO below.

11/6/01

ESTIMATED SURFACE SOIL EROSION HAZARD
RM-87 (4/84)

HARRY VALLEY

STATE OF CALIFORNIA
BOARD OF FORESTRY

A = Flatter near Wingfield Road
B = Middle elevation steeper
C = Flatter on south end

I. SOIL FACTORS				FACTOR RATING BY AREA		
A. SOIL TEXTURE	Fine	Medium	Coarse	A	B	C
1. DETACHABILITY	Low	Moderate	High	23	23	27
Rating	1-9	10-18	19-30			
2. PERMEABILITY	Slow	Moderate	Rapid	1	1	1
Rating	5-4	3-2	1			

B. DEPTH TO RESTRICTIVE LAYER OR BEDROCK

	Shallow	Moderate	Deep			
	1"-19"	20"-39"	40"-60" (+)	4	7	7
Rating	15-9	8-4	3-1			

C. PERCENT SURFACE COARSE FRAGMENTS GREATER THAN 2 MM IN SIZE INCLUDING ROCKS OR STONES

	Low	Moderate	High				FACTOR RATING BY AREA		
	(-) 10-39%	40-70%	71-100%	10	7	5			
Rating	10-6	5-3	2-1				A	B	C
						SUBTOTAL ⇨	38	38	40

II. SLOPE FACTOR

Slope	5-15%	16-30%	31-40%	41-50%	51-70%	71-80% (+)	2	13	5
Rating	1-3	4-6	7-10	11-15	16-25	26-35			

III. PROTECTIVE VEGETATIVE COVER REMAINING AFTER DISTURBANCE

	Low	Moderate	High			
	0-40%	41-80%	81-100%	6	6	6
Rating	15-8%	7-4	3-1			

IV. TWO-YEAR, ONE-HOUR RAINFALL INTENSITY (Hundredths Inch)

	Low	Moderate	High	Extreme			
	(-) 30-39	40-59	60-69	70-80 (+)	5	5	5
Rating	1-3	4-7	8-11	12-15			
				TOTAL SUM OF FACTORS ⇨	51	62	56

EROSION HAZARD RATING

<50	50-65	66-75	>75			
LOW (L)	MODERATE (M)	HIGH (H)	EXTREME (E)	M	M	M
			THE DETERMINATION IS ⇨			

ESTIMATED SURFACE SOIL EROSION HAZARD
RM-87 (4/84)

LOSS MEADOWS

STATE OF CALIFORNIA
BOARD OF FORESTRY

I. SOIL FACTORS

A = Gentler slopes around meadow
B = Steeper slopes south end

				FACTOR RATING BY AREA		
A. SOIL TEXTURE	Fine	Medium	Coarse	A	B	C
1. DETACHABILITY	Low	Moderate	High	23	27	
Rating	1-9	10-18	19-30			
2. PERMEABILITY	Slow	Moderate	Rapid	1	1	
Rating	5-4	3-2	1			

B. DEPTH TO RESTRICTIVE LAYER OR BEDROCK

	Shallow	Moderate	Deep			
	1"-19"	20"-39"	40"-60" (+)	2	10	
Rating	15-9	8-4	3-1			

C. PERCENT SURFACE COARSE FRAGMENTS GREATER THAN 2 MM IN SIZE INCLUDING ROCKS OR STONES

	Low	Moderate	High				FACTOR RATING BY AREA		
	(-) 10-39%	40-70%	71-100%	10	9		A	B	C
Rating	10-6	5-3	2-1						
						SUBTOTAL ⇨	36	47	

II. SLOPE FACTOR

Slope	5-15%	16-30%	31-40%	41-50%	51-70%	71-80% (+)	2	6	
Rating	1-3	4-6	7-10	11-15	16-25	26-35			

III. PROTECTIVE VEGETATIVE COVER REMAINING AFTER DISTURBANCE

	Low	Moderate	High			
	0-40%	41-80%	81-100%	6	6	
Rating	15-8%	7-4	3-1			

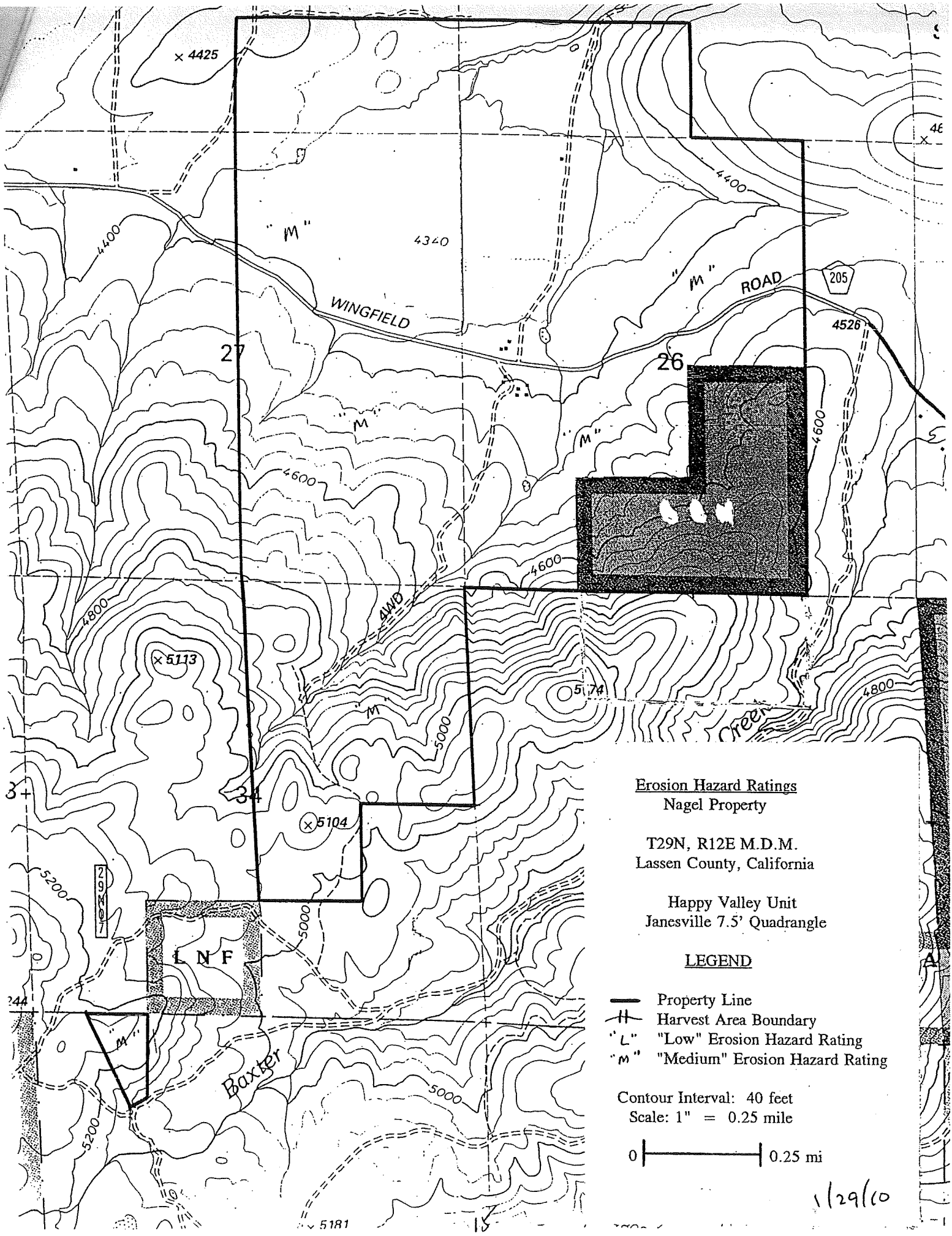
IV. TWO-YEAR, ONE-HOUR RAINFALL INTENSITY (Hundredths Inch)

	Low	Moderate	High	Extreme			
	(-) 30-39	40-59	60-69	70-80 (+)	5	5	
Rating	1-3	4-7	8-11	12-15			
				TOTAL SUM OF FACTORS ⇨	49	64	

EROSION HAZARD RATING

<50	50-65	66-75	>75			
LOW (L)	MODERATE (M)	HIGH (H)	EXTREME (E)	L	M	
			THE DETERMINATION IS ⇨			

7540-130-0435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"M"
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WINGFIELD
ROAD
205
4526
27
26
4600
4800
× 5113
5174
Creek
34
× 5104
5200
5000
L N F
Baxter
5181
15
Erosion Hazard Ratings
Nagel Property
T29N, R12E M.D.M.
Lassen County, California
Happy Valley Unit
Janesville 7.5' Quadrangle
LEGEND
Property Line
Harvest Area Boundary
"L" "Low" Erosion Hazard Rating
"M" "Medium" Erosion Hazard Rating
Contour Interval: 40 feet
Scale: 1" = 0.25 mile
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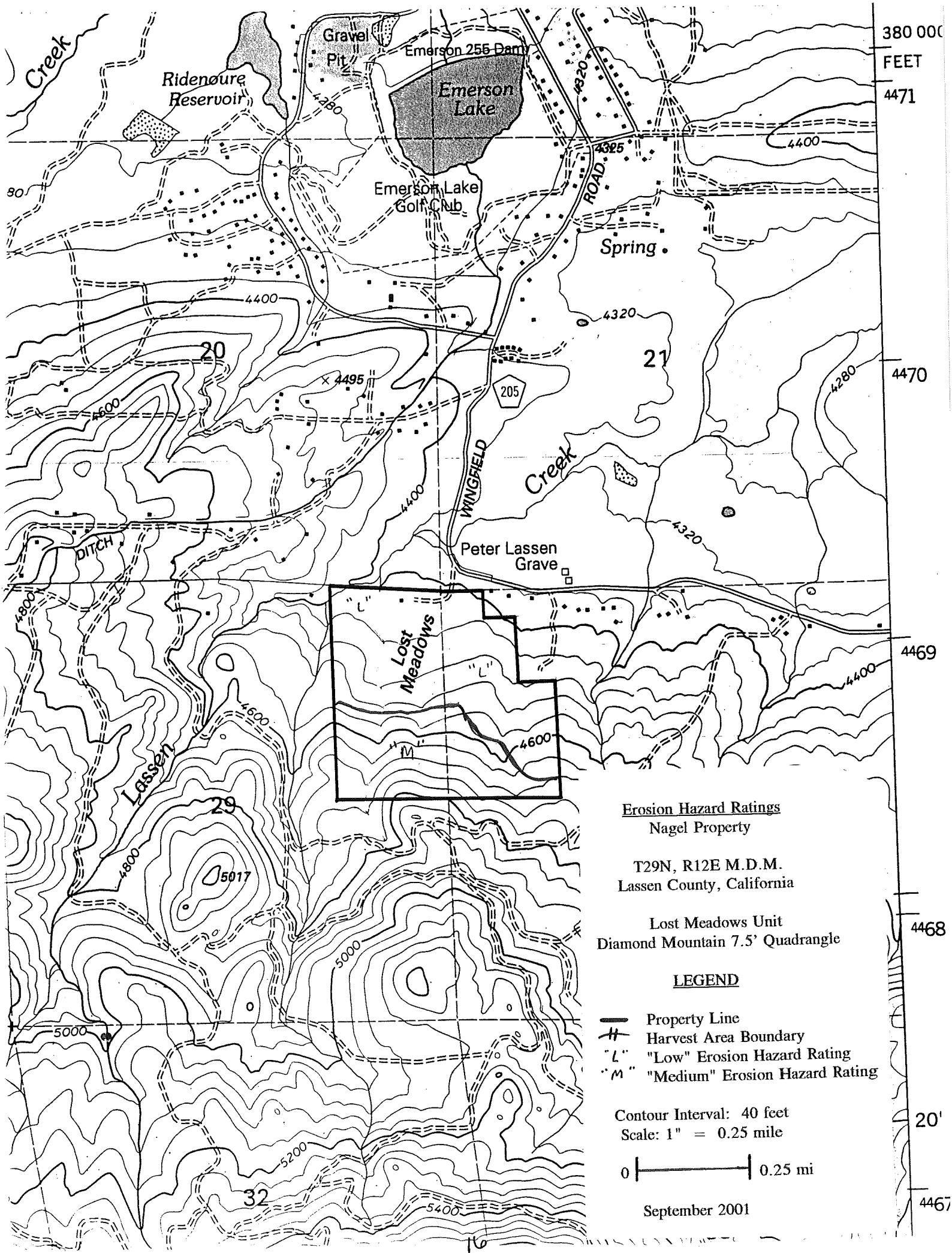
0.25 mi
1/29/10



Erosion Hazard Ratings
Nagel Property

T29N, R12E M.D.M.
Lassen County, California

Lost Meadows Unit
Diamond Mountain 7.5' Quadrangle

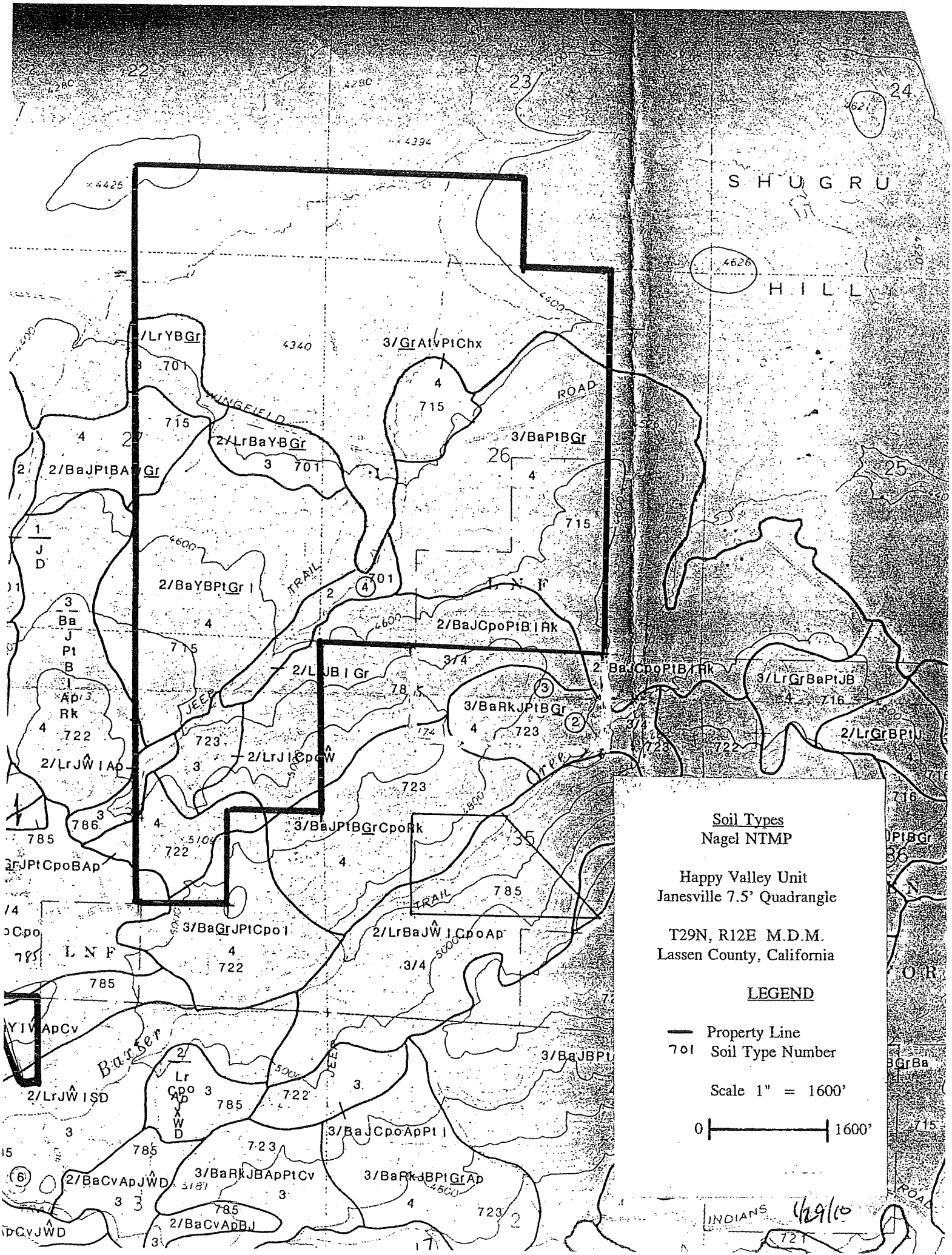
LEGEND

- Property Line
- Harvest Area Boundary
- "L" "Low" Erosion Hazard Rating
- "M" "Medium" Erosion Hazard Rating

Contour Interval: 40 feet
Scale: 1" = 0.25 mile

0 — 0.25 mi

September 2001


Soil Types
Nagel NTMP
Happy Valley Unit
Janesville 7.5' Quadrangle
T29N, R12E M.D.M.
Lassen County, California
LEGEND
Property Line
701 Soil Type Number
Scale 1" = 1600'
0
1600'
4/29/10
SHUGRU
HILL
WINGFIELD
ROAD
TRAIL
JEEP
INDIANS
L N F
3/GrAtvPtChx
2/LrYBGr
2/LrBaYBGr
3/BaPtBGr
2/BaJPtBAp Gr
2/BaYBPtGr
2/BaJCpoPtB Rk
3/BaRkJPtBGr
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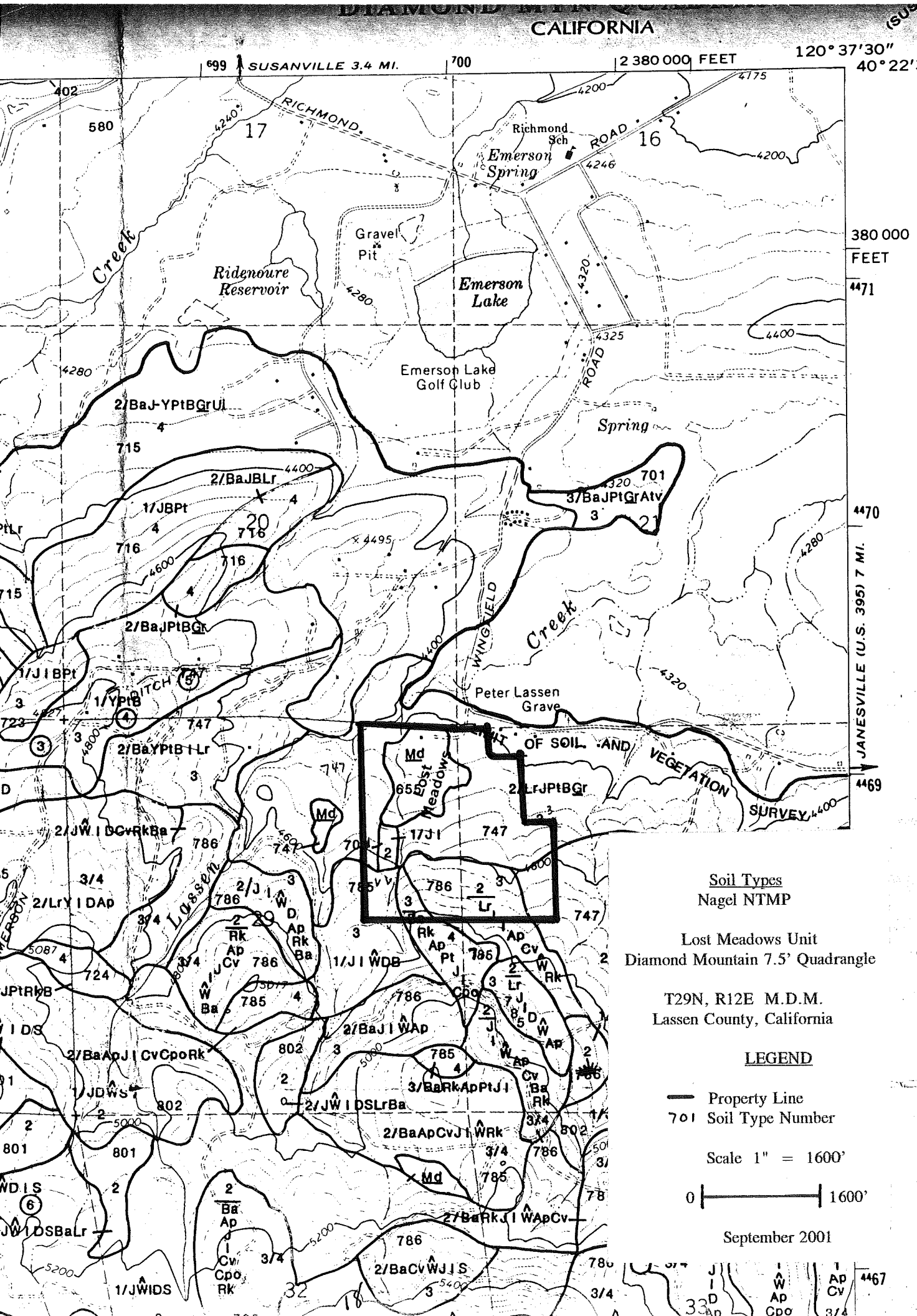


Soil Types
Nagel NTMP

Lost Meadows Unit
Diamond Mountain 7.5' Quadrangle

T29N, R12E M.D.M.
Lassen County, California

LEGEND

Property Line
701 Soil Type Number

Scale 1" = 1600'

0 1600'

September 2001

655-Plinco loam, 2 to 9 percent slopes

SETTING

Landform: alluvial fans
Elevation: 4200 to 4400 feet
Slope Range: 2 to 9 percent
Vegetation: perennial grasses and grass-like plants
Mean Annual Precipitation: 12 to 16 inches
Mean Annual Temperature: 50 to 52 degrees F.
Frost Free Period: 100 to 130 days

COMPOSITION

Plinco loam and similar inclusions: 85 percent
Contrasting Inclusions: 15 percent

PLINCO SOIL CHARACTERISTICS

Parent Material: alluvium weathered from granite
Typical Profile:

- 0 to 5 inches: dark grayish brown loam
- 5 to 11 inches: dark grayish brown sandy loam
- 11 to 64 inches: dark grayish brown and dark gray gravelly sandy loam and grayish brown and light brownish gray gravelly loam

Depth Class: very deep
Drainage Class: moderately well drained
Permeability: moderately rapid
Available Water Capacity: low to moderate
Potential Rooting Depth: 40 to 60 inches
Surface Runoff: slow
Bare Soil Erosion Hazard Rating: low
Depth To Water Table: 40 to 60 inches from April through May

INCLUDED AREAS

- Soils similar to Plinco but have very cobbly sandy loam surface layers
- Impervious material within Janesville and developments south of Susanville

MAJOR USES

Current Uses: irrigated crops, alfalfa hay, pasture and urban development

IRRIGATED AGRICULTURE

Major Management Factors:
Slope
High water table

General Management Considerations:
All tillage should be on the contour or across the slope.
Sprinkler or water spreading is the most suitable method of applying water.
Wetness limits the choice of crops and cultivars and increases the risk of winter kill.

URBAN DEVELOPMENT

Major Management Factors:
Wetness

General Management Considerations:
Septic tank absorption fields do not function properly during rainy periods because of wetness.
Erosion is a hazard in the steeper areas. Only the part of the site that is used for construction should be disturbed.

INTERPRETIVE GROUPS

Capability unit: IIIe-1 (21), irrigated
Capability subclass: IVe (21), nonirrigated

701-Chirpchatter sandy loam, 2 to 9 percent slopes

SETTING

Landform: alluvial fans
Elevation: 4300 to 5100 feet
Slope Range: 2 to 9 percent
Vegetation: Jeffrey and ponderosa pine, white fir, perennial grasses and shrubs
Mean Annual Precipitation: 16 to 20 inches
Mean Annual Temperature: 48 to 50 degrees F.
Frost Free Period: 80 to 100 days

COMPOSITION

Chirpchatter sandy loam and similar inclusions: 85 percent
Contrasting Inclusions: 15 percent

CHIRPCHATTER SOIL CHARACTERISTICS

Parent Material: alluvium from granitic and volcanic sources
Important Surface Feature: the surface is covered with duff, 1 inch thick
Typical Profile:

- 0 to 11 inches: grayish brown sandy loam
- 11 to 52 inches: very pale brown sandy clay loam
- 52 to 60 inches: light brownish gray loam

Depth Class: very deep
Drainage Class: well drained
Permeability: moderately slow
Available Water Capacity: moderate
Depth to Water Table: 60 to 72 inches from December to April
Potential Rooting Depth: 60 inches or more
Surface Runoff: slow
Bare Soil Erosion Hazard Rating: low

INCLUDED AREAS

- soils similar to Chirpchatter but are deep to soft bedrock
- soils similar to Chirpchatter but have a very gravelly clay loam subsoil
- impervious material within Janesville

MAJOR USES

Current Uses: timber production, livestock grazing and urban development in some areas

TIMBER PRODUCTION

CHIRPCHATTER VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine and ponderosa pine
Mean Site Index For Stated Species:
Jeffrey pine: 95 based on a 100 year site curve by Meyer
Dunning Site Class: II
Cactos Site Index: 59
Common Understory Plants:

- manzanita
- snowbrush ceanothus
- mountain whitethorn
- needlegrass
- mountain brome

General Management Considerations:
Brushy plants such as manzanita, snowbrush ceanothus and mountain whitethorn limit natural regeneration of pine and fir trees.
If the site is not adequately prepared, competition from undesirable plants can prevent or prolong natural or artificial reestablishment of trees.
Among the trees that are suitable for planting are Jeffrey pine and ponderosa pine.

LIVESTOCK GRAZING

General Management Considerations:
This soil supports an understory plant community suitable for livestock grazing. Forage production is limited by conifer canopy density. Following timber harvest or thinning operations, forage production is enhanced.

URBAN DEVELOPMENT

Major Management Factors:
Moderately slow permeability
Shrink-swell

General Management Considerations:
Absorption lines should be placed below the moderately slow permeable layer. Increasing the size of the absorption area helps to compensate for the moderately slow permeability
Buildings and roads should be designed to offset the effects of shrinking and swelling.

INTERPRETIVE GROUPS

Capability Subclass: IIIe (22), nonirrigated

715-Bonta coarse sandy loam, 9 to 15 percent slopes

SETTING

Landform: toeslopes
Elevation: 4100 to 4300 feet
Slope Range: 9 to 15 percent
Vegetation: Jeffrey and ponderosa pine, white fir, perennial grasses and shrubs
Mean Annual Precipitation: 16 to 20 inches
Mean Annual Temperature: 49 to 51 degrees F.
Frost Free Period: 80 to 100 days

COMPOSITION

Bonta coarse sandy loam and similar inclusions: 75 percent
Contrasting Inclusions: 25 percent

BONTA SOIL CHARACTERISTICS

Parent Material: material weathered from granite
Important Surface Feature: the surface is covered with duff, 2 inches thick
Typical Profile:
- 0 to 12 inches: very pale brown coarse sandy loam
- 12 to 36 inches: pink sandy loam
- 36 inches: decomposed granite

Depth Class: moderately deep
Drainage Class: well drained
Permeability: moderately rapid
Available Water Capacity: very low to low
Potential Rooting Depth: 30 to 40 inches
Surface Runoff: medium
Bare Soil Erosion Hazard Rating: low
Depth to Restrictive Layer: 30 to 40 inches to decomposed granite

INCLUDED AREAS

- Lasco gravelly sandy loam
- soils similar to Bonta but have a very cobbly subsoil in draws
- impervious material within Janesville

MAJOR USES

Current Uses: timber production, urban development and livestock grazing

TIMBER PRODUCTION

Major Management Factors:
Very low to low available water capacity

BONTA VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine, ponderosa pine, California black oak

Mean Site Index For Stated Species:
Jeffrey pine: 64 based on a 100 year site curve by Meyer
Dunning Site Class: IV
Cactos Site Index: 43
Common Understory Plants:
- manzanita
- snowbrush ceanothus
- mountain whitethorn
- needlegrass
- mountain brome
- antelope bitterbrush
- big sagebrush

General Management Considerations:
The very low available water capacity in the upper 24 inches reduces the survival of seedlings.
Brushy plants such as manzanita, snowbrush ceanothus and mountain whitethorn limit natural regeneration of pine and fir trees.
Plant competition delays natural regeneration but does not prevent the eventual development of a fully stocked, normal stand of trees.
Roads and landings can be protected from erosion by constructing waterbars.
Among the trees that are suitable for planting are Jeffrey pine and ponderosa pine.

URBAN DEVELOPMENT

Major Management Factors:
Slope
Depth to rock

General Management Considerations:
Cuts needed to provide essentially level building sites can expose bedrock.
Erosion is a hazard in the steeper areas. Only the part of the site that is used for construction should be disturbed.
Revegetating disturbed areas around construction sites as soon as possible helps to control soil blowing.

LIVESTOCK GRAZING

General Management Considerations:
This soil supports an understory plant community suitable for livestock grazing.
Forage production is limited by conifer canopy density. Following timber harvest or thinning operations, forage production is enhanced.

INTERPRETIVE GROUPS

Capability Subclass: VIe (22), nonirrigated

722 - Chimney-Waterman

722-Chimney-Waterman association, 9 to 30 percent slopes

SETTING

Landform: mountains
Elevation: 4300 to 5000 feet
Slope Range: 9 to 30 percent
Vegetation: Jeffrey and ponderosa pine, white fir, perennial grasses and shrubs
Mean Annual Precipitation: 16 to 25 inches
Mean Annual Temperature: 48 to 50 degrees F.
Frost Free Period: 80 to 100 days

COMPOSITION

Chimney gravelly loamy coarse sand and similar inclusions: 65 percent
Waterman bouldery loamy coarse sand and similar inclusions: 20 percent
Contrasting Inclusions: 15 percent

CHIMNEY SOIL CHARACTERISTICS

Position on Landscape: on back slopes
Parent Material: material weathered from granite
Slope: 15 to 30 percent
Important Surface Feature: the surface is covered with duff, 1 inch thick
Typical Profile:
- 0 to 13 inches: grayish brown gravelly loamy coarse sand
- 13 to 36 inches: light yellowish brown gravelly loamy coarse sand
- 36 to 60 inches: pale brown coarse sand

Depth Class: deep or very deep
Drainage Class: somewhat excessively
Permeability: rapid
Available Water Capacity: very low to low
Potential Rooting Depth: 40 to 72 inches
Surface Runoff: rapid
Bare Soil Erosion Hazard Rating: moderate
Depth to Restrictive Layer: 40 to 72 inches to decomposed granite

WATERMAN SOIL CHARACTERISTICS

Position on Landscape: on ridges
Parent Material: material weathered from granite
Slope: 9 to 15 percent
Important Surface Feature: the surface is covered with duff and 10 percent boulders
Typical Profile:
- 0 to 7 inches: grayish brown bouldery loamy coarse sand
- 7 to 18 inches: pale brown very gravelly loamy coarse sand
- 18 inches: weathered granite

Depth Class: shallow
Drainage Class: excessively drained
Permeability: rapid
Available Water Capacity: very low
Potential Rooting Depth: 12 to 20 inches
Surface Runoff: medium
Bare Soil Erosion Hazard Rating: moderate
Depth to Restrictive Layer: 12 to 20 inches to weathered granite

INCLUDED AREAS

- Calpine sandy loam
- Massack loam in some draws
- Mottsville loamy coarse sand on toe slopes
- impervious material within Janesville

MAJOR USES

Current Uses: timber production, livestock grazing and urban development

TIMBER PRODUCTION

Major Management Factors:
Hazard of erosion
Low available water capacity

CHIMNEY VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine, ponderosa pine, California black oak
Mean Site Index For Stated Species:
Jeffrey pine: 75 based on a 100 year site curve by Meyer
Dunning Site Class: III
Cactos Site Index: 52
Common Understory Plants:
- antelope bitterbrush
- mountain big sagebrush
- Idaho fescue

WATERMAN VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine, ponderosa pine, California black oak
Mean Site Index For Stated Species:
Jeffrey pine: 56 based on a 100 year site curve by Meyer
Dunning Site Class: IV
Cactos Site Index: 40
Common Understory Plants:
- antelope bitterbrush
- mountain big sagebrush
- Idaho fescue

General Management Considerations:
The bare soil erosion hazard rating of the Chimney soil may be reduced to low by managing for approximately 40 percent cover.
The bare soil erosion hazard rating of the Waterman soil may be reduced to low by managing for approximately 40 percent cover.
The very low available water capacity in the upper 24 inches of these soils reduces the survival of seedlings.
Roads and landings can be protected from erosion by constructing waterbars.
Among the trees that are suitable for planting are Jeffrey pine and ponderosa pine.

LIVESTOCK GRAZING

General Management Considerations:
This unit supports an understory plant community suitable for livestock grazing. Forage production is limited by conifer canopy density. Following timber harvest or thinning operations, forage production is enhanced.

URBAN DEVELOPMENT

Major Management Factors:
Hazard of erosion
Inadequate filtering of effluent by the Chimney soil
Slope
Depth to bedrock on the Waterman soil

General Management Considerations:
The bare soil erosion hazard rating of the Chimney soil may be reduced to low by managing for approximately 40 percent cover.
The bare soil erosion hazard rating of the Waterman soil may be reduced to low by managing for approximately 40 percent cover.
Effluent from septic tank absorption fields can surface in downslope areas and thus create a hazard to health.
If the density of housing is moderate to high, community sewage systems are needed to prevent contamination of water supplies as a result of seepage from on-site sewage disposal systems.
Slope is a concern in installing septic tank absorption fields. Absorption lines should be installed on the contour.
Access roads should be designed to control surface runoff and help stabilize cut slopes.
Cuts needed to provide essentially level building sites can expose bedrock.

INTERPRETIVE GROUPS

Capability Subclass: VIe (22), nonirrigated

723 - Chimney-Janile-Waterman

723-Chimney-Janile-Waterman association, 15 to 50 percent slope

SETTING

Landform: mountains
Elevation: 4300 to 5000 feet
Slope Range: 15 to 50 percent
Vegetation: Jeffrey and ponderosa pine, white fir, perennial grasses and shrubs
Mean Annual Precipitation: 16 to 25 inches
Mean Annual Temperature: 48 to 50 degrees F.
Frost Free Period: 80 to 100 days

COMPOSITION

Chimney gravelly loamy coarse sand and similar inclusions: 35 percent
Janile bouldery loamy coarse sand and similar inclusions: 30 percent

Waterman bouldery loamy coarse sand and similar inclusions: 15 percent
Contrasting Inclusions: 20 percent

CHIMNEY SOIL CHARACTERISTICS

Position on Landscape: on north-facing back slopes
Parent Material: material weathered from granite
Important Surface Feature: the surface is covered with duff, 1 inch thick
Typical Profile:
- 0 to 13 inches: grayish brown gravelly loamy coarse sand
- 13 to 36 inches: light yellowish brown gravelly loamy coarse sand
- 36 to 56 inches: pale brown coarse sand
- 56 inches: weathered granite

Depth Class: deep or very deep
Drainage Class: somewhat excessively
Permeability: rapid
Available Water Capacity: very low to low
Potential Rooting Depth: 40 to 72 inches
Surface Runoff: rapid
Bare Soil Erosion Hazard Rating: high
Depth to Restrictive Layer: 40 to 72 inches to decomposed granite

JANILE SOIL CHARACTERISTICS

Position on Landscape: on south-facing back slopes
Parent Material: material weathered from granite
Important Surface Feature: the surface is covered with duff and 10 percent boulders
Typical Profile:
- 0 to 4 inches: pale brown bouldery loamy coarse sand
- 4 to 19 inches: light gray very gravelly loamy coarse sand
- 19 to 24 inches: light brownish gray extremely gravelly loamy coarse sand
- 24 inches: weathered granite

Depth Class: moderately deep
Drainage Class: somewhat excessively
Permeability: rapid
Available Water Capacity: very low
Potential Rooting Depth: 20 to 40 inches
Surface Runoff: rapid
Bare Soil Erosion Hazard Rating: high
Depth to Restrictive Layer: 20 to 40 inches to weathered granite

WATERMAN SOIL CHARACTERISTICS

Position on Landscape: on ridges
Parent Material: material weathered from granite
Important Surface Feature: the surface is covered with duff and 10 percent boulders
Typical Profile:
- 0 to 7 inches: grayish brown bouldery loamy coarse sand
- 7 to 18 inches: pale brown very gravelly loamy coarse sand
- 18 inches: weathered granite

Depth Class: shallow
Drainage Class: excessively drained
Permeability: rapid
Available Water Capacity: very low
Potential Rooting Depth: 12 to 20 inches
Surface Runoff: rapid
Bare Soil Erosion Hazard Rating: high
Depth to Restrictive Layer: 12 to 20 inches to weathered granite

INCLUDED AREAS

- Bonta sandy loam on south-facing toe slopes
- Mottsville gravelly loamy coarse sand on some toe slopes
- soils similar to Janile but have very gravelly sandy loam subsoil
- Rock outcrop on ridges

MAJOR USES

Current Uses: timber production and livestock grazing

TIMBER PRODUCTION

Major Management Factors:
Hazard of erosion
Low available water capacity
Slope of the Janile soil

CHIMNEY VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine, ponderosa pine, California black oak
Mean Site Index For Stated Species:
Jeffrey pine: 75 based on a 100 year site curve by Meyer
Dunning Site Index: III
Cactos Site Index: 52
Common Understory Plants:
- antelope bitterbrush
- mountain big sagebrush
- Idaho fescue

JANILE VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine, ponderosa pine, California black oak
Mean Site Index For Stated Species:
Jeffrey pine: 74 based on a 100 year site curve by Meyer
Dunning Site Index: III
Cactos Site Index: 49
Common Understory Plants:
- antelope bitterbrush
- mountain big sagebrush
- Idaho fescue

WATERMAN VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine, ponderosa pine, California black oak
Mean Site Index For Stated Species:
Jeffrey pine: 56 based on a 100 year site curve by Meyer
Dunning Site Index: IV
Cactos Site Index: 40
Common Understory Plants:
- antelope bitterbrush
- mountain big sagebrush
- Idaho fescue

General Management Considerations:
The bare soil erosion hazard rating of the Chimney soil may be reduced to low by managing for approximately 60 percent cover.
The bare soil erosion hazard rating of the Janile soil may be reduced to low by managing for approximately 60 percent cover.
The bare soil erosion hazard rating of the Waterman soil may be reduced to low by managing for approximately 60 percent cover.
The very low available water capacity in the upper 24 inches of these soils reduces the survival of seedlings.
Roads and landings can be protected from erosion by constructing waterbars.
The steepness of slope limits the kinds of equipment that can be used in forest management.
Among the trees that are suitable for planting are Jeffrey pine and ponderosa pine.

LIVESTOCK GRAZING

General Management Considerations:
This unit supports an understory plant community suitable for livestock. Forage production is limited by conifer canopy density. Following timber harvest or thinning operations, forage production is enhanced.
Slope may limit access by some classes of livestock. Fencing and water development can improve livestock distribution.

INTERPRETIVE GROUPS

Capability Subclass: VIe (22), nonirrigated

747 - Lasco-Bonta

747-Lasco-Bonta complex, 15 to 30 percent slopes

SETTING

Landform: toe slopes
Elevation: 4300 to 4900 feet
Slope Range: 15 to 30 percent
Vegetation: mixed conifers
Mean Annual Precipitation: 25 to 30 inches
Mean Annual Temperature: 45 to 47 degrees F.
Frost Free Period: 60 to 80 days

COMPOSITION

Lasco sandy loam and similar inclusions: 60 percent
Bonta coarse sandy loam and similar inclusions: 20 percent
Contrasting Inclusions: 20 percent

LASCO SOIL CHARACTERISTICS

Position on Landscape: on concave slopes
Parent Material: material weathered from granite
Important Surface Feature: the surface is covered with duff, 2 inches thick
Typical Profile:
- 0 to 9 inches: brown sandy loam
- 9 to 49 inches: light brown sandy loam
- 49 inches: weathered granite

Depth Class: deep
Drainage Class: well drained
Permeability: moderately rapid
Available Water Capacity: low
Potential Rooting Depth: 40 to 60 inches
Surface Runoff: rapid
Bare Soil Erosion Hazard Rating: moderate
Depth to Restrictive Layer: 40 to 60 inches to weathered granite

BONTA SOIL CHARACTERISTICS

Position on Landscape: on convex slopes
Parent Material: material weathered from granite
Typical Profile:
- 0 to 12 inches: very pale brown coarse sandy loam
- 12 to 36 inches: sandy loam
- 36 inches: decomposed granite

Depth Class: moderately deep
Drainage Class: well drained
Permeability: moderately rapid
Available Water Capacity: very low to low
Potential Rooting Depth: 30 to 40 inches
Surface Runoff: medium
Bare Soil Erosion Hazard Rating: moderate
Depth to Restrictive Layer: 30 to 40 inches to decomposed granite

INCLUDED AREAS

- Chimney loamy coarse sand on 30 to 50 percent slopes
- Chirpchatter sandy loam in drainages and on alluvial fans
- soils similar to Lasco but are greater than 60 inches deep
- soils similar to Lasco but are sandy throughout
- soils similar to Lasco but have sandy clay loam subsoils
- similar soils but have slopes of 9 to 15 percent or 30 to 50 percent
- similar soils but have stony or bouldery surfaces

MAJOR USES

Current Uses: timber production and livestock grazing

TIMBER PRODUCTION

Major Management Factors:
Hazard of erosion
Low available water capacity

LASCO VEGETATION CHARACTERISTICS

Main Tree Species: ponderosa pine, Jeffrey pine, incense cedar, California black oak
Mean Site Index For Stated Species:
ponderosa pine: 88 based on a 100 year site curve by Meyer
Dunning Site Class: II
Cactos Site Index: 60
Common Understory Plants:
- manzanita
- snowbrush ceanothus
- mountain whitethorn
- needlegrass
- mountain brome

BONTA VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine
Mean Site Index For Stated Species:
Jeffrey pine: 64 based on a 100 year site curve by Meyer
Dunning Site Class: II
Cactos Site Index: 43
Common Understory Plants:
- antelope bitterbrush
- mountain big sagebrush
- Idaho fescue

General Management Considerations:
The bare soil erosion hazard rating of the Lasco soil may be reduced to low by managing for approximately 60 percent cover.
The bare soil erosion hazard rating of the Bonta soil may be reduced to low by managing for approximately 60 percent cover.
The very low available water capacity in the upper 24 inches reduces the survival of seedlings.
Brushy plants such as manzanita, snowbrush ceanothus and mountain whitethorn limit natural regeneration of pine and fir trees.
Plant competition delays natural regeneration but does not prevent the eventual development of a fully stocked, normal stand of trees.
Roads and landings can be protected from erosion by constructing waterbars.
Among the trees that are suitable for planting are Jeffrey pine and ponderosa pine.

LIVESTOCK GRAZING

General Management Considerations:
This soil supports an understory plant community suitable for livestock grazing. Forage production is limited by conifer canopy density. Following timber harvest or thinning operations, forage production is enhanced.

INTERPRETIVE GROUPS

Capability Subclass: IVe (22), nonirrigated

785 - Toiyabe-Lasco

785-Toiyabe-Lasco complex, 2 to 30 percent slopes

SETTING

Landform: mountains
Elevation: 6000 to 6400 feet
Slope Range: 2 to 30 percent
Vegetation: mixed conifers
Mean Annual Precipitation: 25 to 30 inches
Mean Annual Temperature: 43 to 45 degrees F.
Frost Free Period: 60 to 80 days

COMPOSITION

Toiyabe gravelly loamy coarse sand and similar inclusions: 55 percent
Lasco gravelly loamy coarse sand and similar inclusions: 30 percent
Contrasting Inclusions: 15 percent

TOIYABE SOIL CHARACTERISTICS

Position on Landscape: on convex backslopes
Parent Material: material weathered from granite
Slope: 2 to 30 percent
Typical Profile:
- 0 to 7 inches: brown gravelly loamy coarse sand
- 7 to 15 inches: pale brown gravelly loamy coarse sand
- 15 inches: weathered granite

Depth Class: shallow
Drainage Class: excessively drained
Permeability: rapid
Available Water Capacity: very low
Potential Rooting Depth: 14 to 20 inches
Surface Runoff: medium
Bare Soil Erosion Hazard Rating: moderate
Depth to Restrictive Layer: 14 to 20 inches to weathered granite

LASCO SOIL CHARACTERISTICS

Position on Landscape: on concave backslopes
Parent Material: material weathered from granite
Slope: 5 to 30 percent
Important Surface Feature: the surface is covered with duff, 2 inches thick
Typical Profile:
- 0 to 9 inches: brown gravelly loamy coarse sand
- 9 to 49 inches: light brown gravelly sandy loam
- 49 inches: weathered granite

Depth Class: deep
Drainage Class: well drained
Permeability: moderately rapid
Available Water Capacity: low
Potential Rooting Depth: 40 to 60 inches
Surface Runoff: rapid
Bare Soil Erosion Hazard Rating: moderate
Depth to Restrictive Layer: 40 to 60 inches to weathered granite

INCLUDED AREAS

- soils similar to Lasco but are moderately deep to soft bedrock
- soils similar to Toiyabe but have a very bouldery surface on ridges

MAJOR USES

Current Uses: timber production and livestock grazing

TIMBER PRODUCTION

Major Management Factors:
Hazard of erosion
Very low available water capacity of the Toiyabe soil
Low available water capacity of the Lasco soil

TOIYABE VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine, white fir, ponderosa pine
Mean Site Index For Stated Species:
Jeffrey pine: 61 based on a 100 year site curve by Meyer
White fir: 50 based on a 50 year site curve by Schumacher
Dunning Site Class: IV
Cactos Site Index: 45
Common Understory Plants:
- manzanita
- snowbush ceanothus
- mountain whitethorn
- needlegrass
- mountain brome

LASCO VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine, white fir, incense cedar, Douglas fir, sugar pine
Mean Site Index For Stated Species:
Jeffrey pine: 85 based on a 100 year site curve by Meyer
White fir: 48 based on a 50 year site curve by Schumacher
Dunning Site Class: III
Cactos Site Index: 58
Common Understory Plants:
- manzanita
- snowbush ceanothus
- mountain whitethorn
- needlegrass
- mountain brome

General Management Considerations:
The bare soil erosion hazard rating of the Toiyabe soil may be reduced to low by managing for approximately 40 percent cover.
The bare soil erosion hazard rating of the Lasco soil may be reduced to low by managing for approximately 40 percent cover.
The very low available water capacity in the upper 24 inches of the Toiyabe and Lasco soils reduces the survival of seedlings.
Roads and landings can be protected from erosion by constructing waterbars.
Brushy plants such as manzanita, snowbrush ceanothus and mountain whitethorn limit natural regeneration of pine and fir trees.
If the site is not adequately prepared, competition from undesirable plants can prevent or prolong natural or artificial reestablishment of trees.
Among the trees that are suitable for planting are Jeffrey pine and ponderosa pine.

LIVESTOCK GRAZING

General Management Considerations:
This soil supports an understory plant community suitable for livestock grazing. Forage production is limited by conifer canopy density. Following timber harvest or thinning operations, forage production is enhanced.

INTERPRETIVE GROUPS

Capability Subclass: VIe (22), nonirrigated

786 - Toiyabe-Lasco-Quartzburg

786-Toiyabe-Lasco-Quartzburg complex, 30 to 50 percent slopes

SETTING

Landform: mountains
Elevation: 6000 to 7000 feet
Slope Range: 30 to 50 percent
Vegetation: mixed conifers
Mean Annual Precipitation: 25 to 30 inches
Mean Annual Temperature: 43 to 45 degrees F.
Frost Free Period: 60 to 80 days

COMPOSITION

Toiyabe loamy coarse sand and similar inclusions: 50 percent

Lasco gravelly loamy coarse sand and similar inclusions: 20 percent
Quartzburg stony loamy sand and similar inclusions: 15 percent
Contrasting Inclusions: 15 percent

TOIYABE SOIL CHARACTERISTICS

Position on Landscape: on convex backslopes
Parent Material: material weathered from granite
Typical Profile:
- 0 to 7 inches: brown loamy coarse sand
- 7 to 15 inches: pale brown gravelly loamy coarse sand
- 15 inches: weathered granite

Depth Class: shallow
Drainage Class: excessively drained
Permeability: rapid
Available Water Capacity: very low
Potential Rooting Depth: 14 to 20 inches
Surface Runoff: medium
Bare Soil Erosion Hazard Rating: high
Depth to Restrictive Layer: 14 to 20 inches to weathered granite

LASCO SOIL CHARACTERISTICS

Position on Landscape: on north-facing back slopes
Parent Material: material weathered from granite
Important Surface Feature: the surface is covered with duff, 2 inches thick
Typical Profile:
- 0 to 9 inches: brown gravelly loamy coarse sand
- 9 to 49 inches: light brown gravelly sandy loam
- 49 inches: weathered granite

Depth Class: deep
Drainage Class: well drained
Permeability: moderately rapid
Available Water Capacity: low
Potential Rooting Depth: 40 to 60 inches
Surface Runoff: rapid
Bare Soil Erosion Hazard Rating: high
Depth to Restrictive Layer: 40 to 60 inches to weathered granite

QUARTZBURG SOIL CHARACTERISTICS

Position on Landscape: on ridges
Parent Material: material weathered from granite
Important Surface Feature: the surface is covered with 10 percent stones and 5 percent cobbles.
Typical Profile:
- 0 to 7 inches: grayish brown stony loamy sand
- 7 to 26 inches: light brownish gray very gravelly loamy sand
- 26 inches: weathered granite

Depth Class: moderately deep
Drainage Class: excessively drained
Permeability: rapid
Available Water Capacity: very low
Potential Rooting Depth: 20 to 40 inches
Surface Runoff: rapid
Bare Soil Erosion Hazard Rating: high
Depth to Restrictive Layer: 20 to 40 inches to weathered granite

INCLUDED AREAS

- Outland very stony loam
- soils similar to Lasco but have a gravelly loamy coarse sand subsoil
- soils similar to Toiyabe but are very gravelly loamy coarse sand throughout
- soils similar to Toiyabe but have bouldery surfaces
- Rock outcrop

MAJOR USES

Current Uses: timber production and livestock grazing

TIMBER PRODUCTION

Major Management Factors:
Hazard of erosion
Slope
Low or very low available water capacity

TOIYABE VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine, white fir, ponderosa pine
Mean Site Index For Stated Species:
Jeffrey pine: 61 based on a 100 year site curve by Meyer
White fir: 50 based on a 50 year site curve by Schumacher
Dunning Site Class: IV
Cactos Site Index: 45
Common Understory Plants:
- manzanita
- snowbrush ceanothus
- mountain whitethorn
- needlegrass
- mountain brome

LASCO VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine, white fir, incense cedar, Douglas fir, sugar pine
Mean Site Index For Stated Species:
Jeffrey pine: 85 based on a 100 year site curve by Meyer
White fir: 48 based on a 50 year site curve by Schumacher
Dunning Site Class: III

Cactos Site Index: 58
Common Understory Plants:
- manzanita
- snowbrush ceanothus
- mountain whitethorn
- needlegrass
- mountain brome

QUARTZBURG VEGETATION CHARACTERISTICS

Main Tree Species: Jeffrey pine
Mean Site Index For Stated Species:
Jeffrey pine: 64 based on a 100 year site curve by Meyer
Dunning Site Class: II
Cactos Site Index: 74
Common Understory Plants:
- manzanita
- snowbrush ceanothus
- mountain whitethorn
- needlegrass
- mountain brome

General Management Considerations:
The bare soil erosion hazard rating of the Toiyabe soil may be reduced to low by managing for approximately 80 percent cover.
The bare soil erosion hazard rating of the Lasco soil may be reduced to low by managing for approximately 60 percent cover.
The bare soil erosion hazard rating of the Quartzburg soil may be reduced to low by managing for approximately 60 percent cover.

The steepness of slope limits the kinds of equipment that can be used in forest management.
The very low available water capacity in the upper 24 inches of the Toiyabe and Quartzburg soils reduces the survival of seedlings.
Roads and landings can be protected from erosion by constructing waterbars.
Brushy plants such as manzanita, snowbrush ceanothus and mountain whitethorn limit natural regeneration of pine and fir trees.
If the site is not adequately prepared, competition from undesirable plants can prevent or prolong natural or artificial reestablishment of trees.
Among the trees that are suitable for planting are Jeffrey pine and ponderosa pine.

LIVESTOCK GRAZING

General Management Considerations:
This soil supports an understory plant community suitable for livestock grazing. Forage production is limited by conifer canopy density. Following timber harvest or thinning operations, forage production is enhanced.

INTERPRETIVE GROUPS

Capability Subclass: VIe (22), nonirrigated

WINTER OPERATIONS

23. a. [**X**] Yes [ ] No Will timber operations occur during the winter period? If yes, complete "b.", and then "c." or "d." State in space provided if exempt because yarding method will be cable, helicopter, or balloon.

b. [ ] Yes [ ] No Will mechanical site preparation be conducted during the winter period? If yes, complete "d."
NA

c. [**X**] I choose the in-lieu option as allowed in 14 CCR 914 (934, 954) .7 (c) and 1090.5 (bb). Specify below the procedures listed in subsections (1) and (2), and list the site specific measures for operations in the WLPZ and unstable areas as required by subsection (3), if there will be no winter operations in these areas, so state.

As ground and weather conditions permit normal logging operations will take place including tree falling, skidding, log loading and hauling.

In lieu of a winter operating plan site specific measures to be followed shall be in compliance with 14 CCR 934.7(c):

(1). Tractor yarding or the use of tractors for constructing layouts, firebreaks or other tractor roads shall be done only during dry, rainless periods where soils are not saturated or when ground is frozen.

(2). Erosion control structures shall be installed on all constructed skid trails and tractor roads prior to the end of the day if the U.S. Weather Service forecast is a "chance" (30% or more) of rain before the next day, and prior to weekend or other shutdown periods.

(3). No road construction or crossing installation within WLPZ.

(4). All water breaks and rolling dips must be installed by October 15 or as prescribed above.

d. [ ] I choose to prepare a winter operating plan per 14 CCR 914 (934, 954) .7 (b) and 1090.5 (bb).

NOTE: "Winter period" means the period between November 15 and April 1, except as noted under special County Rules at Title 14 CCR 925.1, 926.18, 927.1, and 965.5... (a) except as otherwise provided in the rules: (1) All waterbreaks shall be installed no later than the beginning of the winter period of the current year of timber operation. (2) Installation of drainage facilities and structures is required from October 15 to November 15 and April 1 to May 1 on all constructed skid trails and tractor roads prior to sunset if the National Weather Service forecast is a "chance" (30% or more) of rain within the next 24 hours.

ROADS AND LANDINGS

24. Will any roads be constructed? [X] Yes [ ] No, or reconstructed? [X] Yes [ ] No. If yes, check items a through g.

Will any landings be constructed? [ ] Yes [X] No, or reconstructed? [X] Yes [ ] No. If yes, check items h through k:

a. [ ] Yes [X] No	Will new or reconstructed roads be wider than single lane with turnouts?
b. [ ] Yes [X] No	Are logging roads proposed in areas of unstable soils or known slide-prone areas?
c. [ ] Yes [X] No	Will new roads exceed a grade of 15% or have pitches of up to 20% for distances greater than 500 feet? Map must identify any new or reconstructed road segments that exceed an average 15% grade for over 200 feet.
d. [ ] Yes [X] No	Are roads to be constructed or reconstructed, other than crossings, within the WLPZ of a watercourse? If yes, completion of NTMP Item 27 a. will satisfy required documentation.
e. [ ] Yes [X] No	Will roads longer than 100 feet in length be located on slopes over 65%, or on slopes over 50% which are within 100 feet of the boundary of a WLPZ?
f. [ ] Yes [X] No	Will any roads or watercourse crossings be abandoned?
g. [ ] Yes [X] No	Are exceptions proposed for flagging or otherwise identifying the location or roads to be constructed?
h. [ ] Yes [X] No	Will any landings exceed one half acre in size? If any landing exceeds one quarter acre in size or requires substantial excavation the location must be shown on the map.
i. [ ] Yes [X] No	Are any landings proposed in areas of unstable soils or known slide prone areas?
j. [ ] Yes [X] No	Will any landings be located on slopes over 65% or on slopes over 50% which are within 100 feet of the boundary of a WLPZ?
k. [ ] Yes [X] No	Will any landings be abandoned?

A well-developed existing road and landing system is to be utilized for harvesting. All existing private roads on the Nagel Family property are classed as seasonal because winter snowpack can make them impassable. Roads which have had timber operations within the past 8 years have been upgraded and are in good condition. Roads on the Lost Meadows Unit tend to be in a little poorer condition and in need of improved placement of rolling dips and upgraded crossings. A short (300') section of old road is now heavily overgrown with grass and will need to be reconstructed on the Lost Meadows Unit to connect the road network to the main driveway.

25. If any section in item 24 is answered yes, specify site-specific measures to reduce adverse impacts and list any additional or special information needed by the LTO concerning the construction, maintenance and/or abandonment of roads or landings as required by 14 CCR Article 12, and 1090.5 (r, cc, ff, hh, ii). Include required explanation and justification in NTMP Section III.

A short segment of new seasonal road construction is needed.

RC-1 is approximately 320 feet long and is a short spur to a landing on the north side of Wingfield Road. The new road will traverse very gentle slopes averaging under 10% with relatively deep soils (Chirpchatter) and an erosion hazard rating of "moderate". Grade of the new segment averages 5%. The LTO shall attempt to construct the road with naturally rolling dips.

WATERCOURSE AND LAKE PROTECTION ZONE (WLPZ) AND DOMESTIC WATER SUPPLY PROTECTION MEASURES:

26. a. [X] Yes [ ] No Are there any watercourse or lakes which contain Class I through IV waters on or adjacent to the plan area? If yes, list the class, WLPZ or ELZ width, and protective measures determined from Table I and/or 14 CCR 916 (936, 956) .4 (c) of the WLPZ rules for each watercourse. Specify if Class III or IV watercourses have WLPZ , ELZ or both.

b. [X] Yes [ ] No Are there any watercourse crossings that require mapping per 14 CCR 1095.7 (x)?

c. [ ] Yes [X] No Will tractor road watercourse crossings involve the use of a culvert? If yes state minimum diameter and length for each culvert (may be shown on map).

d. [ ] Yes [X] No Is this NTMP Review Process to be used to meet Department of Fish and Game CEQA review requirements? If yes, attach the 1603 Addendum below or at the end of this Section II; provide the background information and analysis in Section III; list instructions for LTO below for the installation, protection measures and mitigation measures; see CDF Mass Mailing, 07/02/1999, "Fish and Game Code 1603 Agreements and THP Documentation".

27. Are site specific practices proposed in-lieu of the following standard WLPZ practices?

a. [ ] Yes [X] No Prohibition of the construction or reconstruction of roads, construction or use of tractor roads or landings in Class I, II, III, or IV watercourses, WLPZs, marshes, wet meadows, and other wet areas except as follows:
(1) At prepared tractor road crossings.
(2) Crossings of Class III watercourses which are dry at time of timber operations.
(3) At existing road crossings.
(4) At new tractor and road crossings approved by Department of Fish and Game.

b. [ ] Yes [X] No Retention of non-commercial vegetation bordering and covering meadows and wet areas?

c. [ ] Yes [X] No Directional felling of trees within the WLPZ away from the watercourse or lake?

d. [ ] Yes [X] No Decrease of width(s) of the WLPZ(s)?

e. [ ] Yes [X] No Protection of watercourses which conduct class IV waters?

f. [ ] Yes [X] No Exclusion of heavy equipment from the WLPZ except as follows:
(1) At prepared tractor road crossings.
(2) Crossings of Class III watercourses which are dry at time of timber operations.
(3) At existing road crossings.
(4) At new tractor and road crossings approved by Department of Fish and Game.

g. [ ] Yes [X] No Establishment of ELZ for Class III watercourses unless sideslopes are <30% and EHR is low?

h. [ ] Yes [X] No Retention of at least 50% of the overstory canopy in the WLPZ?

i. [ ] Yes [X] No Retention of at least 50% of the understory in the WLPZ?

j. [ ] Yes [X] No Are any additional in-lieu or any alternative practices proposed for watercourse or lake protection?

NOTE: A yes answer to any of items a. through j. constitutes an in-lieu practice. If any item is answered yes, refer to 14 CCR 916.1 (936.1, 956.1) and 1090.5 (dd), and address the following for each item checked yes:

1. The RPF shall state the standard rule,
2. Explain and describe each proposed practice;
3. Explain how the proposed practice differs from the standard practice;
4. The specific location where it shall be applied, see map requirements of 14 CCR 1034 (x) (15) and (16);
5. Provide in NTMP Section III an explanation and justification as to how the protection provided is equal to the standard rule and provides for the protection of the beneficial uses of water per 14 CCR 916 (936, 956) .1 (a). Reference the in-lieu and location to the specific watercourse to which it will be applied.

BENEFICIAL USES OF WATER -

The Lost Meadows Unit drains into Lassen Creek. Known beneficial uses of water transported in Lassen Creek include wildlife and aquatic habitat, and agricultural use. Except during the winter or when there are extreme flows, the water from the project area is dispersed into a system of irrigation ditches once it reaches the adjoining Hulsman Ranch.

Most of the runoff from the Happy Ranch Valley Unit flows into Sandy Slough. Many of the watercourses feeding this tributary of the Standish Irrigation Canal which flows into Leavitt Lake are principally used for livestock before the watercourses dry up.

WATERCOURSES & LAKES DESCRIPTION -

Lassen Creek is the principal watercourse on the Lost Meadows Unit which barely touches the northwest corner of the Unit within the THP area. It is rated as a Class II stream.

Watercourses on the Happy Valley Unit are primarily rated as Class III streams. They are intermittent in nature and rarely have running water. All are unnamed and empty into Sandy Slough.

Channel slope of the watercourses is gentle and generally under 15%. Stream banks are stable and gently sloping at elevations below 4,700 feet. Steeper sideslopes are encountered on the main tributary of Sandy Slough which traverses through the center of the Happy Valley Unit above 4,700 feet elevation. Protective vegetation includes overstory ponderosa pine, black oak, white fir, incense cedar and pockets of riparian vegetation along the Class I stream.

Watercourse protection measures shall comply with the Rules and Regulations of the State Forest Practice Act including, but not limited to, the following provisions specified in 14 CCR 936.5:

Class II Watercourses (Springs) -

WLPZ - 50' slopes < 30%
75' slopes 30-50%
100' slopes > 50%

WLPZ to be identified on the ground by RPF with paint, flagging, or other suitable means prior to start of operations. ("B")

All harvest trees to be marked in WLPZ by supervising RPF prior to falling within WLPZ so that a base mark is below the sawcut line. ("E")

At least 50% of the total canopy covering the ground shall be left in a well-distributed multi-storied stand configuration composed of a diversity of species similar to that found before the start of operations. The residual overstory canopy shall be composed of at least 25% of the existing overstory conifers. ("I")

No heavy equipment shall operate within the WLPZ for Class II watercourses.

Class III Watercourses -

ELZ - 25' slopes < 30%
50' slopes 30-50%
50' slopes > 50%

ELZ may be identified on the ground by RPF with paint, flagging, or other suitable means prior to start of operations. ("C")

All harvest trees to be marked in ELZ by supervising RPF prior to falling within ELZ so that a base mark is below the sawcut line. ("F")

At least 50% of the understory canopy covering the ground shall be left living and well-distributed in the ELZ to maintain soil stability. ("H")

Crossings of roads and skid trails are identified on the Table which follows and on the Watercourse and Road Maps. All crossings flagged prior to pre-harvest inspection.

Heavy equipment use shall be excluded except at designated road and skid trail crossings. Only dry crossings flagged by the RPF shall be used. Crossings to be grass seeded and straw mulched prior to the winter season.

SPRINGS -

Two springs are identified on the Watercourse Map for the Happy Valley Unit. Eight springs are identified on the Watercourse Map for the Lost Meadows Unit.

The RPF will flag boundaries of a 25' WLPZ around these class II wet areas and springs. Heavy equipment shall be excluded from the WLPZ.

ROADS IN ELZ -

Two sections of existing seasonal road (also used for tractor yarding) fall within the ELZ on the Happy Valley Ranch Unit. They are identified as R-1 and R-2 on the Road Crossing Map. R-1 and R-2 lie within a 25 foot ELZ for the main branch Class III watercourse. Section R-1 is approximately 125 feet long and lies just north of skid trail crossing W-16. Section R-2 is south of R-1 near crossing W-17 and is approximately 300 feet long. Please see "Watercourses" Map on page 33.

Based upon a field inspection, it is my conclusion that beneficial uses will be least impacted by continued use of these existing road sections for log hauling and tractor yarding. Because of topographic constraints, realignment or reconstruction of these roads sections would have the potential to increase soil erosion and result in greater potential degradation of water quality. The roadbed is stable and their is sufficient filter capacity to reduce potential soil erosion impacts. Additional protection shall include the requirement that sidecast shall be minimized along these road sections and that any sidecast from road reconstruction or tractor yarding shall be seeded with grass and straw-mulched prior to the winter period and/or the conclusion of logging.

FALLING IN ELZ -

In isolated situations along Class III watercourses, trees will lean across a creek making it difficult to fall the tree away from the watercourse without jeopardizing the safety of the faller or creating great ground disturbance from the use of a tractor to secure a cable needed to pull the tree away from the watercourse. These situations are unusual but will occur over the life of the NTMP.

It is proposed that along any Class III watercourses where tree lean, safety or topography and ground conditions dictate, trees may be felled across the ELZ if it will result in a lesser amount of damage to the tree, the leave stand and understory or reduce the amount of skidding and soil disturbance. All such trees shall be marked by the RPF. The RPF shall make a determination that falling the tree across the watercourse will produce less total ground disturbance than if the tree were felled away from the watercourse and the tree can be felled without limbs entering the watercourse. This will reduce the potential for soil erosion into the watercourse. This felling is only proposed along Class III watercourses which on the Nagel property are very ephemeral, rarely contain running water and will only be allowed when the watercourse has no running surface water.

2/12/02

28. a. [**X**] Yes [ ] No Are there any landowners within 1000 feet downstream of the NTMP boundary whose ownership adjoins or includes a class I, II, or IV watercourse(s) which receives surface drainage from the proposed timber operations? If yes, the requirements of 14 CCR 1032.10 apply. Proof of notice by letter and newspaper must be enclosed in NTMP Section V. If No, Item 28 b. need not be answered.

b. [ ] Yes [**X**] No Is an exemption requested of the notification requirements of 14 CCR 1032.10? If yes, explanation and justification for the exemption must be included. Specify if requesting an exemption from the letter, the newspaper notice, or both.

c. [ ] Yes [**X**] No Was any information received on domestic water supplies that required additional mitigation beyond that required by standard Watercourse and Lake Protection rules? If Yes, list site specific measures to be implemented by the LTO.

A notice requesting information was published in the *Lassen County Times* and a letter to landowners within 1000 feet downstream of the THP boundary was sent requesting information regarding domestic water supplies. There were no responses.

There are no water sources within the THP project area which are used for domestic water on the Happy Valley Unit.

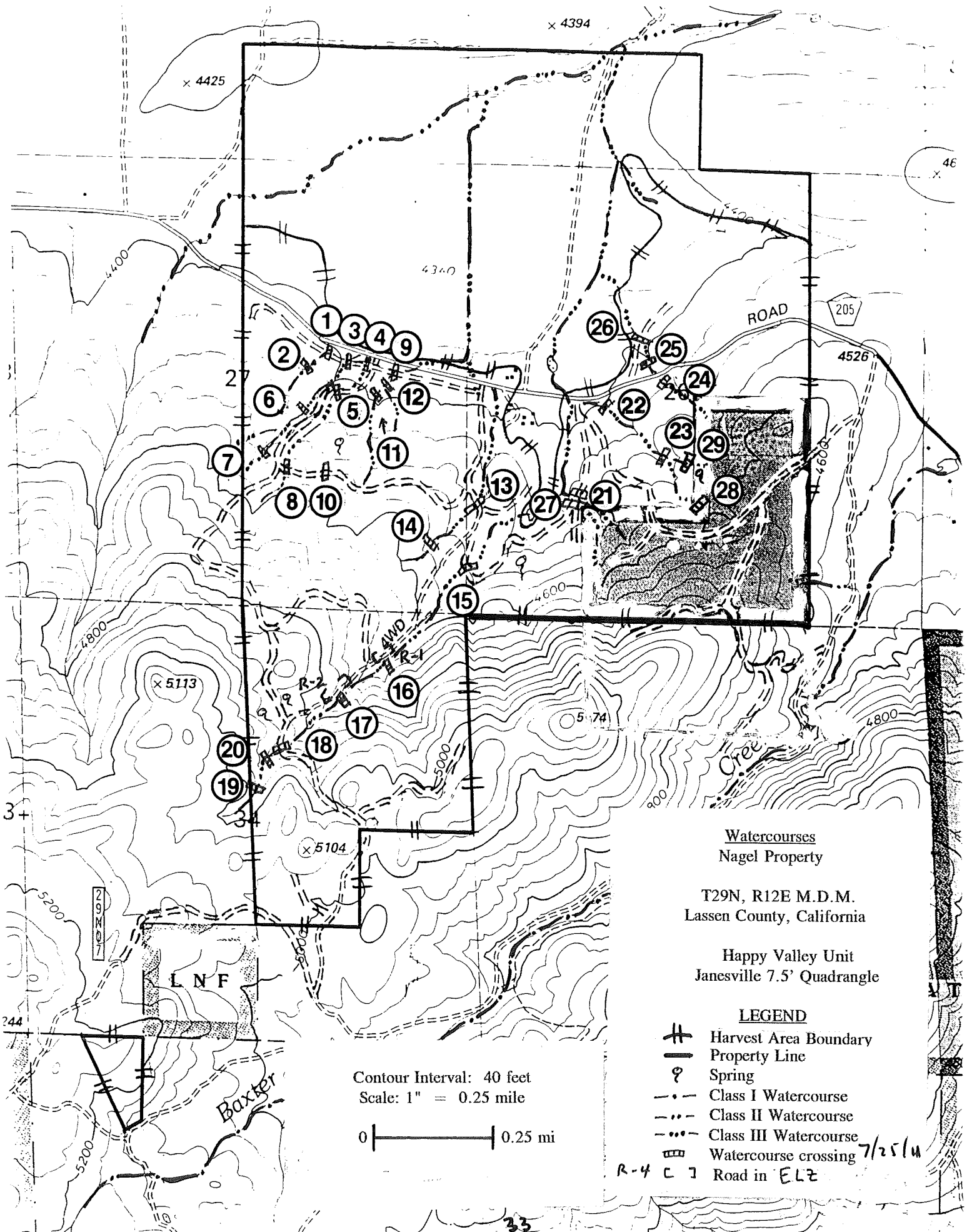
On the Lost Meadows Unit, a spring in the middle of the meadow is used for domestic water. It is outside of and far from the harvest area and will not require additional protective measures.

29. [ ] Yes [**X**] No Is any part of the NTMP area within a Sensitive Watershed as designated by the Board of Forestry and Fire Protection? If yes, identify the watershed and list any special rules, operating procedures or mitigation that will be used to protect the resources identified at risk?

Table of Watercourse Crossings

Nagel Family THP

Map No.	Watercourse Class	Crossing Facility	Status
1	III	Road, dry	Existing
2	III	Skid trail, dry	Existing
3	III	Road, dry	Existing
4	III	Road, dry	Existing
5	III	Road, dry	Existing
6	III	Skid trail, dry	Existing
7	III	Skid trail, dry	Existing
8	III	Road, dry	Existing
9	III	Road, dry	Existing
10	none	20' 16 cmp	Existing
11	III	Skid trail, dry	Existing
12	III	Skid trail, dry	Existing
13	III	Road, dry	Existing
14	III	Skid trail, dry	Existing
15	III	Road, dry	Existing
16	III	Skid trail, dry	Existing
17	III	Skid trail, dry	Existing
18	III	Road, dry	Existing
19	III	Skid trail, dry	Existing
20	III	Skid trail, dry	Existing
21	III	Road, dry	Existing
22	III	Skid trail, dry	Existing
23	III	Skid trail, dry	Existing
24	III	Skid trail, dry	Existing
25	III	Skid trail, dry	Existing
26	III	Skid trail, dry	Existing
27	III	Road, dry	Existing
28	III	Skid trail, dry	Existing
29	III	Skid trail, dry	Existing



Watercourses
Nagel Property

T29N, R12E M.D.M.
Lassen County, California

Happy Valley Unit
Janesville 7.5' Quadrangle

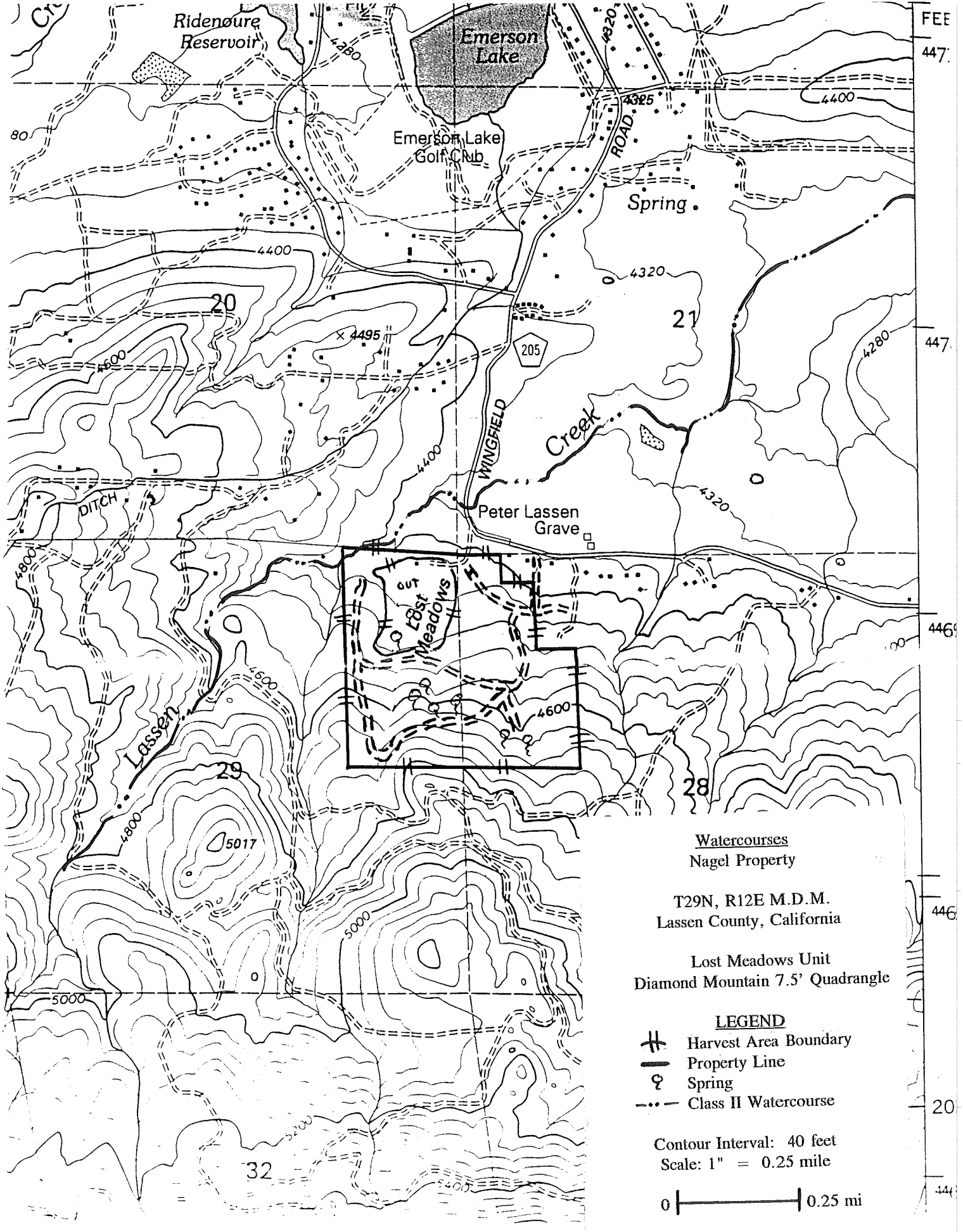
LEGEND

- Harvest Area Boundary
- Property Line
- Spring
- Class I Watercourse
- Class II Watercourse
- Class III Watercourse
- Watercourse crossing
- Road in ELZ

R-4 C 7/25/14

Contour Interval: 40 feet
Scale: 1" = 0.25 mile

0 — 0.25 mi


Ridenoure Reservoir
Emerson Lake
Emerson Lake Golf Club
ROAD
Spring
4320
4400
4325
4280
20
21
4495
205
WINGFIELD
Creek
DITCH
Peter Lassen Grave
4800
Lost Meadows
4600
Lassen
29
28
5017
5000
32
5400
Watercourses
Nagel Property
T29N, R12E M.D.M.
Lassen County, California
Lost Meadows Unit
Diamond Mountain 7.5' Quadrangle
LEGEND
Harvest Area Boundary
Property Line
Spring
Class II Watercourse
Contour Interval: 40 feet
Scale: 1" = 0.25 mile
0
0.25 mi
September 2001

11/6/01

HAZARD REDUCTION:

30. a. [**X**] Yes [ ] No Are there roads or improvements which require slash treatment adjacent to them? If yes, specify the type of improvement, treatment distance, and treatment method.

b. [ ] Yes [**X**] No Are any alternatives to the rules for slash treatment along roads and within 200 feet of structures requested? If yes, RPF must explain and justify how alternative provides equal fire protection. Include a description of the alternative and where it will be utilized below.

31. [**X**] Yes [ ] No Will piling and burning be used for hazard reduction? See 14 CCR 917.1-.11, 937.1-.10, or 957.1-.10, for specific requirements. Note: LTO is responsible for slash disposal. This responsibility cannot be transferred.

Wingfield Road is the only public road adjacent to the proposed NTMP harvest area which requires slash treatment. Treatment shall be 100% lopping or chipping of all logging-generated slash to within 18" of the ground surface within 100 feet of the edge of the travelled surface.

Harvesting near the two houses shall comply with 14 CCR 937.2(b) which requires 100% removal of "all woody debris created by timber operations greater than one inch but less than eight inches in diameter within 100 ft. ... shall be removed or piled and burned..." All slash within 100 to 500 ft. of permanent habitations shall also be lopped.

Within the proposed plan area, all other logging-generated slash shall be 100% treated by either lopping to within 24" of the ground surface or chipping, and/or removal.

Any slash piles created at landing sites shall be burned in compliance with 14 CCR 937.5 which requires:

"(a) Piles and concentrations shall be sufficiently free of soil and other noncombustible material for effective burning.

'(b) The piles and concentrations shall be burned at a safe time during the first wet fall or winter weather or other safe period following piling and according to laws and regulations. Piles and concentrations that fail to burn sufficiently to remove the fire hazard shall be further treated to eliminate that hazard. All necessary precautions shall be taken to confine such burning to the piled slash."

BIOLOGICAL RESOURCES

32. a. [ ] Yes [X] No Are any plant or animal species, including their habitat, which are listed as rare, threatened or endangered under federal or state law, or a sensitive species by the Board, associated with the NTMP area? If yes, identify the species and the provisions to be taken for the protection of the species.

b. [ ] Yes [X] No Are there any non-listed species which will be significantly impacted by the operation? If yes, identify the species and the provisions to be taken for the protection of the species.

NOTE: See instructions or the CDF Mass Mailing, 07/02/1999, section on "CDF Guidelines for Species Surveys and Mitigations" to complete these questions.

The project area includes four principal vegetation types as identified in the California Wildlife Habitat Relationships System (WHR). Estimated acreage by different Habitat types is as follows:

WHR Type - Description	Acres
Happy Valley Unit	
SGB - Sagebrush	80
PAS - Pasture	318
MHW - Montane Hardwood (Black Oak)	6
EPN5S - Eastside Pine medium/large trees sparse cover	40
EPN4D - Eastside Pine small trees moderate cover	42
EPN4M - Eastside Pine small trees open cover	142
EPN4P - Eastside Pine small trees open cover	36
EPN3D - Eastside Pine pole trees dense cover	204
EPN3M - Eastside Pine pole trees moderate cover	75
EPN3P - Eastside Pine pole trees open cover	131
EPN3S - Eastside Pine pole trees dense cover	37
	1,160
Lost Meadows Unit	
PAS - Pasture	26
EPN5P - Eastside Pine medium/large trees open cover	9
EPN4D - Eastside Pine small trees dense cover	24
EPN3M - Eastside Pine pole trees moderate cover	81
	140

Primary forest cover is Eastside Pine Forest type (870 acres). Age class is young growth between pole and merchantable size trees. Densities are variable from sparse to dense. The forest area is principally vegetated with ponderosa pine trees 8 inches d.b.h. and larger constituting an overstory with pockets of reproduction. California black oak is often a stand component and the understory may included sagebrush, bitterbrush and grass. White fir, sugar pine, Douglas-fir and incense cedar are sometimes found in this type, especially along watercourses.

The forest on the Baxter Creek parcel (13 acres) is considered closest to Sierran Mixed Conifer type with species diversity being greater than for Eastside Pine Forest. However, ponderosa pine is still the principal conifer tree species. Ground cover of this stand is thick with species of brush including manzanita, squaw carpet, grass, herbaceous plants and scattered serviceberry bushes.

Two non-forest vegetation types found on the Hulsman Ranch property will not be impacted by the proposed timber harvesting activities. Pasture comprises approximately 344 acres and is native grass. A few small native grass meadows are located within the forested area of the property. Species composition in these forest meadows includes perennial grasses, quaking aspen, wild rose, willow and alder. Sagebrush plant communities located north of the forest on the Happy Valley Ranch Unit are comprised of sagebrush, bitterbrush, rabbitbrush and grasses.

The area supports a typical mix of wildlife species for the Eastside Pine Forest type including mule deer, squirrels, mountain lion, coyote, bobcat, jackrabbits, etc.

There are no known significant wildlife or fishery concerns for the area. The property is within an area used for deer winter range. The project, however, should have minimum impact on black oak cover and there is little bitterbrush in the harvest plan area. Deer habitat may actually be enhanced in the short-term with improved production of herbs and forbes as a result of greater sunlight reaching the forest floor. 1/29/10

There are no known significant wildlife or fishery concerns for the area. The property is within an area used for deer winter range. The project, however, should have minimum impact on black oak cover and there is little bitterbrush in the harvest plan area. Deer habitat may actually be enhanced in the short-term with improved production of herbs and forbes as a result of greater sunlight reaching the forest floor.

There are no known threatened or endangered wildlife species which use the property. Bald Eagles are believed to occasionally fly over the property. There are no known Bald Eagle nests on the property. Similarly, the property is within the range of the Northern Goshawk which is also considered a "sensitive" species, but no nest sites are known to occur in the harvest area.

One California Spotted Owl family has been tracked by the Forest Service because it has nesting sites close National Forest ground to the west of the property in Section 33. The most recent Owl nest was in a very old burned hollow snag in a small open area surrounded by moderately dense young growth mixed conifer forest. The nest appeared vacant when last visited in 2000. The project area is sufficiently far from this nest as to have no impact on the site. Additionally, under the proposed uneven-aged management scheme, available habitat will not be altered significantly over the long-term.

The property contains some dead conifer trees. Merchantable dead trees may be marked for future harvest. Retention of conifer snags suitable for cavity nesters is to be accomplished by leaving older and larger snags which are not suitable for sawlogs. Additionally, cavity-nesting species do have available habitat on the site from the many black oak trees which are not planned for harvest. Active raptor nests will not be cut also.

Three plant species have been identified as being located in the topographic quadrangles covered by this project after a review of the California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California . Cordylanthus capitatus, Yakima bird's beak, is a CNPS list 2 species (rare, threatened or endangered in California but common elsewhere) found on the Janesville 7.5' quad (622-C). It is believed not likely that the second species is on the property because the species occurs on the edge of true fir forests, and true fir forests are not present on this property. Lomatium hendersonii, Henderson's lomatium, is similarly on List 2 and found on the Janesville 7.5' quad (622-C) but is believed to occur at higher elevations and not in the vicinity of the NTMP area. The third species is Ivesia sericoleuca, Plumas ivesia, is on the 1-B List (rare, threatened or endangered in California and elsewhere) and found at higher elevations on the Plumas National Forest (topographic quadrangle 622-D, Diamond Mtn).

Kim Earll, a botanist with the U.S.F.S. Lassen National Forest, was contacted regarding the possibility of Rare, Endangered, Threatened or Sensitive plants in the vicinity of the project area. While not observed on the Nagel Family lands, three could occur. Astralagus pulsiferae, Suksdorf's milk-vetch (1-B), is found on sandy volcanic soil in sagebrush and pine. The Nagel forested areas have soils derived from granite suggesting that it is less likely to occur. Penstemon janishae, Janish's beardtongue, is a 1-B plant located on the crest of the Diamond Mountains above the property. Trifolium andersonii, Anderson's Clover, is known to occur along Baxter Creek, but is rated only as a special interest plant. As Notices of Operation are filed for future timber harvest operations, the RPF will look for these sensitive plants during tree marking and timber sale preparation, and if any are found, establish appropriate mitigation measures.

Some of the denser forest stands along the watercourses have characteristics of late seral stage forests. However, all have been harvested and components such as snags are generally not present. Tree size is also not large enough to qualify for this type. Connectivity with late seral forests on other ownerships is not apparent, including with National Forest lands on the south which have also been harvested. As proposed in this NTMP, the owners intend to maintain a cover of large trees by thinning the least healthy of the overstory trees, while harvesting more of the understory which is unhealthy. Average tree size over time may actually increase as spacing between larger trees increases. General habitat characteristics should remain fairly similar to their current condition over the long-term.

33. [X] Yes [ ] No Are there any snags which must be felled for fire protection or safety reasons? If yes, describe which snags are going to be felled and why.

Merchantable snags may be felled to make sawlogs. Snags along roads or near structures may be felled for safety purposes and/or fuelwood.

34. [ ] Yes [X] No Are any Late Succession Forest Stands proposed for harvest? If yes, describe the measures to be implemented by the LTO that avoid long-term significant adverse effects on fish, wildlife and listed species known to be primarily associated with late succession forests.

35. [ ] Yes [X] No Are any other provisions for wildlife protection required by the rules? If yes, describe.

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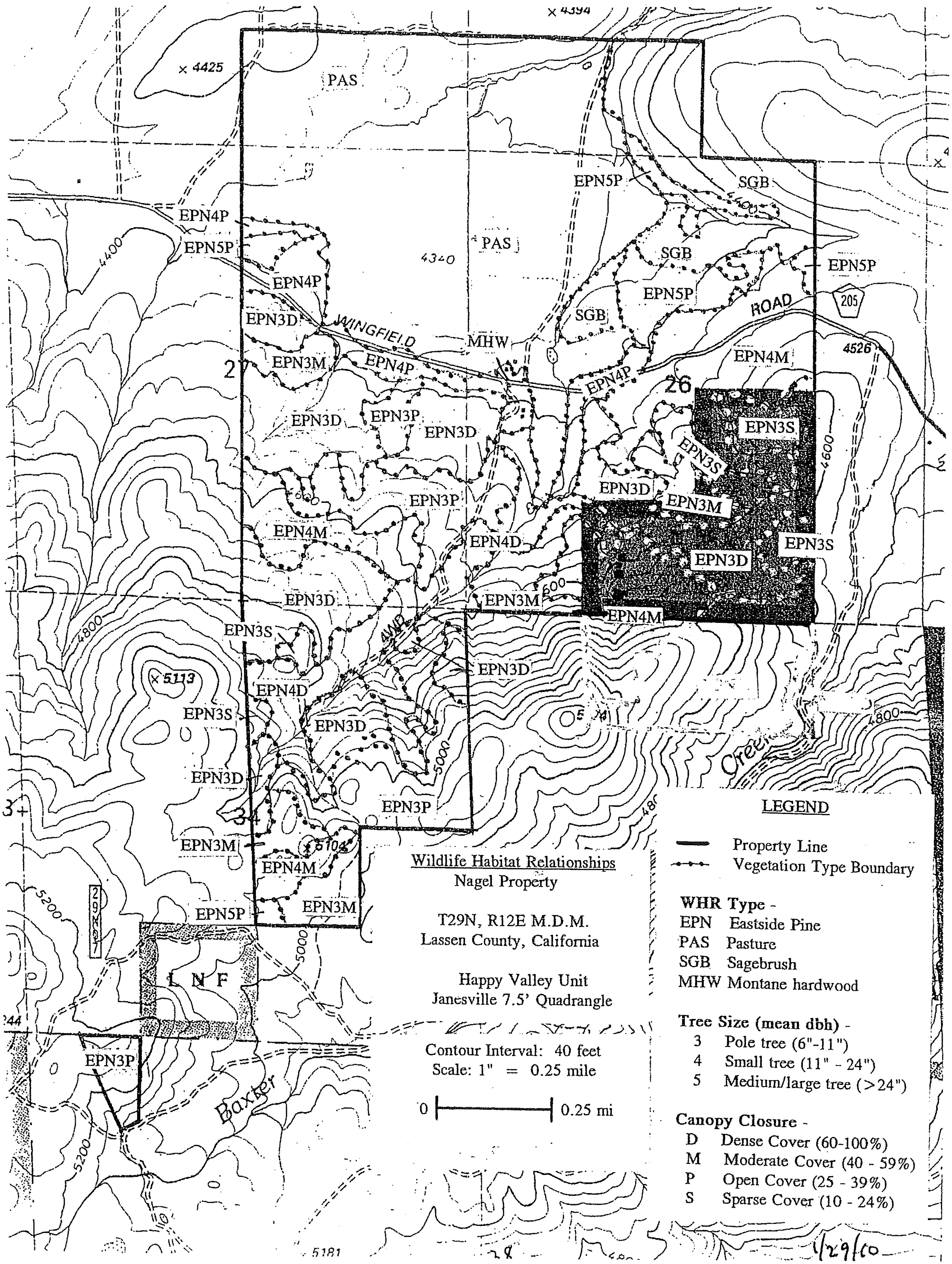
Wildlife Habitat Relationships
Nagel Property
T29N, R12E M.D.M.
Lassen County, California
Happy Valley Unit
Janesville 7.5' Quadrangle
Contour Interval: 40 feet
Scale: 1" = 0.25 mile
0
0.25 mi
LEGEND
Property Line
Vegetation Type Boundary
WHR Type -
EPN Eastside Pine
PAS Pasture
SGB Sagebrush
MHW Montane hardwood
Tree Size (mean dbh) -
3 Pole tree (6"-11")
4 Small tree (11" - 24")
5 Medium/large tree (>24")
Canopy Closure -
D Dense Cover (60-100%)
M Moderate Cover (40 - 59%)
P Open Cover (25 - 39%)
S Sparse Cover (10 - 24%)
PAS
EPN5P
SGB
EPN4P
EPN5P
4340
SGB
EPN5P
EPN5P
205
ROAD
WINGFIELD
EPN3D
SGB
MHW
EPN3M
EPN4P
EPN4M
4526
26
EPN4P
EPN3D
EPN3P
EPN3D
EPN3S
EPN3S
EPN3D
EPN3M
EPN3P
EPN4M
EPN4D
EPN3S
EPN3D
EPN3D
EPN3M
EPN4M
EPN3S
EPN3D
5113
EPN4D
EPN3S
EPN3D
EPN3D
EPN3P
EPN3M
5104
EPN4M
EPN5P
EPN3M
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Creek
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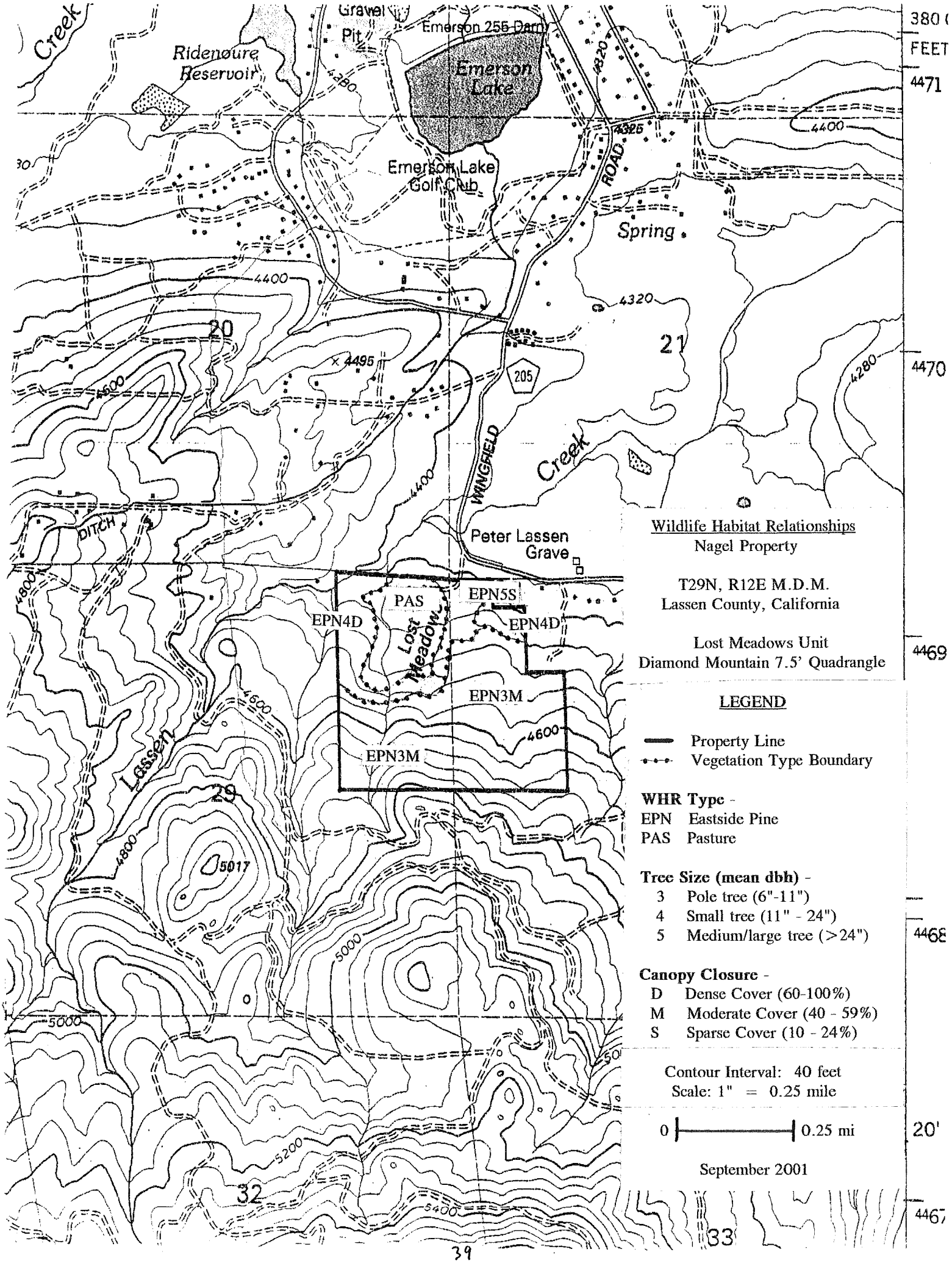
5000
5200
4600
5181
1/29/10



Wildlife Habitat Relationships
Nagel Property

T29N, R12E M.D.M.
Lassen County, California

Lost Meadows Unit
Diamond Mountain 7.5' Quadrangle

LEGEND

Property Line
Vegetation Type Boundary

WHR Type -
EPN Eastside Pine
PAS Pasture

Tree Size (mean dbh) -
3 Pole tree (6"-11")
4 Small tree (11" - 24")
5 Medium/large tree (>24")

Canopy Closure -
D Dense Cover (60-100%)
M Moderate Cover (40 - 59%)
S Sparse Cover (10 - 24%)

Contour Interval: 40 feet
Scale: 1" = 0.25 mile

0 — 0.25 mi

September 2001

CULTURAL RESOURCES

36. a. [X] Yes [ ] No Has an archaeological survey been made of the NTMP area?
b. [X] Yes [ ] No Has an archaeological records check been conducted for the NTMP area?
c. [X] Yes [ ] No Are there any archaeological or historical sites located in the NTMP area? Specific site locations and protection measures are contained in the Confidential Archaeological Addendum in Section VI of the NTMP, which is not available for general public review.

37. [X] Yes [ ] No Has any inventory or growth and yield information designated "trade secret" been submitted in a separate confidential envelope in Section VI of this NTMP?

38. Describe any special instructions or constraints that are not listed elsewhere in Section II, and specify their location in the NTMP if not listed immediately below: NA

GENERAL PROPERTY DESCRIPTION

39. Provide a general description of physical conditions of the plan site, include in Section III, as per 14 CCR 1034 (jj).

The Nagel Family property is comprised of ± 1,300 acres located in a foothill area of the eastside of the Sierra Nevada Mountains. It is comprised of three noncontiguous units. Happy Valley Ranch is the largest group of parcels with approximately ± 1,147 acres of forest and range land. The Lost Meadows parcel is ± 140 acres and the Baxter Creek parcel is ± 13 acres. All of the units lie within close proximity of each other.

The crest of the Diamond Mountains (a northern extension of the Sierra Nevadas) lies approximately two miles south of the property. The subject is located about 5 miles south of the City of Susanville in a less developed area of the Honey Lake Valley.

A four mile strip of land along unpaved Wingfield Road from Peter Lassen's Grave to Bass Hill Road is dominated by three ranch ownerships with the Happy Valley Ranch lying in the middle. Residences on the ranches are a mile distant from each other and land use is primarily devoted to natural resource use for livestock and timber production. Rural residences are located along Wingfield Road near Peter Lassen's Grave and along Old Archery and Children's Roads on the west side of the Ranch. The Lost Meadows unit is located near Peter Lassen's Grave. The property is surrounded by private parcels ranging from 5 to 2,854 acres in size. The general area is characterized as natural resource land with scattered rural residential development.

Vegetative cover is a mix of native grass pasture and sagebrush at the lower elevation northern portion of Happy Valley Ranch comprising about 405 acres, 25 acres of perennial grass meadow at Lost Meadows, and Eastside Pine and Sierran Mixed Conifer Forest containing about 950 acres on the southern and western part of the property. The forest is well-stocked young growth of varying size classes. Ponderosa/Jeffrey pine is the predominant species. Other conifers include sugar pine, white fir, incense cedar and juniper.

Terrain is gentle to moderately steep with slopes between 0 to 40%. Most of the forested area is gentle hill land. Steepest ground is located near the middle of the Happy Valley Ranch unit. Much of the project area has slopes under 30% slope. All of the property is suitable for tractor/skidder logging.

Elevations range from 4,320 to 5,240 feet. The forest area lies above 4,360 feet. Soils belong to the Bonta, Lasco, Chimney, Janile, Waterman, Chirpchatter, Toiyabe, Quartzburg and Plinco families. Soil depth ranges from 24" to 64". Soil texture tends to be sandy loams and loamy sands and is derived from weathered granite parent rock.

There is one main watercourses on the Happy Valley Ranch Unit which trends in a south-north direction and which eventually drains into Honey Lake. Tributaries of the main branch of this stream are rated as Class III watercourses which rarely run water. All of the streams are intermittent in character except for Lassen Creek which is perennial and which barely touches the northwest corner of the Lost Meadows unit. None of the streams support fish populations.

Site Class is rated as either Dunning's Site II, III or IV. Site II is found along the watercourses or wet areas. Site III is found on the drier slopes. Site IV ground is limited to rocky areas with shallow soils. Most of the property falls in Site Class III.

Periodic timber harvesting operations have occurred on the property both before and since the Nagels acquired ownership. The road system is in place and requires no proposed modification. It appears that there have been no major fires on the property during the past 60 years. It is probable that the Baxter Creek unit was severely burned over within the past 100 years.

NON-TIMBER USES

40. Describe present and proposed plan area uses other than timber production, include in Section III, as per 14 CCR 1090.5 (f).

The Nagel property is used for a livestock operation (cattle production), for residential uses (houses are present on Happy Valley Ranch and Lost Meadows units) and for recreation. Minor forest products including fuelwood and Christmas trees are utilized by the timberland owners.

TIMBER STAND CHARACTERISTICS

41. Provide a description by management unit(s) of the timber stand characteristics including the items listed below, in Section III. Such description shall provide the basis for the information provided in the NTMP, as per 14 CCR 1090.5 (g):

a. Species composition;
b. age classes;
c. projected growth;
d. present stocking level;
e. present volume per acre;
f. size class distribution;
g. stand management history;
h. potential pest or protection problems.

Management Units -

The forested area of the Nagel property is divided into two management units that reflect the differing ownership title. The Happy Valley Ranch and Baxter Creek parcels, owned by the Nagel Family Trust, have 836 acres of forest ground and are hereinafter referred to as the Happy Valley Unit. The Lost Meadows Unit is owned by Jim and Gladys Nagel and has 114 acres of commercial forest.

Stand Management History -

This property has belonged to the Nagels since 1951.

The Nagel forest has been harvested periodically over the years. It appears that the first harvest of the lower portion of the property probably occurred in the later 1800's or early 1900's. A number of small sawmill operation were located in the vicinity of Wingfield Road during this era.

Harvesting during the Nagel tenure was first conducted in the 1960's by Gene Chittock. A salvage and green sale was conducted in the 1980's by Warren Gorbet. Under RPF Nemir's supervision a small salvage sale was made in 1992, the Smith Shack sale was made in 1993, a salvage operation was again conducted in 1994, and the Happy Valley sale was completed in 1996. A biomass thinning project covered approximately 150 acres on the Happy Valley Unit in 2000. Little harvesting has taken place in recent years on the Lost Meadows Unit.

Stands closest to Wingfield Road, nearest the headquarters area of the Happy Valley Ranch and on the Lost Meadows Unit have been harvested only lightly during the past 20 years and have the heaviest volumes per acre.

Recent harvest plans have focused on cutting older and less healthy trees, improving spacing, and salvaging dead and dying trees. No artificial tree planting has been necessary.

While there is evidence of past fires on the property, it appears that there have been no major fires on the Nagel property during the past 75 years.

Inventory Procedure - (Trade Secret. See Confidential Addendum.)

(i). Inventory Sampling Procedure
(ii). Data Processing Procedure
(iii). Inventory Precision

Inventory Estimate - (Trade Secret. See Confidential Addendum.)

(i). Total volume
(ii). Species Composition
(iii). Age Classes
(iv). Stand tables by timber type

Growth Projections - (Trade Secret. See Confidential Addendum.)

(i). Model Documentation
(ii). Planning Horizon
(iii). Silvicultural prescriptions
(iv). Growth Estimates

Sustained Yield - (Trade Secret. See Confidential Addendum.)

Potential Pest or Protection Problems -

The major source of pest problems was an infestation of white fir engraver beetle (Scolytus ventralis) during the 1980's which successfully attacked and killed white fir trees along the main watercourse and at the higher elevations. Past sanitation-salvage harvests have greatly reduced this problem. Dwarf mistletoe is present but is not considered a major pest problem.

Where harvesting within the past 10 years has taken place, one of the major objectives has been to cut overstory trees exhibiting symptoms of being of highest potential risk for mortality. The next harvest on the Lost Meadows Unit will emphasize cutting higher risk trees while cutting on the Happy Valley Unit will focus more on improved spacing.

Stands on the Lost Meadows Unit support generally higher basal areas and P2/P3L stands are in need of thinning. Thinning would help reduce, but not completely eliminate, the threat of a disastrous wildfire. When market conditions warrant, precommercial mechanical thinning of small trees shall be considered on suitable ground as was done in 2000 on the Happy Valley Unit. This latter thinning has reduced the potential of crown fires on about 150 acres.

Stand density indexes (SDI) were calculated for all 16 stand types to measure stocking levels and predict stands most susceptible to pest problems. A study by P. H. Cochran (1992) concluded that for stands of predominantly ponderosa pine, maximum SDI should not exceed 270 and when thinning is undertaken, SDI should be reduced to about 180. SDI for the 16 types on the Nagel Family property has been calculated as follows:

Timber Stand Type	SDI
Happy Valley Unit -	
Y1/P2	340
Y2/P2	187
Y3/P3	73
Y3/P4	113
YP2/P3	189
PY2/P3	204
P1/P3	274
P1/P4	274
P2/P3	257
P3/P3	102
P3B/P3	107
P3H/P4	96
Lost Meadows Unit -	
Y1/P2L	330
Y2/P2L	332
Y3/P1L	154
P2/P3L	303

The biomass thinning conducted in 2000 focused on P1/P3 and P2/P3 stands on the west half of the Happy Valley Unit. The Y1/P2 stand has the highest stand density and is slated for a commercial harvest within the next two years. This stand can probably hold a higher SDI because it is better site class, but field observations suggest that improved spacing is needed.

With the exception of the more open Y3/P1L stand, the Lost Meadows Unit has SDI levels greater than 300 and is recommended for selective harvesting. A combination individual tree selection and biomass operation may be desirable.

The potential for a serious fire is greatest in the southern half of the forested area of both the Lost Meadows Unit and on the steeper slopes of the Happy Valley Ranch Unit where denser unthinned understories are located. Precommercial/biomass thinning and fuels treatment would help reduce this threat. Stands along Wingfield Road are more open with a notable lack of reproduction and little brush or grass. They are less susceptible to a serious fire but could benefit from a cool prescribed fire which would reduce surface fuels.

FOREST MANAGEMENT OBJECTIVES

42. Provide a description by management unit(s) of the proposed management objectives, including a discussion of projected timber volumes and sizes available for timber harvesting in Section III, as per 14 CCR 1090.5 (h).

This property has belonged to the Nagel Family since 1951. The property is currently used for residences, for a sustainable livestock operation and for long-term timber production. Water from the forest area is used for on-site domestic purposes, wildlife, and for both on-site and limited off-site agricultural uses. The management goals for each Unit are identical.

The forest management goals of the Nagel Family are as follows:

1. Maintain a balance between growth and volume cut over the long-term.

2. Utilize an uneven-aged management system to retain forest cover, aesthetics, protect forest soils, reduce the need for artificial regeneration and minimize impacts to wildlife populations. Use a selection cutting scheme to maintain aesthetics and overall property values while generating an economic return.

3. Improve forest growth and productivity by reducing competition and the potential for an insect outbreak through the thinning of overstocked stands.

4. Reduce fire hazard by 100% treatment (lopping of all logging- generated slash). Where suitable burn or chip logging slash.

5. Generate periodic income through timber harvesting operations.

6. Protect water sources for domestic and agricultural purposes.

TIMBER MANAGEMENT ACTIVITIES

43. Provide a description by management unit(s) of proposed activities to achieve the management objectives, include in Section III, as per 14 CCR 1090.5 (l):

a. projected frequencies of harvest;
b. silvicultural prescriptions for harvesting;
c. type of yarding systems to be used for each area/unit;
d. anticipated interim management activities which may result in rule compliance questions (i.e., erosion control maintenance).

Harvest Frequency -

It is anticipated that timber harvesting will occur every two to six years. Individual stands will be entered once every 10 to 20 years depending upon stocking levels, growth and general stand health. Site IV lands will be entered once every 15 to 20 years. Pest problems could cause more frequent entry. Additionally, biomass harvesting using commercial and/or precommercial thinning may be used in overstocked stands if economically feasible.

Silvicultural Prescriptions -

The forest will be managed on an uneven-aged silvicultural system. The principal silvicultural method will be individual selection. Group selection may be used in circum-stances where small openings must be created to induce natural reproduction of shade intolerant conifer species. Sanitation-salvage harvesting will be done in situations where high risk trees need to be removed. Other intermediate methods will be used, especially in stands needing stocking control.

Yarding Systems -

It is planned that all log skidding shall be conducted by tractor or skidder. Feller bunchers may be used for tree felling and bunching for biomass operations.

Interim Activities -

No interim activities are anticipated which would create rule compliance problems. The timberland owner currently has a regular program of road maintenance to reduce erosion potential.

44. Provide the period of time over which growth will be balanced with harvest in Section III, as per 14 CCR 1090.5 (j).

It is anticipated that growth and yield will be balanced over a 20 year period as demonstrated in the Confidential Addendum. This assumes no catastrophic occurrences of fire, insects or diseases. Growth and yield will be balanced for the entire harvest plan area. Unit volumes may not be individually balanced.

45. Provide a description of the cumulative effects analysis with supporting information, including impact of projected harvesting over the life of the NTMP, per 14 CCR 1090.5 (v). Include mitigation measures, if any, and instructions to LTO in Section II and the analysis in Section III, as per 14 CCR 1090.5 (v).

See Section IV.

46. Maps and drawings. Include as per 14 CCR 1090.5 (x) and as needed; insert in Sections II and/or III, as appropriate.

47. [**X**] Yes [ ] No A copy of the forest practice regulations in effect at the time of submission is enclosed, as per 14 CCR 1090.5 (w). If no, the plan is incomplete: an explanation of how a copy of the regulations will be maintained by the timberland owner must be included.

48. a. [ ] Yes [**X**] No This NTMP will be used for one or more of the forestry assistance programs for non-industrial forest landowners. If yes, answer b., below.

b. [ ] Yes [ ] No If yes, this NTMP has the additional information as an Addendum in Section III. If no, the **NA** information will be amended into the plan at a later time.

Note: The NTMP when expanded with additional information can meet the requirements to participate in state and federal cost-share programs. It is even possible for these programs to help offset the cost of preparing the NTMP. Contact your local Forestry Assistance Specialist (FAS) for further information concerning these programs; call toll free 1-800-783-TREE.

ALTERNATIVES

1. The Project as Proposed: The timberland owner's preferred project is to selectively harvest the forest to improve stand health, improve fire safety, maintain aesthetics and generate an economic return over the long-term.

2. No Project: This alternative would accomplish none of the landowner's objectives for improving forest health, reducing fire hazard or generating income.

3. Alternative Land Use: Zoning limits potential other uses of this property. Greater recreation use by development of trails for hiking and horse riding would generate little income and fail to meet goals for improving forest health or generating income. Sale of individual parcels within the ownership could be necessary if no income were generated to at a minimum help pay the property taxes.

4. Timing of the Project: Delay of the harvest would result in loss of economic gain from the cutting of trees which are dead, dying or diseased. Tree growth would not be optimized and potential for greater incidence of insect or disease attack and reduced overall tree vigor would increase. From a practical standpoint, the owners wish to lock the current Forest Practice Rules in place before they become more restrictive.

5. Sale of the Property: Because this property is used as both a residence and for resource production, sale of the property would not be satisfactory to the timberland owner who wishes to continue living on the 39 acres. Similarly, the owner does not have any other forest property to conduct a harvest operation.

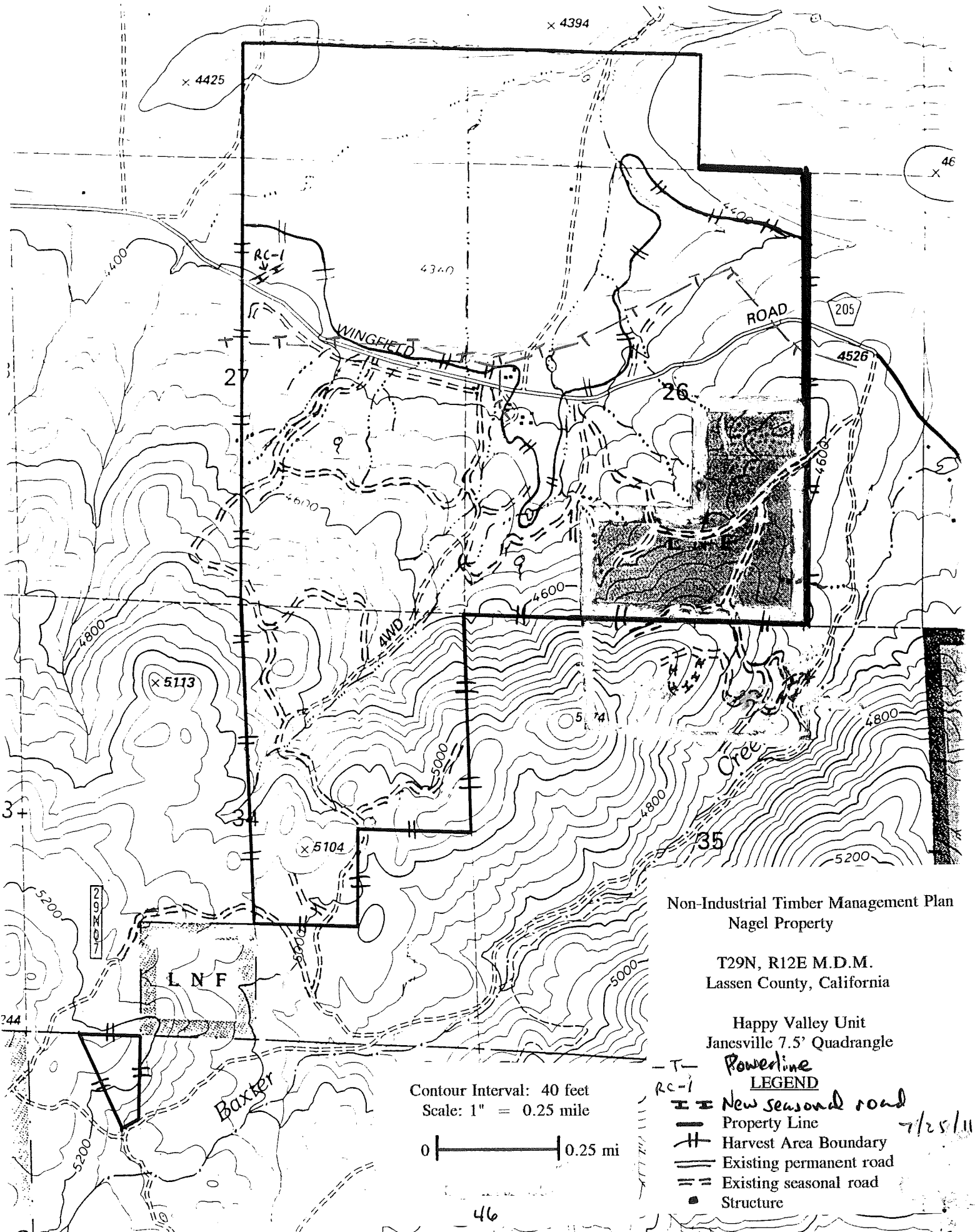
6. File a THP: The owners wish to continue a long-term conservative program to managing their forest properties. A THP has only a three year plus two one-year extension shelf life. To get the most benefit from a THP, the owners would have to cut more heavily. The owners also prefer to pay for one Fish & Game fee, and complete the archeological survey requirements one time.

DIRECTOR OF FORESTRY AND FIRE PROTECTION

This Nonindustrial Timber Management Plan conforms to the rules and regulations of the Board of Forestry and Fire Protection and the Forest Practice Act:

By: _____ _____
(Signature) (Date)

_____ _____
(Printed Name) (Title)

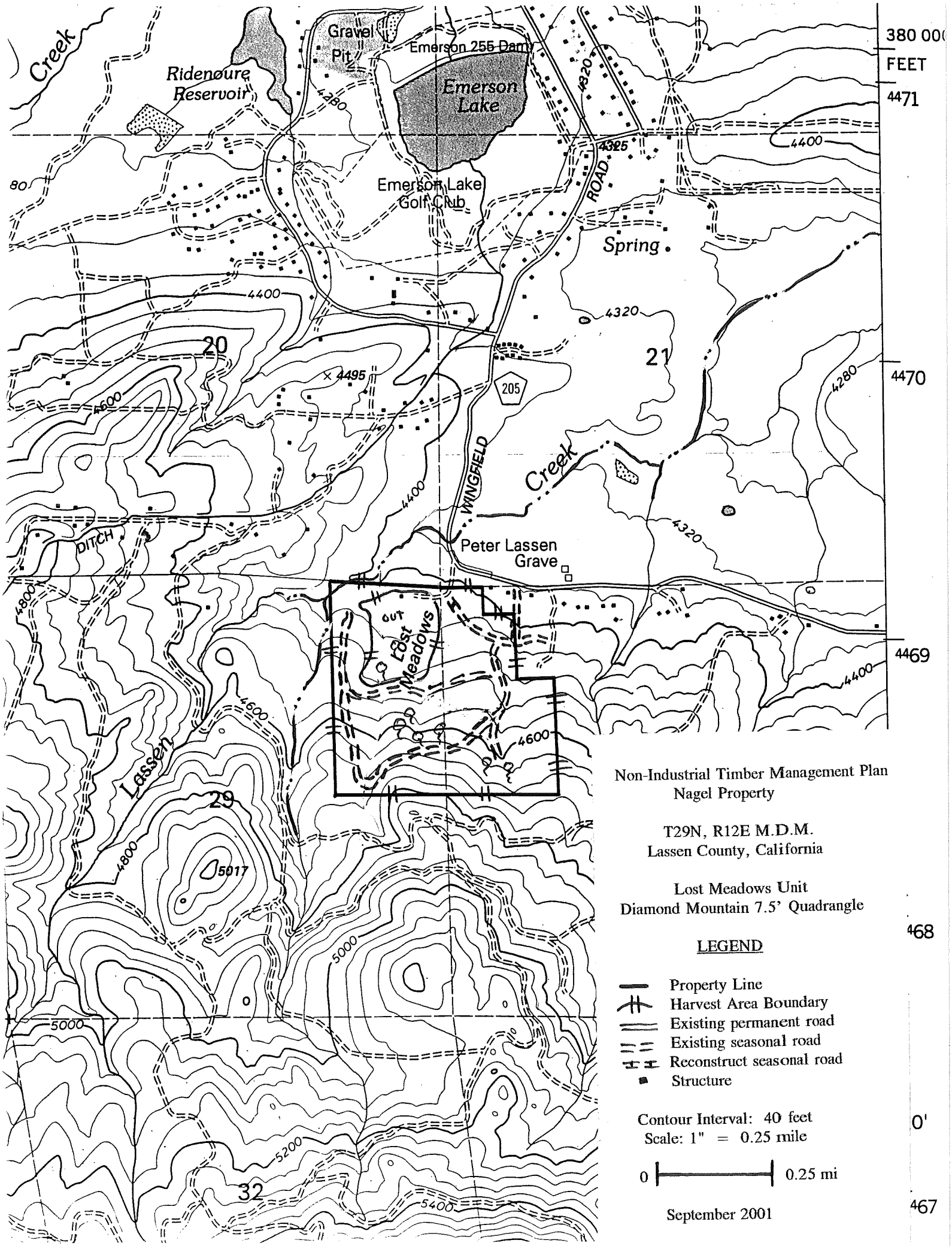


Non-Industrial Timber Management Plan
Nagel Property

T29N, R12E M.D.M.
Lassen County, California

Happy Valley Unit
Janesville 7.5' Quadrangle

7/25/11



Non-Industrial Timber Management Plan
Nagel Property

T29N, R12E M.D.M.
Lassen County, California

Lost Meadows Unit
Diamond Mountain 7.5' Quadrangle

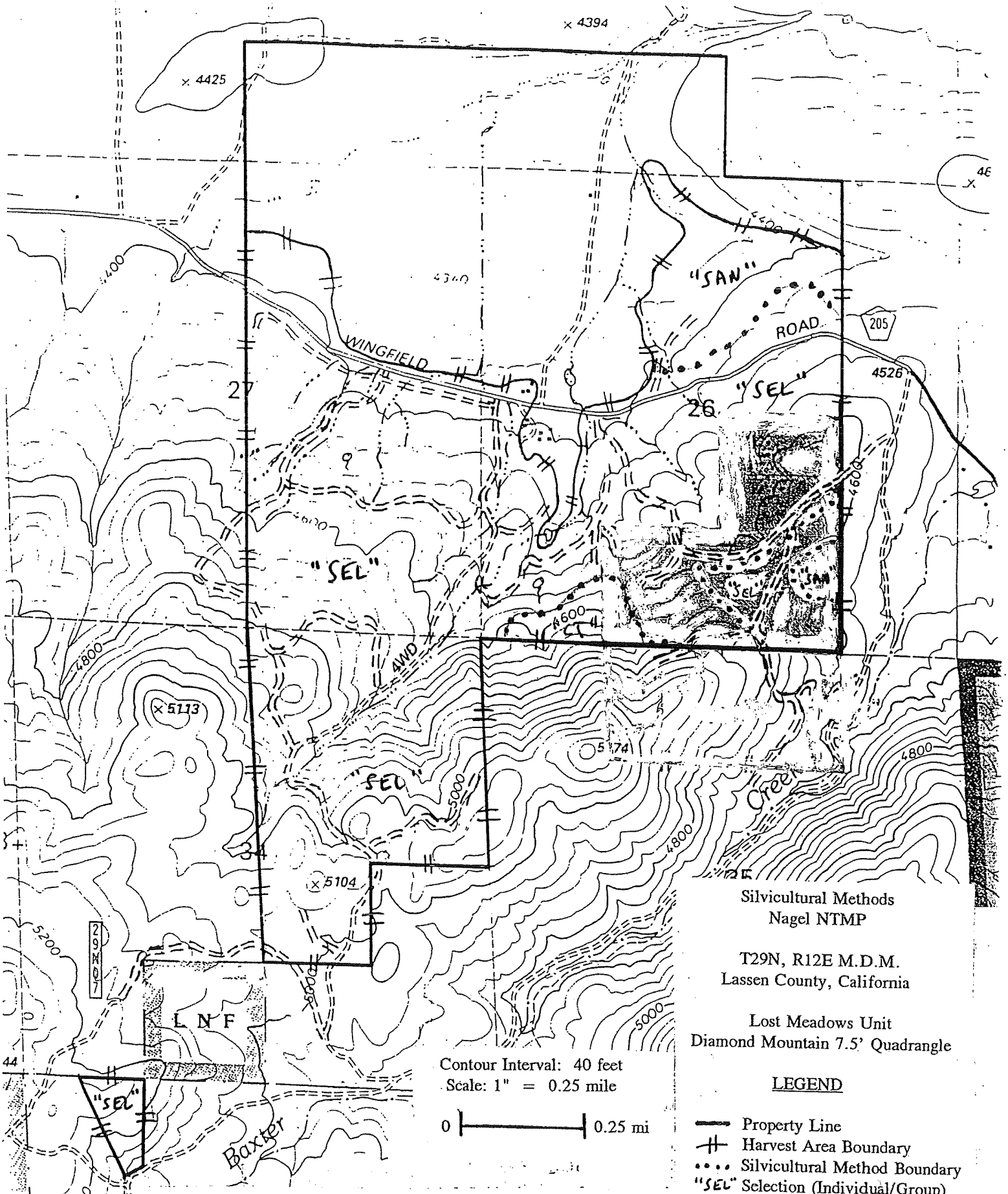
LEGEND

- Property Line
- Harvest Area Boundary
- Existing permanent road
- Existing seasonal road
- Reconstruct seasonal road
- Structure

Contour Interval: 40 feet
Scale: 1" = 0.25 mile

0 — 0.25 mi

September 2001



Silvicultural Methods
Nagel NTMP

T29N, R12E M.D.M.
Lassen County, California

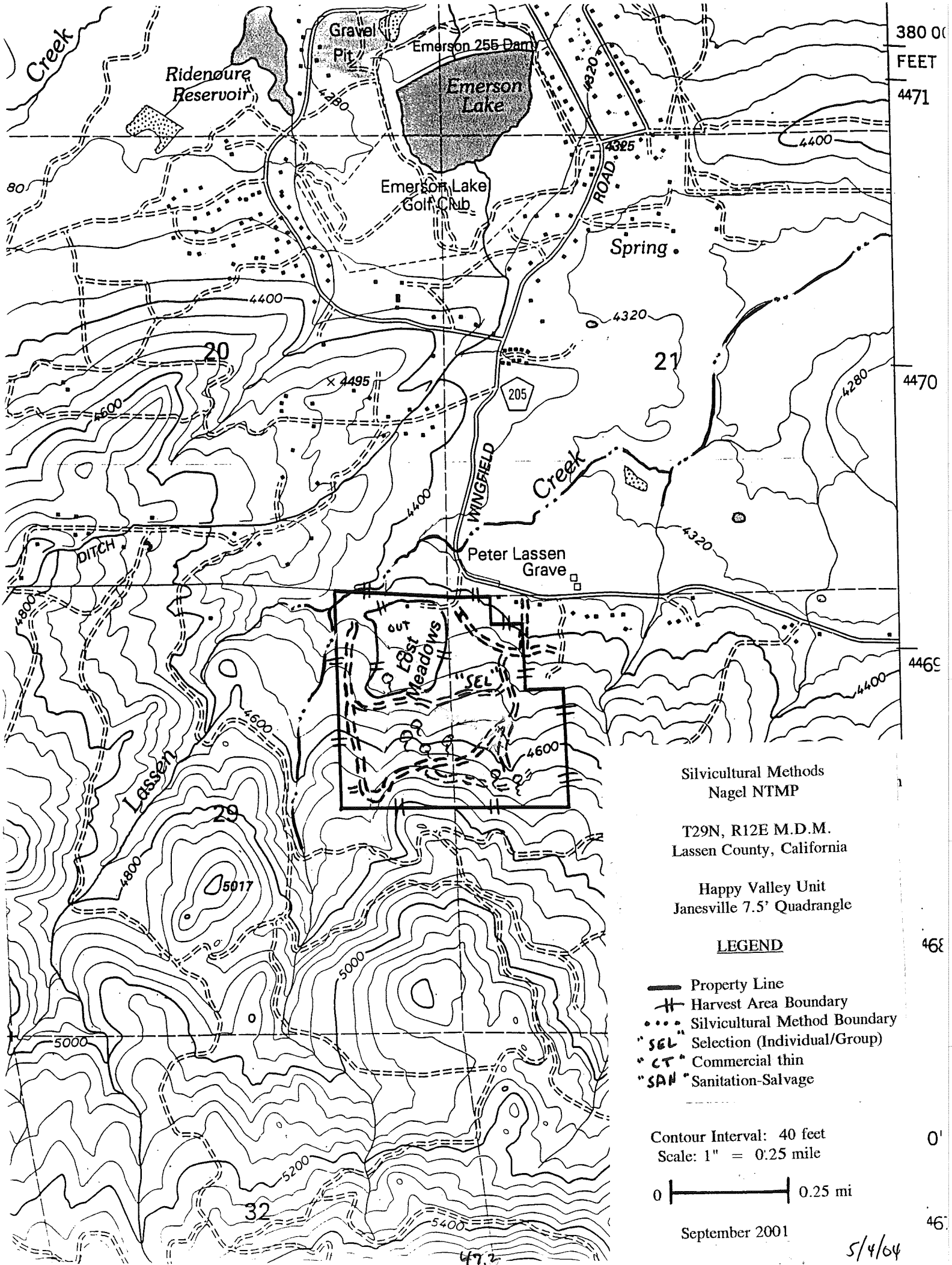
Lost Meadows Unit
Diamond Mountain 7.5' Quadrangle

LEGEND

- Property Line
- Harvest Area Boundary
- Silvicultural Method Boundary
- "SEL" Selection (Individual/Group)
- "CT" Commercial thin
- "SAN" Sanitation-Salvage

1/29/10

Silvicultural methods shown for first entry. Individual/Group selection primary methods in future harvests.


Creek
Ridenoure Reservoir
Gravel Pit
Emerson 255 Dam
Emerson Lake
Emerson Lake Golf Club
ROAD
Spring
4320
4325
4400
4280
4495
20
21
205
WINGFIELD
Creek
DITCH
Peter Lassen Grave
OUT
Last Meadows
"SEL"
4600
4800
Lassen
29
5017
5000
5200
32
5400
380 00
FEET
4471
4470
4469
468
Silvicultural Methods
Nagel NTMP
T29N, R12E M.D.M.
Lassen County, California
Happy Valley Unit
Janesville 7.5' Quadrangle
LEGEND
Property Line
Harvest Area Boundary
Silvicultural Method Boundary
"SEL" Selection (Individual/Group)
"CT" Commercial thin
"SAN" Sanitation-Salvage
Contour Interval: 40 feet
Scale: 1" = 0.25 mile
0
0.25 mi
September 2001
5/4/04

SECTION IV - CUMULATIVE IMPACTS ASSESSMENT

A. Assessment Checklist -

1. Do the assessment areas of resources that may be affected by the proposed project contain any past, present, or foreseeable probable future projects?

Yes _X_ No ___

Four timber harvest plans have been submitted for this property during the past 18 years. THP 83-147-LAS(2) was for 1,227 acres (Map #1). Silvicultural method was selection. The cut was light and completed by June 1986. THP 88-246-LAS(2) covered 755 acres by commercial thinning and sanitation salvage logging. This harvest was completed in 1988 and not all of the area covered by the harvest plan was actually harvested. The 1988 plan was developed in response to a noted dieback of many pine tree crowns during the spring of that year. THP 92EX-1097-LAS(2) was conducted to remove dead and dying white fir, incense cedar and ponderosa pine in a limited area along the class III watercourse running through the middle of the property and along Wingfield Road (total area of approximately 40 acres). Finally, THP 93-186-LAS(2) was operated on 1993, 1994 and 1996. This was a light selection harvest of the higher risk trees on 310-acres In 2000, 190 acres of the Happy Valley Unit was biomassed thinned under THP 92EX-844-LAS(2). All of these THP's could have potential impacts on biological, watershed and visual resources.

Future operations include probable timber harvests on the subject property every 5 to 15 years utilizing uneven-aged silvicultural systems on a sustained yield basis as prescribed in this NTMP. These harvests would have watershed, biological, visual and traffic impacts.

An ongoing timber sale program is occurring on the adjoining Hulsman Ranch property (Map #2) between the Happy Valley and Lost Meadows Units. THP 90-410-LAS(2) totalled 567 acres. The northern 1/2 of the project area was harvested in 1992 and the remainder was logged in 1993. Harvesting was done under an alternate prescription closest to the selection method. THP 90EM-42-LAS(2) was a sanitation-salvage harvest conducted on 285 acres of flatter lands along Wingfield Road and completed in August of 1990. Small salvage operations were carried out during 1994 and 1995 under THP 94EX-2574-LAS(2). Currently, the Hulsman Ranch operates under a Non-Industrial Timber Management Plan (95NTMP-12) which permits long-term future harvesting under a similar conservative selection harvest system consistent with sustained yield forest management. Timber sales occur approximately every two years and cover 140 to 400 acres. A 1996 individual selection (300 acres) and sanitation-salvage (100 acres) harvest was conducted on approximately 400 acres on the west side of the Hulsman Ranch under a Notice of Operations (95NTMP-12-1). A second Notice of Operations (95NTMP-12-2) was filed in 1998 for a harvest of 140 acres using the sanitation-salvage (70 acres) and individual selection (70 acres) methods . A third Notice of Operations (95NTMP-12-3) was filed in 2000 for a harvest on 200 acres using the individual selection method along with understory biomass thinning

THP 89-387-LAS(2) on 160 acres of lands owned by Leroy and Eva Cramer along Lassen Creek was logged during the 1989 season along (Map #3). The harvest was a heavy overstory removal cut. This property was again harvested in 1999 using an overstory removal cut under THP 96-256-LAS(2).

160 acres of THP 2-96-356-LAS(2) was harvested in 1998 and 1999 using the shelterwood removal step silvicultural method on lands owned by Carol and Patricia Cramer (Map #13).

THP 91-75-LAS(2) on lands of William R. & Peggie L. Butler was originally identified for a sanitation-salvage and transition cut but somehow slipped into an overstory removal blitz. Total area was 120 acres. Logging was conducted in the fall of 1991 (Map #4). The property was purchased by CA Reforestation in 2000 and is now proposed for a biomass thinning using the commercial thinning during the fall of 2001.

THP 90-545-LAS(2) on lands owned by Walter W. Walker, et al and managed by W.M. Beaty & Associates was logged in 1992. The sale was aimed primarily at salvaging heavy losses of white fir trees from drought (Map #5).

A 400-acre portion of the much larger Flat Helicopter Timber Sale lies within the boundaries of the Watershed Assessment Area. This Lassen National Forest harvest is was completed in 1993. Estimated volume to be removed is 14 million board feet over about 4,500 acres on the upper slopes of the Diamond Mountains (Map #6). A second green sale (Gila Helicopter) is proposed for the same area to be sold in 1997. Future activity on Lassen National Forest land is expected to be very limited as a result of Forest Service policies which now have reduced cutting levels to 20% of harvest levels experienced in the 1980's.

5 acres of THP 94-425-LAS(2) was logged by Doran Wheeler in 1994 or 1995 (Map # 7).

The individual selection technique was used to harvest 5 acres of the Richard Gunderson property (Map #8) in 1996 under THP 96-242-LAS(2).

Baxter Creek Woods Partnership had an NTMP (96NTMP-5) approved in 1996 on 60 acres (Map #9). An individual selection harvest was conducted on 25 acres shortly thereafter under a Notice of Operations (96NTMP-5-1). Baxter Creek Woods has since acquired 40 acres which it intends to add to the NTMP area and anticipates a light selection harvest in the next two years (Map #10).

A very heavy shelterwood removal harvest was employed on 40 acres (Map # 11) owned by Mallery during the summer of 2000 (THP 00-050-LAS(2)).

THP 00-223-LAS(2) has been approved to harvest 39 acres on the Edwards property using the individual selection method (Map #12). The owner may sell the timber in 2002 if market conditions improve.

In summary, many of the private forest ownerships in the watershed assessment area have been harvested over the past ten or more years, but the majority of harvests have been of a selective nature. There has been no clearcutting and all projects have complied with the CA Forest Practice Act and rules. Future timber harvesting in the watershed will continue on a periodic basis. The largest two private ownerships are operating under sustained yield utilizing uneven-aged management under Non-Industrial Timber Management Plans. The upper reaches of the watershed will most likely be little impacted by silvicultural activities because they are being managed by the U.S. Forest Service under restrictive management guidelines. Because reduced accessibility, new housing development will be limited.

2. Are there any continuing, significant adverse impacts from forest land use activities that may add to the impacts of the proposed project?

Yes ___ No _X_

3. Will the proposed project, as presented, in combination with past, present, and reasonably foreseeable probable future projects identified in items (1) and (2) above, have a reasonable potential to cause or add to significant cumulative impacts in any of the following resource subjects?

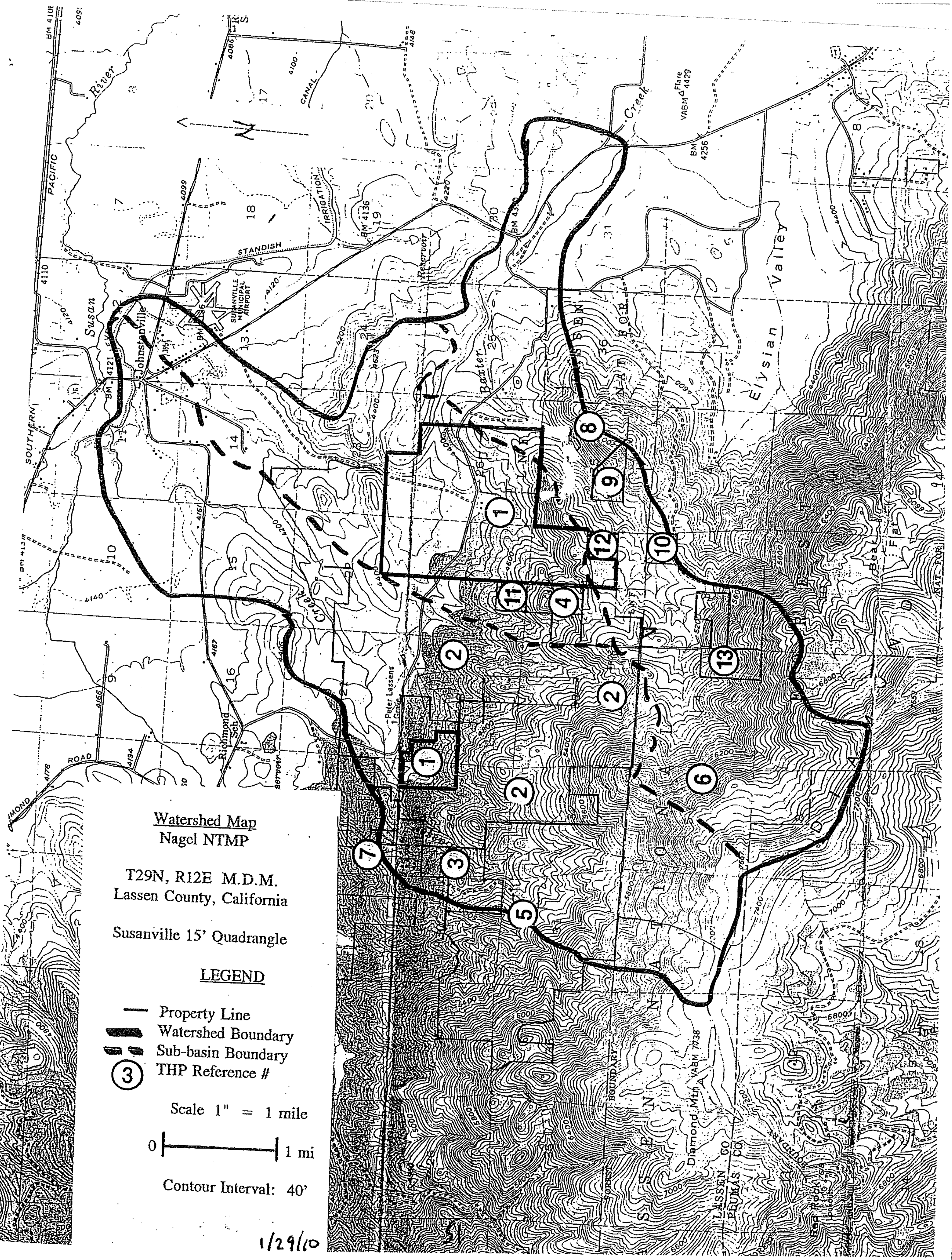
	Yes after mitigation (a)	No after mitigation (b)	No reasonable potential significant effects (c)
1. Watershed	_____	_____	X
2. Soil Productivity	_____	_____	X
3. Biological	_____	_____	X
4. Recreation	_____	_____	X
5. Visual	_____	_____	X
6. Traffic	_____	_____	X
7. Other	_____	_____	X

B. General Site and Vicinity Description -

The Nagel property is comprised of ±1,300 acres located in a foothill area of the eastside of the Sierra Nevada Mountains. The crest of the Diamond Mountains (a northern extension of the Sierra Nevada) lies approximately two miles south of the property. The subject is located about 3 miles south of the community of Johnstonville and 8 miles southeast of the City of Susanville in a less developed area of the Honey Lake Valley. A four mile strip of land along unpaved Wingfield from Peter Lassen's Grave to Bass Hill Road is dominated by three ranch ownerships including the Nagel property. Residences are a mile distant from each other and land use is primarily devoted to natural resource use for livestock and timber production. The property is surrounded by private parcels ranging from 40 to 2,800 acres in size. The general area would be characterized as natural resource land with scattered rural residential development.

This Nonindustrial Timber Management Plan will have no significant adverse cumulative environmental impacts due to the overriding physical and management conditions within the framework of the Forest Practices Act and the Northern Forest District Rules.

Terrain is gentle to moderately steep with slopes between 5 to 40%. Property size is large but harvest intensity is light under a selection system with consequent small impacts on soil erosion, wildlife, water quality, recreation and aesthetics. All logging-generated slash is to be lopped. Thus, visual and fire hazard impacts will also be reduced. Traffic impacts are considered light and estimated at approximately 50 total annual round-trips required by logging trucks for the entire THP area.


Watershed Map
Nagel NTMP
T29N, R12E M.D.M.
Lassen County, California
Susanville 15' Quadrangle
LEGEND
Property Line
Watershed Boundary
Sub-basin Boundary
THP Reference #
Scale 1" = 1 mile
0
1 mi
Contour Interval: 40'
Johnstonville
Susanville Municipal Airport
Elysian Valley
Susan River
Standish
Southern Pacific
Irrigation
Canal
Baxter Creek
Peter Lassens Grave
Richmond Sch
Diamond Mtn
Lassen Co
Plumas Co
Bear Flat

1/29/10

C. Watershed Impacts -

1. **Assessment Area** - The area assessed for watershed impacts includes major portions of three hydrologic basins: Lassen Creek (8637.20082, Sand Slough (8637.20091) and Elysian Valley (8637.200906). Total area is approximately 14,000 acres of the following drainages: Lassen Creek, an unnamed tributary of the Susan River and Baxter Creek. All of the basins ultimately drain into Honey Lake. (See the attached map for the Assessment Area boundaries). The Watershed Assessment Area map shows the boundaries of each of the sub-basins which are drawn on the map based upon information obtained from the CA Fire and Resource Assessment Program of the CA Department of Forestry.

The principle potential impact on the watershed from this project is due to sediment transport off the project area primarily due to accelerated erosion created by soil exposure from log skidding and road grading. Sediment could move from the project area without mitigation.

None of the watershed basins show pollutant/stressors which would potentially be impacted by any of the past, present or future timber harvesting projects. Pollutant/stressors for Honey Lake are identified as arsenic and salinity/TDS/chlorides. Flow alterations and metals are identified as pollutant/stressors for the Honey Lake Wildfowl Management Ponds. For the Susan River unknown toxicity is listed with possible sources being agricultures, other urban runoff, highway maintenance and runoff, natural sources, source unknown and nonpoint source. Flow alterations are identified as a pollutant/stressor for Lassen Creek.

None of the watershed supports anadromous salmonids, and therefore, none qualify as a "threatened or impaired watershed.

2. **Beneficial Uses** - Known beneficial uses of water transported on and from the Nagel ownership include wildlife and aquatic habitat, and agricultural use.

3. **Project Assessment** - The "Nagel" tributary of the Susan River is the principal watercourse on the Happy Valley Unit located within the NTMP area. It also includes shorter tributary channels. All are rated as intermittent Class III streams. Channel slope of the tributaries is gentle and under 15%. Stream banks are stable and gently sloping at elevations below 4,700 feet. Slightly steeper sideslopes are encountered starting from a point on the main "Nagel" tributary about 500 feet below the meadow. Protective vegetation includes overstory ponderosa pine, black oak, white fir and incense cedar.

Baxter Creek crosses a short section of the southeast corner of the Happy Valley Unit. One existing culvert crossing on the private Baxter Creek Road is existing. The Creek does support resident non-native populations of brown trout. It is rated as a Class I watercourse and has a developed riparian vegetation component that includes alder, cottonwood, aspen and willow trees. Stream banks are two to four feet in height. Channel width varies from six feet to ten feet and the channel has a slope of less than 5%. The channel bottom is small boulders, pebbles and decomposed granite gravel.

Lassen Creek barely crosses the northwest corner of the Lost Meadows Unit. It is an intermittent Class II watercourse which normally is dry by August or September. Channel grade is gentle and under 5%. Channel width is broad to 15 feet and depth is shallow. Streamside vegetation is ponderosa pine, black oak and grasses. The streamcourse is stable. No crossings are proposed.

The most significant potential impacts to the watercourses are from tractor stream crossings. These are to be kept to a minimum. Mitigation of potential impacts also includes proper placement of waterbreaks to reduce potential for soil transport, placement of straw mulch on skid trails within the WLPZ, felling and skidding of trees away from the watercourses. The selective nature of future harvesting operations also provides for mitigation by retaining a significant overstory canopy for protection of the soil resource. Forest Practice

Act rules provide other mitigation measures to reduce soil erosion which will further reduce potential for water quality degradation. Proper construction and maintenance of rolling dips on internal seasonal logging roads will be effective in reducing potential for road surface erosion.

4. **Past & Future Activities** - None of the projects listed above are expected to have long-term impacts on water quality. This RPF is unaware of any water quality problems generated by logging within the last 10 years in the Assessment Area. Past, present and future timber harvests could have short-term impacts on the transport of sediment but these will be mitigated by Forest Practice Rules and Forest Service timber sale contract requirements. Past timber harvesting practices have mitigated potential soil movement by a combination of selection cutting with retention of a good overstory, streamside protection zones, construction and maintenance of effective waterbars and rolling dips. Because the sub-basins actually transports little water off the property, potential impacts are further minimized.

5. **Evaluation** - There are no reasonable significant cumulative effects of the project, either alone or in combination with past and future projects, on the watershed assessment area after normal mitigation as contained in the Forest Practice Rules, this THP and Forest Service timber sale requirements for the harvesting on Federal land.

D. Soil Productivity Impacts -

1. **Assessment Area** - Impacts associated with soil productivity area are affected by the harvest of trees and the use of heavy machinery. For this project, the impacted area is the harvest area used by tractors and skidders and the road surfaces used by graders and logging trucks consistent with Technical Rule Addendum #2. The Assessment Area is considered to be the 950-acre area within the Harvest boundary and the dirt private roads of the ownership that may be used for hauling.

2. **Project Assessment** - Soils in the Assessment Area are characterized as having a weathered granite rock origin. Depths are shallow (12") to deep (up to 60"). Soil erosion hazard rating is low to moderate. Soils have the potential to gully without proper diversions. Topography is gentle to steep. Soils are well-drained and water-holding capacity is low. Soils are classed as Bonta coarse sandy loam (715) over much of the plan area. The higher site soils west of the residence along Wingfield Road and up the main "Nagel" tributary are deeper Chirpchatter sandy loam (701). Soils south of the main "Nagel" tributary in Section 26 belong to the Chimney-Waterman association (722 & 723).

At the lower and flatter elevations of the Lost Meadows Unit, soils belong to the Lasco-Bonta complex (747). They vary from 36 to 49" in depth. On the steeper slopes of the Unit, soils are part of the Toiyabe-Lasco-Quartzberg complex (785 & 786) and are shallower (15 to 49"). All soils on the Lost Meadows Unit harvest area are derived from decomposed granite.

All roads and skid trails on the property will have waterbars or rolling dips installed. This will stabilize exposed soils and reduce potential for erosion. Soil productivity is further protected by the selective nature of the harvesting operation and the use of a minimum number of skid trails. Finally, the RPF has specified that minimum waterbreak spacing shall be reduced by requiring the "moderate" standards for areas with "low" EHR's and requiring the "high" standards for areas with slopes greater than 30%.

3. **Past & Future Activities** - Soil productivity has been retained after past logging as mitigated by Forest Practice Rule requirements. Skid trail and logging roads are stable and water drainage facilities are reducing potential for soil erosion. Some skid trails may have been compacted limiting vegetative regrowth, but many of these trails will be reused. Impacts to soil productivity are considered fairly insignificant. There are no known current problems on other THP's completed in the area. Recent timber sales on both the Nagel and

Hulsman Ranch properties have corrected problem areas on logging roads.

4. **Evaluation** - The proposed project, either alone or in combination with past projects, will have no reasonably ascertainable impacts after mitigation inherent in the Forest Practice Rules and this THP.

E. Biological Impacts -

1. **Assessment Area** - The assessment area for terrestrial biological resources is considered to be the same as the Watershed Assessment Area ("Nagel" tributary of the Susan River, Baxter Creek and Lassen Creek watershed basins) because this watershed forms the habitat for most migratory and resident species which occupy the project area. Also it can be presumed that this is the greatest area of direct impact from the project. In addition, rare, endangered, threatened and species of special concern for Lassen County are considered.

2. **Project Assessment** - The 1,380-acre property supports a mixture of forest cover at the higher elevations and pastureland/meadow at the lower elevations. The project will not impact the pasture and main meadow area of the ranch.

The harvest area includes stand types which are part of the Eastside Pine Forest type as identified in the California Wildlife Habitat Relationships System (WHR). The forest area is principally vegetated with ponderosa pine trees 12 inches d.b.h. and larger constituting an overstory with pockets of reproduction and poles trees. Small areas, especially where there are deeper soils along drainages contain white fir and incense cedar. An occasional sugar pine or Douglas-fir tree can also be found. Because of the heavy percentage of ponderosa pine and small amount of other tree species, the forest types are not considered mixed conifer under the WHR system. Jeffrey pine is found at the highest elevations in place of ponderosa pine. California black oak is a minor hardwood stand component. Ground cover is light under the dense stands and covered mostly with pine needles and branches. The more open stands include litter with squaw carpet, grass, pockets of manzanita (in poor condition), herbaceous plants and scattered serviceberry and willow bushes. The small meadow along the main watercourse has perennial grasses, quaking aspen, wildrose, willow and alder. Lost Meadows is grazed perennial grass. The harvest plan area is located at elevations between 4,200 to 5,200 feet in a transitional area between forest and valley agricultural lands and desert sagebrush plant communities.

The area supports a typical mix of wildlife species for the Eastside Pine Forest type including mule deer, squirrels, mountain lion, coyote, bobcat, etc. There are no known threatened or endangered wildlife species which use the property. This information has been verified by Beverly Clark, former Wildlife Biologist for the Eagle Lake District of the U.S. Forest Service.

Bald Eagles are believed to occasionally fly over the property. There are no known Bald Eagle nests on the property. Similarly, the property is within the range of the Northern Goshawk which is also considered a "sensitive" species, but no nest sites are known to occur in the harvest area.

The property contains a few dead white fir, ponderosa pine and cedar trees. Merchantable dead trees are marked for harvest. Retention of conifer snags suitable for cavity nesters has been accomplished by leaving older and larger snags which are not suitable for sawlogs. Additionally, cavity-nesting species do have available habitat on the site from the many black oak trees which are not planned for harvest.

Three plant species have been identified as being located in the topographic quadrangles covered by this project after a review of the California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California . Cordylanthus capitatus, Yakima bird's beak, is a CNPS list 2 species (rare, threatened or endangered in California but common elsewhere) found on the Janesville 7.5' quad (622-C). It is believed not likely that the second species is on the property because the species occurs on the edge of true fir forests, and

true fir forests are not present on this property. Lomatium hendersonii, Henderson's lomatium, is similarly on List 2 and found on the Janesville 7.5' quad (622-C) but is believed to occur at higher elevations and not in the vicinity of the NTMP area. The third species is Ivesia sericoleuca, Plumas ivesia, is on the 1-B List (rare, threatened or endangered in California and elsewhere) and found at higher elevations on the Plumas National Forest (topographic quadrangle 622-D, Diamond Mtn).

Kim Earll, a botanist with the U.S.F.S. Lassen National Forest, was contacted regarding the possibility of Rare, Endangered, Threatened or Sensitive plants in the vicinity of the project area. While not observed on the Nagel Family lands, three could occur. Astralagus pulsiferae, Suksdorf's milk-vetch (1-B), is found on sandy volcanic soil in sagebrush and pine. The Nagel forested areas have soils derived from granite suggesting that it is less likely to occur. Penstemon janishae, Janish's beardtongue, is a 1-B plant located on the crest of the Diamond Mountains above the property. Trifolium andersonii, Anderson's Clover, is known to occur along Baxter Creek, but is rated only as a special interest plant. As Notices of Operation are filed for future timber harvest operations, the RPF will look for these sensitive plants during tree marking and timber sale preparation, and if any are found, establish appropriate mitigation measures.

Some of the denser forest stands along the watercourses have characteristics of late seral stage forests. However, all have been harvested and components such as snags are generally not present. Tree size is also not large enough to qualify for this type. Connectivity with late seral forests on other ownerships is not apparent, including with National Forest lands on the south which have also been harvested. As proposed in this NTMP, the owners intend to maintain a cover of large trees by thinning the least healthy of the overstory trees, while harvesting more of the understory which is unhealthy. Average tree size over time may actually increase as spacing between larger trees increases. General habitat characteristics should remain fairly similar to their current condition over the long-term.

There are no known significant wildlife or fishery concerns for the area. The property is within an area used for deer winter range. The project, however, should have minimum impact on black oak cover and there is little bitterbrush in the harvest plan area. Deer habitat may actually be enhanced in the short-term with improved production of herbs and forbes as a result of greater sunlight reaching the forest floor.

3. **Past & Future Activities** - Past and future projects are not believed to have had significant impacts on wildlife. The Timber Harvest Plans were mitigated through the Forest Practice Act rules. The Butler, Mallery and Cramer THP's were heavy cuts which altered short-term forest cover characteristics because most merchantable trees were cut on each property. Little cutting on those two properties will occur over the next 50 to 60 years as the forest recovers. Harvests on the Hulsman Ranch, Baxter Creek Woods, Edwards, Beaty and Federal ownerships is lighter and retains more of the existing forest character.

4. **Evaluation** - The project as proposed, either alone or in combination with past and future projects, will have no reasonable potential to cause or add significant cumulative impacts on biological resources.

F. Recreation Impacts -

1. **Assessment Area** - The recreational resource Assessment Area is considered to be the logging area plus 300 feet as identified in Technical Rule Addendum #2.

2. **Project Assessment** - The only type of recreational activities within 300 feet of the project are dispersed recreation limited to walking, horseback riding, cross country skiing, wildlife observation and hunting. Recreation use is principally by the landowners, their family and friends. Others are trespassing. The project will have no significant impact on recreation use of the Assessment Area except during the short duration of the logging when it is not safe to walk through the forest.

3. **Past & Future Activities** - Past and future timber harvests both on and off the property will have not significant impact on recreational uses as forest cover will be altered but maintained.

4. **Evaluation** - The project as proposed in combination with past and future projects will have no reasonable potential to cause or add significant cumulative impacts on recreational resources.

G. Visual Impacts -

1. **Assessment Area** - Visual impacts are created by changes in vegetation and heavy equipment use. These relate to the harvest area and by drivers along Wingfield Road (a County public road).

2. **Project Assessment** - The project area is visible along Wingfield Road. Because the long-term operations will use uneven-aged management silvicultural systems, the view will be of a slightly more open forest but with a similar composition of tree species and tree sizes as before logging. In some instances, if group selection is used, small openings will be created that break the appearance of a continuous forest cover. There will be very short-term visual impacts when the slash turns brown but all slash will be lopped. Within a couple of years, the visual impact of lopped logging slash is greatly reduced. Over the long-term, it is anticipated that the landowner will clean up much of this slash by piling and burning, and/or utilization for fuelwood so that aesthetics will be enhanced. If prices of chips are favorable, biomass may be removed from the site.

3. **Past & Future Activities** - Slash and brush cleanup for fire protection by past logging, recent biomass thinning and landowner efforts has enhanced property aesthetics by giving a more open park-like appearance to the forest, especially along Wingfield Road. Visual impacts on the remainder of the project area are considered to be generally light and may enhance aesthetics by removing most of the dead trees in patches of white fir stands.

4. **Evaluation** - The project as proposed, either alone or in combination with past or future projects, will have no reasonable potential to cause or add significant cumulative impacts to visual resources.

H. Traffic Impacts -

1. **Assessment Area** - Short-term impacts on vehicle traffic quantity and flow are generated by transport of heavy equipment, logging trucks and worker vehicles travelling to and from the site. Technical Rule #2 states that the assessment area "involves the first roads not part of the logging area on which logging traffic must travel." This is Wingfield Road to Richmond Road.

2. **Project Assessment** - The project will generate around 50 annual round-trips by logging trucks from the THP area to sawmills in the northeastern California region. During some years, there be no trucking while in other years, up to 200 round-trip truck trips might occur. There will be additional daily trips by the loggers and the forester using pickup trucks and transporting vehicles. These impacts will be exceedingly short-term. There should be few impacts to school children walking or riding bicycles along the paved portion of Wingfield Road to Richmond School because most logging will take place during the summer months, and truck drivers will be reminded to slow down if trips are made in the morning or afternoon hours when children are present when school is in session. Impacts on other public roads beyond Wingfield Road (Richmond Road, Highway 36, Highway 139, Highway 44, etc.) will be rather small in comparison with the normal volume of logging truck traffic generated during the summer and fall months.

3. **Past & Future Activities** - The prior harvests on the adjoining Butler, Baxter Creek Woods,

Mallery and Cramer properties are completed. Harvesting from the Hulsman Ranch property will be conducted on a periodic and ongoing basis. Forest Service logging of the Flat Helicopter sale is completed. That sale generated approximately 3,000 round-trips by logging trucks to Sierra Pacific Industry sawmills in Susanville, Quincy and Burney and generated no apparent traffic problems. SPI trucks used Gold Run Road as their access. The Gila sale utilized the same route and generated around 600 round-trips. The impact of the Nagel traffic generation on Richmond Road pales in comparison to this much large operation on the National Forests. Future harvests from the property will generate similar very short-term impacts.

4. **Evaluation** - The project as proposed, either alone or in combination with past and future projects will have no reasonable potential for potential cumulative impacts to traffic or public roads.

PERSONS CONTACTED FOR ADDITIONAL INFORMATION

Name	Organization	Topic	Phone
Frank Goddard	CA Dept. of Forestry, Susanville	Procedures	257-8503
Duane Shintaku	CA Dept. of Forestry, Redding	Prior THP's	224-2486
Beverly Clark	USFS, Eagle Lake District, Susanville	Wildlife	257-2436
Frank Bayham	NE CA Info. Center, Chico	Archeology	898-6256
Don Dockery	USFS, Eagle Lake District, Susanville	Timber Sales	257-2151
Kim Earll	USFS, Lassen Nat. Forest, Susanville	Botany	257-2151
Phil Nemir	Consulting Forester, Susanville	General, 29 yrs. experience	257-2294
Andrew Jackson	Native American Susanville	Archaeology	257-3177
Jim & Fred Nagel	Landowner family, Susanville	Archaeology, water, sales history	257-5251
	UC Davis Davis	Watershed boundaries	

LITERATURE REVIEWED FOR PREPARATION OF THIS THP & CUMULATIVE IMPACT ASSESSMENT

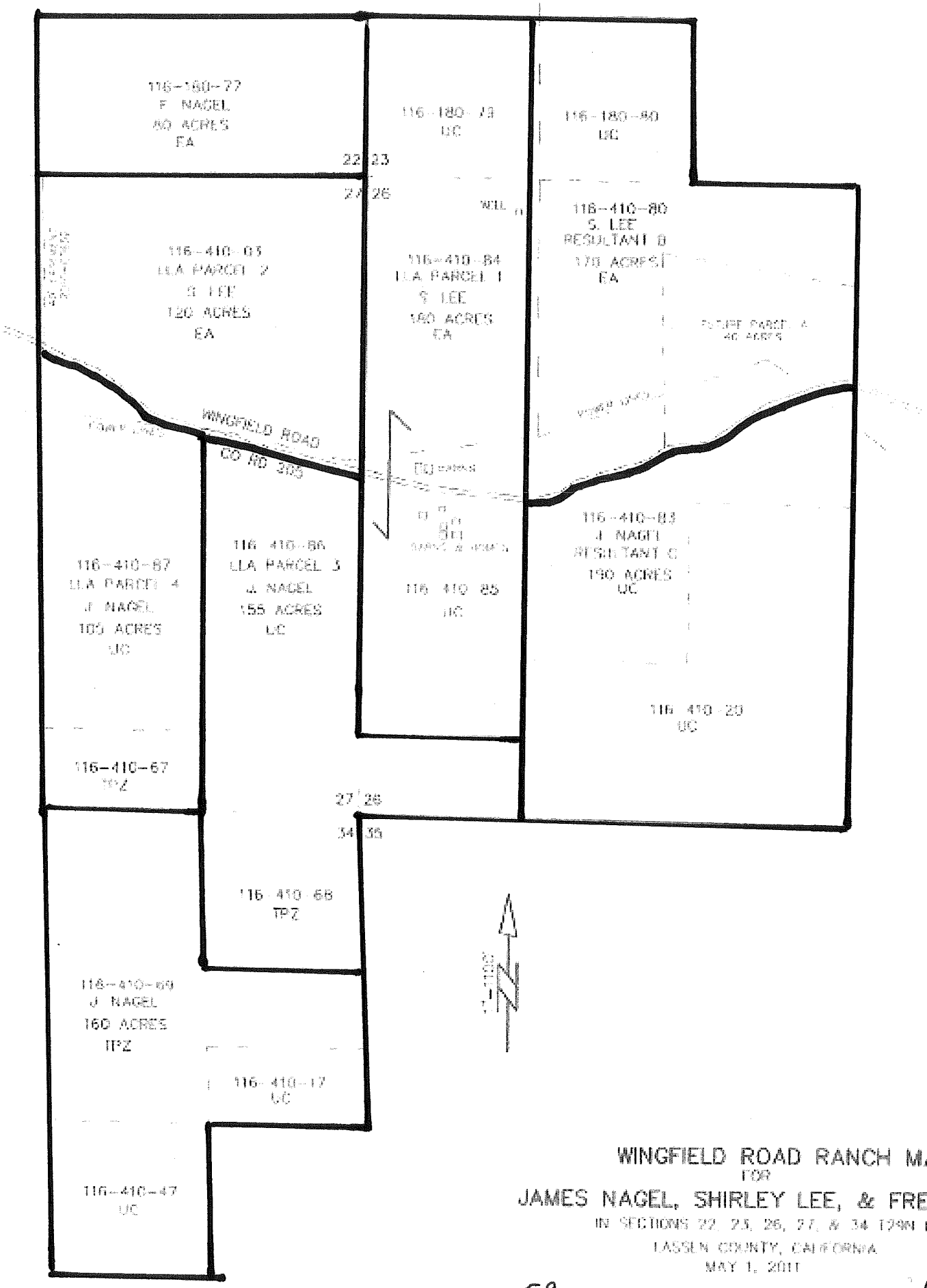
Mayer, Kenneth E., Editor. 1988. A Guide to Wildlife Habitats of California. California Department of Forestry & Fire Protection. Sacramento. 166 p.

CA Native Plant Society. 1994. Inventory of Rare & Endangered Vascular Plants of California. 338 p.

CA Department of Forestry & Fire Protection, et al. 1990. Soil Vegetation Survey covering part of Diamond Mountain and Greenville 7.5 minute Quadrangles (35A-3) and (35C-2). 126p.

CA Department of Forestry & Fire Protection, et al. 1990. Soil Vegetation Survey covering part of Janesville 7.5 minute Quadrangle (35A-4). 59p.

SECTION V - MISCELLANEOUS SUPPORTING DOCUMENTS



WINGFIELD ROAD RANCH MAP

FOR

JAMES NAGEL, SHIRLEY LEE, & FRED NAGEL

IN SECTIONS 22, 23, 26, 27, & 34 T29N R12E

LASSEN COUNTY, CALIFORNIA

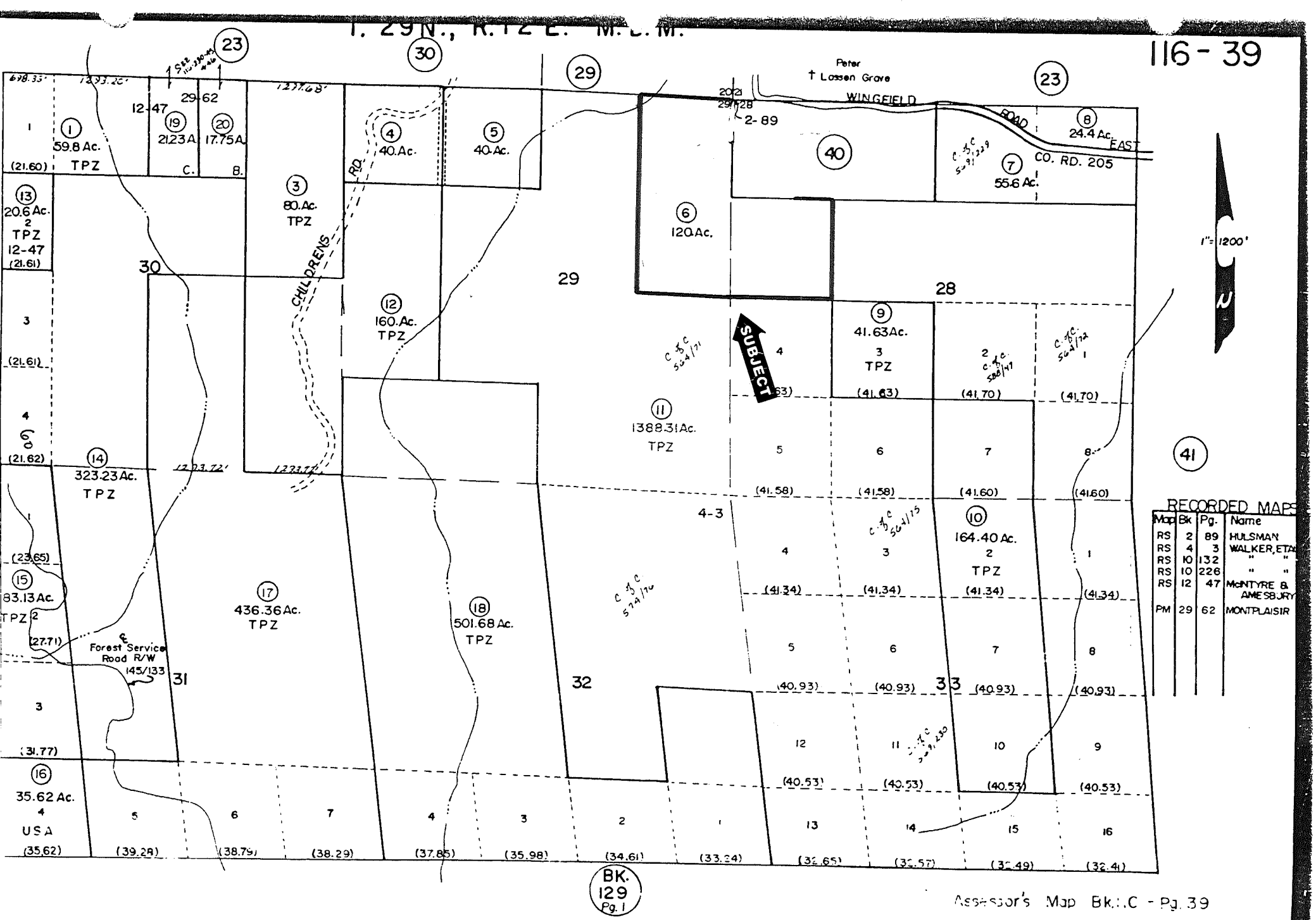
MAY 1, 2011

59

7/25/11

T. 29N., R.12E. M.D.M.

116-39



Assessor's Map Bk. C - Pg. 39

County of Lasser., Calif.

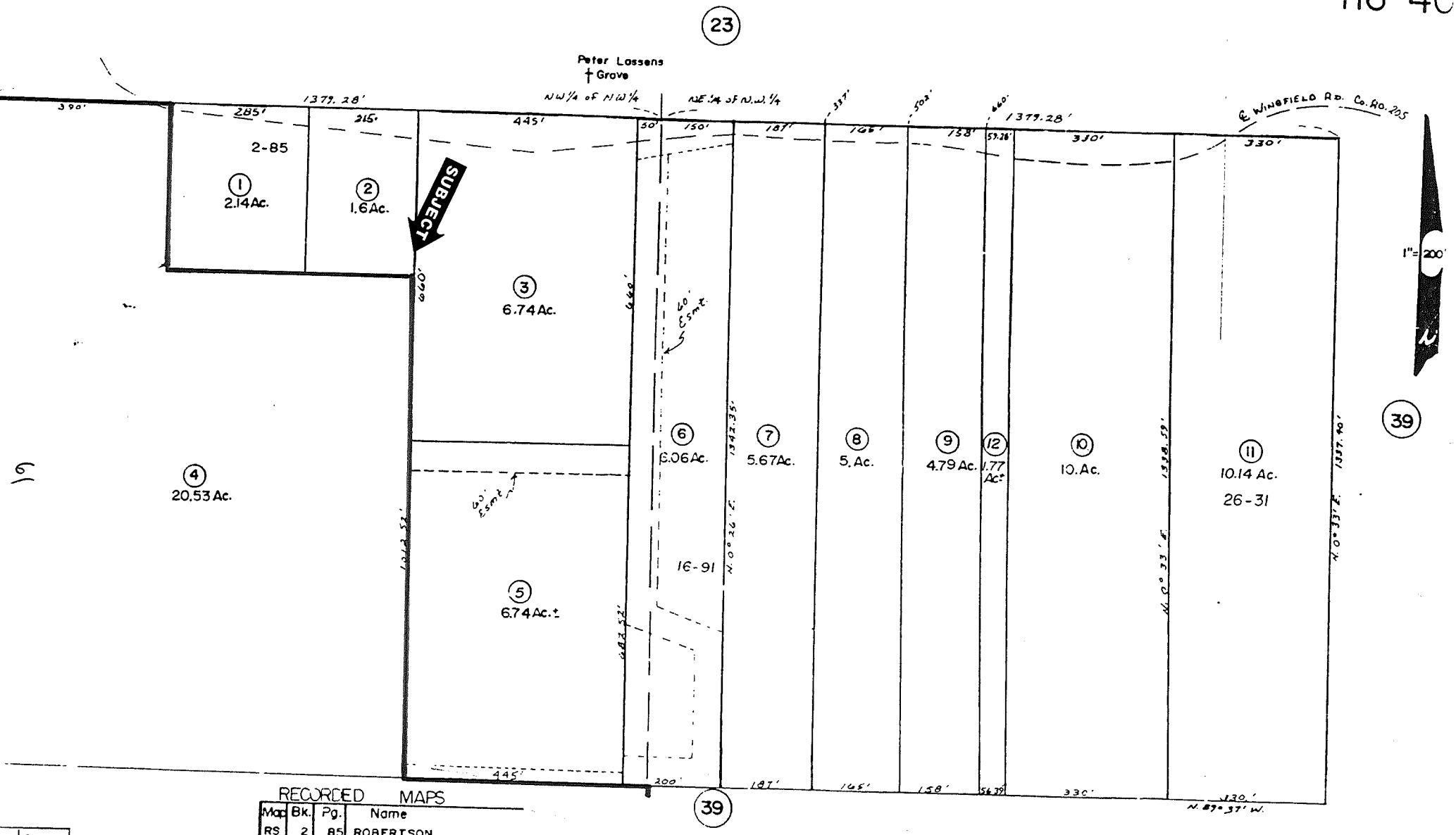
NOTE - Assessor's Parcel Numbers Shown in Circles

JUL 2 8 1994

N.1/2 of N.W.1/4 of SEC. 26 T. 29 N., R. 12 E.

TRA - 7550

116-40



	DATE
	4-72

RECORDED MAPS

Map	Bk.	Pg.	Name
RS	2	85	ROBERTSON
RS	6	3	NAGEL
RS	26	31	COSCARELLI

NOTE - Assessor's Parcel Numbers shown in Circles

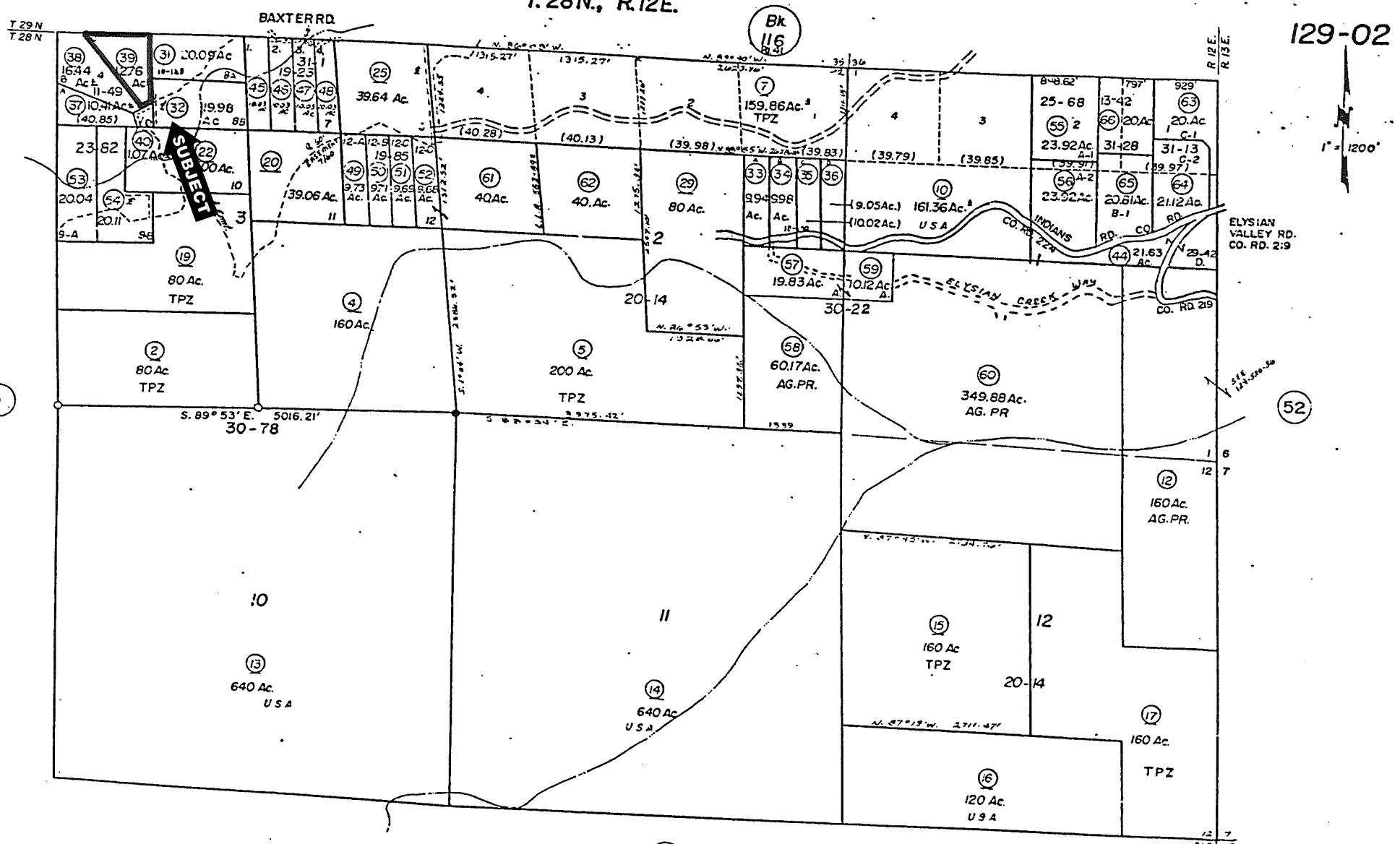
Assessor's Map Bk. 116 Pg. 40
County of Lassen, Calif.

JUL 2 8 1994

TRW•REDI
1-800-345-7334

SCALE IN 1/10 OF AN INCH

T. 28N., R. 12E.



PM MAP BK. 13 PG 42&3 TEZAK
PM MAP BK. 7 PG. 60 DIAMOND LAND
PM MAP BK. 10 PG. 168 ELERICK, ETAL.
PM MAP BK. 10 PG. 190 MERWIN
PM MAP BK. 11 PG. 49 NAGEL JR.

P.M. MAP BK. 19 PG. 23,24 SORENSON etc
P.M. MAP BK. 19 PG. 95 KLAUER
R.S. MAP BK. 20 PG. 14, 15 LASSEN NAT. FOREST
P.M. MAP BK. 23 PG. 82 ELLENA
P.M. MAP BK. 25 PG. 68,69 SCHMIDT & PERRY

RS BK 29 PG. 42 McKEE
PM 30 PG. 22 WILLIAMS
RS 30 PG. 78 LASSEN NAT. FOREST
PM 31 PG. 12 SORENSON
PM 31 PG. 13 McKEE
PM 31 PG. 28 GOOD

Assessor's Map Bk. 129 – Pg. 02

County of Lassen, Calif.

(530) 283-0800

FEATHER PUBLISHING CO., INC.

P.O. BOX B, QUINCY, CA 95971

Timber harvest

PROPOSED TIMBER HARVEST
REQUEST FOR INFORMATION ON
DOMESTIC WATER SUPPLIES

A Non-industrial Timber Management Plan (NTMP) is proposed for the following legal locations. This notice is requesting information concerning domestic water supplies which are 1,000 feet downstream from the proposed NTMP area. If you have any knowledge of domestic water supplies downstream of the following NTMP area, please notify the THP Submitter, c/o Phil Nemir, P.O. Box 1717, Susanville, CA 96130 within 10 days of the publishing of this notice.

a). NTMP Submitter: James F. Nagel b). NTMP Location: portions of Section 22, 23, 26, 27, 28, 29, 34, 35 T29N, R12E; portion of Section 3, T28N, R12E, MDM approximately 4 miles south of Susanville. c). Watercourses: Baxter Creek, Lassen Creek, unnamed tributary of the Standish Irrigation Canal.

Published LCT
Nov. 6, 2001

STATE OF CALIFORNIA }
County of Lassen } ss.

Keri B. Taborski deposes and says: That she is the Principal Clerk for the Publisher of the

Lassen County **TIMES**

a newspaper published and circulated at Susanville, Lassen County, State of California, adjudicated as a newspaper of general circulation December 7, 1981, Decree No. 15466; that the THP Submitter: Nagel / wc: Baxter, Lassen Creeks et al of which the attached is a true printed copy, was published in the weekly issue of said newspapers (and not in a supplement thereof) for 1 consecutive weeks, beginning Nov. 6 and ending same, both dates inclusive, to wit: Nov. 6, 2001

Date: NOV - 6 2001

Keri B. Taborski

Keri B. Taborski

64

11/6/01

Philip E. Nemir
Forestry & Appraisal Services
P.O. Box 1717
Susanville, CA 96130
(530-257-2294)

October 25, 2001

Hulsman Ranch Partnership
P.O. Box 850
Susanville, CA 96130

SUBJECT: Domestic Water Use Downstream of Nagel Property

Dear Hannah & Susan,

The Nagel Family Trust, and Jim and Gladys Nagel are requesting information concerning domestic water supplies within 1,000 feet downstream of non-industrial timber management plan area that may be affected by future timber harvesting activities on lands in the vicinity of Lassen Creek, Baxter Creek and an unnamed tributary of the Standish Irrigation Canal. If you have any knowledge of domestic water supplies downstream of the following NTMP area, please notify the NTMP Submitter, c/o Phil Nemir, P.O. Box 1717, Susanville, CA 96130 within 10 days of the postmarked date of this letter.

Legal description: portions of Section 22,23,26,27,28,29,34,35 T29N, R12E; portion of Section 3, T28N, R12E, MDM approximately 4 miles south of Susanville.

A map is enclosed for reference purposes. Thank you.

Sincerely,

Philip E. Nemir
Registered Professional
Forester No. 1666

encl.

65

11/6/01

Philip E. Nemir
Forestry & Appraisal Services
P.O. Box 1717
Susanville, CA 96130
(530-257-2294)

October 25, 2001

Jodie & Jack Ellena, Jr.
P.O. Box 610
Susanville, CA 96130

SUBJECT: Domestic Water Use Downstream of Nagel Property

Dear Chip & Jodie,

The Nagel Family Trust, and Jim and Gladys Nagel are requesting information concerning domestic water supplies within 1,000 feet downstream of non-industrial timber management plan area that may be affected by future timber harvesting activities on lands in the vicinity of Lassen Creek, Baxter Creek and an unnamed tributary of the Standish Irrigation Canal. If you have any knowledge of domestic water supplies downstream of the following NTMP area, please notify the NTMP Submitter, c/o Phil Nemir, P.O. Box 1717, Susanville, CA 96130 within 10 days of the postmarked date of this letter.

Legal description: portions of Section 22,23,26,27,28,29,34,35 T29N, R12E; portion of Section 3, T28N, R12E, MDM approximately 4 miles south of Susanville.

A map is enclosed for reference purposes. Thank you.

Sincerely,

Philip E. Nemir
Registered Professional
Forester No. 1666

encl.

11/6/01

Philip E. Nemir
Forestry & Appraisal Services
P.O. Box 1717
Susanville, CA 96130
(530-257-2294)

October 25, 2001

Ms. Lois A. Blechsmidt & Adele Artha Taylor
P.O. Box 467
Gualala, CA 95445

SUBJECT: Domestic Water Use Downstream of Nagel Property

Dear Ms. Blechscmidt & Ms. Taylor:

The Nagel Family Trust, and Jim and Gladys Nagel are requesting information concerning domestic water supplies within 1,000 feet downstream of non-industrial timber management plan area that may be affected by future timber harvesting activities on lands in the vicinity of Lassen Creek, Baxter Creek and an unnamed tributary of the Standish Irrigation Canal. If you have any knowledge of domestic water supplies downstream of the following NTMP area, please notify the NTMP Submitter, c/o Phil Nemir, P.O. Box 1717, Susanville, CA 96130 within 10 days of the postmarked date of this letter.

Legal description: portions of Section 22,23,26,27,28,29,34,35 T29N, R12E; portion of Section 3, T28N, R12E, MDM approximately 4 miles south of Susanville.

A map is enclosed for reference purposes. Thank you.

Sincerely,

Philip E. Nemir
Registered Professional
Forester No. 1666

encl.

11/6/01

Philip E. Nemir
Forestry & Appraisal Services
P.O. Box 1717
Susanville, CA 96130
(530-257-2294)

October 25, 2001

Tyler Edwards, Glen & Karen Edwards
P.O. Box 1784
Susanville, CA 96130

SUBJECT: Domestic Water Use Downstream of Nagel Property

Dear Tyler, Glen & Karen:

The Nagel Family Trust, and Jim and Gladys Nagel are requesting information concerning domestic water supplies within 1,000 feet downstream of non-industrial timber management plan area that may be affected by future timber harvesting activities on lands in the vicinity of Lassen Creek, Baxter Creek and an unnamed tributary of the Standish Irrigation Canal. If you have any knowledge of domestic water supplies downstream of the following NTMP area, please notify the NTMP Submitter, c/o Phil Nemir, P.O. Box 1717, Susanville, CA 96130 within 10 days of the postmarked date of this letter.

Legal description: portions of Section 22,23,26,27,28,29,34,35 T29N, R12E; portion of Section 3, T28N, R12E, MDM approximately 4 miles south of Susanville.

A map is enclosed for reference purposes. Thank you.

Sincerely,

Philip E. Nemir
Registered Professional
Forester No. 1666

encl.

11/6/01

-CONFIDENTIAL-

Archaeological and Historical Resources Survey and Impact Assessment
A Supplemental Report for a Timber Harvesting Plan

This report is intended to be submitted by an RPF as a CONFIDENTIAL addendum to a Timber Harvesting Plan (THP) to achieve compliance with the Forest Practice Rules and Regulations (14 CCR 929.1, 949.1 and 969.1). It should not be used to achieve compliance for any project other than a THP, especially if such projects require a full CEQA review. This report is highly confidential and SHALL NOT be made available to the general public since it contains sensitive archaeological information possibly displaying the specific location of archaeological sites. It shall be made available to those individuals and agencies authorized by CDF to review it and to those individuals with responsibility to protect archaeological resources described herein. The report may either be typed or carefully handwritten in ink. The RPF should send a completed copy of this report, with two copies of any site records, to the appropriate Archaeological Information Center within 30 days of the survey. **Contact CDF Archaeology Program Coordinator, Dan Foster at (916) 653-0839 for information concerning the use of this form.**

May 13, 1996	Nagel THP Amendment
Date This Form Prepared	Project Name
2-93-186-LAS(2)	Lassen
THP # (assigned by CDF)	County
Janesville 7.5'	180 T29N, R12E, Sec.26,35 MDM
Name of USGS Quad(s)	Total THP Acres Township/Range/Section(s)
Philip E. Nemir	
Name of Archaeological Surveyor	Signature of Surveyor
Same as above	P.O. Box 1717, Susanville, CA 96130
Name of RPF Preparing Plan (if different than surveyor)	Address of RPF

****

Archaeological Records Search Information

Note: Archaeological record search information should be current.

Identify and **ATTACH** the archaeological record search information for this THP as follows:

Information Center File # K92-409

Date of Records Check Response: November 2, 1992

For ownership-wide record search, indicate date of search (and updates) and **ATTACH** appropriate portion of basemap showing zones of sensitivity and areas recommended for archaeological survey.

Date of ownership-wide record search or most recent update: Nov 2, 1992

Archaeological Records Search Information - Continued

Yes	No	
[ ]	[x]	Did the Information Center records reveal the presence of any known archaeological or historical sites within the THP area? Show site locations on Archaeological Coverage Map.
[x]	[ ]	Has any portion of the THP area been **PREVIOUSLY** surveyed for cultural resources? If yes, display area on the "Archaeological Survey Coverage Map" using \\\\ lines.
[x]	[ ]	Did the Information Center recommend that the THP area be archaeologically surveyed prior to logging?
[x]	[ ]	Did the Information Center make any specific recommendations other than the area to be archaeologically surveyed? List recommendations:

If any additional cultural resources are encountered during actual harvest operations, all work should cease within the area of the find until the site and materials can be inspected by a professional archeologist.

****

Native American Consultation Information

The RPF is required to contact local tribal groups identified by the Native American Heritage Commission (NAHC), request information on the existence of any archaeological or cultural sites known to Native Americans within the THP boundaries, and to notify them of the opportunity to participate in the THP review process [14 CCR 929.1, 949.1 and 969.1]. The CDF Region Offices and Ranger Units can provide RPF's with the list and addresses of tribal groups. For the most current information, contact the NAHC at (916) 653-4082. Describe the results of this contact including name(s) and dates individuals were consulted:

Letters were sent to both the Susanville Rancheria and Andrew Jackson on March 17, 1993. Both were asked to respond to the request for information no later than March 30, 1993. Only Mr. Jackson responded by telephone on March 30, 1993. He did not identify any resources on the property but mentioned that Indian use was probable in the general area. Specifically, he mentioned the possibility of summer camps in the general area in the southwest corner of Section 26 near the stream and close to springs. Sites in this vicinity are outside of the amended THP area. Ronnie Morales of the United Maidu Nation was sent a letter on April 29, 1996 and did not respond by May 10, 1996 as requested.

****

Other Pre-Field Research

Describe your pre-field research including literature reviewed and persons contacted (other than Native American Consultation described above). For example, list all pertinent archaeological and ethnographic literature reviewed, archaeologists, landowners, or other knowledgeable individuals contacted; and summarize what was learned concerning the likelihood of archaeological and historical resources occurring on this THP.

Yes	No	
[ ]	[x]	Is THP adjacent to federal lands? If yes, list contacts (US Forest Service records, Bureau of Land Management, National Park Service, etc.) and describe what was learned (required).

Other Pre-field Research:

The sons of the owners, Jim and Fred Nagel, were asked if they had discovered any Indian or historic artifacts on the property during the family's ownership since 1951. They are very familiar with the property and identified one historic site and one archeogical site were recorded in 1993.

Elaine P. Sherman, Assistant to the Eagle Lake Distric Archeologist, provided a map on November 20, 1992 identifying no known archeological sites other than that Wingfield Road is shown on an 1864 GLO map.

****

Training and Experience of Archaeological Surveyor

Archaeological surveys for THP's may only be conducted by a professional archaeologist or persons who have attended a CDF Archaeological Training course approved by the CDF Director within the past five years [14 CCR 929.4, 949.4 and 969.4]. Describe the training and experience of the archaeological surveyor. For RPF's and other non-archaeologists, list the date, course number and location of the CDF Archaeological Training attended:

The survey was conducted by Philip E. Nemir (RPF #1666). He took the CDF archeology course in Redding on November 9-10, 1988 and on October 6-8, 1993.