2-08-018-PLU (C)

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

LHU 7. RT
FG2 8. Houser
WQ5 9.
PNF 10.
5. CP-PLU 11.
6. CGS 12.

TIMBER HARVESTING PLAN
STATE OF CALIFORNIA
DEPARTMENT OF FORESTRY
AND FIRE PROTECTION
RM-63 (02-03)

THP Name: Cradle Valley

(In the CDF FPS, this is "THP Description")

If this is a Modified THP, check box: [ ]

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THP No.

Dates Rec'd APR 15 2008

Date Filed SEP 25 2008

Date Approved MAY 26 2011

Date Expires MAY 25 2014

Extensions 1) [ ] 2) [ ]

This Timber Harvesting Plan (THP) form, when properly completed, is designed to comply with the Forest Practice Act (FPA) and Board of Forestry and Fire Protection rules. See separate instructions for information on completing this form. NOTE: The form must be printed legibly in ink or typewritten. The THP 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 THP. If writing an electronic version, insert additional space for your answer. Please distinguish answers from questions by *font change* **bold** or underline.

SECTION I - GENERAL INFORMATION

This THP 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. TIMBER OWNER(S) OF RECORD: Susanville Indian Rancheria
Address 745 Joaquin St
City Susanville State CA Zip 96130 Phone 530-251-5623
Signature [signature] Date 4/8/08
Signature _____ Date _____
Signature _____ Date _____

NOTE: The timber owner is responsible for payment of a yield tax. Timber Yield Tax information may be obtained at the Timber Tax Section, MIC: 60, State Board of Equalization, P.O. Box 942879, Sacramento, California 94279-0060; phone 1-800-400-7115; BOE Web Page at http:// www.boe.ca.gov.

2. TIMBERLAND OWNER(S) OF RECORD: **Same as above**
Address
City _____ State _____ Zip _____ Phone
Signature [signature] 4/8/08 Date

3. LICENSED TIMBER OPERATOR(S): Name CDF to be notified prior to start of operations Lic. No. _____
(If unknown, so state. You must notify CDF of LTO prior to start of operations)
Address
City _____ State _____ Zip _____ Phone
Signature _____ Date

4. PLAN SUBMITTER(S): **Susanville Indian Rancheria**

Address Same as above

City _____ State _____ Zip _____ Phone
(Submitter must be from 1, 2, or 3 above. He/she must sign below. Ref. Title 14 CCR 1032.7 (a))
Signature [signature] 4/8/08 Date

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a. List person to contact on-site who is responsible for the conduct of the operation. If unknown, so state and name must be provided for inclusion in the THP prior to start of timber operations.

Name CDF to be notified prior to start of operations

Address
City _____ State _____ Zip _____ Phone

b. [X] Yes [ ] No Will the timber operator be employed for the construction and maintenance of roads and landings during conduct of timber operations? If no, who is responsible?

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. a. Expected date of commencement of timber operations:

[X] date of THP conformance, or [ ] _____ (date)

b. Expected date of completion of timber operations:

[X] 3 years from date of THP conformance, or [ ] _____ (date)

7. The timber operation will occur within the:

[ ] COAST FOREST DISTRICT
[ ] Southern Subdistrict of the Coast F. D.

[ ] SOUTHERN FOREST DISTRICT
[ ] High use subdistrict of the Southern F. D.

[X] **NORTHERN FOREST DISTRICT**

[ ] The Tahoe Regional Planning Authority Jurisdiction
[ ] A County with Special Regulations, identify:

[ ] Coastal Zone, no Special Treatment Area
[ ] Special Treatment Area(s), type and identify:

[ ] Other

8. Location of the timber operation by legal description:
Base and Meridian: [X] Mount Diablo [ ] Humboldt [ ] San Bernardino

Section	Township	Range	Acreage	County	Assessor's Parcel Number (Optional)
3	27N	13E	145	Plumas	007-110-003

TOTAL ACREAGE 145 (Logging Area Only)

Planning Watershed: CALWATER Version, Identification Number, and Name: CALWATER 2.2 - 5518.550201 Clarks Creek

9. [ ] Yes [X] No Has a Timberland Conversion been submitted? If yes, list expected approval date or permit number and expiration date if already approved.

10. [ ] Yes [X] No Is there an approved Sustained Yield Plan for this property? Number _____ Date app.
[ ] Yes [X] No Has a Sustained Yield Plan been submitted but not approved? Number _____ Date sub.

11. [ ] Yes [X] No Is there a THP or NTMP on file with CDF for any portion of the plan area for which a Report of Satisfactory Stocking has not been issued by CDF?
If yes, identify the THP or NTMP number(s):
[ ] Yes [X] No Is there a contiguous even aged unit with regeneration less than five years old or less than five feet tall? If yes, explain. Ref. Title 14 CCR 913.1 (933.1, 953.1) (a)(4).

12. [X] Yes [ ] No Is a Notice of Intent necessary for this THP?
[X] Yes [ ] No If yes, was the Notice of Intent posted as required by 14 CCR 1032.7 (g)?

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

Address **PO Box 1717**

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

a. [X] Yes [ ] No I have notified the plan submitter(s), in writing, of their responsibilities pursuant to 14 CCR 1035 of the Forest Practice Rules.

[X] Yes [ ] No I have notified the timber owner and the timberland owner of their responsibilities for compliance with the Forest Practice Act and rules, specifically the stocking requirements of the rules and the maintenance of erosion control structures of the rules.

b. [X] Yes [ ] No I will provide the timber operator with a copy of the portions of the approved THP as listed in 14 CCR 1035 (f). If "no", who will provide the LTO a copy of the approved THP?

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 1035.2.

c. I have the following authority and responsibilities for preparation and administration of the THP and timber operation. (Include both work completed and work remaining to be done):

Responsible for road location, timber marking (including supervision), THP preparation, sale of timber and administration of Timberland Owner's Contract with Licensed Timber Operator. Not responsible for LTO's logging, including failure to comply with THP or LTO failure to comply with State Forest Practice Act, CA Department of Fish & Game, or State Water Quality Control Board Rules & Regulations. I am not a CA Licensed Surveyor and therefore, am not responsible for property boundary location. Authority to submit, amend, modify or withdraw this THP.

d. Additional required work requiring an RPF, which I do not have the authority or responsibility to perform:

None.

e. After considering the rules of the Board of Forestry and Fire Protection and the mitigation measures incorporated in this THP, I have determined that the timber operation:

[ ] will have a significant adverse impact on the environment. (Statement of reasons for overriding considerations contained in Section III).

[X] will not have a significant adverse impact on the environment.

Registered Professional Forester: I certify that I, or my supervised designee, personally inspected the THP area, and this plan complies with the Forest Practice Act, the Forest Practice Rules and the Professional Foresters Law. If this is a Modified THP, I also, certify that: 1) the conditions or facts stated in 14 CCR 1051 (a) (1) - (16) exist on the THP area at the time of submission, preparation, mitigation, and analysis of the THP and no identified potential significant effects remain undisclosed; and 2) I, or my supervised designee, will meet with the LTO at the THP site, before timber operations commence, to review and discuss the contents and implementation of the Modified THP.

Signature **Philip E. Nemir** Date 2/27/08

SECTION II - PLAN OF TIMBER OPERATIONS

)TE: If a provision of this THP is proposed that is different than the standard rule, the explanation and justification ıould normally be included in Section III unless it is clearer and better understood as part of Section II.

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

[ ] Clearcutting _____ac. [ ] Shelterwood Prep. Step _____ac. [ ] Seed Tree Seed Step _____ac.

[ ] Shelterwood Seed Step _____ac. [ ] Seed Tree Removal Step _____ac. [ ] Shelterwood Removal Step _____ac.

[X] Selection 145 ac. [ ] Group Selection _____ac. [ ] Transition _____ac.

[ ] Commercial Thinning _____ac. [ ] Road Right of Way_____ac. [ ] Sanitation Salvage _____ac.

[ ] Special Treatment Area_____ac. [ ] Rehab. of Understocked Area _____ac. [ ] Fuelbreak _____ac.

[ ] Alternative _____ac. [ ] Conversion _____ac. [ ] Non-Timberland Area _____ac.

Total acreage 145 ac.: Explain if total is different from that in 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 stocking levels (differentiated by site if applicable) must be stated. Note mapping requirements of 1034 (x) (12).

SELECTION STOCKING STANDARDS – (All trees marked with blue paint)

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

Under Option C (14 CCR 933.11 (c), sustainable harvest yields shall be accomplished by meeting the seed tree requirements of 14 CCR 933.1(c)(A), the minimal stocking and basal area standards for selected silvicultural methods as specified below with group A species, and protecting soil, air, fish and wildlife, water resources and other trust resources.

Selection shall meet minimum basal area retention standards per acre for trees 18" dbh and larger of:

(1). 15 square feet basal area on Site II & III and
(2). 12 square feet basal area on Site IV.

Leave trees must be of full crown, capable of seed production and representative of the best phenotypes available in the preharvest stand.

c. [ ] Yes [ ] No Will evenage regeneration step units be larger than those specified in the rules (20 acres tractor, 30 acres cable)? If yes, provide substantial evidence that the THP contains measures to accomplish any of subsections (A) - (E) of 14 CCR 913 (933, 953) .1 (a) (2) in Section III of the THP. List below any instructions to the LTO necessary to meet (A) - (E) not found elsewhere in the THP. These units must be designated on map and listed by size.

NA

d. 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 and whether harvested or retained.

Harvest trees to be marked by RPF hired by landowner, or someone under RPF's direction. Trees shall be marked with paint at breast height and a mark near ground level, generally below stump height.

[ ] 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 yes and more than one silvicultural method, or Group Selection is to be used, how will LTO determine boundaries of different methods or groups?

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

f. [ ] Yes [X] No Are group B species proposed for management?
[ ] Yes [X 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 are to be expected to maintain relative site occupancy of A species. Explain when a licensed Pest Control Advisor shall be involved in this process.

g. Other instructions to LTO concerning felling operations
Retain all unmarked snags greater than 16" dbh (Diameter at breast height) that do not pose a safety problem, are not salvageable, cannot fall on a road surface, or are not required to be felled by Forest Practice Regulations. Fell trees away from watercourses, meadows, and spring areas. Avoid damage to conifer and hardwood leave trees to the maximum extent feasible.

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

i. [ ] 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).

j. 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 THP 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 THP area? If yes, describe the proposed measures to improve the health, vigor, and productivity of the stand(s).

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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.

17. Erosion Hazard Rating: Indicate Erosion Hazard Ratings present on THP. (Must match EHR worksheets)

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

If more than one rating is checked, areas must be delineated on map down 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. See 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).

Erosion hazard rating is "moderate" using field observations and measurements. However, due to the granitic parent material, the standards for a "high" EHR shall be utilized (note – Table below uses standards for "high"). Drainage on seasonal roads shall be rolling dips suitable for passage by a passenger vehicle and/or outsloping. Drainage on skid trails will be waterbreaks. For landings, other than flat landings, cross slope drainage shall be provided across the length of the landing. Spacing requirements are as follows:**

Road or Trail Gradient

Map Estimated Hazard Rating	<11%	11-25%	25-50%
Moderate**	**150**	**100**	**75**

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 **NA** 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).

21. Within the THP 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 below. 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 the information as required by 14 CCR 914 (934, 954) .9 in Section III. List specific instructions to the LTO below.

WINTER OPERATIONS

23. a. [X] Yes [ ] No Will timber operations occur during the winter period? If yes, complete "b, c, or d." State in space provided if exempt because yarding method will be cable, helicopter, or balloon.
b. [ ] Yes [X] No Will mechanical site preparation be conducted during the winter period? If yes, complete "d".
c. [X] I choose the in-lieu option as allowed in 14 CCR 914 (934, 954) .7 (c). 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.
d. [ ] I choose to prepare a winter operating plan per 14 CCR 914 (934, 954) .7 (b).

As ground and weather conditions permit, normal logging operations will take place including tree falling, skidding, log loading and hauling. However, there shall be no use of any heavy equipment or mechanized operations during the period between December 1 and February 29. All temporary crossings to be removed prior to November 15.

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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 but shall not be conducted on saturated soil conditions that may produce sediment in quantities sufficient to cause a visible increase in turbidity of downstream waters in receiving Class I, II, III or IV waters or that violate Water Quality Requirements.

(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.

Per 14 CCR 895.1: "Saturated Soil Conditions means that soil and/or site surface material pore spaces are filled with water to such an extent that runoff is likely to occur. Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing material during timber operations, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheels, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials."

Soils or road and landing surfaces that are hard frozen are excluded from this definition. "Hard frozen condition means those frozen soil conditions where loaded or unloaded vehicles can travel without sinking into the road surfaces to a depth of more than six inches over a distance of more than 25 feet" (14 CCR 895.1)."

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 operations. (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? [ ] Yes [X] No, or reconstructed? [ ] Yes [X] No. If yes, check items "a." through "g."
Will any landings be constructed? [ ] Yes [X] No, or reconstructed? [ ] Yes [X] 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 THP Item 27 a. will satisfy required documentation.
e. [ ] Yes [X] No Will roads be located across more than 100 feet of lineal distance on slopes over 65%, or on slopes over 50% which are within 100 feet of the boundary of a WLPZ?

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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?

25. If any section in "item 24" above 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. Include required explanation and justification in THP Section III.

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 1034 (x) (7)?

c. [X] Yes [ ] 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. [X] Yes [ ] No Is this THP 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; as per THP Form Instructions or CDF Mass Mailing, 07/02/1999, "Fish and Game Code 1603 Agreements and THP Documentation".

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

Class I Watercourse -

WLPZ - 75' slopes < 30%

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. ("D")

At least 50% of the overstory and 50% of the understory canopy covering the ground, and adjacent to waters shall be left in a well-distributed multi-storied stand 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. ("G")

No heavy equipment shall operate within the WLPZ for Class I watercourses except for existing roads already falling within the WLPZ.

Per 14 CCR 936.3(g), "Recruitment of large woody debris for instream habitat shall be provided by retaining at least two living conifers per acre at least 16 inches diameter breast height high and 50 ft. tall within 50 ft. of all Class I & II watercourses."

Class II Watercourse –

WLPZ - 50' slopes < 30%

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 except at crossings designated in this THP. Skid trail crossings to be grass seeded and straw mulched prior to the winter season.

Class III Watercourses -

WLPZ - 25' slopes < 30%
50' slopes ≥ 30%

WLPZ 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 WLPZ by supervising RPF prior to falling within WLPZ 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 WLPZ to maintain soil stability. ("H")

Heavy equipment use in WLPZ shall be excluded except at RPF-designated road and skid trail crossings. All crossings shall be flagged by the RPF prior to use. No crossings of Class III watercourses to be conducted when water is flowing.

Per 934.8(d), "Watercourse crossing facilities not constructed to permanent crossing standards on tractor roads shall be removed before the beginning of the winter period. If a watercourse crossing is to be removed, it shall be removed in accordance with 14 CCR 943(d)." These temporary crossings will be grass seeded and straw mulched after removal.

Heavy equipment use in WLPZ shall be excluded except at dry RPF-designated skid trail crossings. Locations of tractor crossings shall be flagged in advance by the RPF and kept to a minimum while utilizing existing crossings to the greatest extent possible. Skid trail crossings to be grass seeded and straw mulched at the conclusion of logging and prior to the winter season.

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Truck Road Watercourse Crossing List -

Map No.	Watercourse Class	Crossing Facility	Status
1	II	20' 24" CMP culvert	Replace existing 16' 12" CMP culvert
2	I	22' 16" CMP culvert	Existing, non-functional - Utilize as temporary ford

Truck Road Watercourse Crossings -

See Watercourse Crossing Map for specific locations.

Crossing WC-1 is an existing functioning 16' long 12" CMP culvert. It will be replaced with a new 20' 24" CMP culvert designed to handle a potential 100-year flood event. The existing culvert will be dug out when the crossing is dry. The new culvert shall be installed with compacted native fill. The fill material on the upstream side of the crossing shall be stabilized with native rock boulders. A critical dip shall be installed on one side of the crossing. Rock shall be placed on the road surface, and shall be competent, angular and at least 2-inch plus sized material to a compacted depth of four inches. Rock shall cover the road surface (approximately 12 feet wide) from the center of the crossing to the edge of the WLPZ. At the conclusion of logging, or before the winter period, all other exposed soils in the WLPZ of the crossing shall be grass seeded and straw mulched.

Crossing WC-2 is an existing road crossing of Clarks Creek where the culvert is no longer effective. The existing pipe is 22' long by 16" in diameter. The approach from the east is across 70' of decomposed granite roadbed from the edge of the forest. The west side of the crossing is a two-foot high bank with evidence of prior reinforcement with cobble rock. The crossing bottom is reinforced with 6" to 12" andesite foreign rock. The stream bottom is also comprised of sand and pebbles. Channel slope is less than 2%. Channel width is approximately 12' across at bankfull height and 9' wide on the bottom. Bankfull depth of water is approximately 2'. The stream flow is intermittent and is dry during the later part of the summer and fall months. Vegetative cover is grass, forbs, lodgepole pine and a few willow bushes.

The crossing shall be used temporarily between April 1 to November 15 as a dry rocked ford. Rock shall be competent, angular and at least 2-inch plus sized material to a compacted depth of four inches. Rock shall cover the road surface (approximately 12 feet wide) from the center of the crossing to the edge of the WLPZ. In-channel rock shall be adequately sized and compacted to prevent displacement by wheel traffic and shall be dipped out upon completion of crossing use.

Some streambank modification will be required using a track, backhoe or excavator in order to grade the approaches for log truck use. Excavation of each bank will occur when the crossing is dry. Bank soil shall be moved away from the channel. Any accidental depositions of soil in the channel shall be removed immediately. A diagram of the crossing is included in the 1602 notification as instructions to the LTO (p. 33.1).

The current channel condition allows for seasonal waterflow over imported foreign rock with free movement by fish. Use of a dry ford temporary crossing shall insure the safe passage of fish if water should flow in response to a storm event. The watercourse typically dries in this section during the later summer and fall months and fish movement is stopped.

At the conclusion of operations, any rock or foreign material that should find its way into the channel bottom shall be removed from the channel, and the channel shall be restored to its pre-logging condition. Any disturbed soils within the WLPZ will be either be grass seeded and mulched with weed-free straw, or covered with the rock.

Environmental impacts will be limited as minimal operations will be required within the Clarks Creek channel. Willow bushes along the approaches can be pruned if necessary without disturbing the plant's root system. No conifer trees will be felled.

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Skid Trail Watercourse Crossings -

There shall be no tractor skid road crossings of the Class III watercourse on the east side of Clarks Creek. The Class III watercourse on the west side of Clarks Creek will require up to three crossings. The RPF shall flag all watercourse crossings for skidding operations prior to use.

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

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

(ii). No crossings of Class III watercourses to be conducted when water is flowing.

(iii). Exposed soils of the crossing in the WLPZ shall be seeded with grass seeded and straw mulched at the conclusion of logging.

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 III watercourses shall be removed immediately after deposition.

The LTO shall not construct or reconstruct tractor roads in any Class III watercourse unless it is dry, and at a prepared crossing.

Exposed Mineral Soil -

Per 14 CCR 936.7: " Within the watercourse and lake protection zone adjacent to Class I and Class II waters, areas where mineral soil exceeding 800 continuous square feet in size, exposed by timber operations, shall be treated for reduction of soil loss. Treatment shall be done prior to October 15th except that such bare areas created after October 15th shall be so treated within 10 days, or as agreed to by the Director." Treatment shall be either covering exposed with straw mulch or slash over 80% of the area to a depth of 2 inches.

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

a. [X] Yes [ ] 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. [X] Yes [ ] 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 (936, 956).1 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 THP 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, as per 14 CCR 916 (936, 956) .1 (a). Reference the in-lieu and location to the specific watercourse to which it will be applied.

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Existing Truck and Tractor Roads in WLPZ –

There are three existing sections of truck road and one existing section of skid road that lie within the 75' WLPZ of Clarks Creek. Truck road section W-1 is +/- 700 feet and is located along the west road. Truck road section W-2 is +/- 320 feet and is located just south of crossing WC-2 on the west road. Skid road W-3 is +/- 415 feet and is located just north of the south property boundary on the west side of Clarks Creek. Truck road section W-4 is +/-190 feet and is located near the southern end of the east road.

Standard Rule 14 CCR 936.3(c) prohibits roads in the WLPZ unless justified and approved. It is proposed that these sections of roads in the WLPZ be allowed for truck hauling (except section W-3), and tractor skidding because there is no other feasible alternative that has less environmental impact. Construction of alternative road segments would require additional area taken out of production, greater potential impacts to soil resources and water quality and also reduce biological habitat. Additionally, all roads proposed for use in WLPZ have good filter capacity between the road edge and Clarks Creek. If the in-lieu practice were not used, at least 1,500 feet of new roads and skid trails would have to be constructed with new areas of exposed soil, land taken out of timber production, biological habitat removed, and greater potential for water quality to be impacted by transport of sediment from the new road surface. The existing roadbeds are stable, there is adequate filtering capacity, there are no problems identified due to their current location, and mitigation is added to minimize potential environmental impacts. Mitigation measures to minimize potential impacts to soil and water quality are:

(1). Tractor skidding of logs is permissible within the WLPZ on the road segments provided that where the road is less than 50 feet from the edge of Lost Creek, any sidecast on the creek side of the road shall be seeded and mulched prior to the winter season, and at the conclusion of logging.

(2). Waterbreak/dip installation to no less than 100 feet minimum spacing.

(3). Road grading shall avoid sidecast on the Clarks Creek side of the road.

(4). W-1: Tractors shall hug the road edge farthest from the stream channel at all times. LTO shall cease use when there is potential for sediment transport reaching the adjacent watercourse, and measures shall be taken to prevent sediment-laden runoff leaving the roadbed prior to ceasing operations. Use of this road section will cease for the season following the first rains requiring waterbar installation. Any grading or shaping of the road for maintenance shall direct all loose soils away from the watercourse edge.

Justification for Use of Watercourse, Marshes, Wet Meadows, and Other Wet Areas as Landings, Roads or Skid Trails

The standard rule is 936.3(d): "Vegetation, other than commercial species, bordering and covering meadows and wet areas shall be retained and protected during timber operations unless explained and justified in the THP and approved by the Director. Soil within meadows and wet areas shall be protected to the maximum extent possible." Watercourse crossings are proposed at a minimum number of locations. Existing crossing WC-2 requires minimal disturbance of vegetation. Willows will need to be trimmed, and a very small area of grasses (+/- 30 square feet on the east side of Clarks Creek) will be disturbed. Up to three skid trail crossings may be used on the west Class III watercourse where there is little or no riparian vegetation, and impacts are only temporary. Mitigation is to require RPF location of crossings, and seeding and mulching at the conclusion of operations, and prior to the winter period. No heavy equipment shall be used north of crossing WC-2 and its spur road crossing Clarks Creek. For areas south of WC-2 minor use of skidding machines is proposed where a tree cannot be felled away from the meadow. Rather than fell additional trees to provide access, the preferred alternative is to allow trees (estimated at less than 12) to be felled into the meadow. Mitigation measures are:

(1). LTO shall contact the RPF and/or mark any tree that cannot be felled away from the meadow prior to felling. RPF approval is required prior to felling.

(2). Trees felled into the meadow shall not be bucked or limbed but pulled directly into the forest.

(3). Skidding machines shall use the shortest approach to the trees butt end, back up to the tree, and then skid the tree to the forest in the shortest feasible direction.

(4). Meadow soils must be dry at the time of skidding after meadow plants have dried for the season.

(5). Disturbance shall be limited to the smallest area necessary.

(6). The RPF shall flag an Equipment Exclusion Zone for operations for each proposed use.

(7). For W-3 skidding, the trail will be flagged by the RPF to stay as close to the rock outcrop as possible and away from the meadow. An EEZ will be flagged on the skid road edge closest to the meadow.

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An old landing site that lies on the fringe of the meadow south of WC-2 next to the property boundary corner will be re-used. This location is relatively flat, does not require extensive soil disturbance and falls far from the WLPZ of Clarks Creek. It is the most suitable location in the vicinity and is a formerly used landing. The meadow in this location is not classed as "wet" meadow, and is dry during the summer months. The landing shall not be used if the soils are wet. Use of less than a half acre of the meadow will avoid taking additional land out of productivity. Further, the perennial grass on this small portion of meadow has recovered from prior logging and can be expected to do so after this harvest. Impacts are deemed to be less than significant.

28. a. [X] Yes [ ] No — Are there any landowners within 1000 feet downstream of the THP 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 should be included in THP Section V. If No, "28 b." need not be answered.

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

c. [X] Yes [ ] 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.

The current and prior Timberland Owners provided information on water sources within the THP project area that are used for domestic water. A copy of the letter sent to the Plumas National Forest, the only landowner within 1,000 feet downstream, is attached. A phone call to staff of the Beckwourth Ranger District confirmed that the Federal land is used strictly for natural resource production and recreation without any improvements with no domestic water use. The RPF has further verified this with a field inspection. Accordingly, a waiver is requested for the newspaper notification requirements of 14 CCR 1032.10.

The Timberland Owners have drilled a well for domestic water. LTO shall locate, flag and protect the holding tank, and wellhead.

29. [ ] Yes [X] No — Is any part of the THP 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?

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.

There are no public roads within the THP harvest area.

There are no year-round residences on or surrounding the property. However, operations shall comply with 14 CCR 937.2(c) 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 of permanently located structures maintained for human habitation shall be removed or piled and burned..". Within 100 feet of the old cabin, (that is only used seasonally and does not have connection to public utilities), all woody debris greater than one inch but less than 8 inches in diameter shall be removed or piled and burned; within 200' of the cabin, all logging-created slash shall be lopped to within 24" of the ground surface.

Within the proposed plan area, all other logging-generated slash shall be 100% treated by either lopping to within 30" of the ground surface or chipping, and/or removal.

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.

Any piling and burning shall comply with provisions of 14 CCR 937.2(a), 937.5(b) and 937.6.

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BIOLOGICAL AND CULTURAL RESOURCES

32. a. [X] Yes [ ] 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 THP 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 THP Form Instructions or the CDF Mass Mailing, 07/02/1999, section on "CDF Guidelines for Species Surveys and Mitigations" to complete these questions. **No listed species, or species of concern are known to exist on the THP area.**

Mitigation: If any rare, threatened or listed endangered plant (CNPS 1 or 2) or amphibian species are found, all soil disturbing activities shall cease within 50 feet of the area or the WLPZ where such plants/amphibians are located, and the California Department of Fish & Game will be consulted within 48 hours for any further mitigation measures. A buffer area shall be flagged around the species for exclusion from harvesting until the consultation occurs. Size of the buffer area will vary depending upon the location, terrain and sensitivity of the species.

Sierra Red Fox: The critical period is defined as February 1 through June 30. During timber operations, if a red fox is observed within the plan area boundary, operations within 0.25 mile shall cease until after the critical breeding period or consultation with DFG. If SNRF is discovered by camera station surveys, den search surveys, observations of adults or young, sign including scat, prey remains, and/or recent signs of den excavation within the THP area: 1) operations within 0.25 miles shall cease and 2) DFG shall be contacted to initiate a CESA consultation to determine appropriate protection measures. LTO and RPF will be provided with instructions and education on identifying red fox, sign, and denning areas (pictures, identification). No SNRF or den sites have been observed.

For potential nest sites of Sensitive Species, provisions of 14 CCR 939.2 (b) - (d) shall apply:

"(b) During timber operations, nest tree(s), designated perch trees(s), screening tree(s), and replacement tree(s), shall be left standing and unharmed except as otherwise provided in these following rules.

(c) Timber operations shall be planned and operated to commence as far as possible from occupied nest trees unless explained and justified by the RPF in the THP.

(d). When an occupied nest site of a listed bird species is discovered during timber operations, the timber operator shall protect the nest tree, screening trees, perch trees, and replacement trees and shall apply the provisions of subsections (b) and (c) above and shall immediately notify the Department of Fish and Game and the Department of Forestry and Fire Protection. An amendment that shall be considered a minor amendment to the timber harvesting plan shall be filed reflecting such additional protection as is agreed between the operator and the Director after consultation with the Department of Fish and Game." If an occupied nest of a listed bird species is discovered during operations, vegetation-disturbing activities within 0.25 miles will be suspended until a consultation with DFG occurs. The standard distances for which the DFG believes impacts may occur and trigger the need for a consultation are as follows:

Bald Eagle –	**0.5 miles**	**Golden Eagle -**	**0.5 miles**
Peregrine Falcon –	**0.5 miles**	**Osprey -**	**0.25 miles**
Greater Sandhill Crane –	**0.5 miles**	**Goshawk -**	**0.25 miles**
Willow flycatcher -	**300 feet"**	**Great gray owl –**	**0.25 miles**

A Special Treatment Area (STA) is established north of Watercourse Crossing #2 (WC-2). Much of this +/- 5-acre area is not included in the harvest area. The buffer zone is 300 feet out from the edge of potential willow flycatcher habitat. Within this STA no timber harvest operations shall be allowed from May 1 through August 31 unless a survey finds no evidence of willow flycatchers. DFG to be notified of survey results prior to harvest operations. In addition, a minimum 75-foot WLPZ is established from the edge of riparian growth. If willow flycatchers are found and the STA is activated, the RPF shall flag the perimeter and advise the LTO of the flagging type and color. This STA may be modified, extended or eliminated after a qualified biologist conducts a survey with protocol procedures approved by DFG. Negative survey results have been supplied to DFG for review.

There are no known sensitive species within the THP boundary. However, if any active raptor nest trees of non-sensitive species are located during tree marking or logging operations, they shall be left standing.

As per Fish and Game Code section 3503.5, nests of birds belonging to the orders of Falconiforme or Strigiforme shall not be disturbed if they are occupied. If the LTO locates an occupied nest for bird species of these orders, all logging operations shall be suspended in the immediate vicinity of the nest, and the supervising RPF shall be

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immediately notified. The RPF shall locate the nest tree, perch trees, and screening trees, identify them for protection, and establish a buffer area around the trees by use of flagging to prevent damage to the nesting tree and potential disturbance of the nesting bird. Logging operations can resume upon approval of the RPF after the young and adults have not been detected for a minimum of two visits to the site.

Should operations outside the buffer area cause the nesting raptor to vocalize, get up from a brooding position, or fly off the nest, operations shall be moved far enough from the nest to stop the agitated raptor behavior. At the conclusion of the annual operation, the RPF shall advise DFG of the raptor species encountered, the size of the setback/buffer, and the reproductive success/failure of the nest.

Willow Flycatcher & Great Gray Owl Surveys: The results of a "Willow Flycatcher Survey Report" for the THP is included Section III (p.33.4) following DFG protocol. Wildlife Biologist Tim Keesey conducted a survey on 6/12/09 and 6/24/09 and detected no willow flycatchers present. Survey results were provided to DFG. No further surveys are proposed, and no further mitigation is necessary.

Wildlife Biologist Tim Keesey conducted surveys for Great Gray Owls in two consecutive seasons (2009 & 2010) following DFG protocol. The survey reports are included in Section III (p. 33.15 and 33.27). Survey results were provided to DFG. No Great Gray Owls or nesting sites were discovered. No further surveys are proposed, and no further mitigation is necessary.

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.

Per 14 CCR 939.1, merchantable snags shall be marked by RPF or designee, and in addition, snags along roads or near structures may be felled for fire hazard and safety purposes. Large unmerchantable snags (greater than 16" dbh) shall be left standing unless they are adjacent to roads or structures, or pose a public safety hazard.

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.

36. a. [X] Yes [ ] No — Has an archaeological survey been made of the THP area?

b. [X] Yes [ ] No — Has a current archaeological records check been conducted for the THP area?

c. [ ] Yes [X] No — Are there any archaeological or historical sites located in the THP area? Specific site locations and protection measures are contained in the Confidential Archaeological Addendum in Section VI of the THP, which is not available for general public review.

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

38. Describe any special instructions or constraints that are not listed elsewhere in Section II.

The primary source of water for dust abatement will be from the new well on the property. No drafting from Clarks Creek is proposed. Avoid crossing the buried water line from the well to the holding tank. LTO shall flag all faucet locations, and the water line from the well to the holding tank and avoid damage to them.

Any road on the entire 160 acres used for log hauling or skidding is considered "appurtenant" and all regulations and treatment requirements of the Rules and this THP apply.

LTO is responsible for notifying CDF prior to the commencement of timber operations:

Forest Practice Technician
Lassen-Modoc Unit
CA Department of Forestry
697-345 Highway 36
Susanville, CA 96130
530-257-2294 (phone) 530-257-8599 (fax)

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DIRECTOR OF FORESTRY AND FIRE PROTECTION

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

By: Michael J. Bacca
(Signature)

MAY 26 2011
(Date)

MICHAEL J. BACCA, RPF #2236
(Printed Name)

Forester III, Cascade,
Sierra & Southern Regions
Forest Practice Manager
(Title)

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14.2
3/11/11

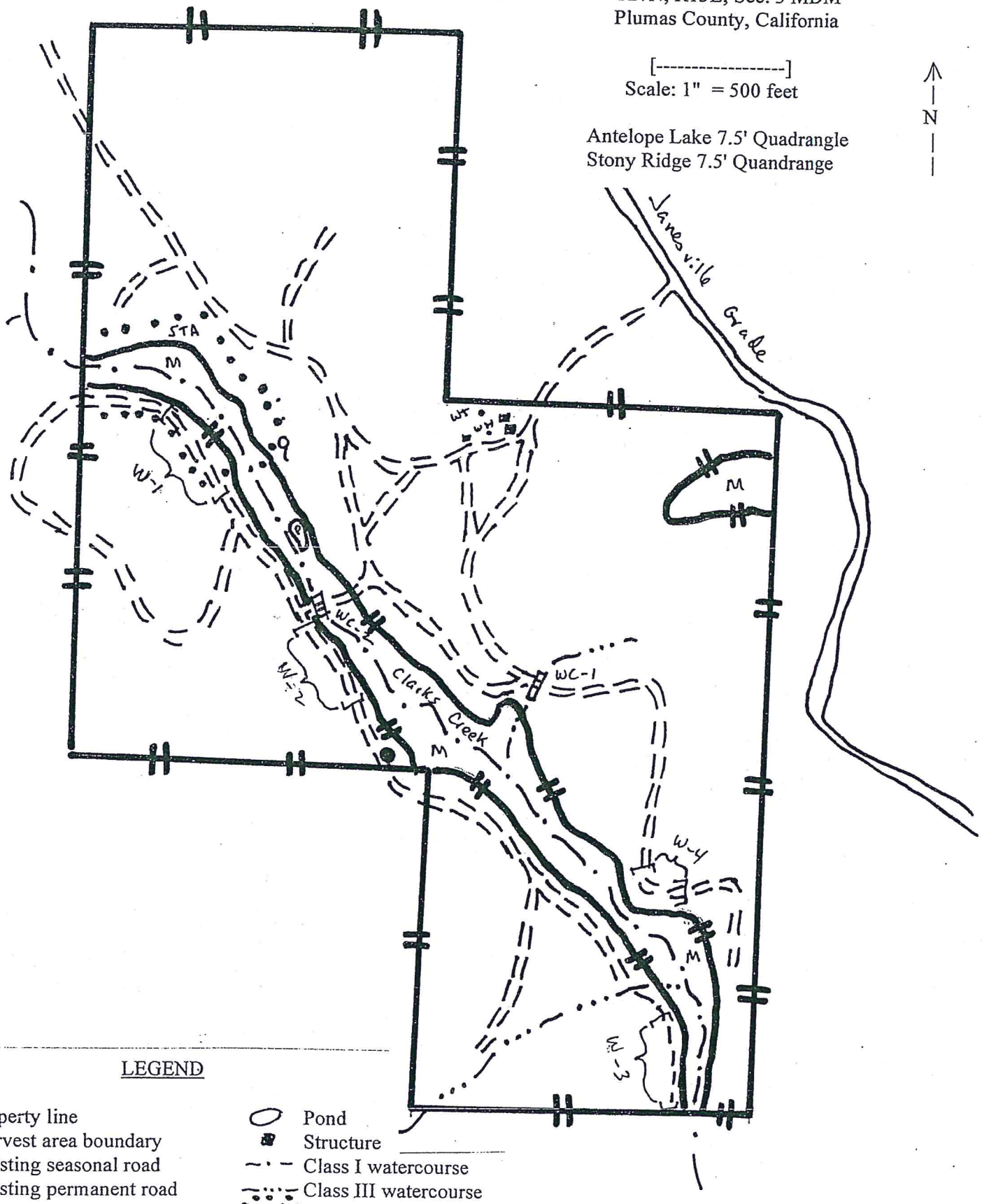
TIMBER HARVEST PLAN
Cradle Valley

T27N, R13E, Sec. 3 MDM
Plumas County, California

[----------]
Scale: 1" = 500 feet

Antelope Lake 7.5' Quadrangle
Stony Ridge 7.5' Quandrange

N



LEGEND

- Property line
- Harvest area boundary
- Existing seasonal road
- Existing permanent road
- Watercourse crossing
- Spring
- WH. Well head
- M Meadow
- Pond
- Structure
- Class I watercourse
- Class III watercourse
- STA Special treatment area
- WT Water tank
- W-1 [ ] Road in WLPZ
- — — skid road

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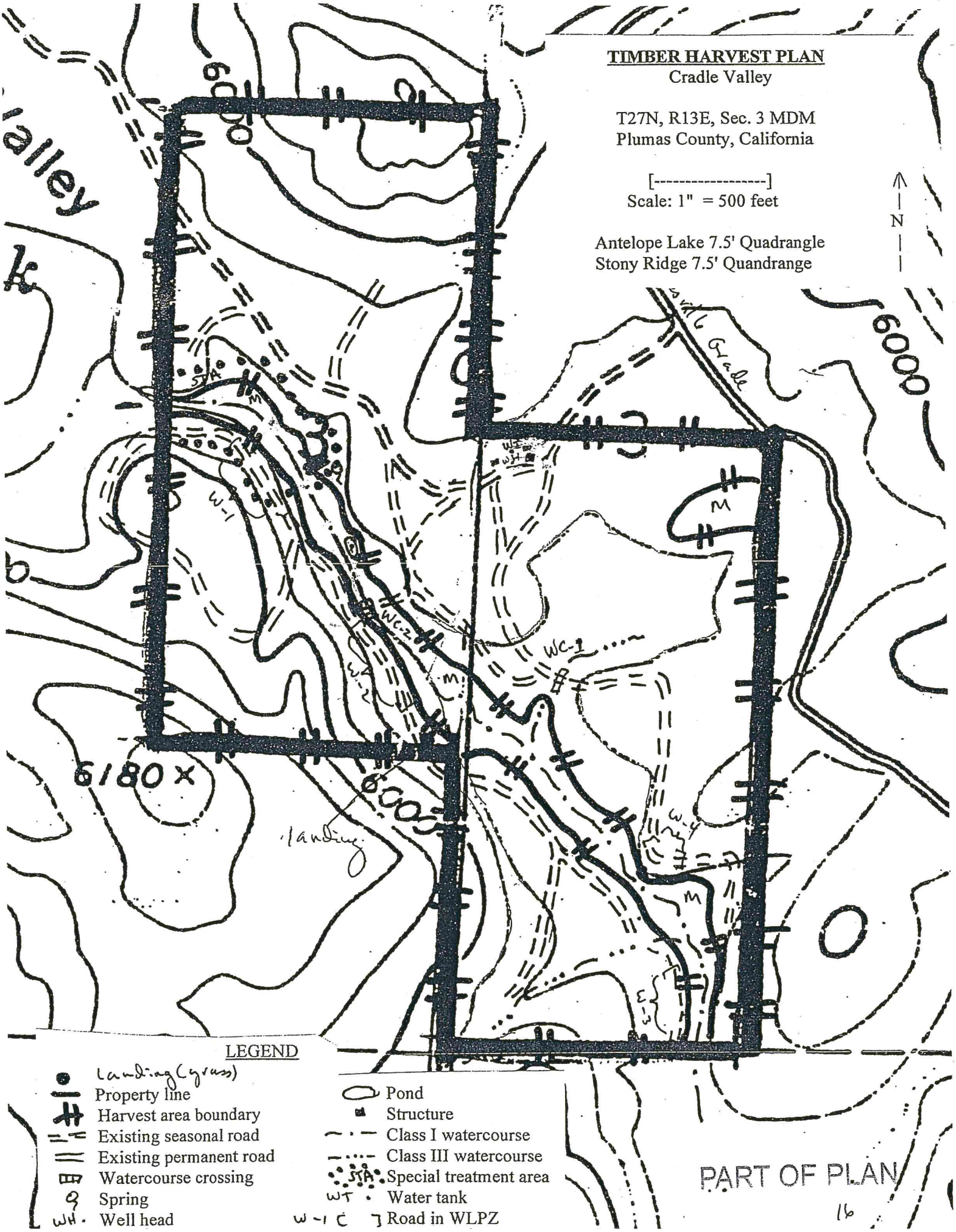
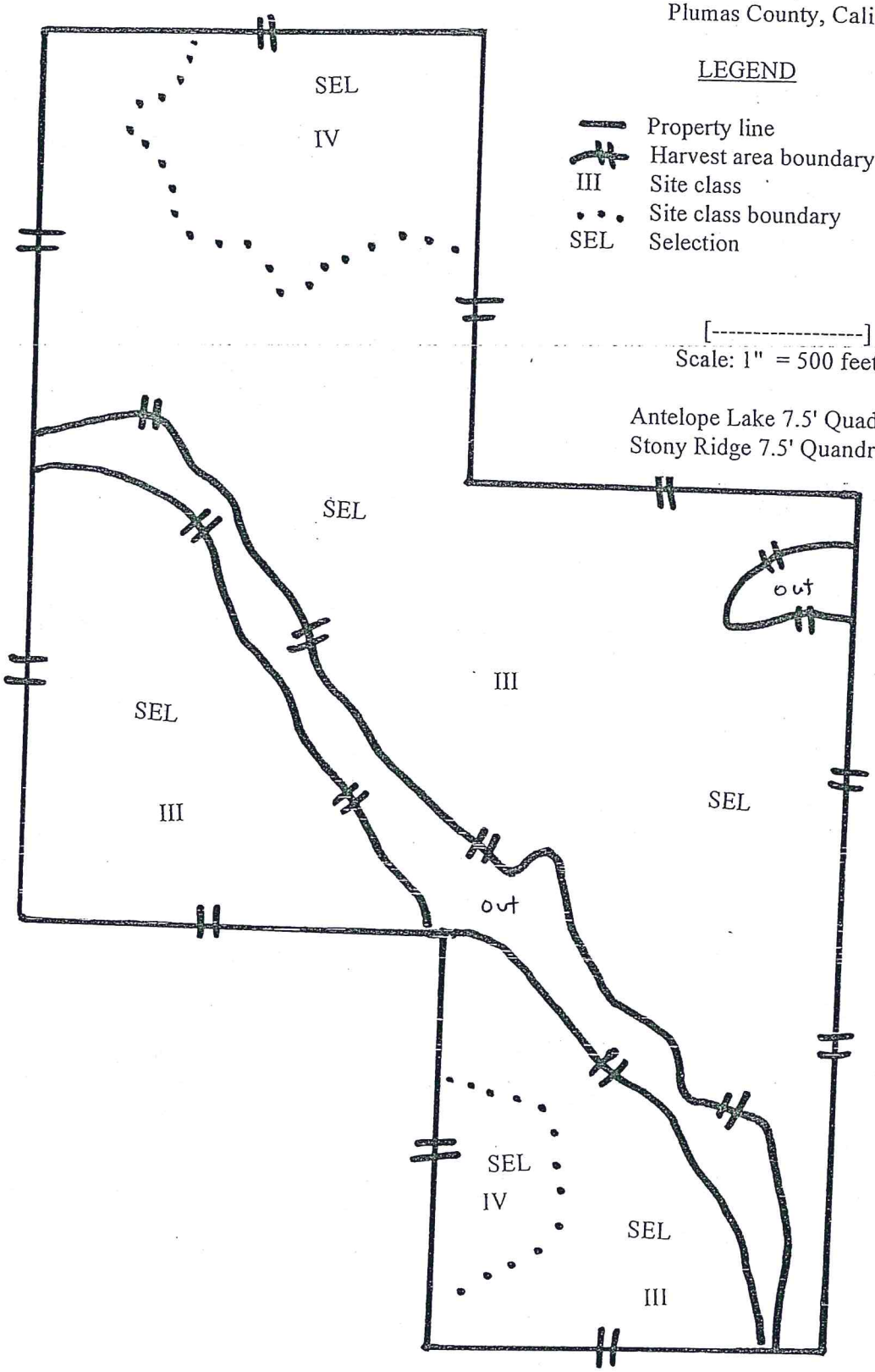

TIMBER HARVEST PLAN
Cradle Valley
T27N, R13E, Sec. 3 MDM
Plumas County, California
[----------]
Scale: 1" = 500 feet
Antelope Lake 7.5' Quadrangle
Stony Ridge 7.5' Quandrange
N
6000
6180 X
landing
WC-1
WC-2
W-1
W-2
W-3
W-4
M
LEGEND
Landing (grass)
Property line
Harvest area boundary
Existing seasonal road
Existing permanent road
Watercourse crossing
Spring
WH Well head
Pond
Structure
Class I watercourse
Class III watercourse
STA Special treatment area
WT Water tank
W-1 Road in WLPZ
PART OF PLAN

SILVICULTURE/SITE CLASS MAP
Cradle Valley

T27N, R13E, Sec. 3 MDM
Plumas County, California



LEGEND

Property line
Harvest area boundary
III Site class
Site class boundary
SEL Selection

[----------]
Scale: 1" = 500 feet

N

Antelope Lake 7.5' Quadrangle
Stony Ridge 7.5' Quandrange

SECTION III – ADDITIONAL INFORMATION

GENERAL PROPERTY DESCRIPTION –

The Susanville Indian Rancheria (SIR) property is located near the crest of the western slope of the northern Sierra Nevada mountain range in Plumas County, California and approximately 5 miles south of the community of Janesville. The property totals 160 acres of which an estimated 145 acres meets the criteria as commercial forestland. The remaining 15 acres is high mountain meadow. Use on approximately 66 acres of the property is constrained for 30 years by a conservation easement held by the Natural Resources Conservation Service (NRCS) under the Wetlands Reserve Program. However, limited harvesting of the forest as proposed in this THP is permissible with NRCS approval.

The SIR property is located in an area used principally for natural resources including timber production, grazing, recreation and watershed protection, and is surrounded on all sides by Plumas National Forest. Access is seasonal over the Janesville Grade Road (County Road 208 and National Forest Road 01). Winter access is limited due to snow that is not cleared by either Lassen County nor the USFS. Janesville Grade is heavily used during the summer by recreationists heading to Antelope Lake located approximately 4 miles southwest of the harvest area.

The SIR property falls in the upper reaches of the Clarks Creek watershed. Elevations range from 5,920 feet on the south to 6,160 feet on the southwest portion of the THP area. Annual precipitation is approximately 20" falling as snow or rain. The forested harvest area slopes toward Clarks Creek which roughly bisects the property in a northwest to southeast direction. Clarks Creek is a Class I watercourse that tends to dry up by the end of the summer. An artificial pond is located along the edge of Clarks Creek meadow near the center of the property. There is one Class III tributary of Clarks Creek on the east side of the meadow. A haul road crosses it, but no harvesting is proposed in the WLPZ. A spring located above the pond provides domestic water when the property owners use the cabin during the spring to fall months. The current owners have also drilled a well for domestic purposes. Other beneficial uses of the water are for fish and wildlife, recreation, and agricultural purposes.

Topography is gentle and less than 10% over most of the area with the exception of ground up to 30% slope in the northeast corner and along the western property boundary. Soils are derived from granodiorite rocks. Soil depth is between 25" to 55". Soil texture is a sandy loam or coarse gravelly loam. Erosion hazard is "moderate".

Most of the area is rated as Dunning's Site Class II to III. A small area near the northeast corner is rated Dunning Site IV. The highest productivity is located along the margins of the meadows.

SILVICULTURE (#14) -

Stand Description:

Jeffrey Pine forest characterizes most of the vegetative cover. Conifer species include Jeffrey pine, white fir and lodgepole pine. A few areas support quaking aspen trees. The bulk of the harvest area is well-stocked medium sized conifer second growth forest with timber productivity rated as Site III. Roughly 1/3 of the forest northeast of Clarks Creek was thinned by the prior ownership when the property was operated as a summer camp. This stand is more open and better spaced than the untreated areas. Concentrations of lodgepole pine tend to be greatest along the meadow edges and where the water table is higher.

Dominant and codominant young growth trees are generally between 80 to 125 years of age. There is no old growth.

The property is comprised of the following CA Wildlife Habitat Relationship types:

Habitat Type	WHR Type	Acres
Dense cover Jeffrey Pine conifer - medium/large tree	JPN5D	31
Moderate cover Jeffrey Pine conifer - small tree	JPN4M	61
Open cover Jeffrey Pine conifer - pole tree	JPN3P	40
Open cover Lodgepole pine conifer - pole tree	LPN3P	13
Dense cover wet meadow - short herb	WTM1D	15
		160

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Cradle Valley Willow Flycatcher Survey

From: **Tim Keesey** (tkeesey@citlink.net)
Sent: Thu 8/21/08 11:59 AM
To: 'Phil Nemir' (philnemir@hotmail.com)

Hi Phil,

I surveyed for willow flycatchers (*Epidonax traillii*) along Clark's Creek on the Susanville Indian Rancheria's Cradle Valley property on July 9, 2008 between 8 am and 10 am. I used the survey protocol developed by Bombay et al. (2003). This is the protocol recommended by the Regional Forester for the USDA Forest Service Pacific Southwest Region and the California Department of Fish and Game.

No willow flycatchers were detected.

Bombay, H.L., T.M. Benson, B. E. Valentine, & R.A. Stefani. 2003. A Willow Flycatcher Survey Protocol for California.

Let me know if you need additional information.

Tim

****
Tim Keesey, Natural Resources Director
Susanville Indian Rancheria (SIR)
745 Joaquin St.
Susanville, CA 96130
(530) 251-5623
(530) 251-5635 fax
****

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Willow Flycatcher Survey Report
Timber Harvest Plan No. 2-08-018-PLU
Susanville Indian Rancheria
Cradle Valley, Plumas County, California

Prepared For:

Susanville Indian Rancheria
745 Joaquin St.
Susanville, CA 96130

and

Philip E. Nemir, RPF
Forestry and Appraisal Services
P.O. Box 1717
Susanville, CA 96130

Prepared By:

Tim Keesey, Natural Resources Director
Susanville Indian Rancheria Natural Resources Department
(530) 251-5623
tkeesey@citlink.net

January 2010

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SUMMARY

A protocol survey for the Willow Flycatcher (*Empidonax traillii*) was conducted in 2009 within suitable habitat on 160-acres owned by the Susanville Indian Rancheria (SIR) in Plumas County, California. **The species was not detected on or adjacent to the property.**

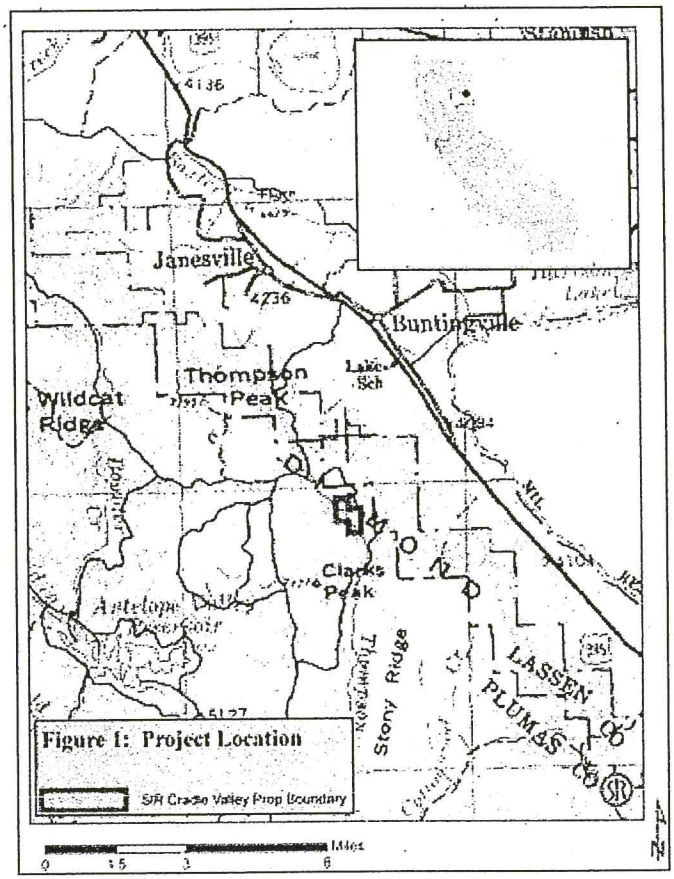
INTRODUCTION

PURPOSE OF THE STUDY

The Susanville Indian Rancheria (SIR), a federally recognized Tribe, is working with Phil Nemir, California Registered Professional Forester (RPF), to develop a Timber Harvest Plan (THP) on the project property. The California Department of Fish and Game (CDFG) requested that presence/absence surveys for Willow Flycatcher (WIFL) be conducted prior to implementation of the THP due to the presence of meadow/riparian habitat within the project area associated with Clarks Creek, which bisects the project area. WIFL was listed by the State of California in 1990 as an Endangered Species. The Pacific Southwest Region of the U.S. Forest Service and Region 1 of the U.S. Fish and Wildlife Service have designated the WIFL as a Sensitive Species (CDFG 2010). The Susanville Indian Rancheria Natural Resources Department conducted a presence/absence survey during the 2009 field season.

PROJECT LOCATION

The project is located in Plumas County California near the Plumas/Lassen County border, approximately 7 miles south of the township of Janesville, CA on 160-acres owned by the Susanville Indian Rancheria (Parcel # 007-110-003) within the California Northern Forest District (*see* Figure 1 – Project Location). The map location is within Section 3, Township 27 North, Range 13 East, of the Mount Diablo Base and Meridian; U.S. Geological Survey 7.5' Antelope Lake quadrangle (UTM Zone 10: 712562 . Access to the site from Hwy 395 is south 6.7 miles on the Janesville Grade which turns into Forest Service road 28N01, and then west for a ¼ mile on an unnamed dirt road. The Project location is completely surrounded by public land managed by the Plumas National Forest.



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SURVEY METHODS

SIR Natural Resources Director Tim Keesey performed the survey, which was carried out according to A Willow Flycatcher Survey Protocol for California (Bombay et al. 2003). Mr. Keesey is a wildlife biologist with a Bachelor of Science Degree in Biology and a Bachelor of Science Degree in Environmental Studies from the University of California, Santa Cruz with an emphasis in Wildlife Conservation. Mr. Keesey conducted WIFL surveys for the Lassen National Forest (LNF) Eagle Lake Ranger District (ELRD) under the direction of LNF Wildlife Biologist Tom Rickman for several years.

The survey area was established based on recommendations within the protocol (*See* Figure 2). All potentially suitable habitat within 50 meters of the project area based on CDFG's California Wildlife Habitat Relationship (CWHR) system and the area of concern identified by CDFG was delineated on an aerial photo. A route with 14 call stations was established in order to adequately cover the survey area per survey protocol. Fixed call stations were established every 30 - 50 meters along the route using a GARMIN GPS unit.

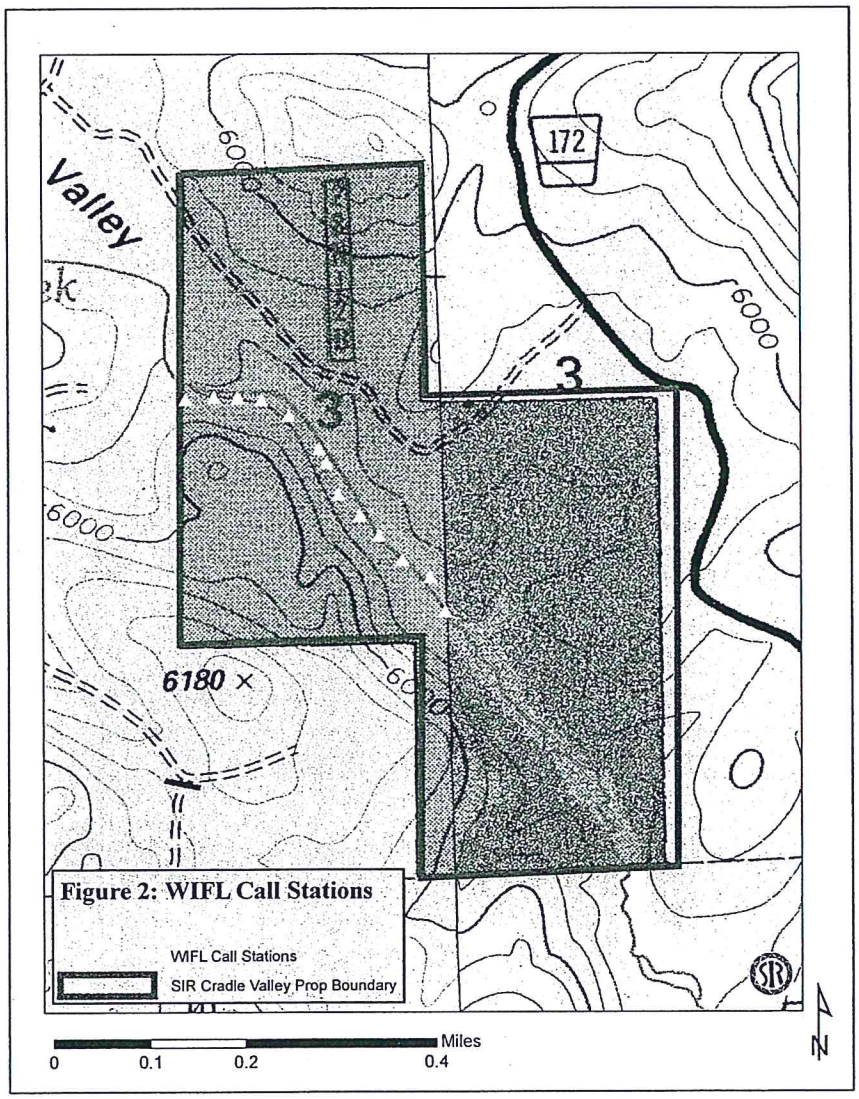

Figure 2: WIFL Call Stations

The protocol requires a minimum of two separate surveys in one year; one during survey period 2 (June 15-25), and one during either survey period 1 (June 1-14), or survey period 3 (June 26- July 15) to document presence or absence of willow flycatcher in the survey year. In addition, surveys must be at least 5 days apart. The dates and field conditions for the visits are summarized below.

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Date	Personnel	Visit	Time	Conditions
6-12-09	T. Keesey	1	0602 - 0803	Dry, skies clear, winds calm
6-24-09	T. Keesey	2	0647 - 0840	Dry, skies clear, winds calm

Both surveys were conducted early in the morning and completed before 10 a.m. as required by the protocol. Keesey started surveys on the south end of the survey route by standing quietly for 10 minutes and listening for spontaneous singing by willow flycatchers and visual detection of individual birds. After the initial listening period, the active survey procedure was initiated by listening quietly for 1 minute followed by 2.5 minutes broadcasting the WIFL "fitz-bew" call using per-recorded calls, and then followed by an additional 2.5 minutes of listening and observing for a total of 6 minutes at each of the 14 call stations.

In addition to conducting surveys, Plumas National Forest (PNF) Wildlife Biologist Russell Knickerson was consulted with regarding WIFL surveys conducted by PNF within the vicinity of the project area. All of the meadows within the vicinity of the project area were surveyed for WIFL in 2000 and/or 2001.

SURVEY RESULTS

ZOOLOGICAL RESOURCES

General Wildlife Habitat

The area surveyed included approximately 12 acres of meadow habitat associated with Clark's Creek, an ephemeral drainage that bisects the property. The meadow has a gentle topographic gradient (<1%), scattered clumps of willow comprising >20% cover, little tree cover, and open areas over watercourses and meadow for foraging. As such the habitat represents potential WIFL habitat.

Willow Flycatchers

No Willow Flycatchers were detected during any of the surveys. Other bird species detected included: Dark eyed Junco (*Junco hyemalis*), Mountain chickadee (*Parus gambeli*), American Robin (*Turdus migratorius*), Red-breasted nuthatch (*Sitta Canadensis*), Song Sparrow (*Melospiza melodia*), Yellow rumped warbler (*Dendroica coronata*), Wilson's warbler (*Wilsonia pusilla*), Hammond's Flycatcher (*Empidonax hammondii*), woodpecker sp. (*Picoides sp.*), Western tananger (*Piranga ludoviciana*), Brewers blackbird (*Euphagus cyanocephalus*), Brown-headed cowbird (*Molothrus ater*), Stellar's jay (*Cyanocitta stelleri*), Vireo sp. (*Vireo sp.*)

Consultation

No willow flycatchers were detected by PNF during 2000/2001 surveys of adjacent meadows.

CONCLUSIONS

Based on the lack of detections of WIFL during field surveys and the results of Plumas National Forest surveys in the area, implementation of the proposed project will have no adverse impact to WIFL.

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REFERENCES

Bombay, H.L, T.M. Benson, B.E. Valentine, and R.A. Stefani. 2003. A Willow Flycatcher Survey Protocol for California. http://www.dfg.ca.gov/wildlife/nongame/docs/wifl_2003_protocol.pdf

California Department of Fish and Game. 2010. Timber Harvest Program, Willow Flycatcher https://r1.dfg.ca.gov/Portal/TimberHarvestProgram/Wildlife/WildlifeSpecies/Birds/WillowFlycatcher/tabid/617/Default.aspx

California Department of Fish and Game. 2010. California Wildlife Habitat Relationship (CWHR) System. http://www.dfg.ca.gov/biogeodata/cwhr/morecwhr.asp

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CERTIFICATION

Certification: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for the biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

DATE: 2-5-10 SIGNED: Timothy C. Keesey

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QUALIFICATIONS

Tim Keesey
Wildlife Biologist/Grant Writer/GIS

Summary

Thirteen years experience in biological consulting and ecological research

Employment History

Susanville Indian Rancheria
Susanville, CA
2001-Present, Natural Resources Director

Independent Consultant
Janesville, CA
1999-Present, Biologist

California Dept. of Fish and Game
Wendel, CA
2000-2006, Scientific Aid

Lassen National Forest
Susanville, CA
2000-2001, Biological Technician

Chico Research Foundation
Redding, CA
2000-2001, Biological Technician

KEA Environmental
Sacramento, CA
1998-2000, Biologist II

Jones & Stokes
Sacramento, CA
2000, Wildlife Biologist

Hubbs SeaWorld Research Institute
San Diego, CA
1998, Biological Technician

Environmental Trust
La Mesa, CA
1998, Biologist

Sequoia and Kings Canyon National Park
Three Rivers, CA
1996-1997, Biological Technician

Education

B.S., Biology
B.S., Environmental Studies
Univ. of California, Santa Cruz, 1994

Tim Keesey has thirteen years of work experience in biology and environmental studies. His diverse background includes independent consulting, private sector consulting, and employment with the California Department of Fish and Game, Lassen National Forest, and Sequoia National Park. Mr. Keesey is skilled in surveying, identifying, and trapping wildlife throughout California and Nevada including many threatened, endangered, and sensitive species.

Mr. Keesey has extensive experience in Grant Writing, Project Management and GIS Mapping applications. In his current position as Natural Resources Director at the Susanville Indian Rancheria, Tim manages a eighteen member staff and has secured over $3 million dollars for tribal environmental and cultural programs. He also produces all the maps SIR requires using a state-of-the-art GIS system.

Mr. Keesey currently works for several clients in Lassen County including the Hayden Hill Gold Mine and the Pit Resource Conservation District. He currently sits on the Board of the Lassen County Fire Safe Council, the Lassen County Resource Advisory Committee, and the Lassen Land and Trails Trust Conservation Committee.

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Mr. Keesey's Representative Projects:

Susanville Indian Rancheria (SIR) Environmental Documents - Facilitate the development and review of NEPA/CEQA documents for the SIR Fee-to Trust, Casino Expansion, Cradle Valley Defensible Fuel Project, Herlong Water and Soil Phase II Environmental Site Assessment and Phase II of the SIR Community Center. *Susanville Indian Rancheria*

Susanville Indian Rancheria Environmental GIS Database - Develop ArcGIS projects and shape files depicting biological, environmental, and cultural resources on tribal lands. *Susanville Indian Rancheria*

Hayden Hill Gold Mine Revegetation Assessment – Designed and implemented revegetation assessment study for mine revegetation project. Conducted field surveys and data collection, analyzed collected data and wrote assessment of mine rehabilitation progress. *Kinross Gold Mining Inc.*

Cooperative Sagebrush Steppe Restoration Initiative - Development of a comprehensive plan for Lassen County and eight specific plans identifying areas where removal of invasive juniper from sagebrush steppe habitat would benefit wildlife species, sage grouse in particular. *Lassen County Fire Safe Council*

Annual Lassen County Sage Grouse Population Census – Conduct seasonal sage grouse lek counts. *California Department of Fish and Game*

Pine Creek Eagle Lake Trout Radio telemetry Project – Monitor the movement of radio implanted Eagle Lake Rainbow Trout up the Pine Creek watershed to the native spawning grounds. *Pine Creek CRMP*

Lassen County Sage Grouse Radio telemetry Project – Trapped and radio collared sage grouse, monitored seasonal distribution of radio collared sage grouse, and collected vegetation data on sage grouse nesting areas to be used in a study of nesting habitat selection. California Dept. of Fish and Game.

Lassen National Forest Wildlife Surveys - endangered, threatened, sensitive, and migratory bird surveys including northern goshawk, bald eagle, great gray owl, willow flycatcher, sand hill crane, bats, buffleheads, deer, antelope, and other waterfowl. Coordinated with the silvicultural department in the field to review nest sites and propose mitigation. *Lassen National Forest, Eagle Lake Ranger District*

Alturas Intertie Raptor and Corvid Study - Study of raptor and corvid nesting and perching behavior on the Alturas Intertie Power line. *Chico Research Foundation*

Alturas Intertie Bird Mortality Study - Survey of dead/injured birds and survey of effectiveness of flight deterrents along the Alturas Intertie Power line. *Sierra Pacific Power*

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Mr. Keesey's Representative Projects, continued:

Skyline West Wildlife Surveys - Conducted wildlife surveys for biological assessments of alternative routes for the Susanville by-pass. *Lassen County*

Tuscarora Natural Gas Pipeline Lateral from Wendel to Susanville – Conducted wildlife surveys for Tuscarora natural gas pipeline lateral. *City of Susanville*

Alturas Intertie Project, California and Nevada – Verified plant community delineations, located plants along the 165 mile power line corridor that needed to be included in the seed mixes if they were present in the landscape, seeded in various plant communities, construction monitoring, and erosion control monitoring. *Sierra Pacific Power Company*

Williams Telecom Fiber Optic Cable Installation, Sacramento to Pittsburg, CA – Construction monitoring of fiber optic cable installation project. *California Public Utilities Commission (CPUC)*

AT&T Co-Axial Cable Removal Red Bluff to Mineral, CA - Performed pre-construction raptor surveys. *AT&T*

Naval Petroleum Reserve Oil Exploration Biological Monitoring - Performed pre-activity surveys for endangered, threatened and sensitive species on the Naval Petroleum Reserve in Taft, CA. Species included the blunt nosed leopard lizard, San Joaquin kit fox, San Joaquin antelope ground squirrel, giant kangaroo rat, American badger, burrowing owl, and *Eriastrum hooverii* (Hoover's wooly star). *U.S. Navy*

Miramar Marine Base California Gnatcatcher Surveys - Monitored the nesting success of endangered California gnatcatchers on the Miramar Marine Base, as part of a study to determine the effects of noise pollution from fighter jets and training activities on gnatcatcher breeding success. *U.S. Marine Corps*

Temecula Housing Development Wildlife Surveys – Conducted surveys for *Plantago sp.* to delineate Quino checkerspot habitat and surveys for California gnatcatchers. *Environmental Trust*

Temecula Golf Course Specimen Tree Mapping - Performed pre-construction tree marking surveys on *Quercus agrifolia (*Coast Live Oak), as part of a biological assessment to determine necessary mitigation for a proposed golf course. *Temecula Golf Course*

Fire Effects Analysis of Small and Medium Montane Mammal Populations - Performed capture-recapture surveys for small mammals on Sequoia National Park to document long-term changes in rodent populations and their habitat following prescribed fire under known conditions. Performed serendipitous surveys to inventory small mammal species and medium sized forest carnivores and determine their relative abundance within both common and unique habitats throughout Sequoia National Park to facilitate large-scale assessment of potential fire effects. *Sequoia National Park*

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Antelope Lake/Stony Ridge Biological Assessment

QUADNAME	ELMCODE	SCIENTIFIC NAME	COMMON NAME	FEDSTATUS	CALSTATUS	CDFG	CNPS	HABITAT	IMPACT
Amphibians, birds, mammals -									
		Antelope/Stony Ridge							
Antelope Lake	AAABH01340	Rana sierrae	Sierra Nevada yellow-legged frog	Candidate	None	SC			**Unlikely**
Antelope Lake	ABNKC01010	Pandion haliaetus	osprey	None	None	SC			**Unlikely**
Antelope Lake	ABNKC10010	Haliaeetus leucocephalus	bald eagle	Delisted	Endangered				**Unlikely**
Antelope Lake	ABNKC12060	Accipiter gentilis	northern goshawk	None	None	SC			**Unlikely**
Antelope Lake	ABPAE33040	Empidonax traillii	willow flycatcher	None	Endangered				**Possible**
Plants 9 Quad Search -									
		Antelope/Stony Ridge							
Stony Ridge	PDPOR030P0	Claytonia umbellata	Great Basin claytonia	None	None		2.3	talus slopes, stony flats, crevices	no habitat
Antelope Lake	PDAPI1B2G0	Lomatium roseanum	adobe lomatium	None	None		1B.2	loose rocky basalt talus, clay	no habitat - soils
Stony Ridge Antelope Lake Stony Ridge	PDLAM1U0J0	Scutellaria galericulata	marsh skullcap	None	None		2.2	swamps & wet places	none - wet areas
		Other 7 quads							
Babcock Peak	PDFAB0F4P0	Astragalus lentiformis	lens-pod milk-vetch	None	None		1B.2	bare volcanic soil - 5m ft	no habitat -elevation
Squaw Valley Peak Genesee Valley	PDFAB0F783	Astragalus pulsiferae var. pulsiferae	Pulsifer's milk-vetch	None	None		1B.2	sagebrush scrub - 4.3m -5m ft	no habitat -elevation
Janesville	PMCYP03AE0	Carex petasata	Liddon's sedge	None	None		2.3	dry meadows	none - meadow
Babcock Peak	PMCYP03CE0	Carex sheldonii	Sheldon's sedge	None	None		2.2	wet mdw, marsh - 4m - 5m ft	none - meadow
Janesville	PDROS0X0K0	Ivesia sericoleuca	Plumas ivesia	None	None		1B.2	saturated mdws, alkali flats	none - meadow
Squaw Valley Peak Genesee Valley	CTT83220CA	Northern Interior Cypress Forest	Northern Interior Cypress Forest	None	None			isol - Wheeler/Eisenhammer Pk	not present
Kettle Rock Diamond Mtn.	PDSCR1L3A0	Penstemon janishiae	Janish's beardtongue	None	None		2.2	lower montane forest, volcanic	no habitat - soils
Diamond Mtn.	PDSCR1L620	Penstemon sudans	Susanville beardtongue	None	None		1B.3	lower montane forest, volcanic	no habitat - soils

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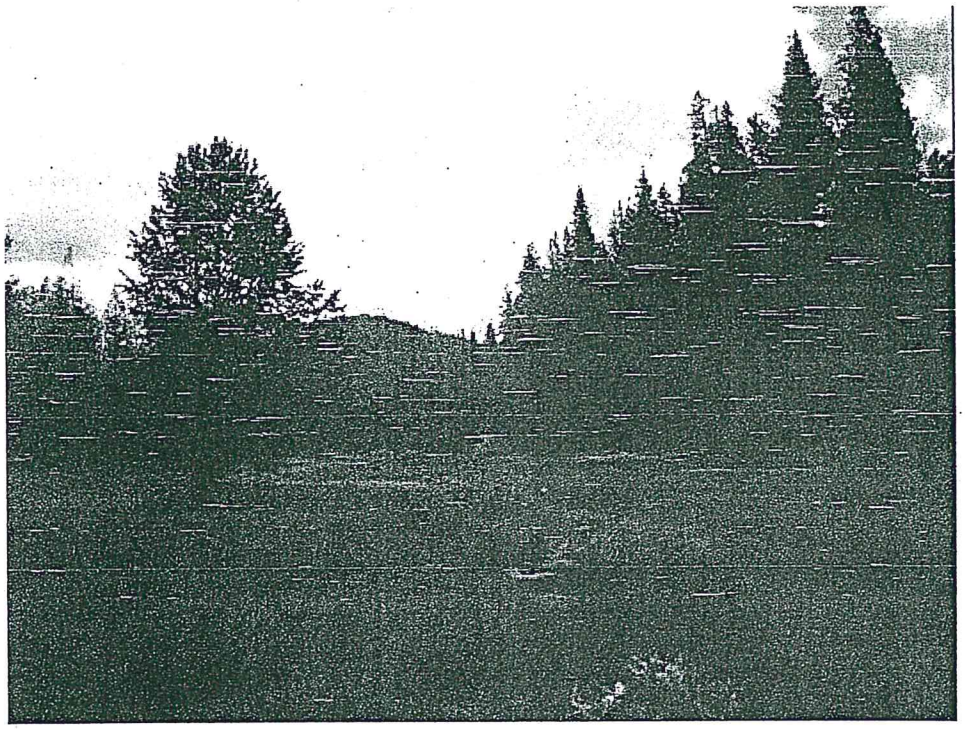
Great Gray Owl Survey Report
Timber Harvest Plan No. 2-08-018-PLU
Susanville Indian Rancheria
Cradle Valley, Plumas County, California



Prepared For:

Susanville Indian Rancheria
745 Joaquin St.
Susanville, CA 96130

And

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Prepared By:

Tim Keesey, Natural Resources Director
Susanville Indian Rancheria Natural Resources Department
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January 2010

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Appendix 1: Great Gray Owl Field Visit Forms

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SUMMARY

A protocol survey for the Great Gray Owl (*Stryx nebulosa*) was conducted in 2009 on 160-acres owned by the Susanville Indian Rancheria (SIR) in Plumas County, California. **The species was not detected on or adjacent to the property.**

INTRODUCTION

PURPOSE OF THE STUDY

The Susanville Indian Rancheria (SIR), a federally recognized Tribe, is working with Phil Nemir, California Registered Professional Forester (RPF), to develop a Timber Harvest Plan (THP) on the project property. The California Department of Fish and Game (CDFG) requested that presence/absence surveys for the Great Gray Owl (GGO) be conducted prior to implementation of the THP due to the presence of meadow/riparian habitat within the project area associated with Clarks Creek, which bisects the project area. The Great Gray Owl was placed on the California state endangered species list in June 1980 and is also listed by the California Board of Forestry as a sensitive species. No breeding pairs have been identified in northern California (CDFG 2010a). The Susanville Indian Rancheria Natural Resources Department conducted a presence/absence survey during the 2009 field season.

PROJECT LOCATION

The project is located in Plumas County California near the Plumas/Lassen County border, approximately 7 miles south of the township of Janesville, CA on 160-acres owned by the Susanville Indian Rancheria (Parcel # 007-110-003) within the California Northern Forest District (*see* Figure 1 – Project Location). The map location is within Section 3, Township 27 North, Range 13 East, of the Mount Diablo Base and Meridian; U.S. Geological Survey 7.5' Antelope Lake quadrangle (UTM Zone 10: 712562 . Access to the site from Hwy 395 is south 6.7 miles on the Janesville Grade that turns into Forest Service road 28N01, and then west for a ¼ mile on an unnamed dirt road. The Project location is completely surrounded by public land managed by the Plumas National Forest.

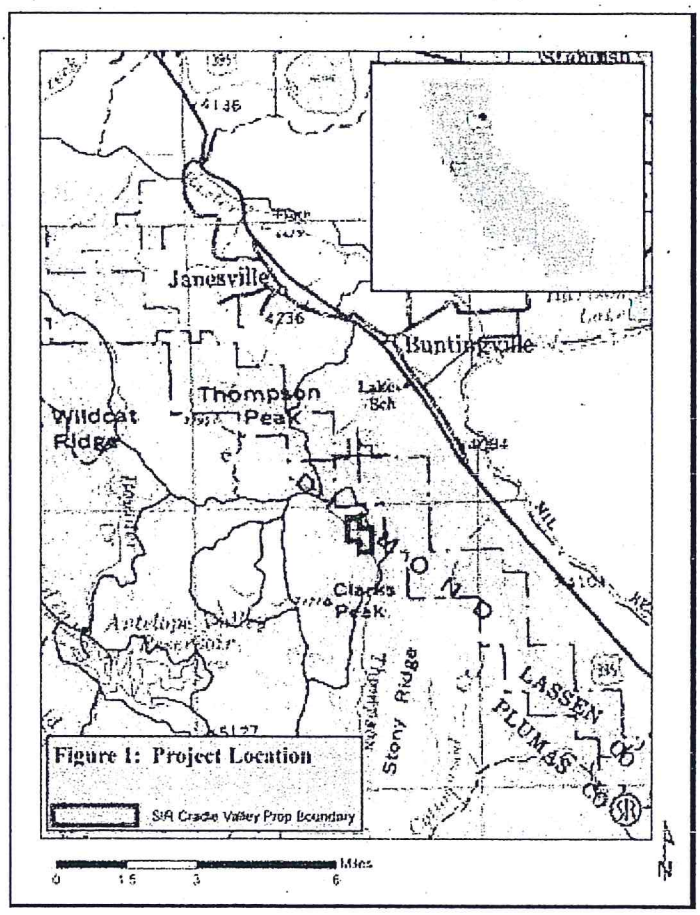

Figure 1: Project Location

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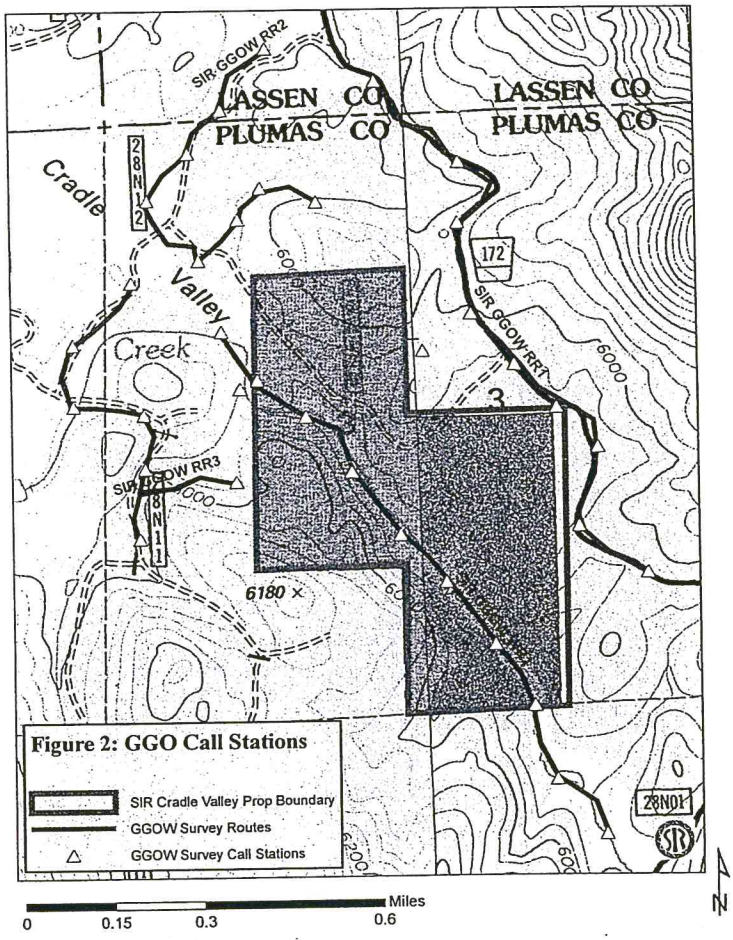
SURVEY METHODS

SIR Natural Resources Director Tim Keesey performed the survey, which was carried out according to the *Survey Protocol for the Great Gray Owl in the Sierra Nevada of California* (Beck and Winter 2000), as requested by CDFG Biologist David Richter. Mr. Keesey is a wildlife biologist with a Bachelor of Science Degree in Biology and a Bachelor of Science Degree in Environmental Studies from the University of California, Santa Cruz with an emphasis in Wildlife Conservation. Mr. Keesey conducted two field seasons of GGO surveys for the Lassen National Forest (LNF) Eagle Lake Ranger District (ELRD) under the direction of LNF Wildlife Biologist Tom Rickman.

The survey area was established based on recommendations within the protocol (*See* Figure 2). All potentially suitable habitat within a ¼-mile (440 yd) of the project area based on CDFG's California Wildlife Habitat Relationship (CWHR) system and all forested areas within 440 yds of meadow habitat within the project area or adjacent to the project area (1/4 mile) were delineated on an aerial photo. Three routes with a total of 35 call stations were established in order to adequately cover the survey area per survey protocol. Three of the survey routes were nighttime survey routes using roads (SIR-GGOW-RR1 consisting of 10 call stations, SIR-GGOW-RR2 consisting of 8 call stations and SIR-GGOW-RR3 with 7 call stations) and one route was a nighttime survey off roads (SIR-GGOW-WR1 with 10 survey stations) which covered the meadow habitat associated with Clarks Creek (*See* Figure 2 – Routes and Call Station Locations). Fixed call stations were established every .10 miles along the routes using a GARMIN GPS unit. Due to the number of fixed calling stations, two road route surveys were conducted on one night and a road route and the off road route were conducted on another night within a six-day period resulting in one complete visit.



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The protocol requires a minimum of six survey visits. The first five visits are calling visits done during the courtship, nesting, and post-fledgling periods. The sixth visit is a meadow search conducted at the end of the summer. Survey timing is based on GGO nesting chronology which changes depending on the region of California where the project is located (northern, central, or southern) and the elevation of the project (low, middle, and high). This project is located within the northern region at a high elevation (above 5,000 feet). For high elevation sites in the northern region, the protocol calls for surveys 1-3 to be done between April 10th and June 10th, surveys 4-5 to be done between June 10th and August 5th, and the sixth visit between August 1 and October 15th. The project site was not accessible during the courtship portion of the nesting cycle (April 10 – May 10) due to snow conditions. The dates and field conditions for the visits are summarized below.

Date	Personnel	Route	Visit	Time	Conditions
05-15-09	T. Keesey	RR2	1	2217 – 2335	Dry, skies clear, winds calm
05-15-09	T. Keesey	RR3	1	2342 – 0043	Dry, skies clear, winds calm
05-20-09	T. Keesey	WR1	1	2011 - 2152	Dry, skies clear, winds calm
05-20-09	T. Keesey	RR1	1	2231- 2357	Dry, skies clear, winds calm
5-28-09	T. Keesey	RR2	2	2309 - 0027	Dry, skies clear, winds calm
5-29-09	T. Keesey	RR3	2	0032 – 0129	Dry, skies clear, winds calm
6-01-09	T. Keesey	WR1	2	2040 – 2228	Dry, skies clear, winds calm, thunderstorms earlier in the day.
06-01-09	T. Keesey	RR1	2	2304-0024	Dry, skies clear, winds calm, thunderstorms earlier in the day.
06-08-09	T. Keesey	RR2	3	2202 – 2316	Dry, skies clear, winds calm, rained earlier in the day.
06-08-09	T. Keesey	RR3	3	2324 - 0022	Dry, skies clear, winds calm, rained earlier in the day.
06-10-09	T. Keesey	WR1	3	2120-2257	Dry, skies clear, winds calm
06-10-09	T. Keesey	RR1	3	2335 – 0058	Dry, skies clear, winds calm
06-16-09	T. Keesey	RR2	4	2055-2159	Dry, overcast, winds calm
06-16-09	T. Keesey	RR3	4	2207 -2307	Dry, overcast, light breeze (5-10 mph), light misty rain from 2236-2307.
06-21-09	T. Keesey	WR1	4	2108-2248	Dry, skies clear, winds calm
06-21-09	T. Keesey	RR1	4	2324-0047	Dry, skies clear, winds calm
07-16-09	T. Keesey	RR2	5	2159 - 2305	Dry, skies clear, winds calm
07-16-09	T. Keesey	RR3	5	2313 - 0015	Dry, skies clear, winds calm
07-21-09	T. Keesey	WR1	5	2047 - 2228	Dry, skies clear, light breeze (5-10 mph)
07-21-09	T. Keesey	RR1	5	2304 - 0031	Dry, skies clear, light breeze (5-10 mph)
08-28-09	T. Keesey	All	6	0813-1647	Dry, skies clear, winds calm

All surveys except for the meadow search were conducted after sunset. For the road surveys (RR1-RR3), each calling station was visited for 6-8 minutes before moving on to the next. Each calling station along the walking route (WR1) was visited for 5-6 minutes per survey protocol. At each calling station vocalization tapes of pre-recorded calls of GGO were played in between periods of silence. The male territorial call was used during the first three visits. Juvenile begging calls, the male territorial call, the female begging call, along with female chatter were used during visits four and five. All calls encountered during surveys were recorded on a mp3 recorder.

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In addition to conducting surveys, Plumas National Forest (PNF) Beckwourth Ranger District Wildlife Biologist Russell Knickerson and Lassen National Forest Eagle Lake Ranger District Wildlife Biologist Tom Rickman were consulted regarding GGO sightings and GGO surveys conducted by PNF within the vicinity of the project area. All of the meadows within the vicinity of the project area were surveyed for GGO in 2001.

SURVEY RESULTS

ZOOLOGICAL RESOURCES

General Wildlife Habitat

The project area has been mapped using the California Wildlife Habitat Relationship (CWHR) system (CDFG 2010) (*See* Figure 3 – Project Area Wildlife Habitat Relationship Types).

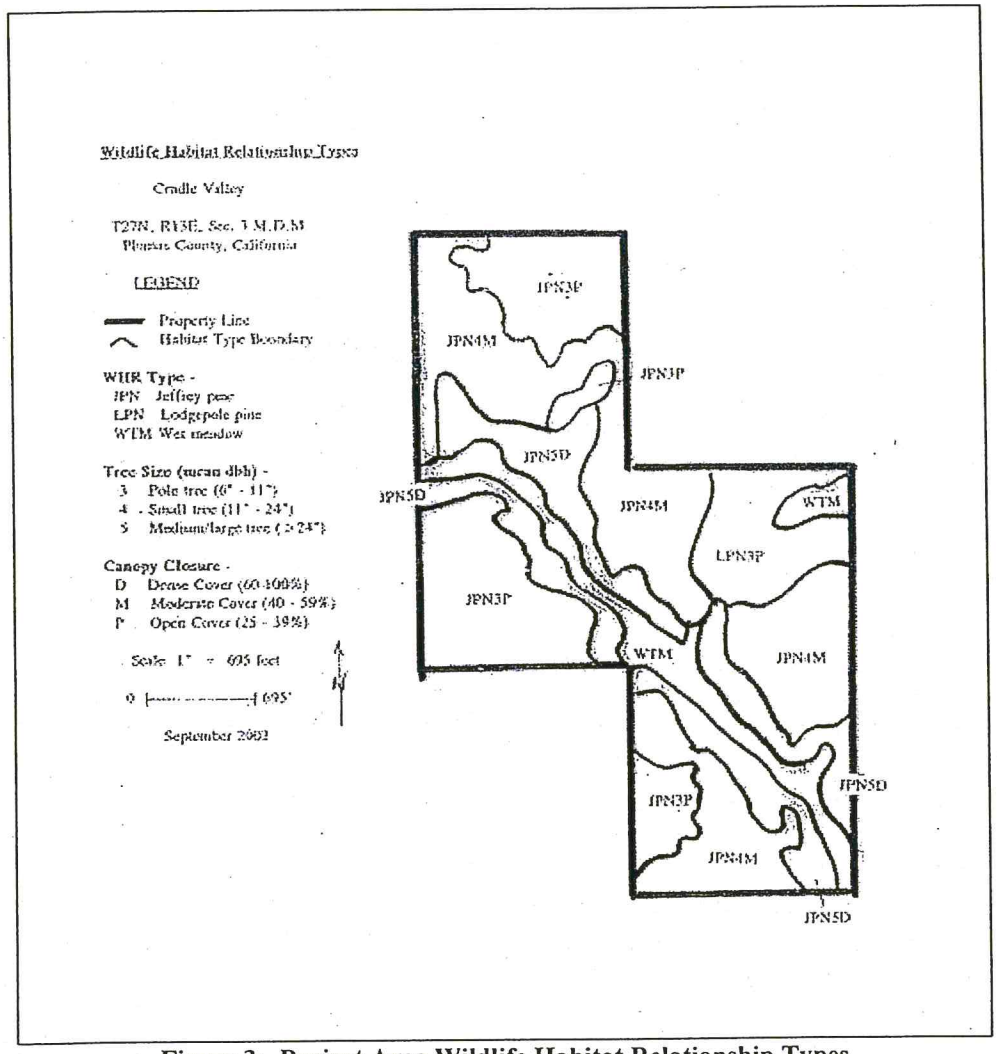

Figure 3: Project Area Wildlife Habitat Relationship Types

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CWHR Software Version 8.2 was used to identify the compatibility of the wildlife habitats represented within and adjacent to the project area as Great Gray Owl nesting habitat. Habitats represented on and adjacent to the project area were not identified as GGO nesting habitat according to the CWHR system. The majority of the habitat did not appear suitable for GGO nesting during the set up and execution of field surveys with limited pockets of marginal nesting habitat.

Owls

Two owl species were detected during surveys, the Flammulated owl (*Otus flammeolus*) and the Great-horned owl (*Bubo virginianus)*. **No Great gray owls were detected during any of the surveys.**

Consultation

Only Great-horned owls were detected by PNF during 2001 surveys adjacent to SIR's property. PNF has credible audible responses of Great gray owls in the Lake Davis area, approximately 20 miles from the project area, but no visuals or physical evidence. Sierra Pacific Industries (SPI) has observed a pair of Great gray owls but no nest on the northern tip of Lake Almanor, approximately 40 miles from the project area, according to Mr. Rickman.

CONCLUSIONS

Based on the lack of suitable habitat identified by the CWHR, observations of marginal GGO nesting habitat during the field surveys, the lack of detections of GGO during field surveys, and the results of Plumas National Forest surveys in the area, implementation of the proposed project will have no adverse impact to GGO, and a second year of surveys as required by the protocol is unnecessary.

REFERENCES

Beck, T.W. and J. Winter. 2000. Survey protocol for the great gray owl in the Sierra Nevada of California. Vallejo, CA. U. S. Department of Agriculture, Forest Service, Pacific Southwest Region.

California Department of Fish and Game. 2010a. Timber Harvest Program, Great Gray Owl https://r1.dfg.ca.gov/Portal/TimberHarvestProgram/Wildlife/WildlifeSpecies/Birds/GreatGrayOwl/tabid/616/Default.aspx

California Department of Fish and Game. 2010b. California Wildlife Habitat Relationship (CWHR) System. http://www.dfg.ca.gov/biogeodata/cwhr/morecwhr.asp

CERTIFICATION

Certification: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for the biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

DATE: 2-5-10 SIGNED: _____

Timothy C. Keesey

PART OF PLAN

33.2.2

QUALIFICATIONS
Tim Keesey
Wildlife Biologist/Grant Writer/GIS

Summary

Thirteen years experience in biological consulting and ecological research

Employment History

Susanville Indian Rancheria
Susanville, CA
2001-Present, Natural Resources Director

Independent Consultant
Janesville, CA
1999-Present, Biologist

California Dept. of Fish and Game
Wendel, CA
2000-2006, Scientific Aid

Lassen National Forest
Susanville, CA
2000-2001, Biological Technician

Chico Research Foundation
Redding, CA
2000-2001, Biological Technician

KEA Environmental
Sacramento, CA
1998-2000, Biologist II

Jones & Stokes
Sacramento, CA
2000, Wildlife Biologist

Hubbs SeaWorld Research Institute
San Diego, CA
1998, Biological Technician

Environmental Trust
La Mesa, CA
1998, Biologist

Sequoia and Kings Canyon National Park
Three Rivers, CA
1996-1997, Biological Technician

Education

B.S., Biology
B.S., Environmental Studies
Univ. of California, Santa Cruz, 1994

Tim Keesey has thirteen years of work experience in biology and environmental studies. His diverse background includes independent consulting, private sector consulting, and employment with the California Department of Fish and Game, Lassen National Forest, and Sequoia National Park. Mr. Keesey is skilled in surveying, identifying, and trapping wildlife throughout California and Nevada including many threatened, endangered, and sensitive species.

Mr. Keesey has extensive experience in Grant Writing, Project Management and GIS Mapping applications. In his current position as Natural Resources Director at the Susanville Indian Rancheria, Tim manages a eighteen member staff and has secured over $3 million dollars for tribal environmental and cultural programs. He also produces all the maps SIR requires using a state-of-the-art GIS system.

Mr. Keesey currently works for several clients in Lassen County including the Hayden Hill Gold Mine and the Pit Resource Conservation District. He currently sits on the Board of the Lassen County Fire Safe Council, the Lassen County Resource Advisory Committee, and the Lassen Land and Trails Trust Conservation Committee.

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Mr. Keesey's Representative Projects:

Susanville Indian Rancheria (SIR) Environmental Documents - Facilitate the development and review of NEPA/CEQA documents for the SIR Fee-to Trust, Casino Expansion, Cradle Valley Defensible Fuel Project, Herlong Water and Soil Phase II Environmental Site Assessment and Phase II of the SIR Community Center. *Susanville Indian Rancheria*

Susanville Indian Rancheria Environmental GIS Database - Develop ArcGIS projects and shape files depicting biological, environmental, and cultural resources on tribal lands. *Susanville Indian Rancheria*

Hayden Hill Gold Mine Revegetation Assessment – Designed and implemented revegetation assessment study for mine revegetation project. Conducted field surveys and data collection, analyzed collected data and wrote assessment of mine rehabilitation progress. *Kinross Gold Mining Inc.*

Cooperative Sagebrush Steppe Restoration Initiative - Development of a comprehensive plan for Lassen County and eight specific plans identifying areas where removal of invasive juniper from sagebrush steppe habitat would benefit wildlife species, sage grouse in particular. *Lassen County Fire Safe Council*

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Lassen County Sage Grouse Radio telemetry Project – Trapped and radio collared sage grouse, monitored seasonal distribution of radio collared sage grouse, and collected vegetation data on sage grouse nesting areas to be used in a study of nesting habitat selection. California Dept. of Fish and Game.

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Alturas Intertie Raptor and Corvid Study - Study of raptor and corvid nesting and perching behavior on the Alturas Intertie Power line. *Chico Research Foundation*

Alturas Intertie Bird Mortality Study - Survey of dead/injured birds and survey of effectiveness of flight deterrents along the Alturas Intertie Power line. *Sierra Pacific Power*

PART OF PLAN

Mr. Keesey's Representative Projects, continued:

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Tuscarora Natural Gas Pipeline Lateral from Wendel to Susanville – Conducted wildlife surveys for Tuscarora natural gas pipeline lateral. *City of Susanville*

Alturas Intertie Project, California and Nevada – Verified plant community delineations, located plants along the 165 mile power line corridor that needed to be included in the seed mixes if they were present in the landscape, seeded in various plant communities, construction monitoring, and erosion control monitoring. *Sierra Pacific Power Company*

Williams Telecom Fiber Optic Cable Installation, Sacramento to Pittsburg, CA – Construction monitoring of fiber optic cable installation project. *California Public Utilities Commission (CPUC)*

AT&T Co-Axial Cable Removal Red Bluff to Mineral, CA - Performed pre-construction raptor surveys. *AT&T*

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Great Gray Owl Survey Report
Timber Harvest Plan No. 2-08-018-PLU
Susanville Indian Rancheria
Cradle Valley, Plumas County, California

Prepared For:

Susanville Indian Rancheria
745 Joaquin St.
Susanville, CA 96130

And

Philip E. Nemir, RPF
Forestry and Appraisal Services
P.O. Box 1717
Susanville, CA 96130

Prepared By:

Tim Keesey, Natural Resources Director
Susanville Indian Rancheria Natural Resources Department
(530) 251-5623, tkeesey@citlink.net

December 2010

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Appendix 1: Great Gray Owl Field Visit Forms 2010

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SUMMARY

A protocol survey for the Great Gray Owl (*Stryx nebulosa*) was conducted in 2010 on 160-acres owned by the Susanville Indian Rancheria (SIR) in Plumas County, California. **The species was not detected on or adjacent to the property.**

INTRODUCTION

PURPOSE OF THE STUDY

The Susanville Indian Rancheria (SIR), a federally recognized Tribe, is working with Phil Nemir, California Registered Professional Forester (RPF), to develop a Timber Harvest Plan (THP) on the project property. The California Department of Fish and Game (CDFG) requested that presence/absence surveys for the Great Gray Owl (GGO) be conducted prior to implementation of the THP due to the presence of meadow/riparian habitat within the project area associated with Clarks Creek, which bisects the project area. The Great Gray Owl was placed on the California state endangered species list in June 1980 and is also listed by the California Board of Forestry as a sensitive species. No breeding pairs have been identified in northern California (CDFG 2010a). The Susanville Indian Rancheria Natural Resources Department conducted a presence/absence survey during the 2009 field season and did not detect any GGO.

PROJECT LOCATION

The project is located in Plumas County California near the Plumas/Lassen County border, approximately 7 miles south of the township of Janesville, CA on 160-acres owned by the Susanville Indian Rancheria (Parcel # 007-110-003) within the California Northern Forest District (*see* Figure 1 – Project Location). The map location is within Section 3, Township 27 North, Range 13 East, of the Mount Diablo Base and Meridian; U.S. Geological Survey 7.5' Antelope Lake quadrangle (UTM Zone 10: 712562 . Access to the site from Hwy 395 is south 6.7 miles on the Janesville Grade which turns into Forest Service road 28N01, and then west for a ¼ mile on an unnamed dirt road. The Project location is completely surrounded by public land managed by the Plumas National Forest.

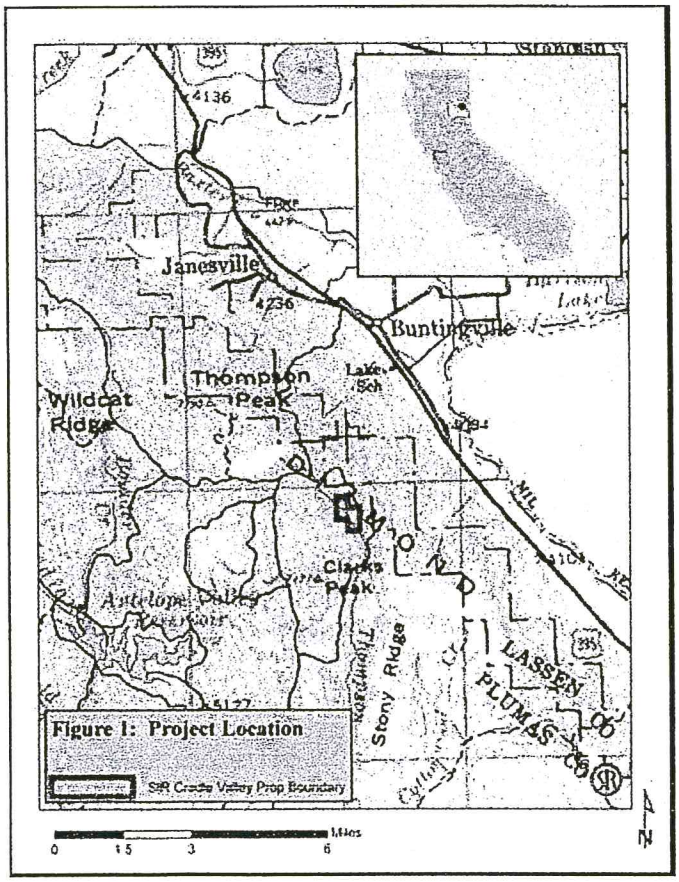

Figure 1: Project Location

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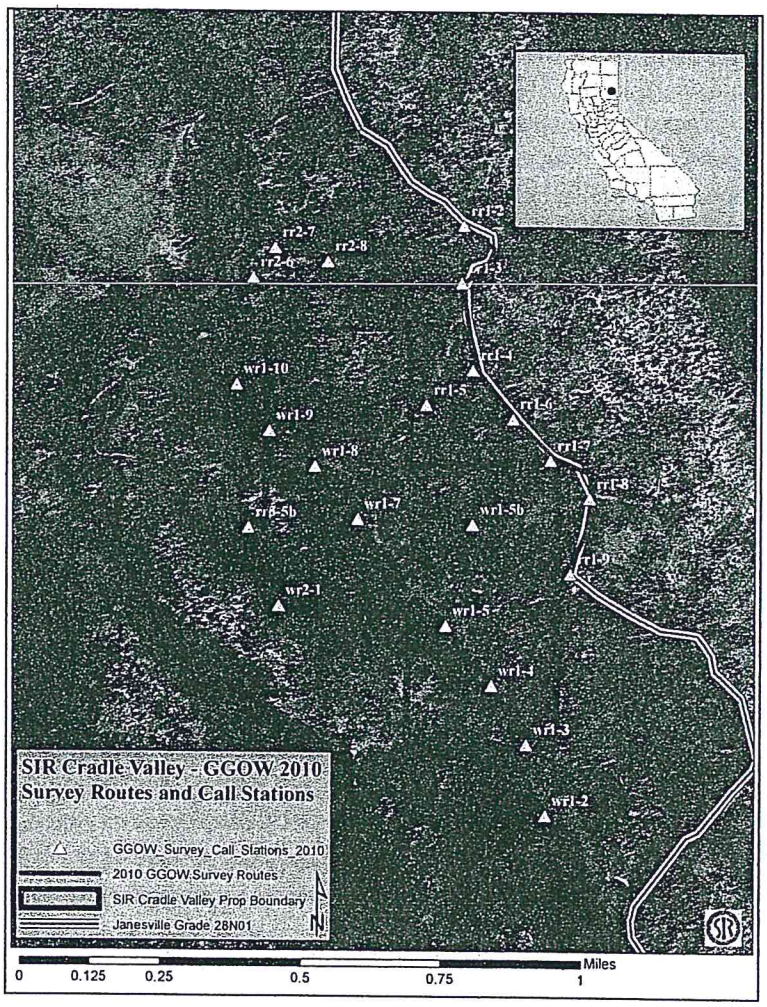
SURVEY METHODS

SIR Natural Resources Director Tim Keesey performed the survey, which was carried out according to the *Survey Protocol for the Great Gray Owl in the Sierra Nevada of California* (Beck and Winter 2000), as requested by CDFG Biologist David Richter. Mr. Keesey is a wildlife biologist with a Bachelor of Science Degree in Biology and a Bachelor of Science Degree in Environmental Studies from the University of California, Santa Cruz with an emphasis in Wildlife Conservation. Mr. Keesey conducted two field seasons of GGO surveys for the Lassen National Forest (LNF) Eagle Lake Ranger District (ELRD) under the direction of LNF Wildlife Biologist Tom Rickman and conducted the 2009 surveys on the SIR's Cradle Valley property.



The survey area was established based on recommendations within the protocol and recommendations from Richter (*See* Figure 2). All potentially suitable habitat within a ¼-mile (440 yd) of the project area based on CDFG's California Wildlife Habitat Relationship (CWHR) system and all forested areas within 440 yards of meadow habitat within the project area or adjacent to the project area (1/4 mile) were delineated on an aerial photo. Based on recommendations from D. Richter the 37 stations surveyed in 2009 were reduced to 20 stations and two additional station were added (WR2-1 and WR1-5b) for a total of 22 call stations. Remaining stations from RR2, RR3, WR1, and the new points (WR2-1 and WR1-5b) were combined into one walking route with 14 call stations and RR1 remained as a road route with 8 call stations (*See* Figure 2 – Routes and Call Station Locations). Fixed call stations were established every .10 miles along the routes using a GARMIN GPS unit.

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The protocol requires a minimum of six survey visits. The first five visits are calling visits done during the courtship, nesting, and post-fledgling periods. The sixth visit is a meadow search conducted at the end of the summer. Survey timing is based on GGO nesting chronology which changes depending on the region of California where the project is located (northern, central, or southern) and the elevation of the project (low, middle, and high) (Beck and Winter 2000). This project is located within the northern region at a high elevation (above 5,000 feet).

All surveys except for the meadow search were conducted after sunset. All calling stations were visited for at least 6 minutes per survey protocol. At each calling station vocalization tapes of pre-recorded calls of GGO were played in between periods of silence. The male territorial call was used during the first three visits. Juvenile begging calls, the male territorial call, the female begging call, along with female chatter were used during visits four and five. All calls encountered during surveys were recorded on an mp3 recorder.

In addition to conducting surveys, Plumas National Forest (PNF) Beckwourth Ranger District Wildlife Biologist Russell Knickerson and Lassen National Forest Eagle Lake Ranger District Wildlife Biologist Tom Rickman were consulted regarding GGO sightings and GGO surveys conducted by PNF within the vicinity of the project area. All of the meadows within the vicinity of the project area were surveyed for GGO in 2001.

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SURVEY RESULTS

ZOOLOGICAL RESOURCES

General Wildlife Habitat

The project area has been mapped using the California Wildlife Habitat Relationship (CWHR) system (CDFG 2010) (*See* Figure 3 – Project Area Wildlife Habitat Relationship Types).

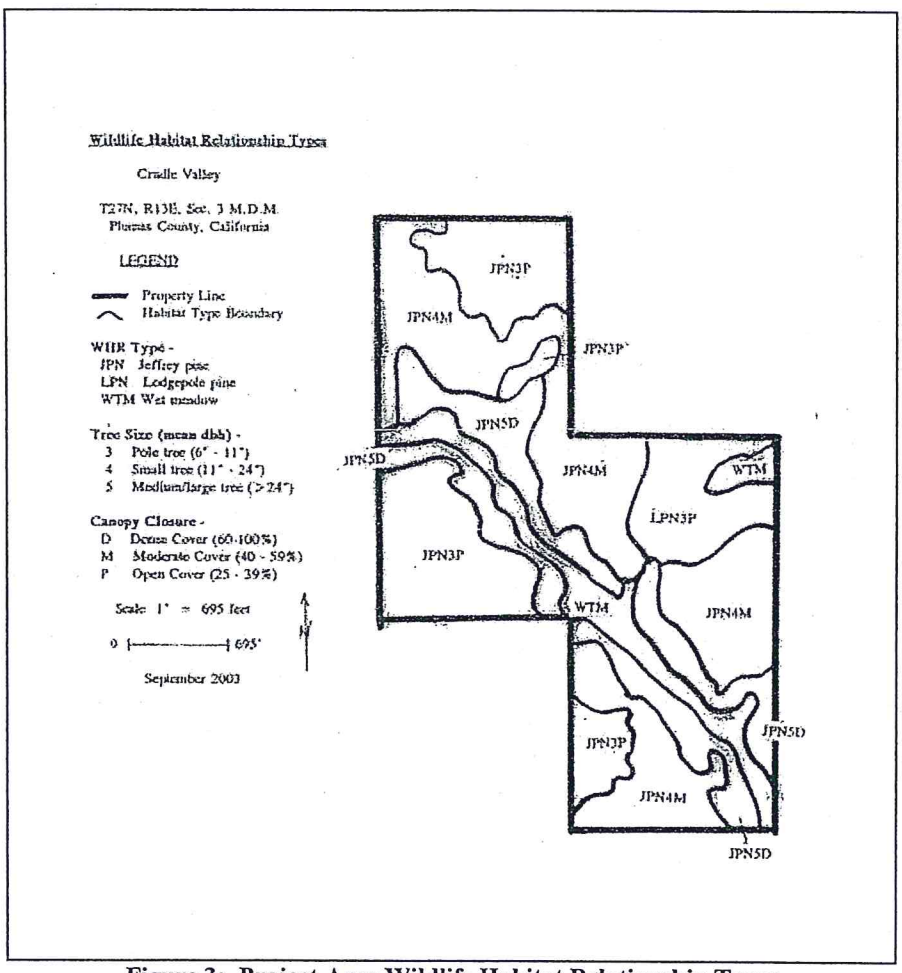

Figure 3: Project Area Wildlife Habitat Relationship Types

CWHR Software Version 8.2 was used to identify the compatibility of the wildlife habitats represented within and adjacent to the project area as Great Gray Owl nesting habitat. Habitats represented on and adjacent to the project area were not identified as GGO nesting habitat according to the CWHR system. The majority of the habitat did not appear suitable for GGO nesting during the set up and execution of field surveys with limited pockets of marginal nesting habitat.

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Owls

Two owl species were detected during surveys, the Flammulated owl (*Otus flammeolus*) and the Great-horned owl (*Bubo virginianus*). **No Great gray owls were detected during any of the surveys.**

Table 2: Owl Species detected in the SIR Cradle Valley Survey Area.

Survey Stations	Visit 1 5-16-10	Visit 2 6-8-10 6-9-10	Visit 3 6-30-10	Visit 4 7-7-10	Visit 5 8-3-10	Visit 6 (Meadow Search) 10-1-10
Wr2-1	x	x	x	x	x	x
Rr3-5b	x	x	x	x	x	x
Wr1-8	x	x	x	x	x	x
Wr1-7	x	x	x	x	x	x
Wr1-9b	1 BUVI 180 deg.	x	x	x	x	x
Wr-10	2 BUVI 180 deg. & 225 deg.	1 BUVI 225 deg.	x	x	x	x
Rr2-6	1 BUVI 225 deg.	x	x	x	x	x
Rr2-7	x	x	x	x	x	x
Rr2-8	x	x	x	x	x	x
Wr1-5b	x	x	x	x	x	x
Wr1-6	x	x	x	x	x	x
Wr1-5b	x	x	x	x	x	x
Wr1-4	x	1 OTFL 270 deg.	x	x	x	x
Wr1-3	x	x	x	x	x	x
Wr1-2	x	1 OTFL 315 deg.	1 OTFL 315 deg.	x	x	x
Rr1-9	x	x	x	x	x	x
Rr1-8	x	x	x	x	x	x
Rr1-7	x	x	x	x	x	x
Rr1-6	1 BUVI 180 deg.	x	x	x	x	x
Rr1-5	x	x	x	x	x	x
Rr1-4	x	x	x	x	x	x
Rr1-3	x	x	x	x	x	x
Rr1-2	x	x	x	x	x	x

Consultation

Consultation was conducted with Mr. Russell Nickerson, Wildlife Biologist for the Beckworth Ranger District, regarding Great Gray owl surveys conducted near the SIR Cradle Valley project. Surveys were conducted in 2001 adjacent to SIR's property and only Great-horned owls and Flammulated owls were detected (Mathews 2001). Mathews report ranked the meadows associated with Clark's Creek and Cradle Valley as

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unsuitable GGO habitat due to a lack of sufficient canopy closure or numbers of large snags to support roosting and nesting activities.

PNF has credible audible responses of Great gray owls in the Lake Davis area, approximately 20 miles from the project area, but no visuals or physical evidence. Sierra Pacific Industries (SPI) has observed a pair of Great gray owls but no nest on the northern tip of Lake Almanor, approximately 40 miles from the project area, according to Mr. Rickman, LNF ELRD Wildlife Biologist.

CONCLUSIONS

Based on the lack of suitable habitat identified by the CWHR, observations of marginal GGO nesting habitat during the field surveys, the lack of detections of GGO during 2009 and 2010 field surveys, and the results of Plumas National Forest surveys in the area, implementation of the proposed project will have no adverse impact to GGO and no further surveys are necessary.

REFERENCES

Beck, T.W. and J. Winter. 2000. Survey protocol for the great gray owl in the Sierra Nevada of California. Vallejo, CA. U. S. Department of Agriculture, Forest Service, Pacific Southwest Region.

California Department of Fish and Game. 2010a. Timber Harvest Program, Great Gray Owl https://r1.dfg.ca.gov/Portal/TimberHarvestProgram/Wildlife/WildlifeSpecies/Birds/GreatGrayOwl/tabid/616/Default.aspx

California Department of Fish and Game. 2010b. California Wildlife Habitat Relationship (CWHR) System. http://www.dfg.ca.gov/biogeodata/cwhr/morecwhr.asp

Mathews and Associates. 2001. Results of the Stony Ridge and Cold Great Gray Owl Surveys on the Mount Hough Ranger District, Plumas National Forest: Final Report. Sierra Cascade Province, Plumas National Forest.

PART OF PLAN 33.35

CERTIFICATION

Certification: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for the biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

DATE: 2/8/11 SIGNED: Timothy C. Keesey

PART OF PLAN 3.3.4
3/11/11

QUALIFICATIONS
Tim Keesey
Wildlife Biologist/Grant Writer/GIS

Summary

Thirteen years experience in biological consulting and ecological research

Employment History

Susanville Indian Rancheria
Susanville, CA
2001-Present, Natural Resources Director

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Mr. Keesey's Representative Projects, continued:

Skyline West Wildlife Surveys - Conducted wildlife surveys for biological assessments of alternative routes for the Susanville by-pass. *Lassen County*

Tuscarora Natural Gas Pipeline Lateral from Wendel to Susanville – Conducted wildlife surveys for Tuscarora natural gas pipeline lateral. *City of Susanville*

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ATTACHMENT 1: GREAT GRAY OWL FIELD VISIT FORMS

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Cradle Valley Great Gray Owl Survey (insert Date) 5-16-10 **SURVEY #** 1

Sunset 20:12 hours (Source) http://www.sunrisesunset.com/calendar.asp

Starting Temp 52 degrees F

Weather: (Describe Conditions regarding wind & rain) wind - calm prec. - none

cloud - 100%

STATION	SURVEYOR	START TIME	END Time	TIME ELAPSED	NOTES (Observations/Detections/Problems)	GGO RESPONSE (Yes/No)
wr2-1	T. Keeler	21:08	21:14	6 mins		No
rr3-56		21:24	21:30	6		No
wr1-8		21:36	21:42	6	Lots of noise from frogs	No
wr1-7		21:47	21:53	6		No
wr1-96		22:02	22:08	6	BUVI - pretty loud close; some frog noise	No
wr1-10		22:13	22:19	6	BUVI pair - very loud	No
rr2-6		22:26	22:32	6	BUVI faint	No
rr2-7		22:35	22:41	6		No
rr2-8		22:45	22:51	6		No
wr1-56		23:13	23:19	6		No
wr1-5		23:27	23:33	6		No
wr1-4		23:37	23:43	6		No
wr1-3		23:48	23:54	6		No
wr1-2		23:58	00:04	6		No
rr1-9		00:37	00:43	6		No
rr1-8		00:45	00:51	6		No
rr1-7		00:53	00:59	6		No
rr1-6		01:01	01:07	6	BUVI S. of DF	No
rr1-5		01:10	01:16	6		No
rr1-4		01:18	01:24	6		No
rr1-3		01:26	01:32	6		No
rr1-2		01:34	01:40	6		No

end temp 44°F
wind - calm
cloud - 100%
prec. - 0

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Cradle Valley Great Gray Owl Survey (insert Date) 6-8-10 **SURVEY #** 2

Sunset 8:30 hours (Source) http://www.sunrisesunset.com/calendar.asp

Starting Temp 62 degrees F

Weather: (Describe Conditions regarding wind & rain)

no precip
light wind (0-5) w/ stronger gust's

STATION	SURVEYOR	START TIME	END Time	TIME ELAPSED	NOTES (Observations/Detections/Problems)	GGO RESPONSE (Yes/No)
Wr2-1	T. Keeley	21:04	21:10	6		No
rr3-5b		21:20	21:26	6		No
wr1-8		21:33	21:39	6		No
wr1-7		21:44	21:50	6		No
wr1-9b		22:00	22:06	6		No
wr1-10		22:11	22:17	6	1 BWV - far off 225°	No
rr2-6		22:24	22:30	6		No
rr2-7		22:34	22:40	6		No
rr2-8		22:44	22:50	6		No
wr1-5b		23:14	23:20	6		No
wr1-5		23:28	23:34	6		No
wr1-4		23:38	23:44	6	1 OTFL - far off @ 270°	No
wr1-3		23:49	23:55	6		No
wr1-2		00:00	00:06	6	1 OTFL - far off @ 315°	No

End temp: 58° F
Winds Calm
Prec. Ø

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3346

Cradle Valley Great Gray Owl Survey (insert Date) 6-9-10 **SURVEY #** 2

Sunset 20:31 hours (Source) http://www.sunrisesunset.com/calendar.asp

Starting Temp 62 degrees F

Weather: (Describe Conditions regarding wind & rain)

Calm to light wind
No precip.

STATION	SURVEYOR	START TIME	END Time	TIME ELAPSED	NOTES (Observations/Detections/Problems)	GGO RESPONSE (Yes/No)
rr1-2	T. Keeney	20:43	20:50	7		No
rr1-3		20:52	20:58	6		No
rr1-4		21:01	21:07	6		No
rr1-5		21:09	21:15	6		No
rr1-6		21:18	21:24	6		No
rr1-7		21:26	21:32	6		No
rr1-8		21:34	21:40	6		No
rr1-9		21:43	21:49	6		No

End Temp: 60° F
Wind: Light wind
No precip.

PART OF PLA

Cradle Valley Great Gray Owl Survey (insert Date) 6-30-10 SURVEY # 3

Sunset 8:37 pm hours (Source) http://www.sunrisesunset.com/calendar.asp

Starting Temp 55 degrees F

Weather: (Describe Conditions regarding wind & rain)

Calm No precip.

STATION	SURVEYOR	START TIME	END Time	TIME ELAPSED	NOTES (Observations/Detections/Problems)	GGO RESPONSE (Yes/No)
wr2-1	T. Keeley	20:43	20:49	6		No
rr3-5b	/ /	20:58	21:04	6		No
wr1-8		21:10	21:16	6		No
wr1-7		21:21	21:27	6		No
wr1-9b		21:35	21:41	6		No
wr1-10		21:46	21:52	6		No
rr2-6		21:58	22:04	6		No
rr2-7		22:07	22:13	6		No
rr2-8		22:17	22:23	6		No
wr1-5b		22:43	22:49	6		No
wr1-5		22:57	23:03	6		No
wr1-4		23:08	23:14	6		No
wr1-3		23:18	23:24	6		No
wr1-2		23:28	23:36	8	1 OTFL - faint ~315°	No
rr1-9		00:07	00:13	6		No
rr1-8		00:16	00:22	6		No
rr1-7		00:24	00:30	6		No
rr1-6		00:32	00:38	6		No
rr1-5		00:41	00:47	6		No
rr1-4		00:49	00:55	6		No
rr1-3		00:57	01:03	6		No
rr1-2		01:06	01:12	6		No

PART OF PLAI

33.4.2

2/1/11

Cradle Valley Great Gray Owl Survey (insert Date) 7-7-10

SURVEY # 4

Sunset 8:36pm hours (Source) http://www.sunrisesunset.com/calendar.asp

Starting Temp 64 degrees F

Weather: (Describe Conditions regarding wind & rain)

calm to light breeze
No precip.

STATION	SURVEYOR	START TIME	END Time	TIME ELAPSED	NOTES (Observations/Detections/Problems)	GGO RESPONSE (Yes/No)
wr2-1	Tikeesy	20:56	21:02	6		No
rr3-5b		21:12	21:18	6		No
wr1-8		21:24	21:30	6		No
wr1-7		21:35	21:41	6		No
wr1-9b		21:49	21:55	6		No
wr1-10		22:00	22:06	6		No
rr2-6		22:13	22:19	6		No
rr2-7		22:23	22:29	6		No
rr2-8		22:33	22:40	7		No
wr1-5b		23:01	23:07	6		No
wr1-5		23:15	23:21	6		No
wr1-4		23:25	23:31	6		No
wr1-3		23:36	23:42	6		No
wr1-2		23:46	23:52	6		No
rr1-9		00:31	00:37	6		No
rr1-8		00:39	00:45	6		No
rr1-7		00:47	00:53	6		No
rr1-6		00:55	01:01	6		No
rr1-5		01:04	01:10	6		No
rr1-4		01:12	01:18	6		No
rr1-3		01:21	01:27	6		No
rr1-2		01:29	01:35	6		No

End Temp: 60°F
calm to light breeze
Ø precip.

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2/11/11

Cradle Valley Great Gray Owl Survey (insert Date) 8-3-10

SURVEY # 5

Sunset 20:16 hours (Source) http://www.sunrisesunset.com/calendar.asp

Starting Temp 71 degrees F

Weather: (Describe Conditions regarding wind & rain)

light breeze (0-5) from N
Ø precip.

STATION	SURVEYOR	START TIME	END Time	TIME ELAPSED	NOTES (Observations/Detections/Problems)	GGO RESPONSE (Yes/No)
wr2-1	T. Keeny	20:22	20:28	6		No
rr3-5b		20:37	20:43	6		No
wr1-8		20:49	20:55	6		No
wr1-7		21:05	21:11	6		No
wr1-9b		21:19	21:25	6		No
wr1-10		21:30	21:36	6		No
rr2-6		21:44	21:50	6		No
rr2-7		21:53	21:59	6		No
rr2-8		22:04	22:10	6		NO
wr1-5b		22:32	22:38	6		No
wr1-5		22:45	22:51	6		No
wr1-4		22:55	23:01	6		NO
wr1-3		23:06	23:12	6		No
wr1-2		23:16	23:22	6		No
rr1-9		23:57	0003	6		No
rr1-8		00:06	0012	6		No
rr1-7		0014	0020	6		No
rr1-6		0023	0029	6		No
rr1-5		0032	0038	6		No
rr1-4		0040	0046	6		No
rr1-3		0049	0055	6		No
rr1-2		0057	0103	6		No

End Temp. 65° F
calm
Ø prec.

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33.44

2/11/11

Cradle Valley Great Gray Owl Survey (insert Date) 10-1-10

SURVEY # 6 (Meadow Search)

Sunset N/A hours (Source) http://www.sunrisesunset.com/calendar.asp

Starting Temp 80 degrees F

Weather: (Describe Conditions regarding wind & rain)

calm
No precip.

STATION	SURVEYOR	START TIME	END Time	TIME ELAPSED	NOTES (Observations/Detections/Problems)	GGO RESPONSE (Yes/No)
All	T. Keesey	9:03	16:41			NO

End Temp: 90° F
No prec.
Winds calm

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Project Carbon Accounting: Inventory, Growth, and Harvest

This worksheet addresses the sequestation and emissions associated with the project area's balance of harvest, inventory, and growth plus any emissions associated with site preparation. Complete the input for Steps 0- 8 on this worksheet.

Forest Type			
Multipliers to Estimate Carbon Tonnes per MBF (Sampson, 2002)			
Forest Type	Step 0. Identify the approximate percentage of conifers by volume within the harvest plan. Must sum to 100%	Multiplier from Cubic Feet (merchantable) to Total Biomass	Pounds Carbon per Cubic Foot
Douglas-fir	0%	1.675	14.38
Redwood	0%	1.675	13.42
Pines	76%	2.254	12.14
True firs	24%	2.254	11.18
Hardwoods		2.214	11.78
Conversion of Board Feet to Cubic Feet	0.165	Pounds per Metric Tonne	2.204
Multipliers to Estimate Total Carbon Tonnes per MBF	Conifer	2.01	
	Hardwoods	1.95	
Multipliers to Estimate Merchantable Carbon Tonnes per MBF	Conifer	0.89	
	Hardwoods	0.88	

Harvest Periods	Inventory		Growth Rates		Harvest Volume	
Time of Harvest (years from project approval)	Conifer Live Tree Volume (MBF/Acre) - Prior to Harvest	Hardwood Live Tree Volume (BA square feet/Acre) - Prior to Harvest	Conifer Growth Rate BF/Acre/Year	Hardwood Growth Rate BA/Acre/Year	Conifer Harvest Volume (MBF/acre)	Hardwood Harvested / Treated Basal Area (BA/Acre)
Step 1. Enter the anticipated future harvest entries. The re-entry cycles should be supported by management plan, if available.	Step 2. Enter the estimated conifer inventory (mbf/acre) present in project area prior to harvest.	Step 3. Enter the estimated hardwood inventory (basal area per acre) present in project area prior to harvest.	Step 4. Enter the average annual periodic growth of conifers between harvests based on estimated growth in management plan, if available. Must be entered for each harvest cycle identified in Step 1.	Step 5. Insert average annual periodic growth of hardwoods between harvests based on estimated growth in management plan, if available.	Step 6. Enter the estimated conifer harvested per acre at current and future entries. The estimate should be based on projections from the management plan, if available.	Step 7. Enter estimated hardwood basal area harvested/treated per acre
User must enter harvest cycles to 100 years and/or at least three entry cycles.	0	10.1	0	200	0	4	0
	20	10.1	0	200	0	4	0
	40	10.1	0	200	0	4	0
	60	10.1	0	200	0	4	0
	80	10.1	0	200	0	4	0
	100	10.1	0	200	0	4	0
	0	0	0	200	0	0	0
	0	0	0	0	0	0	0
	0	0	0	0	0	0	0
	0	0	0	0	0	0	0
	0	0	0	0	0	0	0
	0	0	0	0	0	0	0

Harvest Periods	Inventory Conversion to Carbon (prior to harvest)		Inventory Conversion to Carbon Dioxide Equivalent (prior to harvest)		Site Preparation	
from above (Time of Harvest as years from project approval)	Conifer Live Tree Tonnes (C/acre)	Hardwood Live Trees Tonnes (C/acre)	Conifer Live Tree Tonnes (CO_2 equivalent/acre)	Hardwood Live Tree Tonnes (CO_2 equivalent/acre)	Step 8. Enter the value (in bold) for each harvest cycel that best reflects the site preparation activities, as averaged across the project area:	
	Computed: MBF * Conifer Multiplier from Step 0.	Computed: BA*Volume/Basal Area Ration (to convert to MBF) * Hardwood Multiplier from Step 0.	Computed: Conversion of carbon to CO_2 (3.67 tonnes CO2 per 1 tonne Carbon)	Computed: Conversion of carbon to CO_2 (3.67 tonnes CO2 per 1 tonne Carbon)	Heavy- 50% or more of the project area is covered with brush and removed as part of site preparation or stumps are removed (mobile emissions estimated at .429 metric tonnes CO2e per acre, biological emissions estimated at 2 metric tonnes CO2e per acre) Medium - >25% <50% of the project area is covered with brush and removed as part of site preparation (mobile emissions estimated at .202 metric tonnes CO2e per acre, biological emissions estimated at 1 metric tonne per acre). Light - 25% or less of the project area is covered with brush and is removed as part of site preparation (mobile emissions estimated at .09 metric tonnes CO2e per acre, biological emissions estimated at .5 metric tonnes per acre). None - No site preparation is conducted.	
0	20	0	74	0	None	0
20	20	0	74	0	None	0
40	20	0	74	0	None	0
60	20	0	74	0	None	0
80	20	0	74	0	none	0
100	20	0	74	0	None	0
0	0	0	0	0	None	0
0	0	0	0	0	None	0
0	0	0	0	0	None	0
	Difference between ending stocks and beginning stocks		0	0.00	Sum of emissions (Metric Tonnes CO2e) per acre	0

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Project Carbon Accounting: Harvesting Emissions

This worksheet addresses the non-biological emissions associated with the project area's harvesting activities. Complete the input for Steps 9- 14 on this worksheet.

Harvest Periods	Falling Operations	Production per Day	Emissions Associated with Yarders and Loaders			Emissions Associated with Tractors and Skidders			Emissions Associated with Helicopters			Landing Saws	Trucking Emissions		
from Inventory, Growth, and Harvest Page (Time of Harvest as years from project approval)	Assumption: ((.25 gallons gasoline per MBF harvested * 5.33 (pounds carbon per gallon))/2205(conversion to metric tonnes)* mbf per acre harvested	MBF (all species) Yarded Delivered to Landing	Assumption:(((35 gallons diesel per day per piece of equipment * 6.12 pounds carbon / gallon)/2205 to convert to metric tonnes carbon)* 3.67 to convert to metric tonnes CO2 equivalent)/Production per Day			Assumption: (((55 gallons diesel per day per piece of equipment * 6.12 pounds carbon / gallon)/2205 to convert to metric tonnes carbon)* 3.67 to convert to metric tonnes CO2 equivalent)/Production per Day			Assumption: (((200 gallons jet fuel per day per piece of equipment * 5 pounds carbon / gallon)/2205 to convert to metric tonnes carbon)* 3.67 to convert to metric tonnes CO2 equivalent)/Production per Day			Assumption: (((.16 gallons gasoline per MBF * 5.33 (pounds carbon per gallon))/2205(conversion to metric tonnes)* 3.67 to convert to metric tonnes CO2 equivalent)/mbf per acre harvested. Applies to all species whether harvested or not.	Assumption: Round Trip Hours/Load average (from below, to compute the mbf/hour) /((6 gallons diesel/hour * 6.12 pounds carbon/gallon)/2205 (conversion to metric tonnes carbon))*3.67 (conversion to metric tonnes carbon dioxide equivalent)		
	Computed. Metric Tonnes CO2 equivalent per mbf harvested Applies to all species whether harvested or treated	Step 9. Enter the estimated volume delivered to the landing in a day.	Step 10. Enter number of pieces of equipment in use per day for each harvest entry	Computed. Yarders and Loaders CO2 equivalent/mbf (metric tonnes)	Computed. Yarders and Loaders CO2 equivalent per Acre Harvested (metric tonnes)	Step 11. Enter number of pieces of equipment in use per day for each harvest entry	Computed. Tractor and skidder CO2 equivalent/mbf (metric tonnes)	Computed. Tractors and Skidders CO2 equivalent per Acre Harvested (metric tonnes)	Step 12. Enter number of pieces of equipment in use per day for each harvest entry	Computed. Helicopter CO2 equivalent/mbf (metric tonnes)	Computed. Helicopters CO2 equivalent per Acre Harvested (metric tonnes)	Computed. Landing Saws CO2 equivalent per Acre Harvested (metric tonnes)	Steps 13 and 14 below		Computed. Estimated Metric Tonnes CO2e per harvested acre for each harvesting period.
0	(0.01)	30	1	-0.01	-0.05	2	-0.04	-0.15	0	0.00	0.00	-0.01	Step 13. Enter Estimated Load Average: MBF/Truck	4.8	-0.055510204
20	(0.01)	30	1	-0.01	-0.05	2	-0.04	-0.15	0	0.00	0.00	-0.01			-0.055510204 *
40	(0.01)	30	1	-0.01	-0.05	2	-0.04	-0.15	0	0.00	0.00	-0.01	Step 14. Enter Estimated Round Trip Haul in Hours	4	-0.055510204
60	(0.01)	30	1	-0.01	-0.05	2	-0.04	-0.15	0	0.00	0.00	-0.01			-0.055510204
80	(0.01)	30	1	-0.01	-0.05	2	-0.04	-0.15	0	0.00	0.00	-0.01			-0.055510204
100	(0.01)	30	1	-0.01	-0.05	2	-0.04	-0.15	0	0.00	0.00	-0.01			-0.055510204
0	-	0	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0.00			0
0	-	0	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0.00			0
0	-	0	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0.00			0
0	-	0	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0.00			0
Sum Emissions	-0.05				-0.29			-0.90			0.00	-0.03			-0.33

* Breakout into multiple production sites and by harvest year

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Project Carbon Accounting: Harvested Wood Products and Processing Emissions

This worksheet addresses the non-biological emissions associated with the project area's harvesting activities. Complete the input for Steps 15- 16 on this worksheet.

Harvest Periods	Quantity of Forest Carbon Delivered to Mills				Non-Biological Emissions Associated with Mills	Quantity of Forest Carbon Remaining Immediately After Milling (Mill Efficiency)		Long-Term Sequestration in Wood Products	
	Conifer Percentage Delivered to Mills	Hardwood Percentage Delivered to Mills	Conifer CO2e Delivered to Mills / Acre	Hardwood CO2 equivalent Delivered to Mills / Acre	**Assumption.** 20 kw/hour (mill energy use) /(40mbf lumber processed/hour) *(.05 metric tonnes/kw hour) * mbf processed	**Computed.** Remaining CO2 equivalent after Milling Efficiency for Conifers	**Computed.** Remaining CO2 equivalent after Milling Efficiency for Hardwoods	**Computed.** CO2 Equivalent Tonnes in Conifer Wood Products in Use-100 Year Weighted Average / Acre and Landfill	**Computed.** CO2 Equivalent Tonnes in Hardwood Wood Products in Use-100 Year Weighted Average / Acre
from Inventory, Growth, and Harvest Page (Time of Harvest as years from project approval)	**Step 15.** Insert the percentage of conifer trees harvested that are subsequently delivered to sawmills	**Step 16.** Insert the percentage of hardwoods harvested or treated that are subsequently delivered to sawmills	**Computed:** The merchantable portion determined by the conversion factors (Sampson, 2002) on the Inventory, Growth, and Harvest worksheet. This is multiplied by the percent delivered to mills to reflect the carbon delivered to mills.	**Computed:** The merchantable portion determined by the conversion factors (Sampson, 2002) on the Inventory, Growth, and Harvest worksheet. This is multiplied by the percent delivered to mills to reflect the carbon delivered to mills.	**Calculated.** The CO2e associated with processing the logs at the mill	The difference between carbon delivered to mills and carbon remaining after milling is assumed to be emitted immediately		**Estimate.** The weighted average carbon remaining in use at year 100 is 46.3%	**Estimate.** The weighted average carbon remaining in use at year 100 is 23.0%
						The efficiency rating from mills in California is 0.67 (DOE 1605b) for conifers	The efficiency rating from mills in California is .5 (DOE 1605b) for hardwoods	**Estimate.** The carbon in landfills at year 100 is 29.8% of the initial carbon produced in wood products.	**Estimate.** The carbon in landfills at year 100 is 29.8% of the initial carbon produced in wood products.
0	100%	0%	13.09	0.00	-0.10	8.77	0.00	6.67	0.00
20	100%	0%	13.09	0.00	-0.10	8.77	0.00	6.67	0.00
40	100%	0%	13.09	0.00	-0.10	8.77	0.00	6.67	0.00
60	100%	0%	13.09	0.00	-0.10	8.77	0.00	6.67	0.00
80	100%	0%	13.09	0.00	-0.10	8.77	0.00	6.67	0.00
100	100%	0%	13.09	0.00	-0.10	8.77	0.00	6.67	0.00
0	100%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	100%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	100%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	100%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	100%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Sum of emissions associate with processing of lumber			-0.60	Sum of CO2 equivalent in wood products		40.04	0.00

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Summary			Years until Carbon Stocks are Recouped from Initial Harvest (Includes Carbon in Live Trees, Harvested Wood Products, and Landfill)
	Beginning Stocks	Ending Stocks	
Emissions Source/Sink/Reservoir	Metric Tonnes CO2 Equivalent Per Acre Basis		16 Years
Live Trees (Conifers and Hardwoods)	74.49	74.49	
Wood Products		40.04	
Site Preparation Emissions		0.00	
Non-biological emissions associated with harvesting		-1.60	
Non-biological emissions associated with milling		-0.60	
Sum of Net Emissions/Sequestration over Identified Harvest Cycles (CO2 metric tonnes)		37.84	
Project Summary			
Project Acres	Step 17- Insert the acres that are part of the harvest area.	145	
Total Project Sequestration over defined Harvesting Periods (CO2 metric tonnes)		5,487	

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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 ___

A table and map follow that identify past and future projects within the Clarks Creek watershed.

The Susanville Indian Rancheria (SIR) has owned the property since 2003. The property is being used for wildlife habitat protection, cultural purposes and sustainable forestry. Since acquisition, SIR has negotiated a 30-year easement with NRCS to protect 66 acres under the Wetlands Reserve Program, drilled a well, constructed a perimeter fence, and conducted precommercial thinning (map #1), pruning and fuel hazard reduction projects. The last timber harvest of the property took place in 1993. This THP is shown as map #2.

It is anticipated that future timber harvests will be conducted at 15 to 20 year intervals and that harvests will primarily utilize a selection silvicultural cutting scheme. The SIR property is shown on the Watershed Assessment Area Map. The major landowner in the watershed is the Plumas National Forest. The Plumas National Forest has plans for prescribed burning of fuelbreaks adjacent to the SIR property, mechanical thinning along Stony Ridge (map #3), and rehabilitation projects in the southern portion of the watershed burned by the Stream Fire. Salvage timber harvests on burned smaller private ownerships may occur. Past, present and future projects are shown on the following table.

In summary, there has been little harvesting on forest ownerships in the watershed assessment area over the past ten years. There has been no clearcutting. All projects have complied with either the CA Forest Practice Act and rules, or USFS requirements. None of the projects are known to have created any long-term negative environmental impacts. Future timber harvesting in the watershed will continue on a periodic basis. USFS sales can be expected to utilize salvage or unevenaged forest management systems.

2. Are there any continuing, significant adverse impacts from forestland 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

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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 ___

A table and map follow that identify past and future projects within the Clarks Creek watershed.

The Susanville Indian Rancheria (SIR) has owned the property since 2003. The property is being used for wildlife habitat protection, cultural purposes and sustainable forestry. Since acquisition, SIR has negotiated a 30-year easement with NRCS to protect 66 acres under the Wetlands Reserve Program, drilled a well, constructed a perimeter fence, and conducted precommercial thinning (map #1), pruning and fuel hazard reduction projects. The last timber harvest of the property took place in 1993. This THP is shown as map #2.

It is anticipated that future timber harvests will be conducted at 15 to 20 year intervals and that harvests will primarily utilize a selection silvicultural cutting scheme. The SIR property is shown on the Watershed Assessment Area Map. The major landowner in the watershed is the Plumas National Forest. The Plumas National Forest has plans for prescribed burning of fuelbreaks adjacent to the SIR property, mechanical thinning along Stony Ridge (map #3), and rehabilitation projects in the southern portion of the watershed burned by the Stream Fire. Salvage timber harvests on burned smaller private ownerships may occur. Past, present and future projects are shown on the following table.

In summary, there has been little harvesting on forest ownerships in the watershed assessment area over the past ten years. There has been no clearcutting. All projects have complied with either the CA Forest Practice Act and rules, or USFS requirements. None of the projects are known to have created any long-term negative environmental impacts. Future timber harvesting in the watershed will continue on a periodic basis. USFS sales can be expected to utilize salvage or unevenaged forest management systems.

2. Are there any continuing, significant adverse impacts from forestland 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

Past & Future Projects
Clarks Creek Watershed

Map No	Owner	Date	THP #	Acres	Silviculture	Location(T,R,Sec)	Status
	Past						
2	SIR	2006-2008		80	Precom thin	27N-13E-3	Completed
1	SIR	2009		145	SEL	27N-13E-3	Subject
	Future						
1	SIR	2010		145	SEL	27N-13E-3	Subject
2	SIR	2009-2010		65	Precom thin	27N-13E-3	Subject
3	Plumas NF	2009-2017		+/- 400	Mech thin	26N & 27N-13E	Planned

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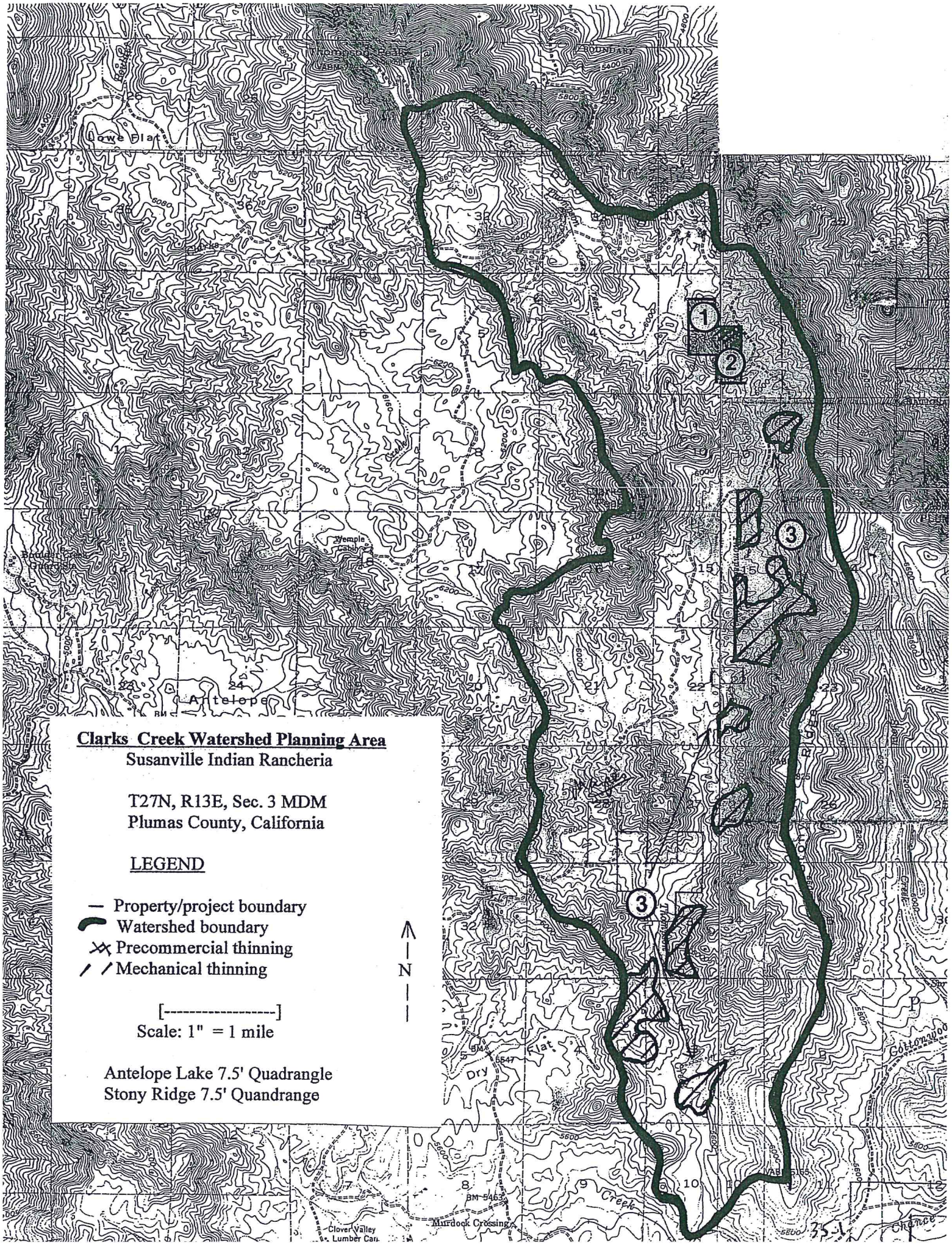
Clarks Creek Watershed Planning Area
Susanville Indian Rancheria
T27N, R13E, Sec. 3 MDM
Plumas County, California
LEGEND
Property/project boundary
Watershed boundary
Precommercial thinning
Mechanical thinning
[----------]
Scale: 1" = 1 mile
Antelope Lake 7.5' Quadrangle
Stony Ridge 7.5' Quandrange
N
Lowe Flat
Antelope
Dry Flat
Murdock Crossing
Clover Valley Lumber Can
1
2
3
3

B. General Site and Vicinity Description -

The Susanville Indian Rancheria (SIR) property is located near the crest of the western slope of the northern Sierra Nevada mountain range in Plumas County, California and approximately 5 miles south of the community of Janesville. The property totals 160 acres of which an estimated 145 acres meets the criteria as commercial forestland. The remaining 15 acres is high mountain meadow. Use on approximately 66 acres of the property is constrained for 30 years by a conservation easement held by the Natural Resources Conservation Service (NRCS) under the Wetlands Reserve Program. However, limited selective harvesting of the forest as proposed in this THP is permissible with NRCS approval.

The SIR property is located in an area used principally for natural resources including timber production, grazing, recreation and watershed protection, and is surrounded on all sides by Plumas National Forest. Access is seasonal over the Janesville Grade Road (County Road 208 and National Forest Road 01). Winter access is limited due to snow that is not cleared by neither Lassen County nor the USFS. Janesville Grade is heavily used during the summer by recreationists heading to Antelope Lake located approximately 4 miles southwest of the harvest area.

The SIR property falls in the upper reaches of the Clarks Creek watershed. Elevations range from 5,920 feet on the south to 6,160 feet on the southwest portion of the THP area. Annual precipitation is approximately 20" falling as snow or rain. Clarks Creek bisects the property in a northwest to southeast direction. It is a Class I watercourse that tends to dry up by the end of the summer. An artificial pond is located along the edge of Clarks Creek meadow near the center of the property. A Class II tributary of Clarks Creek is located on the east side of the meadow. An existing haul road uses an existing culvert crossing that will be improved to accommodate a 100-year flood. A Class III tributary is located on the west side of the meadow and will be temporarily crossed to skid logs. A spring located above the pond provides domestic water when the property owners use the cabin during the spring to fall months. The current owners have also drilled a well for domestic purposes. Other beneficial uses of the water are for fish and wildlife, recreation, and agricultural purposes.

Topography is gentle and less than 10% over most of the area with the exception of ground up to 30% slope in the northeast corner and along the western property boundary. Soils are derived from granodiorite rocks. Soil depth is between 25" to 55". Soil texture is a sandy loam or coarse gravelly loam. Erosion hazard is "moderate".

Most of the area is rated as Dunning's Site Class II to III. A small area near the northeast corner is rated Dunning Site IV. The highest productivity is located along the margins of the meadows.

All of the harvest area has slopes under 30%. Harvest intensity is light to moderately heavy. Trees to be removed are either the least healthy, or those that are too close to other trees. Impacts on soil erosion and water quality will be small. Wildlife impacts are difficult to predict but considering the terrain and the primarily selection cut, this harvest will have no significant impact on the general forest stand composition. Aesthetic impacts will be short-term and many healthy mature trees will be left. All logging-generated slash is to be lopped. Thus, visual and fire hazard impacts will also be reduced. Traffic impacts will be short-term on State Highways that are designed for significant traffic levels. Impacts on water production and quality will be minimized by Forest Practice Rule mitigation measures.

This Timber Harvest Plan will have no significant adverse cumulative environmental impacts due to the overriding policies and practices required within the framework of the Forest Practices Act and the Northern Forest District Rules, as well as the owner's management goals.

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C. Watershed Impacts -

1. Assessment Area - the area assessed for watershed impacts includes approximately 11,821 acres in the Clarks Creek Watershed (5518.550201) that empties into Last Chance Creek. The SIR is near the upper end of the basin and comprises less than 1% of the watershed. (See the attached map for the Watershed Assessment Area boundaries). Clarks Creek bisects the middle of the property. Assessment area boundaries have been delineated by the RPF on the map using standard hydrological techniques.

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

The watershed basin does not show pollutant/stressors, which would potentially be impacted by any of the past, present or future timber harvesting projects. None of the watershed supports anadromous salmonids, and therefore, does not qualify as a "threatened or impaired" watershed.

2. Beneficial Uses – Surface water from the SIR property is used for wildlife, biotic communities, fisheries, agriculture, and recreation. Waters of Clarks Creek are not used for domestic purposes.

3. Project Assessment - One intermittent Class I watercourse is located on the SIR property. The streambank is generally flat and relatively stable. Bank vegetation is generally grass with very limited occurrence of riparian vegetation. In a few areas, lodgepole pine, or Jeffrey pine trees border the creek.

One existing non-functional crossing of Clarks Creek is proposed for re-use. No new crossings are proposed in this THP. Approaches to the creek are stable. The channel at the crossing is only 12 feet wide and will be used outside of the winter period. A dry rock ford 2"+ competent fill rock will be used for log hauling and heavy equipment passage. No log skidding will occur at this crossing.

A Class II watercourse lying east of Clarks Creek is culverted and will be upgraded to accommodate a 100-year flood. The terrain is flat to gentle on both sides of the watercourses. Up to three temporary crossings of a Class III watercourse on the west side of Clarks Creek will be necessary. Crossings will be seeded and mulched prior to the winter period and at the conclusion of logging.

Impacts to Clarks Creek should be minimal due to the nature of the timber harvest. Mitigation includes proper placement of waterbreaks to reduce potential for soil transport at distances less than required by the rules, and felling and skidding of trees away from the watercourses. The selective nature for all of the harvest operation also provides for mitigation by retaining a significant overstory canopy for protection of the soil resource. Forest Practice Act rules provide other mitigation to reduce soil erosion that 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. Only use of existing roads is proposed in the easement area. Rock will be placed on road surfaces within the WLPZ of the crossings of the Class I and II watercourses.

This watershed basin is not identified as having any pollutant/stressors, which would potentially be impacted, by any have the past, present or future timber harvesting projects.

(a). Sediment: Because soil is exposed when roads are graded, trucks drive on them, and skidder/tractors move logs from the woods to a landing, soil can be displaced and transported by raindrops, overland flow, or snowmelt. Eventually, this displaced soil could impair water quality and impact downstream uses. Provisions in this THP and the Forest Practice Rules limit these potential impacts. Use of erosion control devices, retention of a significant tree canopy, limitations on skidding near watercourses, and the gentle terrain of the SIR property will minimize the potential for any adverse impacts to sediment.

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(b). Water temperature: If significant tree cover is removed along watercourses, water temperature of the stream can increase with consequent changes in water chemistry or biological properties. The rules require that no more than 50% of the overstory or understory be harvested in a WLPZ. For this plan, less than 50% of the overstory, and none of the understory will be harvested in a WLPZ. Potential impacts to water temperature from harvesting on Clarks Creek should be minimal. The Class II and III watercourses only flow from snowmelt and there would be little impact to water temperatures. Most significantly, however, is that during the summer and falls seasons, much of Clarks Creek on the SIR property is typically dry with no water flow.

(c). Organic debris: If limbs, needles, or tree boles are introduced into watercourses, there can be impacts to water chemistry or biological properties. Introduction of large woody debris can alter water flow with impacts to streambanks and channel stability. Few trees are marked for harvest next to the Class I watercourse and much less than the 50% allowable, and the Class III watercourses transport little water. Additionally, the THP requires immediate removal of any woody debris that gets into a watercourse. Impacts should be minimal.

(d). Chemical contamination: Potential for chemical contamination is small. No pesticide or herbicide use is proposed. No chemical treatments are proposed for any roads. No slash burning is proposed. Use of a WLPZ to exclude equipment, helps minimize the possibility of oil, grease or fuel leaks from heavy equipment.

(e): Peak flow: Peak water flows can be increased if substantial volumes of vegetation in a watershed are removed. For this THP, the primary silviculture method will be selection where about a third of the overstory vegetation will be harvested. For the watershed as a whole, individual selection is the only system used. The harvest area of this project at 145 acres represents about 1% of the total watershed area. The potential changes to peak flows from this operation are considered to be less than minimal.

(f): Watercourse condition: The condition of the watercourse may be impacted by past projects or natural weather events. Potential impacts can include embedded gravel, filled pools, aggrading, bank cutting, bank mass wasting, downcutting, scoured channels, organic debris, or recent floods. The existing watercourse conditions are considered to be stable with none of the above characteristics evident. Watercourses are underlain with granite. The meadow has a meandering channel (i.e. Clarks Creek) with a series of small beaver ponds located in the northern half of the meadow. Water flows underground and below the channel in low flow periods later in the summer and fall. Potential impacts to watercourse condition from the proposed harvested are considered to be less than significant due to harvesting away from watercourses, the selective nature of harvesting, the stable gentle terrain, and WLPZ equipment exclusion zones.

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 sanitation-salvage and selection cutting with retention of a good overstory, streamside protection zones, construction and maintenance of effective waterbars and rolling dips.

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.

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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 entire 160-acre property.

2. Project Assessment – Soils in the Assessment Area are characterized as having origins from Mesozoic granite. Depths are variable and range from shallow (14") on the lower site ground to deeper (62") soils in the meadows. Soil erosion hazard rating is "moderate". Topography is flat to gently sloping. These soils are moderately well drained, and permeability is moderately rapid to rapid. The predominant soil type in the harvest plan area is Bucking family loamy sand. Cagwin-Toem family coarser and gravelly loamy sands are present in the southwest portion of the property. These areas are more open and rocky with scattered larger boulders. Harvesting is not proposed in the deeper Haplaquoll soils that dominate the wet meadow land.

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 existing skid trails. Due to the granitic nature of the soils, the RPF also has specified that minimum waterbreak spacing shall be reduced to the standards for "High" erosion hazard rating, even though the property is rated as having "moderate" erosion hazard rating.

(a). Organic Matter Loss: Displacement of surface organic matter can occur from log skidding. The area has been disturbed by past logging activities with the consequent construction of a network of roads and skid trails. Because these roads and skid trails will be utilized for this operation, disturbance of organic matter is expected to be low.

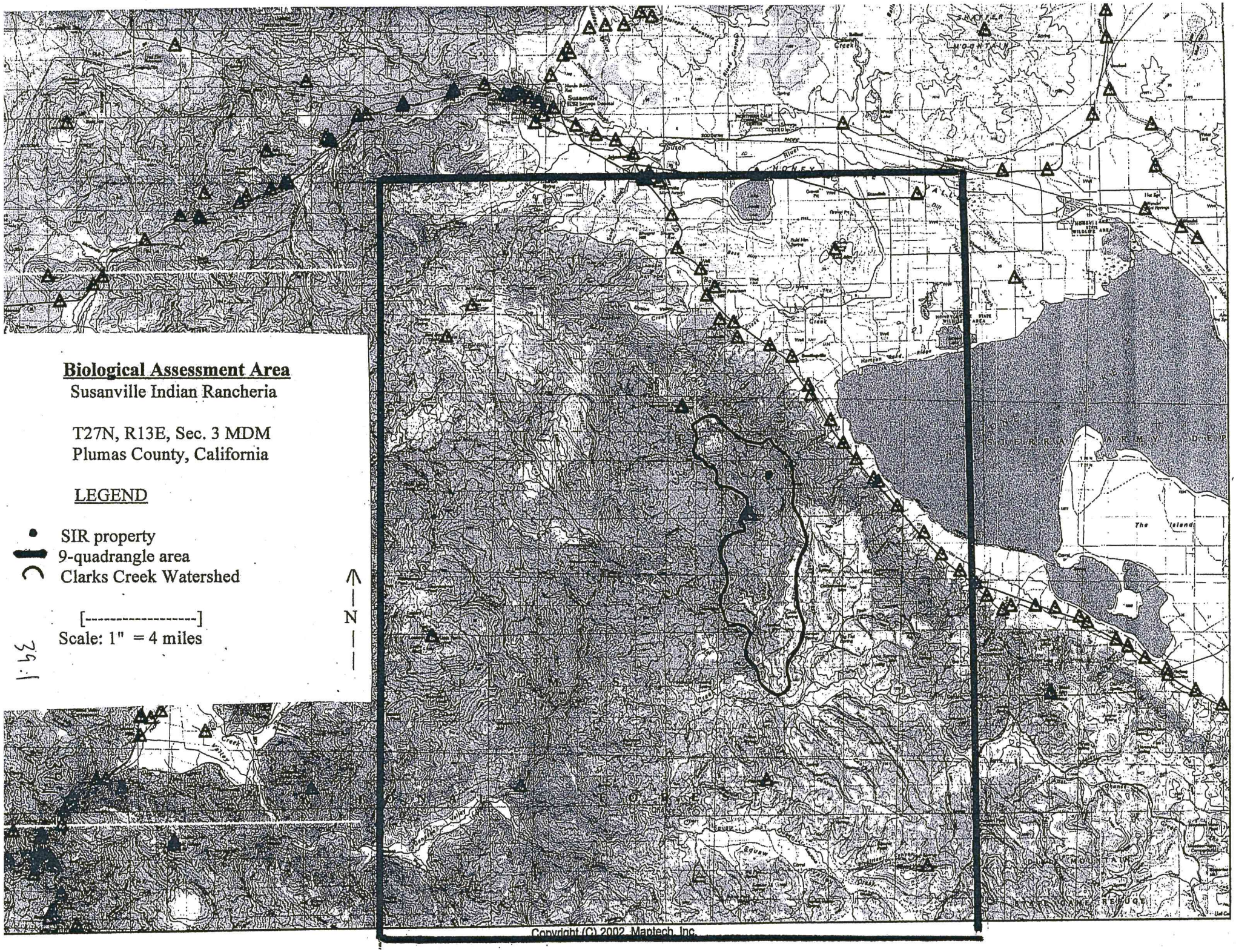
(b). Surface Soil Loss: Surface soil is potentially lost by erosion as a result of a storm event after log skidding, landing construction or road use. Potential for soil erosion is greatest on steeper slopes. Potential for soil loss from the harvest area of this THP is expected to be low for all of the project area due to the gentle terrain, selective nature of the tree harvesting, and exclusion of harvesting in WLPZ areas. 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.

(c). Soil Compaction: Some soil types may be susceptible to compaction from use of heavy equipment, especially clay soils in a saturated condition. Limitations on winter operations incorporated in this THP will help prevent soil compaction problems.

(d) Growing Space Loss: Forest growing space can be reduced by roads, landings and skid trails. Because this operation will cover ground logged in the past, pre-existing roads, landings and skid trails will be utilized. No new road construction is anticipated, and thus, little growing space should be lost.

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.

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.


Biological Assessment Area
Susanville Indian Rancheria
T27N, R13E, Sec. 3 MDM
Plumas County, California
LEGEND
SIR property
9-quadrangle area
Clarks Creek Watershed
[----------]
Scale: 1" = 4 miles
N
Susanville
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E. Biological Impacts -

1. Assessment Area – The assessment area for terrestrial animals, birds and amphibians and other non-plant species is considered to be the same as the Watershed Assessment Area (see earlier description) 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. For potential special status plants and Sierra Nevada red fox, a nine-quadrangle area around the THP area is used for assessment.

2. Project Assessment – This has been a multi-faceted process. First, the RPF field investigated the site to determine habitat types using the California Wildlife Habitat Relationship (WHR) system, and to investigate for evidence of nest sites and locations of any Endangered, Rare or Threatened Species. Next, habitat types were delineated using aerial photographs and transferred to a map. Identified habitat descriptions were reviewed in A Guide to Wildlife Habitats of California (1988). The list of "Sensitive Species" as identified in 14 CCR 895.1 was reviewed and based upon the RPF's experience, those species which could use or fly over the property were identified. Information was also obtained through the California Department of Fish & Game Natural Diversity Data Base system. The California Native Plan Society's Inventory of Rare and Endangered Vascular Plants of California (2001) and Calflora website were consulted for any listings of rare, threatened or endangered plant species within a nine 7.5' topographic quadrangles of the project. Additional information was obtained from the Illustrated Field Guide to Selected Rare Plants of Northern California (2001). Finally, information was received from the Plumas National Forest. A detailed discussion of the findings follows.

A field survey was first conducted in May, June and July of 2003. The search pattern was comprehensive in all forested areas when the RPF marked a proposed harvest area (for the prior landowners) and surveyed the ground surface while walking from tree to tree. In addition, a cruise was conducted across the property with ground inspection done concurrently. Special attention was devoted to potential habitat of sensitive plants and animals identified during the pre-survey research. More random survey work has been conducted when the RPF has inspected the property after the initial survey.

(a). Rare, threatened, or endangered species or sensitive species: The Cradle Valley property supports three principal mapped habitat types: Jeffrey Pine forest (132 acres) , Lodgepole Pine forest (13 acres) and Wet Meadow (15 acres). The Wet Meadow classification is subdivided into three types: willow predominant (+/-4 acres), mesic meadow (+/-6 acres) and wet meadow (+/-5 acres). Impacts to non-forest communities will be minimal because there will be no harvesting within them and equipment exclusion zones are provided by the State Forest Practice Rules for streamside areas. Two crossings of streamside zones use existing seasonal roads. The property has been disturbed in the past by logging and camping.

There are no known threatened or endangered plant or wildlife species that use or are located on the property. The California Natural Diversity Database map of the Antelope Lake and Stony Ridge quadrangles shows no species of concern having been sighted on the property. The California Natural Diversity Database shows the following "Listed Species" as having been detected for the Antelope Lake and Stony Ridge 7.5' quadrangles:

Rana muscosa –(Mountain yellow-legged frog) (CA Endangered). This species was last sighted in 1990 in the Thompson Creek drainage approximately 5 miles due west of Cradle Valley. A ridge separates Thompson Creek from Clarks Creek although both watersheds are westward flowing into the greater Feather River watershed. The project area is shown as falling just to the north of the range of the species. Suitable habitat is present (streams, ponds at high elevation). The species is not known for significant migrations and "is always encountered within a few feet of water." No frogs have been sighted within the project area, and no operations are proposed within potential habitat, meadows, or watercourses.

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Pendion haliaetus (osprey) (SC) (CA) – Ospreys use "large trees, snags, and dead-topped trees in open forest habitats for cover and nesting." They also require "clear, open waters for foraging." The SIR property lacks the large dead-topped trees and snags desired by osprey. The intermittent nature of Clarks Creek also makes this less than desirable habitat. However, no ospreys or their obvious nests have been spotted on the SIR property and the species presence is highly unlikely.

Accipter gentilis (northern goshawk) SC (CA) - The species habitat pattern is described as: "Dense, mature conifer and deciduous forest, interspersed with meadows, other openings, and riparian areas required. Nesting habitat includes north-facing slopes near water." It is probable that the species flies across the SIR property but no nest sites are known on the parcel, nor has the species been sighted. Russell Nickerson of the Beckwourth Ranger District of the Plumas National Forest, has provided information that Northern Goshawks have been sighted 3 to 4 miles south of the project area. Goshawk nesting is more likely on National Forest where denser mature forests are found.

Haliaeetus leucocephalus (bald eagle) delisted (fed), Endangered (CA). The project area is within both the summer and winter range of this species. For feeding, it requires "large bodies of water, or free-flowing rivers with abundant fish, and adjacent snags or perches." Nests are generally in "large, old-growth, or dominant live tree with open branchwork." Nests are very obvious stick platforms. The SIR property fails to meet the habitat requirement of sufficient water, or abundant fish. When Clarks Creek is flowing and fish are present, there is the possibility of bald eagle hunting for prey. However, the site does not meet all of the qualifications for a nesting site. There are few suitable nest trees present, and no stick nests have been observed. This species probably just passes over the property. The Plumas National Forest and CA Natural Diversity Database identify active bald eagle nest areas six miles south of the project area, and adjacent to Antelope Lake which provides more suitable habitat.

Empidonax traillii (Willow flycatcher) (CA Endangered). This species was last sighted in 1990 along the Little Antelope Creek approximately 5 miles south west of Cradle Valley. The project area is shown as falling east of the range of the species in California's Wildlife, Vol II (1990). Potentially suitable habitat is present ("thickets of low, dense willows edge on wet meadows, ponds, or backwaters"). The northern portions of the meadow along Clarks Creek now contain three patches of clumps of willow thickets estimated at less than two acres total area. According to the prior landowners, these were not present when they first acquired the property in 1989 and may be a result of reduced grazing pressure, and/or the demise of a population of beaver. No operations are proposed within potential habitat (willow thickets). Standard mitigation measures are incorporated. A survey by Tim Keesey (BS – Wildlife Biology - UC Santa Cruz, 1993) was conducted in July 2008 using DFG protocols and no willow flycatchers were present.

Sensitive species listed by the California Board of Forestry that could be found in this area are Bald Eagle, Golden Eagle, Northern Goshawk, Great Gray Owl, and Peregrine Falcon. Northern Goshawks have been sighted 3 to 4 miles south of the project area. A California Spotted Owl Territory is located one to four miles west of the project site. While these raptors may fly over the property, none are currently known to nest on or adjacent to the harvest area.

Vulpes vulpes necator (Sierra red fox) is a State of California "threatened" species. There have been no recent sightings, or known dens of this species on the property. A 1990 sighting was observed approximately 8 miles northwest of the THP area. This apparent sighting is 17 years old, and has not been verified by photos or dna samples. The sighting is the easternmost one in the geographic area for this region. The SIR property lies outside the historical range of the species and is southeast of the Lassen Peak SNRF "core area" according to a recent publication by the CA Department of Fish & Game (5/7/07). Habitat is typically above timberline, while Sierran mixed conifer forest at mid-elevations may be used. Lower elevation habitats are used seasonally and more typically in the winter months. The species most often establishes dens in rockslides and talus slopes. Earthen dens have also been reported. Summer habitat is reported to be above 6,000 feet (or at elevations above the property). Winter habitat is between 4,500 feet to 6,000 feet and within the range of the SIR property. Suitable potential habitat found on the property would be wet meadow or Sierran mixed conifer (although forest on SIR land is more typically eastside pine). The mixed conifer type requires mature closed canopy forest during the winter period that is not found in large patches on the SIR property. The most sensitive period for disruption of the species is during the breeding period between February 1 and June 30.

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Potential threat to the species from timber harvesting would be disturbance of the animals during the breeding period, or disturbance of a den. CNDDB shows the closest sighting (1973) as approximately 8 miles east of the property. No known den areas are on the property.

Strix nebulosa (Great Gray Owl) is a State of California "endangered" species. It is considered a rare breeding bird in the United States south of Canada. The center of abundance in California is the Sierra Nevada and in the greater Yosemite area. There have been no recent sightings, or known nests of this species on the property or in the immediate vicinity. The species is not listed either on the 9 quad CNDDB search, or the CNDDB search for Plumas County. However, great gray owls were reported to be along the south and west edges of Lake Davis during a 2005 survey by Klamath Resources.

"In California and Oregon, great gray owls appear to select nesting sites in stands with late successional characteristics including dense overstory canopy closure, a significant presence of trees and snags equal to or larger than 24 inches at diameter breast height (dbh). In California, nesting sites are normally associated with large meadows or complexes of smaller meadows totaling 10 acres or more (Beck and Winter, 2000). Stands with late seral elements appear to enhance owl reproduction and recruitment by providing adequate nest platforms, as well as overhead cover for thermal protection and predator evasion for juveniles." (DFG, 2007).

Pocket gophers and voles are the primary prey of the taxa, and thus, foraging habitat is primarily associated with mountain meadows at least 10 acres in size without standing water. The owls prefer abandoned stick nests for nesting (note that no large stick nests have been observed on the property). Forest canopy is dense (greater than 70%) in mid- or late-successional conifer forests containing large, broken-top snags (> 24 inches dbh).

The critical breeding period of the species is considered from March 1 to September 30.

Potential threat to the species from timber harvesting would be disturbance of the birds during the breeding period, or disturbance of a nest. Wildlife Biologist Tim Keesey surveyed the area in 2009, and the area was earlier surveyed by the US Forest Service, and no evidence of Great Gray Owl presence has been found. Per Biologist Keesey's recommendation, no further surveys are to be conducted, and the potential impact to this species is considered less than significant.

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The California Natural Diversity Database shows the following plant species as having been detected for the Antelope Lake and Stony Ridge 7.5' quadrangles:

Scutellaria galericulata (Marsh skullcap)(CNPS 2.2) - This plant is identified as occurring in swampy areas along Little Antelope Creek near the southeast end of Antelope Lake which is approximately 5 miles from the project site. Habitat is described as lower montane coniferous forest, meadows and seeps, marshes and swamps. If it were to occur on the site, disturbance is unlikely as no heavy equipment will be used in seeps or wet areas, and little will occur along the drier meadow edge.

Claytonia umbellata (Great Basin claytonia) (CNPS 2.3) – This is a perennial plant in the family Portulaceae, and the closest specimen found is near Milford on the east side of the Sierra crest. This species would be expected to be found in the Great Basin floristic province. Habitat is described as "talus slopes, rocky flats, and crevices." The SIR property lacks these features, and thus, habitat is not present.

Lomatium roseanum (adobe lomatium) (CNPS 1B.2) - This plant, also known as adobe parsley, lives in loose, rocky habitat. Specifically, it prefers dry basalt talus scree overlying clay soils. It associates with the low sagebrush community. Leaves are green and shiny, and flowers are yellow. It is unlikely that this species is located on the property because parent rock is granite and soils are loamy sands, not clays.

Rhamnus alnifolia (alder buckthorn) (CNPS 2.2) – Habitat for this species is described as swampy or boggy places, or wet meadow edges of lodgepole pine forest. Elevation range given is 4,300 to 7,000 feet. The plant flowers between May to July. Habitat is potentially present on the SIR property around the meadow fringe. The RPF took special attention to surveying meadow fringes for this species, but none were observed. Should any be found they will be flagged and protected from heavy equipment.

Carex sheldonii (CNPS 2.2) – This sedge species is found in wet places. Elevation is 1200 m 1500 m and well below the SIR property. If it were to occur on the site, disturbance is unlikely as no heavy equipment will be used in seeps or wet areas, and little will occur along the drier meadow edge.

Carex pestasta (CNPS 2.3) – This sedge species is found in dry meadows at widely varying altitudes. Closest population is found on the Janesville Quadrangle six miles to the northwest. Greatest potential for this species is in the meadow that will be little disturbed.

None of the other sensitive plant species on CNPS List 1 or 2 found in the surrounding 7 quadrangle area have suitable habitat either on the property, or within the harvest area. Wet areas are excluded from the harvest area. Extremely limited activity is allowed in the meadow with no heavy equipment allowed north of crossing WC-2. It is estimated that less than 12 trees may need to be felled into the meadow and skidded back into the forest. One old landing site is proposed for re-use in the drier upper part of the meadow on the west side of the property. It has re-vegetated after prior use. There are no volcanic soils on the property that are required by three of the species. Similarly, the property is outside the elevation range of some of the species.

None of the above listed species, or species of concern are known to exist on the THP area.

Mitigation: If any rare, threatened or listed endangered plant or amphibian species are found, all soil disturbing activities shall cease in the area where such plants/amphibians are located and the California Department of Fish & Game will be consulted for any further mitigation measures

If a Sierra Nevada red fox, or den site of the species, is located within the THP area, all operations within 0.25 miles shall cease until outside the February 1 to June 30 period or a species consultation is completed with DFG.

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For potential nest sites of Sensitive Species, provisions of 14 CCR 939.2 (b) - (d) shall apply:

"(b) During timber operations, nest tree(s), designated perch trees(s), screening tree(s), and replacement tree(s), shall be left standing and unharmed except as otherwise provided in these following rules.

(c) Timber operations shall be planned and operated to commence as far as possible from occupied nest trees unless explained and justified by the RPF in the THP.

(d). When an occupied nest site of a listed bird species is discovered during timber operations, the timber operator shall protect the nest tree, screening trees, perch trees, and replacement trees and shall apply the provisions of subsections (b) and (c) above and shall immediately notify the Department of Fish and Game and the Department of Forestry and Fire Protection. An amendment that shall be considered a minor amendment to the timber harvesting plan shall be filed reflecting such additional protection as is agreed between the operator and the Director after consultation with the Department of Fish and Game." If an occupied nest of a listed bird species is discovered during operations, vegetation-disturbing activities within 0.25 miles will be suspended until a consultation with DFG occurs. The standard distances for which the DFG believes impacts may occur and trigger the need for a consultation are as follows:

Bald Eagle –	0.5 miles	Golden Eagle -	0.5 miles
Peregrine Falcon –	0.5 miles	Osprey -	0.25 miles
Greater Sandhill Crane –	0.5 miles	Goshawk -	0.25 miles
Willow flycatcher -	300 feet	Great Gray Owl -	0.25 miles

None of these species are known to exist on the THP area.

A Special Treatment Area (STA) shall be established 300 feet from the edge of willow thickets north of old crossing of Clarks Creek if willow flycatchers are discovered. No harvesting activities shall be allowed inside this STA from May 1 through August 31. Between September 1 and April 30, operations may proceed within the STA. If a willow flycatcher survey is conducted to DFG protocol standards and no willow flycatchers are located, this STA will no longer apply. Heavy equipment shall be prohibited at all times where stringers of conifers exist between the riparian thickets within 75 feet of the watercourse channel or top of the bank.

(b). Significant, known wildlife and fisheries resource concerns: There are no known significant wildlife or fishery concerns for the area. Clarks Creek is a marginal fishery as the Creek dries up during most years.

(c). Aquatic and near-water habitat conditions: Clarks Creek is an intermittent stream with a marginal population of fish. There are no known impacts to the Creek from timber harvesting impacts in the recent past. Streamside habitat is a typically grasses and herbs with a few willows on the northern half of the property. One man-made pond is located near the middle of the property on the east side of the property. Two road crossings are existing. The crossing of Clarks Creek will be temporary and removed at the conclusion of logging with extremely minor potential impacts to the streambed.

(d). Biological habitat: The harvest area includes four principal stand types which are part of the Jeffrey Pine Forest type (JPN) and Lodgepole Pine type (LPN) as identified in the California Wildlife Habitat Relationships System (WHR). The forest area is principally vegetated with Jeffrey pine trees with scattered white fir, and pockets of lodgepole pine in wet meadow fringe areas. Ground cover is pine needles and branches interspersed with grass, sagebrush and forbs. The harvest plan area is located at elevations between 5,920 to 6,160 feet.

The area supports a typical mix of wildlife species for the Jeffrey Pine and Lodgepole Pine types including larger mammals such as mule deer, squirrels, mountain lion, coyote, bobcat, black bear, etc. Animal species are more often associated with the vegetation type edges along meadows and streams.

There are no known significant wildlife concerns for the area. The area is suitable for deer summer range. The operations should have no negative impact on deer as the harvest will increase sunlight to the forest floor and enhance production of browse species.

(1). Snags/Den/Nest Tress: Large snags are not proposed for harvest unless they pose a significant safety hazard or are located adjacent to roads. In general, the largest dead trees are not proposed for harvesting.

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7/16/10

(2). Downed large woody material: There is some downed woody material within the harvest area, principally from lodgepole pine and white fir mortality. The largest material will be left on the forest floor.

(3). Multistory Canopy: The denser stands generally have two canopy layers: an overstory of large poles and small sawlogs trees, and an understory of smaller advanced reproduction found in openings. All size classes are proposed for harvest, but no one canopy layer will be eliminated. The more open areas have fewer small trees and more brush.

(4). Road Density: Public use of the roads on the property and in the general vicinity is light and there are no focal points for travel destinations. Primary users would be tribal members who are working or recreating on the property. The operation will not increase road density or greatly enhance road use to the detriment of wildlife populations.

(5). Hardwood Species: There are few hardwood trees within the harvest boundary. Quaking aspen is found in wetter areas outside of the harvest, and should not be impacted.

(6). Late Seral Forest Conditions & Continuity: None of the forest on the THP area or adjoining properties has characteristics of late seral stage forests. All have been harvested and components such as large undisturbed old growth trees are rarely occasionally present Tree size is reproduction to large sawlog trees. Most trees are under 30" dbh. Connectivity with late seral forests on other ownerships is not apparent. The long-term harvesting scheme is aimed at leaving the healthier trees while improving the spacing of the residual trees. Average tree size over time will increase as spacing between larger trees increases. General habitat characteristics should shift to a more open stand with larger trees.

(7). Special Habitat Needs: A special treatment area is proposed around potential willow flycatcher habitat with seasonal limitations within 300 feet. If no flycatcher nests are located after a survey to DFG protocols, the STA would be removed.

3. Past & Future Activities - Past and future projects are not believed to have had significant impacts on plants or wildlife. The Timber Harvest Plans were mitigated through the Forest Practice Act rules. Harvests on other private properties in the watersheds have primarily been of a selective nature.

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. Plant species listed in the 9 quadrangle area requiring wetter habitats should not be impacted if, by chance, they are present because the zone of influence of water along Clarks Creek and the Class III is very narrow, and few conifers are marked for harvest in this zone.

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, fishing, riding, snowmobiling, wildlife observation and hunting. Recreation use of the property is principally by members of the Susanville Indian Rancheria, their guests and trespassers. 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. The project will have no impact on recreational use of adjoining public lands.

3. Past & Future Activities - Past and future timber harvests both on and off the property will not have 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 -

Assessment Area – Visual impacts are created by changes in vegetation and heavy equipment use. These relate to the harvest area and by drivers along Janesville Grade.

2. Project Assessment - The project area is not visible to the public unless they are trespassing, or flying overhead. Because the operation is a selection harvest based upon removing dead, dying, unhealthy trees and closely spaced trees, the view will be of a more open forest with healthier trees. Eventually, as SIR conducts more precommercial thinning, most of the forest will be have fewer stands of dense small trees. 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. If visible beyond three miles, the layperson would have difficulty perceiving any change in forest appearance due to the large percentage of vegetative forest cover remaining after harvest.

3. Past & Future Activities - - Visual impacts from past thinning and harvesting on the property has been positive by thinning dense pockets of trees that have developed without wildfire. None of the harvesting in this basin is visible from the closest public road which is Janesville Grade. Visual impacts from the project are expected to be neutral as a variety of tree sizes will be retained.

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 traveling 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 a quarter mile of road crossing Plumas National Forest, and then Janesville Grade. Appurtenant roads include a few short sections of internal seasonal roads excluded from the harvest area but used for log hauling.

2. Project Assessment - The project will generate around 50 to 60 round-trips by logging trucks from the THP area to sawmills in the northeastern California region during week days. 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. Impacts on other public roads beyond the private roads 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 – Until the Forest Service abandoned its sustained yield harvesting during the past 15 to 20 years, there would be log trucks using Janesville Grade during the summer months. Now log trucks use the road less frequently. Harvesting occasionally occurs on the small private land base, or after catastrophic fires. There is some possibility that during the next couple of year's trucks hauling burned logs salvaged from the Antelope Complex or Moonlight Fires could use Janesville Grade Road. The impact of additional trucks generated from harvesting on the Cradle Valley property would be relatively small and of short-term duration with nominal impact.

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.

I. Greenhouse Gas Emission Impacts -

1. Assessment Area - The Greenhouse Gas Emission Assessment Area is considered to be the SIR property. Climate warming due to greenhouse gas emissions is considered a global problem beyond the scope of this analysis.

2. Project Assessment – The proposed project, when approved, will allow a short-term timber harvest to occur sometime during the next three to seven years. This is within the context of long-term forest management where a portion of the standing timber is cut, then no harvesting occurs from 10 to 20 years while the forest is growing, followed by another harvest, and so on. This allows sustained timber harvesting based upon the estimated growth potential of the forestland. Total standing inventory at the end of any growth period is estimated to be similar

PART OF PLAN

to that at the beginning of the period. "Greenhouse gases" (i.e. gases in the atmosphere including carbon dioxide, water vapor and methane) can be emitted during the harvest and processing of trees converted to sawlogs through the use of diesel and gasoline powered machinery. Greenhouse gases can increase thermal radiation and increase global temperatures. Carbon dioxide in forests is also released from forests in substantial quantities from wildfire, and lesser quantities are released from above ground decaying plant material including slash generated after logging. The Intergovernmental Panel on Climate Change has concluded that most of the Earth's temperature increase since the middle of the twentieth century is "very likely" due to the increase in human-caused greenhouse gas emissions.

The storage of carbon dioxide from the atmosphere is referred to as "carbon sequestration." Sequestration is accomplished in forests by the process of photosynthesis. Carbon dioxide is removed from the atmosphere and stored as carbon in tree fiber. Carbon is stored in all portions of the tree including both above (twigs, cones, needles, branches and truck), and below (roots) ground. 47% of carbon in trees cut for sawlogs is estimated to remain sequestered in wood building components for at least 100 years. When wood products in landfills are accounted for, this amounts to 76% being stored. Utilizing the California Carbon Registry's methodology for calculating carbon in wood products, there is approximately +/- 0.25 metric tons of carbon in a thousand board feet of logs harvested. This equates to an estimated +/- 0.91 metric tons of carbon dioxide.

Because standing thousand board feet of timber on the property is projected to be relatively stable over the long-term as constrained by conservative landowner management objectives, and the provisions of the Forest Practices Act and regulations, the potential project impact to the environment on greenhouse gases is applicable to the sustained harvest volumes (i.e. the estimated volume growth) over time.

The CDF THP Greenhouse Calculator is used to calculate net carbon dioxide sequestered over a 100-year period. The model used assumes selective harvesting over 100 years with a 20-year cutting cycle, and at a sustainable rate consistent with landowner forest management objectives. It is estimated that a total of +/-5,487 metric tons will be sequestered equating to annual sequestration of +/- 5.5 metric tons over the long-term. Calculation tables are included in Section III, pages 33.47 thru 33.50.

3. <u>Past & Future Activities</u> - Past timber harvesting has been conducted at about the currently estimated sustainable level. Future activities will depend upon the landowner objectives as well as unpredictable natural events including wildfire. All of these past and future projects are expected to maintain a similar forest cover.

4. <u>Evaluation</u> - The project as proposed should have a net positive effect by reducing potential emission of carbon dioxide greenhouse gas over the long-term. Use of individual tree and group selection, sanitation-salvage and commercial thinning silvicultural methods will promote and increase the health and vigor of trees left after harvest In turn, these trees will improve growth rates and sequester carbon dioxide more rapidly through photosynthesis. Sustained timber harvesting should also reduce the potential for a devastating wildfire that could release significant amounts of greenhouse gases to the atmosphere.

<u>Alternatives to the Project as Proposed</u> –

1. Proposed Project – The timberland owner's preferred project is to manage the forest in the long-term by harvesting the dead, dying, diseased and least healthy trees principally by thinning to improve spacing. Harvesting would be done periodically, sustainably, and generate an economic return every fifteen to twenty years.

2. No Project – The "no project" alternative would accomplish none of the landowner's objectives for improving forest health, or generating income. The forest would be more vulnerable to insect attacks and the threat of catastrophic fire. Future operations can be expected to help reduce potential for crown fires.

3. Alternative Land Use - This property is zoned "Recreation - 20-acre minimum" which would allow potential subdivision into eight 20-acre parcels with a dwelling unit each. A subdivision would entail considerable upfront expense and possible Forest Service opposition. Although single-family residential use is possible, it is not truly feasible due to lack of winter access, remoteness and lack of utilities. There is some grazing capability but this has very low income generation potential as the Forest Service is increasing pressure to reduce grazing on the surrounding Federal land. None of these alternative uses would meet the goals for improving forest health and generating short-term income, and none conform to the current goals of ownership.

4. Alternative Silvicultural Method - The owner could have filed a THP and harvested much of the

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overstory to generate a greater short-term income. This would generate greater visual, soil and watershed impacts than the proposed project which is to spread harvests out over time.

5. Public Acquisition - Land of the Plumas National Forest surrounds the property. The USFS is not placing a high priority on acquisitions of private land, nor has any offer or inquiry been made by a public agency. This option would not meet the goals of improving forest health. The proposed Timber Harvest Plan does not preclude this potential alternative.

PERSONS CONTACTED FOR ADDITIONAL INFORMATION

Name	Organization	Topic	Phone
Tim Keesey	Susanville Indian Rancheria	Property information, Willow flycatcher survey Great Gray Owl survey	251-5623
Glenda & Dick Burns, Dirk Krueger, Barry Abbott, Bill Burns, Ed Schroeder	Cradle Valley Endeavor (prior owners)	Property data, property line information	
Bill Keye	RPF, CLFA Sacramento	Timber cutting history	
Brian Elliott	Plumas National Forest Quincy	Sensitive plant species	
Frank Bayham	NE CA Info. Center, Chico	Archeology	898-6256
Phil Nemir	Consulting Forester, Susanville	General, 35 yrs. experience	257-2294
	CA Dept. of Forestry, Redding	Prior THP's	224-2486
Glenn Wemple	Wemple Ranch	Archeological information	
Russell Nickerson	Plumas NF	T&E Plants & Wildlife	
Barb Boaz	Plumas NF	Domestic Water	836-2575

LITERATURE REVIEWED FOR PREPARATION OF THIS THP & CUMULATIVE IMPACT ASSESSMENT

California Climate Action Registry. 2009. Draft Forest Protocol, Version 3.1.
CA Dept of Forestry & Fire Protection. 2006. California Forest Practice Rules. 272p.
CA Dept of Forestry & Fire Protection. 2010. THP Greenhouse Gas Emissions Calculator. Excel spreadsheet.
CA Dept of Fish & Game. 2007. Sierra Nevada Red Fox Species Information. 19p.
CA Dept of Fish & Game. January 2008. Natural Diversity Data Base. Antelope Lake, Janesville, Stony Ridge quadrangles.
Mayer, Kenneth E., Editor. 1988. A Guide to Wildlife Habitats of California. California Department of Forestry & Fire protection. Sacramento. 166 p.
Nakamura, Garry & Julie Kierstead Nelson, eds. 2001. Illustrated Field Guide to Selected Rare Plants of Northern California. University of California, Agriculture & Natural Resources, Pub. No. 3395. 370p.
Tibor, David, Ed. Aug 2001. CA Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California. 386p.
USDA, Plumas Nat For. 1983(?). Soil Resource Inventory.
US Geological Survey. 1980. Bougher Gravity Map of California, Westwood Sheet.
Wikipedia Contributors. 2009. Greenhouse gas. The Free Encyclopedia, September 15, 2009.
Zeiner, et al (ed). April 1990. California's Wildlife (3 volumes). CA Dept of Fish & Game.

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COAST AREA OFFICE
RESOURCE MANAGEMENT

PART OF PLAN

Philip E. Nemir
Forestry & Appraisal Services
P.O. Box 1717
Susanville, CA 96130
(916-257-2294)

January 31, 2008

District Ranger
Beckwourth Ranger District
Mohawk Ranger Station
Plumas National Forest
P.O. Box 7
Blairsden, CA 96103

SUBJECT: Domestic Water Use Downstream of Susanville Indian Rancheria Property

Dear District Ranger:

Susanville Indian Rancheria is requesting information concerning domestic water supplies within 1,000 feet downstream of an area that may be affected by future timber harvesting activities on lands covered by a Timber Harvest Plan in the vicinity of Clarks Creek. If you have any knowledge of domestic water supplies downstream of the following THP area, please notify the Susanville Indian Rancheria, c/o Phil Nemir, P.O. Box 1717, Susanville, CA 96130 within 10 days of the postmarked date of this letter.

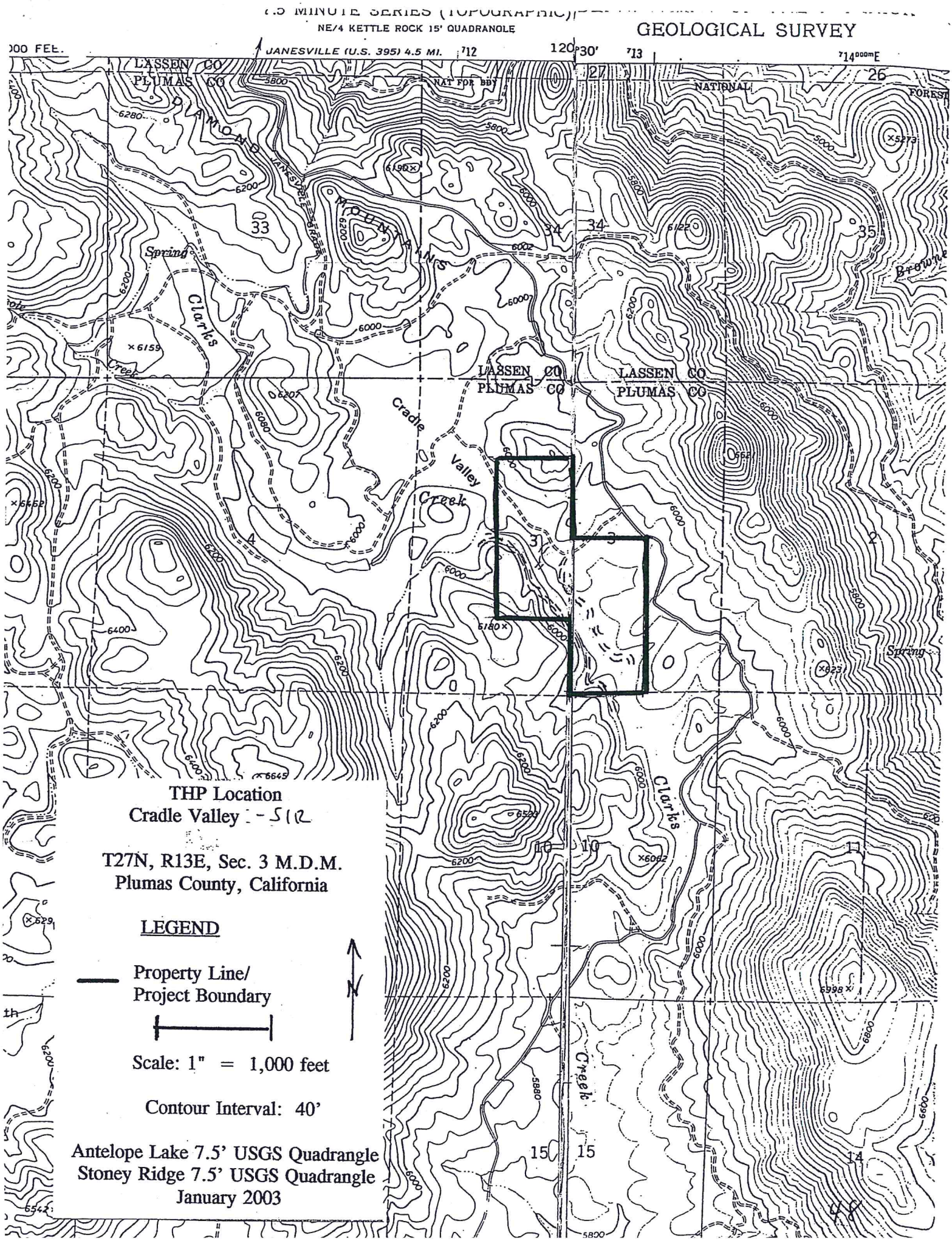
Legal description: portions of Section 3, Township 27 North, Range 13 East, M.D.M. Watercourse downstream of the THP area is Clarks Creek. (A map is enclosed for reference purposes).

Thank you.

Sincerely,

Philip E. Nemir
Registered Professional
Forester No. 1666

Encl.


7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 KETTLE ROCK 15' QUADRANGLE
GEOLOGICAL SURVEY
JANESVILLE (U.S. 395) 4.5 MI.
LASSEN CO
PLUMAS CO
NAT FOR BDY
NATIONAL
FOREST
DIAMOND MOUNTAINS
JANESVILLE GRADE
Spring
Clarks
Creek
Cradle Valley
Creek
Clarks
Creek
Spring
Browne
THP Location
Cradle Valley - 512
T27N, R13E, Sec. 3 M.D.M.
Plumas County, California
LEGEND
Property Line/
Project Boundary
Scale: 1" = 1,000 feet
Contour Interval: 40'
Antelope Lake 7.5' USGS Quadrangle
Stoney Ridge 7.5' USGS Quadrangle
January 2003

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ATTENTION 2-08-018 PLU (2)

THE FOLLOWING ADDENDUM(S), AND INFORMATION IS REQUIRED BY LAW TO BE KEPT CONFIDENTIAL AND IS NOT FOR PUBLIC VIEWING:

ARCHEOLOGY:
(GOV. CODE 6254.10) & 14 CCR 929.1(a) (2))

PAGE 50 THROUGH PAGE 70

OPTION "A" TRADE SECRETS:
(GOV. CODE 6254.7(a))

PAGE_____ THROUGH PAGE _____

NTMP – TRADE SECRETS:
(GOV. CODE 6254.7(a))

PAGE_____ THROUGH PAGE _____

I. THE FOLLOWING NON-CONFIDENTIAL PAGES HAVE BEEN REMOVED FROM THIS THP/NTMP. THESE PAGES ARE AVAILABLE UPON REQUEST FROM THE DEPARTMENT OF FORESTRY & FIRE PROTECTION, 6105 AIRPORT RD., REDDING, CA 96002, OR CALL 530-224-2445.

OTHER(S)_____

PAGE_____ THROUGH PAGE _____

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FPS ____
Status: POP

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CALIFORNIA FOREST PRACTICE

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

September 9,2008

Mr. William E. Schultz
CA Department of Forestry
6105 Airport Road
Redding, CA 96002

Pages inserted in plan 4/25/2011 ADL

SUBJECT: Timber Harvest Plan No. 2-08-018-PLU correction pages

Dear Mr. Schultz:

Please find replacement pages for resubmitted Timber Harvest Plan 2-08-018 for the Susanville Indian Rancheria property located at Cradle Valley, Plumas County, California.

Pages 19-21 have updated acreages for the stand types. Page 22 has a description of the Class III watercourse on the west side of the meadow. This watercourse is also added on page 36. Page 48.2 is substituted to reflect the proposed harvest area.

Please do not hesitate to call if you have any questions.

Sincerely,

Philip E. Nemir
Registered Professional
Forester No. 1666

cc. Susanville Indian Rancheria
encl.

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Philip E. Nemir
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Reviewed by: AD
Dist by: CG
Dist. Date: 2/25
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OTHER:
FPS
Status: POP

February 16, 2010

Mr. William E. Schultz
CA Department of Forestry
6105 Airport Road
Redding, CA 96002

Pages inserted in plan 4/25/11

SUBJECT: Timber Harvest Plan No. 2-08-018-PLU Review Team & PHI Report

Dear Mr. Schultz:

The following are responses to the Review Team Questions dated September 16, 2008, and the PHI Report dated October 16, 2008 for the above-referenced Timber Harvest Plan for the Susanville Indian Rancheria (SIR) property located in Cradle Valley, Plumas County, California.

REVIEW TEAM QUESTIONS OF 9/16/08:

1. Page 7, Winter Operations, bullet #3: Please note that the plan designates a non-operating period from December 1 through February 29. Winter operations before December 1 and after February 29 are intended only in those drier autumn and spring conditions more prevalent now as a result of climate change. Operating conditions specified for winter operations are very specific and limiting, and are intended to apply to all in-lieu practices. An addition on **Page 6**, Item #23 states that "All temporary crossings to be removed prior to November 15."

2. Page 9, Class III Watercourses: Bullet (ii) (on page 11) has been changed to be consistent with no use of temporary skid crossings when wet. Bullet (iii) was dropped. Bullet (iii) was bullet (iv). **New page 11** is attached.

3. Page 12, Item 30 & 31: Item #31 is changed to "yes." Reference to the relevant section of the rules is added. **New page 13** is attached.

4. Page 11, Existing Truck and Tractor Roads in WLPZ: please see the second paragraph (now **page 12**) which states that "Construction of alternative road segments would require additional area taken out of production, greater potential impacts to soil resources and water quality, and also reduce biological habitat." This is a self-explanatory justification. If the in-lieu practice were not used, at least 1,500 feet of new roads and skid trails would have to be constructed with new areas of exposed soil, land taken out of

timber production, biological habitat removed, and greater potential for water quality to be impacted by transport of sediment from the new road surface. The existing roadbeds are stable, there is adequate filtering capacity, there are no problems identified due to their current location, and mitigation is added to minimize potential environmental impacts. No changes are made.

5. Page 11, Justification language, 3rd paragraph: Some clarification seems necessary. Please understand that the THP does not state that tractor operations involving skidding, or use of an existing landing will be used in a wet meadow (emphasis added). They are proposed for grassy areas more appropriately designated as a perennial grass mesic meadow where soils are generally not "moist on the surface throughout most of the year…"'. The practice is proposed in-lieu of 14 CCR 936(d), specifically for the section referring to "Vegetation, other than commercial species, bordering and covering meadows"… but not for "… and wet areas…".

a. Clarifying language is added on **page 12 and 13**.
b. The skid trail location is shown on the map as W-3. The landing location is added. Revised THP **map pages 15 and 16** are attached.
c. No activities are proposed in "wet" meadow. Further, mitigation (4) requires that meadow soils must by dry for any operations to occur. The mitigation should be sufficient.

6. Page 13 Item 32: The potential "Special Treatment Area" is included to protect the stands of willows, and avoid potential disturbance of willow flycatchers during the mating season. Although the area has been surveyed and no willow flycatchers found, the RPF is including it in the event the species is found later. A "Willow Flycatcher Survey Report" by Wildlife Biologist Tim Keesey is added on **new pages 33.4 through 33.13**. If CDF prefers, I can remove the potential STA, and amend the plan in the future if willow flycatchers are found.

a. The potential STA is approximately 5 acres.
b. The potential STA is established to avoid disturbance to willows, and flycatchers during their mating season only if flycatchers are present. The timber harvest operations as proposed should have no impact on willow habitat since this habitat is not proposed for harvesting (falls within non-forest meadow area), and no willow flycatchers have been found. "Selection" is the silviculture method in the conifer forest potentially within the STA. Please see page 4 for the stocking standards.
c. If willow flycatchers are found and the STA is enacted, the RPF shall flag the perimeter and advise the LTO of the flagging type and color. Revised **page 14** is attached.

7. Page 22, Domestic Water Use: Please refer to page 2 of my letter of July 15, 2008 wherein I stated: "The timberland owner has drilled a well and no longer uses the old water system." The waterline is owned and controlled by the Plan Submitter/Timberland Owner. The below surface waterlines and above ground faucets are part of the old system, and are no longer in use. Thus, I made no further reference to them.

8. Item 26d, page 8: Thank you for the reminder.

9. Item 32, mitigation: Language is added on revised **page 14**.

10. Item 35, page 14: Revised language is added and moved to Item #32 on revised **page 14 and 14.1**.

11. Biological Impacts, page 40: Great Gray Owls did not come up on the 9-quad and Plumas County searches of CNDDB. A "Great Gray Owl Survey Survey Report" by Wildlife Biologist Tim Keesey is added on **new pages 33.15 through 33.26**. Mr. Kessey concludes that: "Based on the lack of suitable habitat identified by the CWHR, observations of marginal GGO nesting habitat during the field surveys, the lack of detections of GGO during field surveys, and the results of Plumas National Forest surveys in the area, implementation of the proposed project will have no adverse impact to GGO, and a second year of surveys as required by the protocol is unnecessary" (page 33.21.

Great Gray Owl (**p. 14.1**) is added to the list requiring DFG consultation if discovered with a 0.25 mile buffer area.

12. Biological Impacts, p. 42, 2nd paragraph: *Astragalus pulsiferae var. pulsiferae* was identified on the 9-quad search of CNDDB as occurring on the Genesee Valley quad (p. 34). However, the species is considered above its elevation range, and more importantly, no species of the astragalus genus have been observed on the property.

CDF RECOMMENDATIONS TO REVIEW TEAM (PHI REPORT RESPONSE): 10/23/09

1. **Page 5**: language modified to leave snags that "cannot" fall on a road surface.

2. **Page 11**, Skid Trail Crossings: paragraph has been rewritten.

3. **Page 34.1**, #3: Change made as suggested.

4. WC-2 (**Page 10**): Changes made as suggested (note that only the alternative of using a dry rock ford crossing is proposed). The 1602 form is modified as well (**page 26, 29, 29.1, 30 to 33.2** – includes a diagram) for project changes regarding crossing WC-2 and WC-1.

5. WLPZ width: the WLPZ width will be reflagged in locations where there is a braided channel prior to timber harvest operations. The THP maps (**p. 15 and 16**) are also modified.

6. Skidding in roadbed: The recommended language is added on **page 12**. Under "Existing Truck and Tractor Roads in WLPZ", see bullet (4).

7. Operations on meadow soils: The recommended language is added on **page 12**. Under "Justification for Use of Watercourse, Marshes, Wet Meadows, and Other Wet Areas as Landings, Roads or Skid Trails", see bullets (4), (5) and (6).

8. In-lieu skid W-3: The recommended language is added on **page 12**. Under "Justification for Use of Watercourse, Marshes, Wet Meadows, and Other Wet Areas as Landings, Roads or Skid Trails", see bullet (7).

9. Crossing WC-1: Language is modified on page 10. Protection measures for a Class II watercourse are added on **page 9**. The Cumulative Impacts Assessment has been updated for the change from a Class III to Class II designation (**pages 36 through 38**) as well as the description of watercourses and lakes on **page 22**. **Pages 22.1 and 22.2** show calculations to determine culvert size for WC-1.

10. Archeological addendum: The recommended language is added on **page 55**.

11. DFG report: refer to comments below for THP modifications suggested by DFG.

12. The PHI period is extended to and includes October 23, 2008.

<u>DFG Memorandum of 10/24/009 Recommendations (p. 3 – 5)</u>

1. Willow Flycatcher: The THP requires that the survey be conducted by a "qualified biologist" using "protocol procedures approved by DFG." The survey results are to be provided to DFG. This is deemed to be adequate methodology to reduce the potential for less than significant impacts to willow flycatcher populations. No operations are proposed in the STA during the breeding season if (a) willowflycatchers are found, or (b) no survey is conducted. The 2009 survey by Wildlife Biologist Tim Keesey discovered no willow flycatchers present. The survey report is added to the THP (pages **33.4 through 33.13**). see 3/15/11 response

2. Great Gray Owl Discussion: Additional discussion of the species is added on new **page 41.1**. In addition, supplemental information is provided by Wildlife Biologist Tim Keesey is his Survey Report on **pages 33.15 through 33.26**. Great Gray Owl is added to the list of items consulted with from Mr. Keesey (**page 46**). OK

3. Great Gray Owl, Item 32: Great gray owl is added to the list of species requiring consultation with a specified buffer distance of 0.25 miles. See modified **pages 41 and 43**.

4. Sierra Nevada Red Fox (Item #32, **p. 14**): The language is modified to reflect that suggested by DFG biologist Jennifer Carlson at an October 24, 2008 workshop.

5. Listed Species: The RPF modified language as per Review Team recommendation #9 (DFG#2) (page 14). No further changes are deemed necessary.

6. Non-Listed Raptors (Item #33): Language in the THP is identical with the exception that an arbitrary date of July 15th is not included (page 14 and 14.1).

7. Snags (Item #33): The RPF and/or the designee shall make a professional field determination if a snag is "merchantable" or not as described on page 14.1. The snag must be marked. Unmarked snags are not to be felled unless they pose an immediate safety hazard. Large unmerchantable snags are to be left except where they can fall on roads, or are near structures. No change to the THP is considered necessary.

8. Aquatic Resources: The new water system will be used as the source of water for dust abatement. **Page 14.1** is modified to exclude language regarding the old water system that has been abandoned. The pond is not proposed for water drafting.

9. Pond: The pond is not proposed for water drafting.

Houser email of 3/4/09:

The list of past and future projects in the Cumulative Impacts Assessment is updated to show that fuel hazard reduction has been completed on approximately 80 acres of the SIR property, and that an additional 65 acres is planned for precommercial thinning, pruning and slash disposal (**page 35**).

Other miscellaneous changes:

Page 33.3, an email from Wildlife Biologist Tim Keesey is added.

Page 34 is renumbered to be **page 33.14**.

Page 34.1 is renumbered to be **page 34**.

Page 40 is modified to describe the acreage in the WTM map classification for willow, mesic meadow, and wet meadow.

Page 42 is modified by moving the former first paragraph to the top of page 41.1.

Please do not hesitate to call if you have any questions.

Sincerely,

Philip E. Nemir
Registered Professional
Forester No. 1666

cc. Susanville Indian Rancheria
encl.

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Reviewed by: MRJ
Dist by: JC
Dist. Date: 3/15/11
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FG ____ TO
WQ ____ TLO
ARCH LTO
RPF DMG
INSP. BOE
OTHER: ____
FPS ____
Status: POP

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FOREST PRACTICE

March 11, 2011

Review Team Chair
CA Department of Forestry
6105 Airport Road
Redding, CA 96002

Pages inserted in plan 4/25/2011 ADL

SUBJECT: Timber Harvest Plan No. 2-08-018-PLU Review Team Letter of April 2, 2010

Dear Chair:

The following are responses to the Review Team letter dated April 2, 2010 for the above-referenced Timber Harvest Plan for the Susanville Indian Rancheria (SIR) property located in Cradle Valley, Plumas County, California.

REVIEW TEAM ITEM OF 4/2/10:

1. DFG #1: Language is added to on page 14.1 to describe the surveys for Willow Flycatchers and Great Gray Owls and the results. No further mitigation is proposed. Due to formatting changes from the language addition, a new page 14.2 is added.

Pages 15 &16 map legends are modified to show dot symbols for the STA boundary.

2. DFG #1 & #3: Wildlife Biologist Tim Keesey provided Dave Richter of DFG the Willow Flycatcher data sheets, and all information he requested. A second survey of Great Gray Owls was conducted by Wildlife Biologist Tim Keesey during 2010. Keesey consulted closely with Mr. Richter prior to and during the survey. The survey results have been provided to DFG. The full report is enclosed and added to the THP as pages 33.27-33.46. Keesey concludes: "Based on the lack of suitable habitat identified by the CWHR, observations of marginal GGO nesting habitat during field surveys, the lack of detections of GGO during 2009 and 2010 field surveys, and the results of Plumas National Forest surveys in the area, implementation of the proposed project will have no adverse impact to GGO and no further surveys are necessary."

3. DFG #4: Standard protection language from the DFG website is incorporated.

4. Green House Gas Emissions: A new section on page 44.1 of the Cumulative Impacts Assessment is added. Due to this addition, pages 45 and 46 are reconfigured and replaced. Two literature sources related to GHG are added on page 46.

Please do not hesitate to call if you have any questions.

Sincerely,

Philip E. Nemir
Registered Professional
Forester No. 1666

cc. Susanville Indian Rancheria
encl.

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

April 19, 2011

Anthony Lukacic
Review Team Chair
CA Department of Forestry
Sent via email: santarosareviewteam@fire.ca.gov

Pages inserted in plan 4/25/2011 ADL

SUBJECT: Timber Harvest Plan No. 2-08-018-PLU Review Team Letter of April 13, 2010

Dear Chair:

The following are responses to the Review Team letter dated April 13, 2011 for the above-referenced Timber Harvest Plan for the Susanville Indian Rancheria (SIR) property located in Cradle Valley, Plumas County, California.

REVIEW TEAM ITEM OF 4/13/2011:

1. As per our discussion, the phrase is found on the very bottom line of page 6 (2/16/10).

2. Per your suggestion, I have added the language on page **12**, second paragraph, line 6.

3. As per our discussion, the numbering was changed and the Antelope/Stony Ridge Biological Assessment is now found on page 33.14 (2/16/10).

4. As per our discussion, the great gray owl discussion was added on page 41.1 (2/16/10).

5. I have revised page **45**, and added calculation pages **33.47 through 33.50** in Section III to show the site-specific estimate of greenhouse gas emissions. Page **46** is also modified to add the greenhouse calculator as a reference source.

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COAST AREA OFFICE
RESOURCE MANAGEMENT

REVIEW TEAM EMAIL of 4/19/2011:

1. The "in-lieu winter operating plan" language is revised on page 7 to reflect Rule changes (see subparagraph (1)).

2. "Saturated soil conditions" language is revised on page 7 to reflect Rule changes (see second paragraph).

Please do not hesitate to call if you have any questions.

Sincerely,

Philip E. Nemir
Registered Professional
Forester No. 1666

cc. Susanville Indian Rancheria
encl.

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APR 19 2011
COAST AREA OFFICE
RESOURCE MANAGEMEN

2-08-018-PLU (2)

NOTICE OF INTENT TO HARVEST TIMBER

A Timber Harvesting Plan or an amendment to an existing plan that may be of interest to you has been submitted to the California Department of Forestry & Fire Protection. The Department will be reviewing the proposed timber operation for compliance with various laws and rules. This review requires the addressing of any concerns you may have with what is being proposed. The following briefly describes the proposed timber operation and where and how to get more information.

The review times given to the Department to review the proposed timber operation are variable in length, but limited. To ensure the Department receives your comments please read the following:

The earliest possible date the Department may approve the plan or amendment is: 4/30/08.

NOTE: **THIS DATE IS PROBABLY NOT THE ACTUAL APPROVAL DATE AND CLOSE OF PUBLIC COMMENT.** Normally, a much longer period of time is available for preparation of comments. Please check with the Department, prior to the above listed date, to determine the actual date that the public comment period closes.

The plan or amendment was submitted to the Department on: 4/15/08.

Questions about the proposed timber operation or laws and rules governing timber operations should be directed to:

California Department of Forestry & Fire Protection
Forest Practice Program
6105 Airport Road
Redding, CA 96002
(530) 224-2445
ReddingPublicComment@fire.ca.gov

The public may review the plan or amendment at the above Department office or purchase a copy of the plan or amendment. The cost to obtain a copy is 10 cents for each page, $2.50 minimum per request. (To be completed by the Department upon receipt. The cost to obtain a copy of the plan or amendment is: $11.90 .)

Information about the plan or amendment follows:

1. Timberland Owner where the timber operation is to occur: **Susanville Indian Rancheria**

2. Registered Professional Forester who prepared the plan or amendment: **Philip E. Nemir, RPF No. 1666** 530/257-2294

3. Name of individual who submitted the plan or amendment: **Susanville Indian Rancheria**

4. Location of the proposed timber operation (county, legal description, approximate direction & approximate distance of the timber operation from the nearest community or well-known landmark):

portion Township 27 North, Range 13 East, Section 3 MDM

5 miles south of Janesville, California

5. The name of and distance from the nearest perennial stream and major watercourse flowing through or downstream from the timber operation:

Clarks Creek crosses the property

6. Acres proposed to be harvested: **94**

7. The regeneration methods and/or intermediate treatments to be used: **Selection 94 acres**

8. Is there a known overhead power line, except lines from transformers to service panels, within the plan area? Yes ___ No **X**

A map is attached to help in locating where the proposed timber operation is to occur.

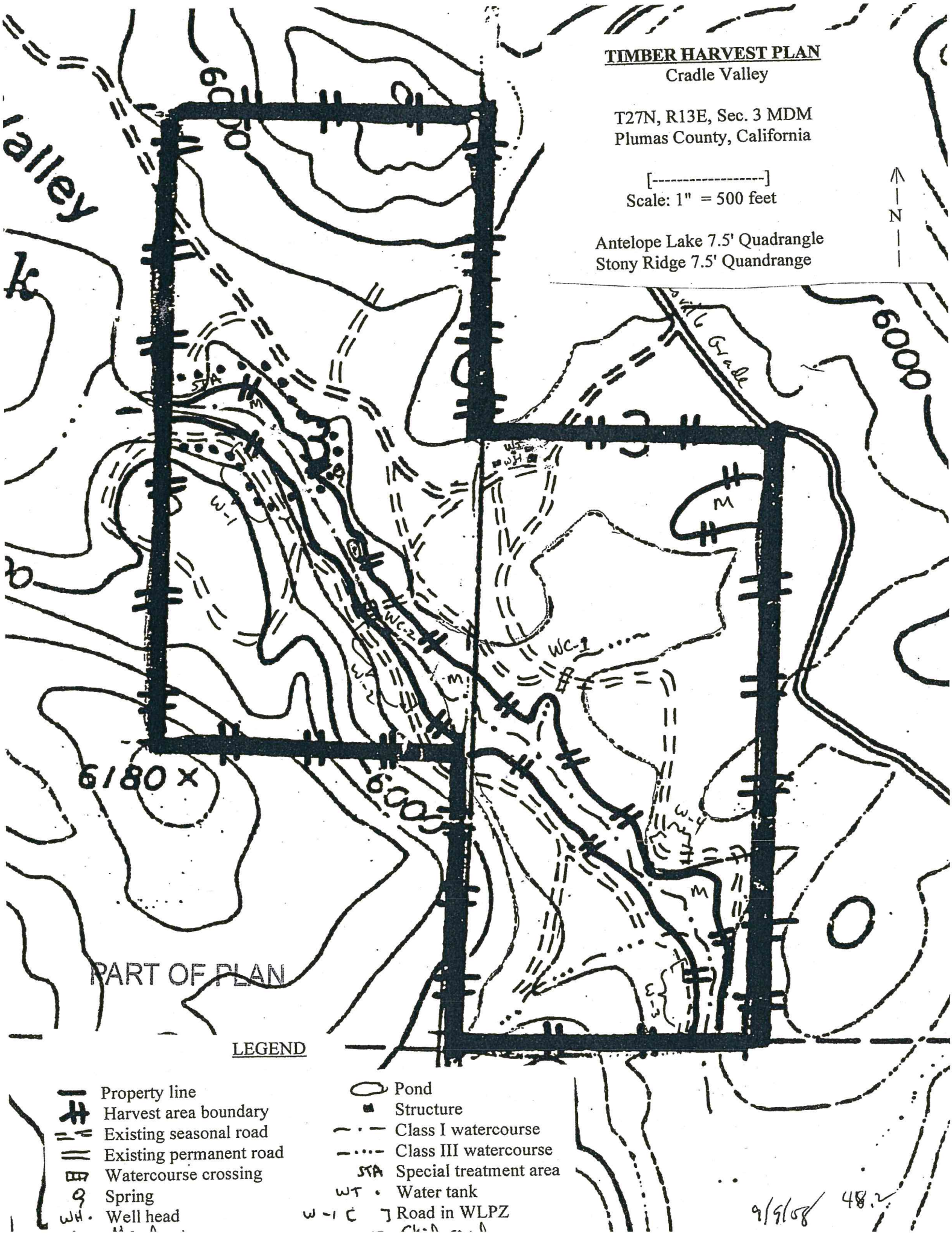
FOR DEPARTMENT USE ONLY

TIMBER HARVESTING PLAN NO: 2-08-018-PLU (2) DATE OF RECEIPT _____

RECEIVED
APR 1 7 2008
REDDING
FOREST PRACTICE

January 13, 2004 (Cascade)

48.1


TIMBER HARVEST PLAN
Cradle Valley
T27N, R13E, Sec. 3 MDM
Plumas County, California
[----------]
Scale: 1" = 500 feet
Antelope Lake 7.5' Quadrangle
Stony Ridge 7.5' Quandrange
N
6000
6180 ×
PART OF PLAN
LEGEND
Property line
Harvest area boundary
Existing seasonal road
Existing permanent road
Watercourse crossing
Spring
Well head
Pond
Structure
Class I watercourse
Class III watercourse
Special treatment area
Water tank
Road in WLPZ
9/9/08
48.2

Mailing Labels for Adjoining Landowner Notification

Beckwourth Ranger District
Plumas National Forest
PO Box 7
Blairsden, CA 96103