APPENDIX B

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

1. SKU 7. CGS
2. FG1 8. RT
3. WQS 9. Wildl
4. SHF 10. NSO
5. CP-SIS 11.
6. RW-SIS 12.

TIMBER HARVESTING PLAN

STATE OF CALIFORNIA

DEPARTMENT OF FORESTRY AND

FIRE PROTECTION, RM - 63 (01-00)

THP NAME: McCloud Mill

FOR ADMIN. USE ONLY

THP No 2-14-110SIS
Dates Rec'd DEC 15 2014
Date Filed DEC 24 2014
Date Approved FEB 10 2015
Date Expires FEB 09 2020
Extensions 1) ☐ 2) ☐

Note to THP reviewer: 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 (1/1/2004). See separate instructions for information on completing this form. The THP is divided into six sections. This THP form was modified to facilitate THP implementation and compliance tracking. CDF THP Section I and II form information or questions are stated in underlined Arial font. RPF information is in **bold** Arial font, as in tables.

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: **McCloud Partners LLC**

Address: P.O. Box 1810

City: McCloud State: CA Zip: 96057 Phone: 530 335 7600

Signature: Dave Lundgrun Date: 14 DEC 2014

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. Visit their website at WWW.boe.ca.gov.

2. TIMBERLAND OWNER(S) OF RECORD: **Same as Item 1 above.**

Address:

City: State: Zip: Phone:

Signature: Dave Lundgrun Date: 14 DEC 2014

3 LICENSED TIMBER OPERATOR(S): Unknown Lic No.

(If unknown, so state. You must notify CDF of LTO prior to start of operations)

Address:

City: State: Zip: Phone:

Signature: Date:

RECEIVED
DEC 15 2014
RESOURCES
FOREST PRACTICE

State of California
Department of Forestry and Fire Protection

(Administrative Use Only-Area_____)
(Plan No._____)
(Date Received_____)
(Amendment Number_____)

LICENSED TIMBER OPERATOR RESPONSIBILITY ACKNOWLEDGEMENT

(As per 14 CCR §§ 1035.3(a)(1)-(2), 1092.14(a)(1)-(2).)

Harvesting Plan Number: _____

Licensed Timber Operator Information

Name: **Unknown at this time**

Street Address/PO Box: _____ City: _____ Zip Code: _____

Telephone Number: _____ LTO Number: _____

I hereby agree to abide by the terms and specifications of the plan. I have read and understand my responsibility as LTO, as described under 14 CCR §§ 1022.4, 1090.12 and 1092.14. I agree to fulfill my responsibilities as an LTO as they pertain to this plan.

LTO Signature: _____ Title: _____

Responsible On-Site Contact (if different)

Name: _____

Printed Name: _____ Date: _____

Street Address/PO Box: _____ City: _____ Zip:_____

Telephone Number: _____

REGISTERED PROFESSIONAL FORESTER (RPF) RESPONSIBILITY ACKNOWLEDGEMENT

(As per 14 CCR § 1035.1)

RPF Certified to Provide Professional Advice:

Name: **Timothy D. Cain**

Street Address/PO Box: **PO BOX 687** City: **McCloud** Zip Code: **96057**

Telephone Number: **(530) 964-9756** RPF Number: **#91**

I have read and understand my responsibility as RPF, as described under 14 CCR § 1035.1(a)-(g). I agree to fulfill my responsibilities as an RPF as they pertain to this plan.

[X] Yes [ ] No I have been retained as the RPF available to provide professional advice to the licensed timber operator and timberland owner upon request throughout the active timber operations regarding: (1) the plan, (2) the forest practice rules, (3) and other associated regulations pertaining to timber operations.

RPF Signature: Timothy Cain

PLAN SUBMITTER RESPONSIBILITY ACKNOWLEDGEMENT

(As per 14 CCR § 1035)

Plan Submitter

Name: **McCloud Partners LLC.**

Street Address/PO Box: P.O. Box 1810 City: McCLOUD Zip Code: 96057

Telephone Number: 530 355 7600

I have read and understand my responsibilities as Plan Submitter as described under 14 CCR § 1035. I certify that I have fulfilled my legal obligation as stated in the forest practice rules and agree to fulfill my responsibility as the plan submitter as it pertains to this plan.

[ ] Yes [ ] No I have retained the services of an RPF to provide professional advice to the LTO and timberland owner upon request throughout active timber operations regarding: (1) the plan, (2) the forest practice rules, (3) and other associated regulations pertaining to timber operations.

[ ] Yes [ ] No I have authorized the timberland owner to perform the services of a professional forester, understanding that the services will be provided personally on lands owned by the timberland owner.

Plan Submitter Signature: Dave Lundgren

TIMBERLAND OWNER RESPONSIBILITY ACKNOWLEDGEMENT

(As 14 CCR § 1035(d)(2)(B))

Timberland Owner

Name: **McCloud Partners LLC.**

Street Address/PO Box: P.O. Box 1810 City: McCLOUD Zip Code: 96057

Telephone Number 530 355 7600

I have read and understand my responsibilities as timberland owner as described under 14 CCR § 1035(d)(2)(A)–(C). I certify that I have fulfilled my legal obligation as stated in the forest practice rules, and agree to fulfill my responsibilities as the timberland owner as it pertains to this plan.

I understand that I have been authorized by the plan submitter to perform the services of a professional forester pursuant to the Landowner exception in PRC § 757, and such services will be personally performed only on those lands that I own.

Timberland Owner's Signature: Dave Lundgren

4 PLAN SUBMITTER(S): **Same as Item 1 above**

Address: P.O. BOX 1010

City: McCLOUD State: CA Zip: 96057 Phone: 530 355 7600

(Submitter must be from 1, 2, or 3 above. He/she must sign below. Reference Title 14 CCR 1032.7(a))

Signature: Dave Lundgrun Date: 14-DEC-2014

5. 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: **Ron Mort**
Address: **558 S. L. Street**
City: **Livermore** State: **CA** Zip: **94550** Phone: **(925) 250-2417**

b. ☒ 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 LTO, then written agreement must be provided per 14 CCR 1050(c).

The LTO shall be responsible for erosion control maintenance until the date the completion report is approved by Cal Fire. The landowner shall be responsible from the date the completion report is approved until the expiration of the required maintenance period.

6. a. Expected date of commencement of timber operations:
☒ Date of THP conformance, or ☐ _____(date)

b. Expected date of completion of timber operations:
☒ 5 years from date of THP conformance, or ☐ _____(date)

7. The timber operation will occur within the:

[ ] COAST FOREST DISTRICT [ ] The Tahoe Regional Planning Authority Jurisdiction
[ ] Southern Subdistrict of the Coast F. D. [ ] A County with Special Regulations, identify:

[ ] SOUTHERN FOREST DISTRICT
[ ] High use subdistrict of the Southern F. D. [ ] Coastal Zone, no Special Treatment Area
[X] Special Treatment Area(s), type and identify: Hoo Hoo Park is adjacent to the plan area
[X] NORTHERN FOREST DISTRICT [ ] Other _____

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

Section	Township	Range	Acreage	County
6	39N	R02W	59	Siskiyou
1	39N	R03W	5	Siskiyou
31	40N	R02W	20	Siskiyou
36	40N	R03W	4	Siskiyou
TOTAL ACREAGE (Logging Area Only):			88	

CALWATER Version 2.2.1 Planning Watershed(s):

Name	Identification #	Hydrologic Unit(s)	USGS Quad(s) & Date
McCloud	**5505.220103**	**Upper McCloud River**	**McCloud, USGS 7'5 2012, Elk Spring USGS 7'5 1998**

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

10. ☐ Yes ☒ No Is there an approved Sustained Yield Plan for this property?_____ Date approved: _____.

11. ☐ Yes ☒ 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?

☐ Yes ☒ 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(a)(4).

12. ☒ Yes ☐ No Is a Notice of Intent necessary for this THP?

☒ Yes ☐ No If Yes, was the Notice of Intent posted as required by 14 CCR 1032.7(g)?

13. RPF preparing the THP: **Timothy D. Cain** RPF No.: **91**

Address: **P.O. Box 687**

City: **McCloud** State: **CA** Zip: **96057** Phone: **(530) 964-9756**

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

☒ 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. ☐ 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?

An RPF or their supervised designee representing the plan submitter McCloud Partners LLC will provide the LTO with a copy of the THP and advise the LTO of sensitive conditions and provisions of the plan pursuant to Title 14 CCR 1035.2.

Interaction between RPF and LTO (14 CCR 1035.2):
After the start of the plan preparation process but before commencement of operations, the plan preparation RPF or their supervised designee familiar with on-site conditions shall meet with either the LTO, the plan supervising RPF, or that RPF's supervised designee who will be on the ground and directly responsible for the harvesting operation. The meeting shall be onsite if requested by either the RPF or LTO. An on-site meeting is required between the RPF or supervised designee familiar with on-site conditions and LTO to discuss protection of any archaeological or historical sites requiring protection if any such sites exist within the site survey area pursuant to Section 929.2[949.2, 969.2](b). If any amendment is incorporated into the plan by a RPF after the first meeting, that RPF or supervised designee familiar with on-site conditions shall comply with the intent of this section by explaining relevant changes to the LTO; if requested by either the RPF or LTO, another on-site meeting shall take place. The intent of any such meeting is to assure that the LTO:

a) Is advised of any sensitive on-site conditions requiring special care during operations.
b) Is advised regarding the intent and applicable provisions of the approved plan including amendments.

Licensed Timber Operator Responsibilities (14 CCR 1035.3):

Each affected Licensed Timber Operator shall:

a) Sign the plan and major amendments to the plan, or sign and file with the Director a facsimile of such plan or amendments, agreeing to abide by the terms and specifications of the plan. This shall be accomplished prior to implementation of the following, which the affected LTO has, responsibility for implementing:

   1) Those operations listed under the plan and
   2) Those operations listed under any amendments proposing substantial deviations from the plan.

b) Inform the responsible RPF or plan submitter, whether in writing or orally, of any site conditions, which in the LTO's opinion prevent implementation of the approved plan including amendments.

c) Keep a copy of the applicable approved plan and amendments available for reference at the site of active timber operations.

d) Comply with all provisions of the Act, Board rules and regulations, the applicable approved plan, and any approved amendments to the plan.

e) In the event that the LTO executing the plan was not available to attend the on-site meeting to discuss archaeological site protection with the RPF or supervised designee familiar with on-site conditions pursuant to Section 949.2(b), it shall be the responsibility of the LTO executing the plan to inquire with the plan submitter, timberland owner, or their authorized agent, RPF who wrote the plan, or the supervised designee familiar with on-site conditions, in order to determine if any mitigation measures or specific operating instructions are contained in the Confidential Archaeological Addendum or any other confidential addendum to the plan.

f) Provide the RPF responsible for professional advice throughout the timber operations an on-site contact employee authorized by the LTO to receive RPF advice.

g) Keep the RPF responsible for professional advice throughout the timber operations advised of the status of timber operation activity.

   1) Within five days before, and not later than the day of the start-up of a timber operation, the LTO shall notify the RPF of the start of timber operations.

   2) Within five days before, and not later than the day of the shutdown of a timber operation, the LTO shall notify the RPF of the shutdown of timber operations.

      A) The notification of the shutdown of timber operations is not required if the period of the shutdown does not extend beyond a weekend, including a nationally designated legal holiday.

h) Upon receipt of written notice of an RPF's decision to withdraw professional services from the plan, the LTO or on-site contact employee shall cease timber operations, except for emergencies and operations needed to protect water quality, until the LTO has received written notice from the plan submitter that another RPF has visited the plan site and accepts responsibility for providing advice regarding the plan as the RPF of record.

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):

1) THP preparation including unit layout, marking of timber and flagging, pre-harvest inspection attendance, and PHI response.

2) The plan preparing RPF will provide professional advice to the LTO and/or Plan Submitter throughout the active operations regarding: The Plan, the Forest Practice Rules, and other associated regulations pertaining to timber operations.

3) If a preharvest inspection is to be held, the LTO who will operate under the plan, if known, may be invited to participate.

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 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 THP Section III).

☒ 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 Dennis Cain Date: 12/15/14

SECTION II – PLAN of TIMBER OPERATIONS

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

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

[ ] Clearcutting _____ ac. [ ] Shelterwood Prep. Step _____ ac. [ ] Seed Tree Seed Step _____ ac.
[ ] Shelterwood Seed Step _____ac. [ ] Seed Tree Removal Step _____ ac.
[X] Shelterwood Removal Step 7 ac.

[X] Selection 34 ac. [ ] Group Selection _____ ac. [ ] Transition _____ ac.

[X] Commercial Thinning 24 ac. [ ] Road Right of Way_____ ac. [ ] Sanitation Salvage _____ ac,

[ ] Special Treatment Area_____ac. [ ] Rehab. of Understocked Area _____ ac. [ ] Fuelbreak _____ ac.

[ ] Alternative Prescription _____ac. [ ] Conversion _____ ac. [X] Non-Timberland Area 23 ac.

Total acreage 88 ac. MSP option chosen: (a) [ ] (b) [ ] (c) [X]

Note: All units are GPS with Garmin 400T or 450T.

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 14 CCR 1034(x)(12).

Commercial Thinning: Where the preharvest dominant and codominant canopy is made up of trees 14" DBH or less, the stand shall retain a minimum of 100 trees per acre greater than 4" DBH for Site III. These stocking standards shall be met immediately after completion of operations.

Shelterwood Removal: This prescription currently contains a minimum of 300-point count as described in 14 CCR 932.7 (b)(1). The trees to be harvested are dominant overstory trees with an understory of primarily young ponderosa pine and minor amounts of cedar, white fir and California black oak varying in age from approximately 2-30 years old. Regeneration shall not be harvested unless it is dead, dying, diseased or substantially damaged by timber operations. Upon completion of harvest operations the shelterwood removal will contain a minimum of 300-point count as defined in 14 CCR 932.7 (b)(1) for Site Class III. The shelterwood removal step shall only be used once in the life of the stand unless otherwise agreed to by the Director.

Selection: At least 75 sq. ft. of basal area shall be retained. The residual stand shall contain at least 15 sq. ft. of basal area of seed trees per acre which are 18 inches dbh or greater.

Non-Timberland (No Harvest Area): the No Harvest Area includes plantations and areas where no timber harvesting will occur. This area is identified as No Harvest Area (NH) on the silviculture Maps located in section II. Existing Landings, roads, and skid trails may be used within these areas.

c. ☐ Yes ☒ No Will even-age regeneration step units be larger than those specified in the rules (20 acre tractor, 30 acre cable)? If Yes, provide substantial evidence that the THP contains measures to accomplish any of subsections (A) - (E) of 14 CCR 913.1(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.

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.

Shelterwood Removal Step, Commercial thinning, and Selection units- *In all units trees to be removed shall be marked with Blue paint at DBH with a stump mark.*

PART OF PLAN

Trees marked with a "W" or "WL" shall not be cut (unless essential for operational safety). These are "Wildlife Trees".

Shelterwood Removal Step and Selection units shall be clearly delineated with blue & red flagging prior to operations by the RPF or supervised designee.

Commercial thinning units shall be clearly delineated with blue & yellow flagging prior to operations by the RPF or supervised designee.

☐ Yes ☒ 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: **Saw and veneer logs, poles, chips, fuel wood, firewood and split products.**

f. ☐ Yes ☒ No Are Group B species proposed for management?
☐ Yes ☒ No Are Group B or non-indigenous Group A species to be used to meet stocking standards?
☐ Yes ☒ No Will Group B species need to be reduced to maintain relative site occupancy of Group A species? If any answer is Yes, list the species, describe treatment, and provide the LTO with necessary felling guidance.

g. Other instructions to LTO concerning felling operations.

1. To the fullest extent possible and with due consideration given topography, lean of trees, local obstructions, utility lines and safety factors, trees to be harvested shall be felled to lead in a direction away from existing plantations and desirable regeneration, unmarked snag(s), and trees needed for stocking requirements to be met immediately upon completion of operations.

2. Trees to be harvested will be felled to the lead dictated by the yarding method. This will minimize damage to leave-tree and reduce felling breakage.

3. Use existing skid trails and landings where practical.

h. ☐ Yes ☒ No Will artificial regeneration be required to meet stocking standards?

i. ☐ Yes ☒ No Will site preparation be used to meet stocking standards? If Yes, provide the information required for a site preparation addendum.

15. PESTS

a. ☐ Yes ☒ No Is this THP within an area that the Board of Forestry 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 937.9(a).

b. ☐ Yes ☒ 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).

There are scattered pockets of western pine bark beetle, western gall rust, mistletoe, cytospora and fomes root diseases throughout the plan area. Maintenance of or conversion to favorable species composition, stand density and structure through stocking control should help to keep adverse insect populations and infection levels endemic.

16. HARVESTING PRACTICES

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

*NOTE: Tractor operations restrictions apply to ground based equipment.

PART OF PLAN

17. **EROSION HAZARD RATING**

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

See Erosion Hazard Rating Map. See EHR worksheets located in THP Section V.

Low ☒ Moderate ☐ High ☐ Extreme ☐

If more than one rating is checked, areas must be delineated on map down to 20 acres in size.

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 936.7.

The RPF or RPFs designee evaluated the harvest area for any significant existing and potential erosion sites and determined that due to the location in the McCloud flats with low erosion hazard ratings and the past history of the area operating as a sawmill, there are no significant existing or potential erosion sites.

Erosion Control for Logging Roads and Landings (14 CCR 943.5)

The following erosion control standards shall apply to logging roads and landings:

a) **All logging road and landing surfaces shall be adequately drained through the use of logging road and landing surface shaping in combination with the installation of drainage structures or facilities and shall be hydrologically disconnected from watercourses and lakes to the extent feasible.**

c) **Ditch drains, associated necessary protective structures, and other features associated with the ditch drain shall:**
   - **(1) Be adequately sized to convey runoff.**
   - **(2) Minimize erosion of logging road and landing surfaces.**
   - **(3) Avoid discharge onto unprotected fill.**
   - **(4) Discharge to erosion resistant material.**
   - **(5) Minimize potential adverse impacts to slope stability.**

d) **Waterbreaks and rolling dips installed across logging roads and landings shall be of sufficient size and number and be located to avoid collecting and discharging concentrated runoff onto fills, erodible soils, unstable areas, and connected headwall swales.**

e) **Where logging roads or landings do not have permanent and adequate drainage, and where waterbreaks are to be used to control surface runoff, the waterbreaks shall be cut diagonally a minimum of six inches into the firm roadbed and shall have a continuous firm embankment of at least six inches in height immediately adjacent to the lower edge of the waterbreak cut. On logging roads that have firmly compacted surfaces, waterbreaks may be installed by hand methods and need not provide the additional six-inch embankment provide the waterbreak ditch is constructed so that it is at least six inches deep and six inches wide on the bottom and provided there is ample evidence based on slope, material, amount of rainfall, and period of use that the waterbreaks so constructed will be effective in diverting water flow from the logging road surface without the embankment.**

f) **Distance between waterbreaks shall not exceed the following standards and consider erosion hazard rating and road gradient:**

TABLE 1: MAXIMUM DISTANCE BETWEEN WATERBREAKS (14 CCR 943.5(f))

Erosion Hazard Rating	Logging Road Gradient in Percent		
	10% or less	11-25%	> 25%
Low	300	200	150

h) **Drainage facilities and structures shall discharge into vegetation, woody debris, or rock wherever possible. Where erosion-resistant material is not present, slash, rock, or other energy dissipating material shall be installed below the drainage facility or drainage structure outlet as necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge.**

i) **Where logging road and landing surfaces, road approaches, inside ditches and drainages structures cannot be hydrologically disconnected, and where there is existing or the potential for significant sediment discharge, necessary and feasible treatments to prevent the discharge shall be described in the plan.**

j) **All logging roads and landings used for timber operations shall have adequate drainage upon completion of used for the year or by October 15, whichever is earlier. An exception is that drainage facilities and drainage structures do not need to be constructed on logging roads and landings in use during the extended wet weather period provided that all such drainage facilities and drainage structures are installed prior to the start of rain that generates overland flow.**

l) **Bare soil on logging road or landing cuts, fills, transported spoils, or sidecast that is created or exposed by timber operations shall be stabilized to the extent necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge. Sites to be stabilized include, but are not limited to:**
   - **(1) Sidecast or fill exceeding 20 feet in slope distance from the outside edge of a logging road or a landing that has access to a watercourse or lake.**
   - **(2) Cut and fills associated with approaches to logging road watercourse crossings of Class I or II waters or Class III waters where an ELZ, EEZ, or a WLPZ is required.**
   - **(3) Bare areas exceeding 800 continuous square feet within a WLPZ.**

m) Soil stabilization measures shall be described in the plan pursuant to 14 CCR 923.5(l)[943.5(l), 963.5(l)], and may include, but are not limited to, removal, armoring with rip-rap, replanting, mulching, seeding, installing commercial erosion control devices to manufacturer's specifications, or chemical stabilizers.

o) Soil stabilization treatments shall be in place upon completion of operations for the year of use or prior to the extended wet weather period, whichever comes first. An exception is that bare areas created during the extended wet weather period shall be treated prior to the start of rain that generates overland flow, or within 10 days of the creation of the bare area(s), whichever is sooner, or as agreed to by the Director.

Waterbreaks [All districts] (14 CCR 934.6)

(a)(1) All waterbreaks shall be installed no later than the beginning of the winter period of the current year of timber operations.

(a)(2) Installation of drainage facilities and structures is required from October 15 to November 15 and from 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.

(b) Waterbreaks shall be constructed concurrently with the construction of firebreaks and immediately upon conclusion of use of tractor roads, roads, and landings which do not have permanent and adequate drainage facilities, or drainage structures.

(c) Table 2: MAXIMUM DISTANCE WATERBREAK REQUIREMENTS (14 CCR 934.6(c))

Estimated Erosion Hazard Rating	Road or Trail Gradient (%)			
	10% or less	11-25%	26-50 %	> 50%
Low	300	200	150	100

(e) Waterbreaks shall be installed at all natural watercourses on tractor roads and firebreaks regardless of the maximum distances specified in this section, except where permanent drainage facilities are provided.

(f) Waterbreaks shall be located to allow water to be discharged into some form of vegetative cover, duff, slash, rocks, or less erodible material wherever possible, and shall be constructed to provide for unrestricted discharge at the lower end of the waterbreak so that water will be discharged and spread in such a manner that erosion shall be minimized. Where waterbreaks cannot effectively disperse surface runoff, including where waterbreaks on roads and skid trail cause surface run-off to be concentrated on downslopes, roads or skid trails, other erosion controls shall be installed as needed to comply with Title 14 CCR 914 [934, 954

(h) Waterbreaks or any other erosion controls on skid trails, cable roads, abandoned roads, and site preparation areas shall be maintained during the prescribed maintenance period and during timber operations as defined in PRC Sections 4527 and 4551.5 so that they continue to function in a manner which minimizes soil erosion and slope instability and which prevents degradation of the quality and beneficial uses of water. The method and timing of waterbreak repair and other erosion control maintenance shall be selected with due consideration given to the protection of residual trees and reproduction and the intent of 14 CCR 914 [934, 954].

During the winter period erosion control structures shall be installed 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.

19. LAYOUTS

☐ Yes ☒ No Are tractor or skidder constructed layouts to be used? If Yes, specify the location and extent of use:

20. ☐ Yes ☒ No Will ground based equipment be used within the area(s) designated for cable [or helicopter] yarding? If Yes, specify the location and for what purpose the equipment will be used?

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

a. ☐ Yes ☒ No Unstable soils or slide areas? Only allowed if unavoidable.

b. ☐ Yes ☒ No Slopes over 65%?

c. ☐ Yes ☒ No Slopes over 50% with high or extreme EHR?

d. ☐ Yes ☒ No Slopes between 50% and 65% with moderate EHR where heavy equipment use will not be restricted to the limits described in 14 CCR 934.2(f)(2)(i) or (ii)?

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e. ☐ Yes ☒ No Slopes over 50%, which lead without flattening to sufficiently dissipate water, flow and trap sediment before it reaches a watercourse or lake?

If a. is Yes, provide site specific measures to minimize effect of operations on slope stability and provide explanation and justification as required per 14 CCR 934.2(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 934. 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 ☒ 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 934.9 in Section III. List specific instructions to the LTO below:

23. **WINTER OPERATIONS**

a. ☒ Yes ☐ No Will timber operations occur during the winter period? If Yes, complete c. or d. State in space provided if exempt because yarding method will be cable, helicopter, or balloon.

b. ☐ Yes ☒ No Will mechanical site preparation be conducted during the winter period? If Yes, complete d.

c. ☐ Yes ☒ No I choose the in-lieu option as allowed in 14 CCR 934 .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. ☒ Yes ☐ No I choose to prepare a winter operating plan per 14 CCR 934.7(b).

NOTE: As defined in 14 CCR 895.1, "**Winter Period** means the period between November 15 and April 1, except as noted under special County Rules at Title 14, Article 13 925.1, 926.18, 927.1, 965.5." 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.

Winter Operating Plan

1. Erosion Hazard Rating for this THP is Low (See Erosion Hazard Rating maps for locations).

2. Yarding systems: Tractor yarding may occur only during periods when locally saturated soil conditions do not exist, and may produce sediment in quantities sufficient to cause a visible increase in turbidity of downstream waters receiving Class I, II, III or IV waters; that violate Water Quality Requirements; or when it cannot operate under its own power due to wet conditions.

3. Operating Period: This Winter Operating Plan shall be effective from November 15th through April 1st.

a) Hand timber falling may be conducted throughout the winter period.

b) Ground based equipment yarding may be conducted during the winter period when soils are not "saturated". Saturated soil conditions (14 CCR 895.1) are defined as: "that soil and/or 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 wheel ruts, (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.

4. Erosion Control Facilities Timing

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

5. Consideration of Form of Precipitation - Rain or Snow

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Plan elevations range from approximately 3,240 feet to 3,400 feet. A significant portion of the precipitation falls in the form of snow. Snowfall in this area generally occurs after November first. Snow is retained, depending upon slope aspect, generally through May. No hauling or ground based operations shall occur when saturated soil conditions are locally present. If hauling occurs during snow pack conditions, drainage facilities shall be kept in effective condition. Note: 'locally' refers to the immediate and operationally affected area.

6. Ground Conditions (Soil Moisture Condition, Frozen)

Logging and mechanical site preparation operations shall be limited to periods when soils are not saturated such as (1) dry, rainless periods and/or (2) hard frozen conditions. Hard Frozen Conditions 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 25 feet.

Hauling activities shall not occur when saturated soil conditions exist on roads and/or landings that may produce sediment in quantities sufficient to cause a visible increase in turbidity of downstream waters receiving Class I, II, III or IV waters; that violate Water Quality Requirements. Where necessary, isolated wet spots on roads and/or landings shall be spot rocked with competent angular rock if they are used during the winter period.

7. Silvicultural Systems

All silviculture will be allowed without regard to ground cover, due to the previously noted soil and precipitation characteristics

8. Operations within the WLPZ

No ground based equipment shall operate within a WLPZ

9. Equipment Use Limitations

Ground based timber operations and mechanical site preparation shall be limited to periods when soils are not saturated, such as frozen periods or dry, rainless periods.

Hauling activities shall not occur when saturated soil conditions exist on roads and/or landings.

10. Known Unstable Areas

There are no known unstable areas in this THP.

11. Logging roads and Landings

Logging roads to be used for log hauling or heavy equipment uses during the winter period shall occur on a stable operating surface and, where necessary, be surfaced with rock to a depth and quantity sufficient to maintain such a surface. Use is prohibited on roads that are not hydrologically disconnected and exhibit saturated soil conditions. (14 CCR 943.6(g)).

24. ROADS AND LANDINGS

Will any roads be constructed? ☐ Yes ☒ No; or reconstructed? ☐ Yes ☒ No.
If Yes, check items a. through g.

Will any landings be constructed? ☐ Yes ☒ No; or reconstructed? ☐ Yes ☒ No.
If Yes, check items h. through k.

a. ☐ Yes ☒ No Will new or reconstructed roads be wider than single lane with turnouts?

b. ☐ Yes ☒ No Are logging roads proposed to be constructed or reconstructed in areas of unstable soils or known slide-prone areas?

c. ☐ Yes ☒ 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 ☒ 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 ☒ 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?

f. ☐ Yes ☒ No Will any roads or watercourse crossings be abandoned?

g. ☐ Yes ☒ No Are exceptions proposed for flagging or otherwise identifying the location or roads to be constructed?

h. ☐ Yes ☒ 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 ☒ No Are any landings proposed in areas of unstable soils or known slide prone areas?

j. ☐ Yes ☒ 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 ☒ No Will any landings be abandoned?

Note: The harvest area is located in what was the McCloud saw mill, a heavy industrial zoned area. There is an existing road network throughout the plan area as well as large areas with minimal vegetative cover and gravel surfaces that use to be log decks when the mill was operating. These large areas with minimal vegetative cover will be used for landings. Please see the Silviculture and Operations map in section II.

25. If any section in Item 24 is answered Yes, specify site-specific measures to reduce adverse impacts and list any additional or special information needed by the LTO concerning the construction, maintenance and/or abandonment of roads or landings as required by 14 CCR Article 12. Include required explanation and justification in THP Section III.

26. **WATERCOURSE AND LAKE PROTECTION ZONE (WLPZ) AND DOMESTIC WATER SUPPLY PROTECTION MEASURES**

a. ☒ 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 14 CCR 936.4 of the WLPZ rules (revised 11/13/2000: CDF Findings \ 99 COHO Considerations\ Final Rule Language (3)) and/or Table I in 14 CCR 936.5 for each watercourse. Specify if Class III or IV watercourses have WLPZ, ELZ or both.

The RPF or supervised designee has conducted field examinations as per 14 CCR 936.4. Squaw Valley Creek is a class I watercourse that is adjacent to the plan area. The closest point of the harvest area to Squaw Valley Creek is approximately 372 feet. The timber harvest plan area is located on the McCloud Mill property that has a water drainage system that was designed to maintain water runoff from reaching the domestic water supply of the town of McCloud when the mill was actively operating. The Mill is no longer active however this water drainage system is still functional. There are two class IV ponds outside the harvest area that have a chain link fence around the perimeter of the ponds, no harvesting will take place within the fenced area. There are two unclassified swales located within the harvest area, no protection measures are being proposed. There is one class IV watercourses within the harvest area that is a drainage channel that originally was designed to carry water to an old bark pond on the south side of Squaw Valley Creek. Both channels are within the harvest area. After examination and analysis of existing conditions and available data, it has been determined that implementation of the plan as proposed, will address and mitigate the concerns of these rules. Please see the Silviculture and Operations Map at the end of section II.

Table 2 : Watercourse and Lake Protection Measures

Watercourse Classification	Slope %	Zone Type	Width (feet)	Protection	Zone Designation
Class IV watercourse	< 30%	ELZ	15 ft.	C,F,I	Centerline flagged with blue/white-stripe

KEY TO PROTECTION MEASURES FROM TABLE 2:

CLASS IV PROTECTIONS:

"C" The ELZ shall be clearly identified on the ground with paint, flagging, or other suitable means, prior to the start of timber operations

"F" Tree marking within the ELZ shall be consistent with the adjacent unit. Trees shall be marked prior to the start of timber operations

"I" To protect water temperature, filter strip properties, upslope stability, and fish and wildlife values, 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.

Trees to be felled within the ELZ will be hand felled and no heavy equipment will be operating within the 15ft ELZ.

☐ Yes ☒ No Are there any Class I watercourses (or Class II watercourses that can be feasibly restored to Class I) identified within or immediately adjacent to your plan area that present opportunity for habitat restoration? If "Yes," refer to Section II, Item 38.

b. ☒ Yes ☐ No Are there any watercourse crossings that require mapping per 14 CCR 1034 (x)(7)?

All watercourse crossings are existing crossings with a minimum diameter of 18" culverts.

Crossing Maintenance

Culverts shall be inspected and cleared by the LTO during operations.

Road Crossings				
ID	Class	Type of Pipe Dia. (in.)	Armor/ Buttress	Comments/ work needed
C1	None	CMP 24"	Concrete Box inlet, concrete outlet	No work needed. Appurtenant road crossing
C2	None	CMP 24"	Concrete inlet, Native outlet	Outlet is ¼ blocked, hand clean pipe. Appurtenant road crossing
C3	Class IV	CMP 48"	Concrete inlet, Native outlet	No work needed.
C4	Class IV	CMP 30"	Native inlet. Concrete Box outlet	Concrete box outlet is gated and can be closed; water gets diverted and stays on Mill site. No work needed. Appurtenant road crossing.
C5	Unclassified	CMP 18"	Native inlet and outlet	Outlet is ½ blocked. Hand clean pipe.
C6	Unclassified	CMP 18"	Native inlet and outlet	Outlet is ¼ blocked. Hand clean pipe.

*ID = Crossing Identification number *CMP = Corrugated metal pipe

c. ☐ Yes ☒ No Will tractor road watercourse crossings involve the use of a culvert? If Yes, state minimum diameter for each culvert (may be shown on map).

d. ☐ 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. List instructions for LTO below for the installation, protection measures, and mitigation measures as per THP for Instructions or CDF Mass Mailing, 07/02/1999, "Fish and Game Code 1606 Agreements and THP Documentation".

Intent for Logging Roads, Landings, and Logging Road Watercourse Crossings (14 CCR 923 [943, 963])

(a) All logging roads, landings, and logging road watercourse crossings in the logging area shall be planned, constructed, reconstructed, used, maintained, removed, abandoned, and deactivated in a manner that:
- **(1) Is consistent with long-term enhancement and maintenance of the forest resource.**
- **(2) Accommodates appropriate yarding systems.**
- **(3) Is economically feasible.**

(b) Such planning, construction, reconstruction, use, maintenance, removal, abandonment, and deactivation shall occur in a manner that considers safety and avoids or substantially lessens significant adverse impacts to, among other things:
- **(1) Fish and wildlife habitat and listed species of fish and wildlife.**
- **(2) Water quality and the beneficial uses of water.**
- **(3) Soil resources.**
- **(4) Significant archaeological and historical sites.**
- **(5) Air quality.**
- **(6) Visual resources.**
- **(7) Fire hazard.**

(c) The RPF may propose exceptions to the rules of this article if explained and justified in the plan and found by the Director not to result in a significant adverse impact on the environment.

(d) Exceptions may also be provided through application of Fish and Game Code Section 1600 et seq. and shall be made an enforceable part of the plan in accordance with 14 CCR 1039, 1040, 1090.14, 1092.26, or 1092.27, as appropriate.

27. **"IN LIEU" WLPZ PRACTICE(S)**

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

a. ☐ 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 the Department of Fish and Game.**

b. ☐ Yes ☒ No Retention of non-commercial vegetation bordering and covering meadows and wet areas?
c. ☐ Yes ☒ No Directional felling of trees within the WLPZ away from the watercourse or lake?
d. ☐ Yes ☒ No Increase or decrease of width(s) of the WLPZ(s)?
e. ☐ Yes ☒ No Protection of watercourses which conduct class IV waters?
f. ☐ Yes ☒ No Exclusion of heavy equipment from the WLPZ except as follows:

g. ☐ Yes ☒ No Establishment of ELZ for Class III watercourses unless sideslopes are < 30% and EHR is low?
h. ☐ Yes ☒ No Retention of 50% of the overstory canopy in the WLPZ?
i. ☐ Yes ☒ No Retention of 50% of the understory in the WLPZ?
j. ☐ Yes ☒ 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 936.1 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 per 14 CCR 936.1(a). Reference the in-lieu and location to the specific watercourse to which it will be applied.

28. a. ☒ 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.

On November 26, 2014, publication was given to the Mt. Shasta Herald News of the proposed timber harvest. On November 17, 2014, "request for downstream domestic water use" letters were sent to adjacent landowners within 1,000 feet downstream of logging activities. See Section 5 of the THP for certificate of publication and copy of "request for downstream domestic water use" letters.

b. ☐ Yes ☒ No Is an exemption requested of the notification requirements of 1032.10? If Yes, 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. ☐ 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.

29. ☐ Yes ☒ No Is any part of the THP area within a Sensitive Watershed as designated by the Board of Forestry? 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?

30. **HAZARD REDUCTION**

a. ☒ 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.

The following standards shall apply to the treatment of slash created by timber operations within the plan area and on roads adjacent to the plan area, but excluding appurtenant roads.

Roads and landingds within the plan area are not within a FPZ and are not open to the general public, however the additional protection measures shall be implemented: Slash loading in the harvest areas shall be reduced by whole tree skidding, limbing shall take place on the log landings and that all residual timber harvest slash remaining on landings shall be disposed of through burning, chipping or removal.

A 100 foot FPZ adjacent to Public Roads and the Special Treatment Zone surrounding the Municipal Hoo Hoo Park shall be applied. Within this FPZ all woody debris created by timber operations greater than one inch but less than eight inches in diameter shall be disposed of through burning, chipping or removal.

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

31. ☒ Yes ☐ No Will piling and burning be used for hazard reduction? See 14 CCR 937.1-11 for specific requirements. Note: LTO is responsible for slash disposal. This responsibility cannot be transferred.

Treatment of Slash to Reduce Fire Hazard (14 CCR 937.2(a))
Slash to be treated by piling and burning shall be treated as follows:

1. **Piles created prior to September 1 shall be treated not later than April 1 of the year following its creation, or within 30 days following climatic access after April of the year following its creation.**
2. **Piles created on or after September 1 shall be treated not later than April 1 of the second year following its creation, or within 30 days following climatic access after April 1 of the second year following its creation.**
3. **Alternatives to (1) and/or (2) shall be justified in the plan by the RPF and may be approved by the Director.**

The local representative of the Director shall be notified in advance of the time and place of any broadcast burning of logging slash. Any burning shall be done in the manner provided by law.

32. BIOLOGICAL AND CULTURAL RESOURCES

a. ☒ 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.

NORTHERN SPOTTED OWL(*Strix occidentalis caurina*):

The Northern Spotted Owl is listed as threatened under federal Endangered Species Act and is candidate under California Endangered Species Act (CESA). This proposed THP lies within the physio-geographic range of the Northern Spotted Owl and its associated Evaluation Area as per 14 CCR § 939.9 and also lies in the Southern Cascades province north of Highway 89. Accordingly, measures described in this THP ensure that "take" of an individual NSO will not result from forest management activities proposed in the THP. Based on the CNDDB search the known Spotted Owl observations are more than 1.5 miles away from the proposed harvest area. Specifically, the proposed THP ensures that "take" will not occur based on discussions with the U.S. Fish and Wildlife Service (USFWS), CAL FIRE Senior Environmental Scientist – Forest Practice Biologist Stacy Stanish and Spotted Owl Expert Brian Shaw as described in 14 CCR § 939.9(e). Based on these consultations and a previous determination by USFWS for survey exemption in this area and overall lack of suitable habitat for NSO, this THP is exempted from surveying for the NSO (see section V of the THP).

FISHER (*Pekania pennanti*): **Federal Endangered Species Act (ESA) candidate species**

There are no known detections of fisher within the THP area but there are known occurrences within the Biological Assessment Area. There is potential suitable foraging habitat for the species that exists within and adjacent to the THP area. Fisher is currently a Federal Endangered Species Act (ESA) candidate species. In 2010, the DFG recommended the species is not warranted for listing under the State ESA, however, at this time, the species is considered a candidate species. The critical period for fisher is March 1st through July 31st, where reproduction and

caring of young occurs and the highest potential for disturbance exists. The following are operational measures for fisher:

(1) During timber operations, between March 1st to May 15th, if a fisher natal den or a female with young is observed, operations shall cease within 0.25 miles and the LTO shall notify the RPF and CAL FIRE and DFW shall be notified immediately so that additional measures, if needed, shall be amended into the THP. During operations between May 16th to July 31st, if a confirmed maternal den site is found, no operations shall occur within 375 feet of the den site.

(2) Any green culls, large snags, hardwoods, and large down wood will be retained where they exist to the degree that allows for operational safety under Section II, Item 33.

(3) If a larger decayed or cull conifer (> 22 inches dbh) or hardwood tree (> 15 inches dbh) with a large cavity is found within the THP, that may be suitable as a resting or denning location, the tree shall not be disturbed or harvested during the critical period of March 1st through July 31st. Also, all trees shall be directionally felled away from any potentially suitable resting or denning trees during the critical period of March 1st through July 31st. If the California Fish and Game Commission determine the species is not a candidate under state ESA, or is not listed, measures described above under item (3) shall not be required.

(4) Further, during site preparation, the LTO will make an effort not to incorporate large down LWD, conifer > 22 inches dbh and hardwoods > 15 Inches into burn piles,

(5) The THP area will be treated using both even-aged and uneven-aged silviculture method to provide foraging habitat for this species.

(6) Retention of oaks, where they exist, will be prioritized within the THP area.

(7) Up to 10 percent of burn piles may be left unburned to provide wildlife habitat.

TOWNSEND BIG EARED BAT (*Corynorhinus townsendii*)- California candidate species CESA

Townsend's big-eared bat is found throughout California, but the details of its distribution are not well known. This species is found in all but subalpine and alpine habitats, and may be found at any season throughout its range. It is most abundant in mesic habitats and requires caves, mines, tunnels, buildings, or other human-made structures for roosting. There are no large basal hollows of trees within the plan area. This species may use separate sites for night, day, hibernation, or maternity roosts. Hibernation sites are cold, but not below freezing. The Townsend Big Eared Bats are not territorial. Males are solitary in spring and summer. Females form maternity colonies. Hibernates singly or in small clusters, usually several dozen or fewer. After consultation with CDFW Andrew Yarusso, potential suitable habitat for the bat does occur within the Biological Assessment Area but, not within the plan area. There are old Mill buildings within the biological Assessment Area, however, the buildings are not vacant and they are being utilized, therefore no disturbance buffer zones are being proposed. This plan is unlikely to affect this species. If the bat, roosting site or potential habitat such as caves, mines, tunnels or other structures is observed within the plan area boundary during the breeding season (May – June), operations within 300 feet of any nest/roosting site and potential habitat will cease, Cal Fire shall be notified and the RPF will consult with Cal Fire and the Department of Fish and Wildlife to establish protection measures. Established protection measures shall be treat as a minor deviation and amended to the plan.

SIERRA NEVADA RED FOX (*Vulpes vulpes necator*): State Threatened

Suitable habitat for the Sierra Nevada red fox occurs within the Biological Assessment Area and within the plan area. General Habitat is "Many High Elevations". Preferred habitat appears to be red fir and lodgepole pine forests in the subalpine zone and alpine fell-fields. The current range and distribution of the red fox is unknown. The fox may hunt in forest openings, meadows, and barren rocky areas associated with its high elevations habitats. The subspecies is known to inhabit vegetation types similar to those used by the marten and wolverine. Threats to the Sierra Nevada red fox are unknown. According to the CNDDB there is one known Sierra Nevada Red Fox location within the Biological assessment area and within approximately one half mile of the plan area. The following operational provisions in the this THP will avoid take:

a. The critical period is defined as February 1 through June 30.

b. 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 DFW.

c. 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) DFW shall be contacted to initiate a CESA consultation to determine appropriate protection measures.

d. The plan submitter shall provide the LTO with instructions and education on identifying red fox, sign, and denning areas (pictures, identification).

WILLOW FLYCATCHER (*Empidonax traillii*) California Endangered species

A rare to locally uncommon, summer resident in wet meadow and montane riparian habitats, at 2000-8000 feet in the Sierra Nevada and Cascade Range. Most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willows. Dense willow thickets are required for nesting and roosting. Low exposed branches are used for singing posts and hunting perches. After consultation and field visit with CDFW Andrew Yarusso the THP area was determined to contain marginal potential habitat for the Willow Flycatcher. The majority of potential habitat is outside the harvest area. Due to the small amount of potential habitat, surveys will not be necessary. The following operational provisions in the McCloud Mill THP will maintain isolated clumps of habitat for this species:

1. During timber operations, if a willow flycatcher is observed within the plan area boundary, operations within 300 ft. shall cease during the breeding season (May 1 through August 31) and DFW shall be contacted to initiate a CESA consultation to determine appropriate protection measures.
2. Per CDFW's consultation recommendations any roads being utilized within or adjacent to potential habitat will be watered during the breeding season.
3. Per CDFW's consultation recommendations no chipping within 300ft of potential habitat will occur.

GRAY WOLF *(Canis lupus):* State Endangered

Habitat for the gray wolf occurs within the assessment area of the THP. According to the CNDDB there are no known sightings of the gray wolves having occurred in the THP area but a gray wolf has been known to have traveled within approximately one half mile of the THP area.

Provisions: If a gray wolf is sighted in the THP area, the LTO will notify the designated RPF for the THP who will immediately notify the California Department of Fish and Wildlife.

Table 3: Protection and buffer for Active Nest or Denning Sites until further consultation with DFW

Species	Critical Breeding Period	Protection Buffer Distance
Sierra Nevada Red Fox	February 1 thru June 30	0.25 miles - 1320 feet
Fisher	March 1 thru May 15	0.25 miles - 1320 feet
Townsend's big-eared bat	At any time during operations	300 feet
Willow Flycatcher	May 1 through August 31	300 feet
All other Species of Special Concern		0.25 miles - 1320 feet

RARE PLANTS:

A review of species data for the 9 USGS quadrangle maps that include the plan area and additional species resulted in one plant species that could potentially be affected by this THP. A CNDDB search was performed for the harvest area for any plant species that could potentially be affected by this THP. Aleppo avens (*Geum aleppicum*) is a perennial herb found in Great Basin scrub, lower montane coniferous forest, and meadow and seeps habitats. This THP has potential habitat for this species which is ranked as a 2B.2 species on the California Native Plant Societies (CNPS) rare and endangered plant inventory. According to CNPS the Aleppo avens is fairly endangered in California but more common elsewhere. This species is not listed under the federal ESA or the CESA. According to the CNDDB this species is known to occur within and adjacent to the plan area. The RPF or supervised designee did not observe this plant species during unit layout and timber marking. No floristic survey is planned for the harvest area as this area is zoned heavy industrial.

If any sensitive plants are identified, the plants will be flagged, mapped, and a 25 foot zone of no operations will be established around plant occurrences. In consultation with CDF&W and Cal Fire, equivalent or more effective protection measures may be developed and amended to the THP.

b. ☐ Yes ☒ 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.

OREGON SNOWSHOE HARE (*Lepus americanus klamathensis*) Species of Special Concern

Occurs in mid-to upper-elevations of the Cascade Mountains from the vicinity of Mt. Hood, Oregon southward to Mt. Shasta and the Trinity Mtns. of California. In California, and Oregon snowshoe hares are generally found above the Yellow Pine Zone. In the northern Sierra Nevada, snowshoe hares are abundant in dense stands of Manzanita that develop following a major fire. Oregon snowshoe hares were apparently not historically common in California. These species are likely present within the plan area and are rarely seen because it hides during the day in forms of dense cover. There are no data to suggest that numbers of Oregon snowshoe hare have declined in California or elsewhere in its range. No individuals of this species were observed within the THP area; therefore, this THP is unlikely to affect this species.

33. SNAGS

a. ☒ 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.

To meet the intent of 14 CCR 939.1, snags that would constitute a fire hazard, as determined by the Director, or safety hazard in the harvesting area will be felled. To provide protections and benefits for wildlife, other snags may be retained, as allowed for under 14 CCR 939.1. All snags that do not constitute a safety hazard to workers will be retained during timber harvest.

34. **LATE SUCCESSION FOREST STANDS**

☐ Yes ☒ 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.

☐ Yes ☒ No Is any Late Seral Forest proposed for harvest?

35 **NON-LISTED SPECIES WILDLIFE PROTECTION**

☒ Yes ☐ No Are any other provisions for wildlife protection required by the rules? If Yes, describe.

1. **Although hardwood density is variable or non existant, up to five square feet basal area (BA) of hardwoods (primarily black oak), if it exists prior to harvest, shall be retained throughout the plan area.**

2. **Proposed harvest units have been or will be field-assessed during silvicultural prescription development and marking. Field personnel have training and experience in identification of raptor identification, nest structures, and associated evidence of stand usage. If any listed (ESA and CESA) or Board of Forestry Sensitive species occupied or active nest is found within the THP, this will prompt consultation with DFW, and notification to CDF prior to operation in the vicinity, per 14-CCR 939.2. The protection measures shall include suspension of vegetative disturbing activities within 0.25 miles of the nest, all operations within 375 feet of the nest, and notification to CDFW and CAL FIRE for a consultation to develop site specific measures. Additionally, unlisted raptors and their nests (if present) will be protected by avoidance if occupied during the nesting-fledgling periods.**

3. **As this is an industrial site clean-up, no large woody material will be retained.**

36. **ARCHAEOLOGICAL RESOURCE**

a. ☒ Yes ☐ No Has an archaeological survey been made of the THP area?

b. ☒ Yes ☐ No Has a current archaeological records check been conducted for the THP area?

c. ☒ Yes ☐ 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. **GROWTH AND YIELD INFORMATION**

☐ Yes ☒ No Has any inventory or growth and yield information designated "trade secret" been submitted in a separate confidential envelope in Section VI of this THP?

38. **SPECIAL INSTRUCTIONS:** Describe any special instructions or constraints, which are not listed elsewhere in THP Section II.

A) The following describes the tree marking and flagging (ribbon) designations used during THP development, and other enforceable language as applicable:

Tree Marking:

- **Trees to be cut will be marked with a paint stripe at approximately breast height on at least two sides, and including a stump-mark below the cut-line. Blue paint shall be used for cut-trees, white paint shall be used for trees that are to be retained.**
- **Retain any tree (live or dead, standing or down, conifer or hardwood) within a harvest area that is marked with a painted "W" or "WL".**

Flagging (ribbon color and application(s)):

- **Harvest Area boundaries:** **Red + Blue and Yellow + Blue**
- **Botanical/Archaeological Restrictions:** **Orange/White Special Treatment Zone' (Pre-printed)+ Red/Black stripe**
- **Truck Road** **Solid Orange or Orange Truck Road (Pre-printed)**
- **Skid Trail** **Yellow or Pre-printed Skid trail**

B) **Power Lines: Power lines are located within the THP boundary. Trees shall be felled away from all utility lines. If during operations any power lines are damaged, the LTO shall immediately contact Pacific Power for emergency services at 1-877-508-5088.**

C) **Railroads: Trees shall be felled away from all existing railroad lines and equipment.**

D) **CalFire shall be notified of the commencement of timber operations at:**

Siskiyou Unit (6)
Forest Practice Program Technician II
CALFIRE
P.O. Box 128
Yreka, CA 96097
Ray Wedel, Forest Practice Inspector
530-842-3516

E) **Water Drafting – On-Site hydrates and stand pipes**

All water drafting locations will be on the McCloud Mill property from various on-site hydrants or stand pipes where the source of the water comes from a domestic water source through a paid metered system. No water will be drafted directly from a watercourse.

DIRECTOR OF FORESTRY AND FIRE PROTECTION

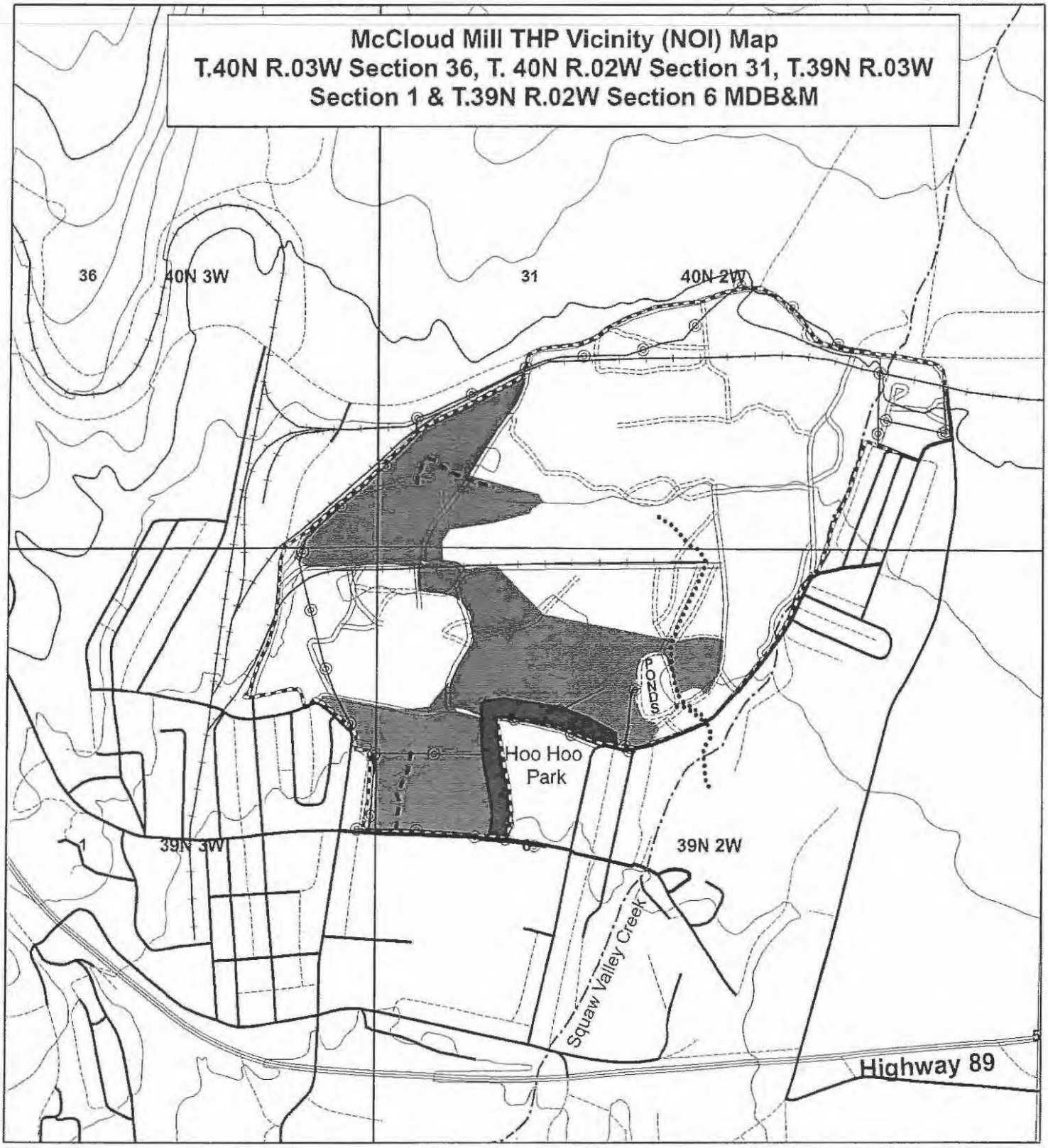
This Timber Harvesting Plan conforms to the rules and regulations of the Board of Forestry and the Forest Practice Act:

By: **RICK CARR, RPF #2801** (Printed Name) — Forester II - TRFRF Redding (Title)

By: Rick Carr (Signature) — FEB 18 2015 (Date)

SECTION II MAPS

1. THP Vicinity (NOI)
2. Site Classification and Erosion Hazard Rating Map
3. Water Drafting Location Map
4. Silviculture/ Operations Maps
5. Appurtenant Road Maps



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PART OF

McCloud Mill THP Site Classification & Erosion Hazard Rating Map

- McCloud Mill Property Boundary
- Commercial Thinning
- Selection
- Shelterwood Removal
- Non Harvest
- Class I watercourse
- Class IV watercourse
- Unclassified swale
- Highway
- Permanent Private Road
- Permanant Public Road
- Seasonal Private Road
- Seasonal Public Road
- Railroad

Entire Harvest Area is Site III

0 500 1,000 1,500 2,000 Feet

McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998
1:12,000

N

40ft contour intervals
Not all symbols appear on all maps

McCloud Mill THP Water Drafting Sites Map

- McCloud Mill Property Boundary
- Commercial Thinning
- Selection
- Shelterwood Removal
- Non Harvest

Watercourses

- Class I watercourse
- Class IV watercourse
- Unclassified swale

Roads

- Highway
- Permanent Private Road
- Permanant Public Road
- Seasonal Private Road
- Seasonal Public Road
- Railroad

Water Drafting Sites

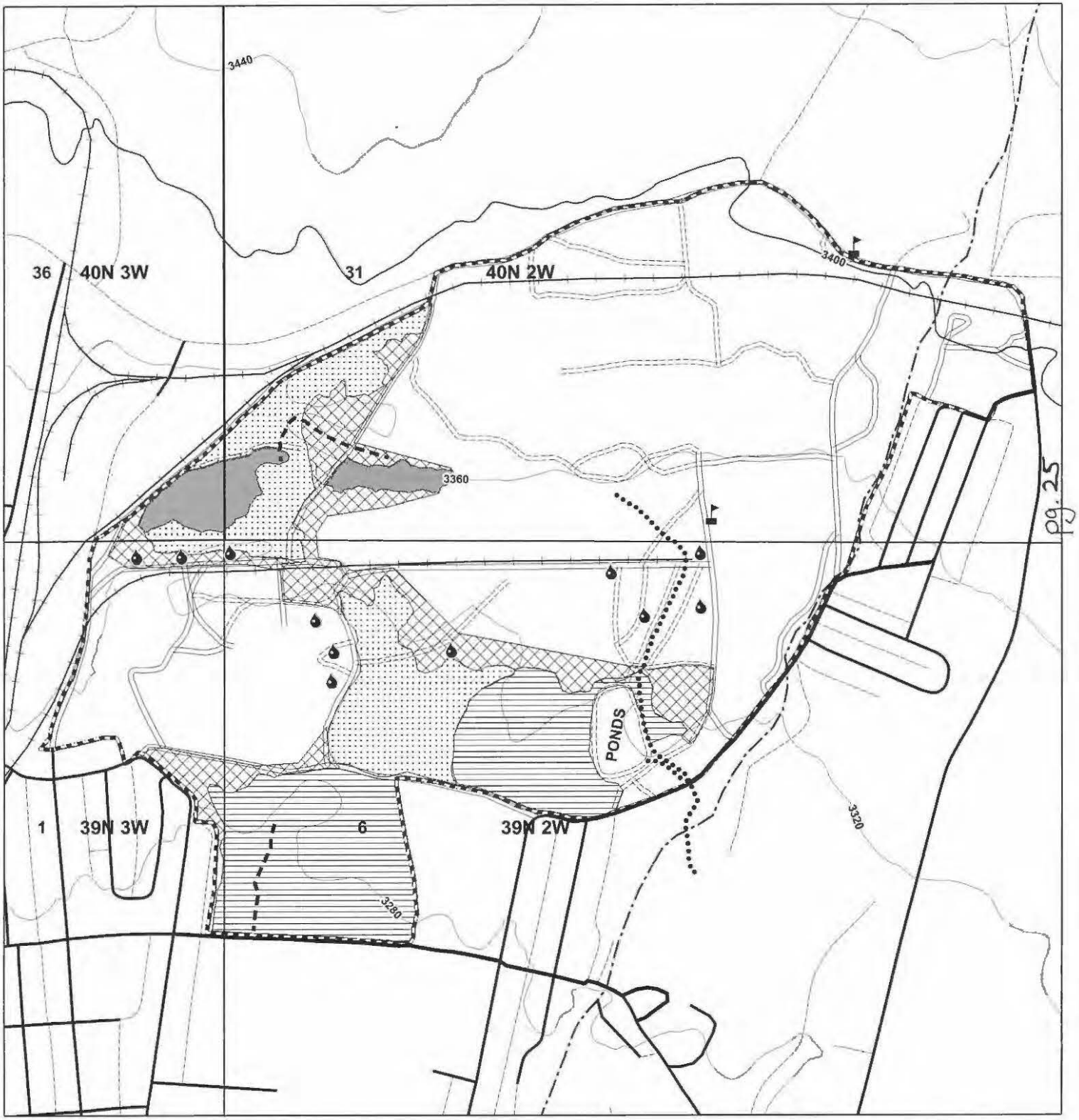
- STAND PIPE
- FIRE HYDRANT

0 500 1,000 1,500 2,000 Feet

McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998
1:12,000

N

40ft contour intervals
Not all symbols appear on all maps



McCloud Mill THP Silviculture & Operations Map

- McCloud Mill Property Boundary
- Commercial Thinning
- Selection
- Shelterwood Removal
- Non Harvest
- Class I watercourse
- Class IV watercourse
- Unclassified swale
- Highway
- Permanent Private Road
- Permanant Public Road
- Seasonal Private Road
- Seasonal Public Road
- Railroad
- Utility Lines
- Culvert
- Landing

0 500 1,000 1,500 2,000 Feet

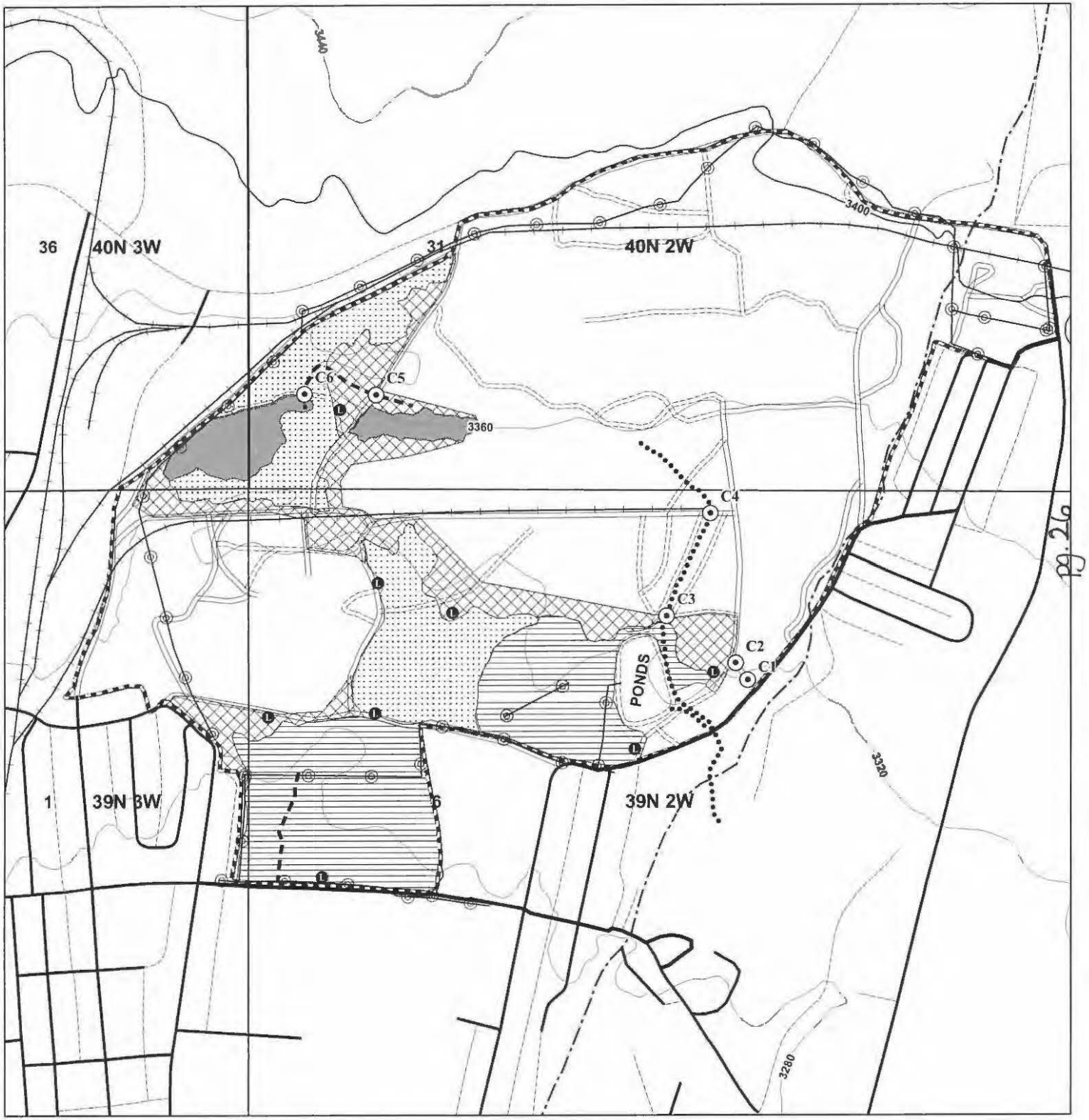
McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998

1:12,000

N

40ft contour intervals

Not all symbols appear on all maps



McCloud Mill THP Appurtenant Roads Map

- McCloud Mill Property Boundary
- Commercial Thinning
- Selection
- Shelterwood Removal
- Non Harvest
- Highway
- Appurtenant Road
- Permanent Private Road
- Permanant Public Road
- Seasonal Private Road
- Seasonal Public Road
- Railroad
- Landing
- Class I watercourse
- Class IV watercourse
- Unclassified swale

0 500 1,000 1,500 2,000 Feet

McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998

1:12,080

N

40ft contour intervals

Not all symbols appear on all maps

SECTION III

Contents

TIMBER HARVESTING PLAN INTRODUCTION (14 CCR 1034(gg))
Section III

14 CCR 1034(gg) – A general description of physical conditions at the plan site, including general soils and topography information, vegetation and stand conditions, and watershed and stream conditions.

I. Project Location

The McCloud Mill Timber Harvest Plan (THP) is approximately 88 acres and is located in section 1, T39N, R03W, section 6, T39N, R02W, section 31, T40N, R02W and section 36, T40N, R03W MDBM. The proposed THP area is located in Siskiyou County, and on the northern most point of the town of McCloud, California. The harvest area falls within the McCloud Planning Watershed.

Portions of these watersheds are tributary to the McCloud River, which flows to Shasta Lake. Slopes within the proposed THP area are relatively flat ground throughout the plan area ranging from 0% slope to 15% slopes. Elevations within the plan area range from 3,240' to 3,400'. The McCloud River is not on the CVRWQCB 303d list for water quality impairment or a National Wild and Scenic River.

II. Vegetation and Stand Description

This stand is located in what was the McCloud Mill that was started in 1892 and continued as an industrial site until closing in 2002. Since this site is zoned for heavy industrial and was an operating sawmill, it was not designed for timber production, however it does contain areas of timber. These areas consist primarily of ponderosa pine with minor amounts of cedar, white fir, douglas fir and hardwoods. Overall, the stands are composed of approximately 97% ponderosa pine and the remaining 3% composed of white fir, douglas fir, incense cedar and hardwoods. The understory includes conifer regeneration from the parent stand along with several species of Ceanothus, antelope bitter brush, green leaf manzanita, willows, snow brush, golden chinquapin, service berry, bitter cherry, scotch broom, blackberry shrubs and a variety of herbaceous species, plus elk sedge and other grasses.

Timber site potential is generally decent, averaging Dunning Mixed Conifer Site III. (see Section II Maps)

III. Soils and Topography

The Soil Survey of Shasta-Trinity and Klamath Forest Area-California (USFS), Soil and Vegetation Survey-McCloud Area (CDF and NRCS), data on file at Black Fox Timber Management Group, Inc., and on-site evaluations were used to classify the plan area as Site III timberland with soil types of the Shastina Loam family and the Shasta loamy sand family.

All soils occurring in the THP area are of volcanic origin, generally underlain by weathered and fractured basalt or andesite or underlain by glacial till. These soils generally all have coarse surface textures, good drainage and good to moderate regeneration potential. The surface layers of these soils are generally a 13" deep sandy loam with weak medium subangular blocky structure, containing 5% gravel. Subsoil layers from 13" to 40" deep are sandy loams with moderate medium subangular blocky structure, 15-25% gravel. Below 40" the soils become quite rocky.

The THP area has an erosion hazard rating (EHR) of Low. These soil types have a generally decent suitability for timber production. The THP area is zoned Heavy Industrial.

The mean annual precipitation is approximately 50 inches. The vast majority of the precipitation is in the form of snow, primarily falling between the months of November and April. Precipitation from thundershowers is minimal from June through September. Thunderstorms during the summer months of July and August are usually dry. Long dry cold spells with several stormy periods occur from October through May.

IV. Watershed and Stream Conditions

There is a Class I watercourse located just outside the plan area with a class IV watercourse that has potential to drain into the class I watercourse only during extreme high flood events. The class IV is typically dry throughout the year and has a thick layer of leaf litter throughout the channel, but has potential to flow during a rain on snow event. The class IV was designed for drainage from the mill to get to an old bark pond, and has the ability to be blocked off to maintain

drainage on site. There are two unclassified swales within in the harvest area. The only watercourses within the Planning Watershed is the class I watercourse Squaw Valley Creek and the class IV watercourse that drains into the class I.
The watercourses within the watershed contain an overstory of mainly Ponderosa pine and mixed conifers of true firs and douglas fir with lesser amounts of sugar pine and incense cedar. Riparian zones also include conifers and more frequently brush. Generally, watercourses have a shade canopy that ranges between 60% and 90%. Sediment that is present in this watershed is the combined result of natural events, past historical and recent flooding and mudflows, and pre-Forest Practices Act human activities. The watercourse was impacted to varying degrees by the original operating sawmill and associated activities. Since Squaw Valley Creek flows through the town of McCloud there are very few timber harvesting activities that occur along the watercourse.

The streams and the watershed conditions adjacent to the plan have been assessed, and mitigations are proposed within this plan that will reduce any potential impact to a level of insignificance.

To reduce, mitigate, or avoid sediment production associated with this proposed THP, the following protection measures and management options have been selected:

- Maintenance of drainage structures on roads.
- Mulching and/or re-vegetation of potential sediment sources created by this THP.

The protection and mitigation measures included in this proposed Timber Harvesting Plan will protect the watershed from any adverse impact to the watershed and fisheries.

V. Geological Conditions

This area does not show evidence of geological instability, such as slides, slumps or unstable soils. The plan area is volcanic in origin and in the past has experienced periodic instability on a geologic timescale through volcanic eruptions.

PROJECT ALTERNATIVES ANALYSIS

Project Description as Proposed:

All of the required contents as outlined in 14 CCR 1034 (a-gg) have been included in this THP (reference Sections I, II, and III of the THP for project description information). This THP proposes to harvest 88 acres under the shelterwood removal step, selection, and commercial thinning methods within the planning watershed. Harvesting methods are ground based. The THP will utilized existing roads and does not included road or landing, construction, reconstruction or abandonment. Ground-based equipment yarding during the winter period (if described weather conditions are present) is proposed for this timber harvest plan. The RPF has assessed how the project will interact with the environment in the cumulative impacts assessment (reference Section IV of this THP).

Project Objectives:

The overall objectives of this project are to effectively manage the proposed THP area for the reduction of fire hazardous fuels using state-of-the-art forest practices, with due consideration for the conservation of biological and watershed resources. Operations on this project will ensure that watershed and biological resources will be protected. This THP is one part of an ongoing process to reduce fire fuels and enhance the utilization of this property while covering some of the cost by harvesting some of the timber.
Specifically, the objectives of this THP are:

- To maintain a balanced stand structure. The silvicultural prescriptions (even age and unevenaged methods) incorporated within the plan are designed to improve forest stocking and health, and reducing fire fuels, while implementing the operational and conservation measures in the Forest Practices Act. This will generally be accomplished through forest management beginning with timber harvesting, followed by regeneration by natural and possible artificial means (tree planting), vegetation management, sanitation salvage of unhealthy/dying trees and pre-commercial thinning, as applicable.

- To harvest timber, while mitigating potentially significant impacts on the environment. Potential impacts that could result from timber harvest operations, including but not limited to wildlife habitat and fisheries, have been addressed. The THP as proposed, with all the mitigation measures adopted in the plan, will not result in significant adverse environmental effects. The plan has included resource protection measures that greatly exceed the current standard FPRs.

Statement of Purpose (Need for the Project):

The landowners' goal for this project is to reduce the fire fuel hazard and to remove the unhealthy trees and vegetation while harvesting some of the timber to balance the cost of the fuel reduction. The timber proposed for harvest will be sold and transported to one or more sawmills located in northern California and/or southern Oregon. Logs will then be manufactured into various wood products.

It is critical that the landowner generate revenue from its timber to fund the cost of the fuel reduction along with ongoing property maintenance and property improvement projects. This project will not only help protect the structures and property on the McCloud Mill site but also the community of McCloud.

Identification of Alternatives to the Project as Proposed:

The RPF has considered six alternatives for discussion in this THP: 1) The No Project Alternative, 2) Public Purchase of the Timber/Timberland or Purchase of the Timber/Timberland as a Conservation Easement Alternative, 3) Alternative Silvicultural Methods, including, a) The Silvicultural Methods That Were Not Chosen, and, b) The Silvicultural Methods That Were Chosen, 4) Alternative Harvesting Practices: a) The Harvesting Practices That Were Not Chosen, b) The Harvesting Practices That Were Chosen, 5) Delaying the Timing of the Project, or Alternative Project Locations on the Ownership, 6) Alternative Land Uses.

1. The No Project Alternative:

Although this alternative is clearly inconsistent with the project objectives, the CEQA guidelines nevertheless require that the No Project Alternative be evaluated. The existing conditions have been considered along with conditions that might be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans (14 CCR 15126.6(e)(2)). The No Project Alternative would avoid the risk of potential environmental impacts that might occur in connection with proposed timber operations, yet may potentially result in other significant, adverse effects. For example, the No Project Alternative would not provide an opportunity for McCloud Partners LLC to correct existing environmental problems related to forest health and fire risks.

2. Public Purchase of the Timber/Timberland or Purchase of the Timber/Timberland as a Conservation Easement Alternative:

This alternative would involve limitations on management activities through public purchase of the subject property or donation or sale of conservation easements. If the property were covered by a conservation easement such that no timber harvesting could be done, any unidentified effects associated with this THP would be avoided through this alternative.

Restrictive conservation easement and/or public purchase could also mitigate or avoid potentially significant, adverse impacts of timber harvesting and, upon payment of fair market value, would allow the landowner to realize its investment objectives. However, the likelihood of this occurring for this parcel in the near or reasonably foreseeable future is remote and speculative.

The landowner is unwilling at this time to consider selling the property, finding that its highest and best utility is the use designated by the zoning. Furthermore, there are no known public or private entities that are ready, willing, and able to, acquire the property; nor can the landowner afford to donate or further constrain operations for preservation purposes. There are millions of acres in the State of California that would be at least as attractive for such a purpose.

The "rule of reason," as set forth in 14 California Code of Regulations § 15126.6(f)(3) states that project alternatives whose implementation is "remote and speculative" need not be given extensive consideration. Therefore, the landowner rejects this remote and highly speculative alternative because it would not effectively meet any of the project objectives, is inconsistent with the land use designation, and is infeasible.

3. Alternative Silvicultural Methods:

This alternative would involve carrying out the project as proposed, except that a different silvicultural method would be chosen. Silvicultural objectives shall meet the objectives of the FPA (PRC 4512 and 4513). "The RPF shall select systems and alternatives which achieve maximum sustained production (MSP) of high quality timber products" (14 CCR 933).

a) The Silvicultural Methods That Were Not Chosen:

Even-aged Silviculture:
Seed Tree Preparatory Step, Seed Tree Seed Step and Seed Tree Removal Step: These alternatives were rejected because the stands where this might be appropriate average greater than 15 trees or 50 ft^2/ac of predominant residual trees from the last harvest activity. The Forest Practice Rules restrict harvesting with this method to no more than 15 trees, or 50 ft^2/ac of basal area. The retention of those trees in excess of the limits imposed by the rules may not meet the landowner's goals and is not consistent with the landowner's long-term sustained yield (LTSY) program. Therefore, this method does not meet the landowner's objectives for this operation.

Shelterwood Preparatory Step, Shelterwood Seed Step: The shelterwood regeneration method reproduces a stand via a series of harvests (preparatory, seed, and removal). The preparatory step is utilized to improve the crown development, seed production capacity and wind firmness of designated seed trees. The seed step is utilized to promote natural reproduction from seed. These methods were rejected because much of the project area already meets the objectives of each of these steps.

Clearcutting: The clearcutting regeneration method involves the removal of a stand in one harvest. Regeneration after harvesting shall be obtained by direct seeding, planting, sprouting, or by natural seed fall. While it is possible to "restart" project area stands and eventually guide them into an unevenaged condition through this method, this is not necessary given quality of current stocking, especially given guidance through implementation of this project. The landowner is also unwilling to accept the risk and costs associated with this method, and it was accordingly rejected.

Uneven-aged Silviculture:
Transition: The transition method, while suitable for some of the plan area, is not appropriate over the entire harvest area due to past harvesting activities and variability in the existing stand structure. Uneven-aged management meets some of the landowner's objectives, such as allowing the landowner to earn some economic return by operating on this parcel, maintaining the flow of high quality timber products, and providing employment opportunities. However, this prescription does not entirely meet landowner objectives. Transition does not meet the landowner's long-term sustained yield (LTSY) program at this time and on this parcel, and therefore does not meet the landowner's objectives for this operation.

Intermediate-treatment Silviculture:
Sanitation-salvage: This method was not selected because this method precludes thinning to achieve stocking and composition control. Accordingly, this method was rejected.

b) The Silvicultural Methods That Were Chosen:

Even-aged Silviculture:

Shelterwood removal step: This method was selected for one stand within the plan area. This stand is heavy with large overstory ponderosa pine with a thick understory of natural regenerated ponderosa pine and is now a two storied stand with a healthy understory of advanced regeneration (2 – 30 years old) and an overstory of diseased and declining pine. This silviculture method will improve the overall health and vigor of this stand.

Uneven-aged Silviculture:

Selection (uneven-aged). Selection is a feasible silvicultural method for portions of the existing stand structure on the THP area and meets the FPR requirements. The majority of the area subject to this method will be selectively harvested with small openings being used to remove timber from areas where necessary for stand improvement or health.

Intermediate Treatments:

Commercial Thinning. Stands within the THP are dominated by dense stands of ponderosa pine. These stands have reached an age where they are of commercial size. Stand density ranges from 80-220 ft^2/acre of basal area. The objectives of this treatment are to reduce future mortality losses, reduce the density of fuel hazards, to reduce competition with and facilitate growth of trees in the upper-crown classes and to improve forest health.

4. Alternative Harvesting Practices:

This would involve operating the project as proposed, except a different yarding method would be chosen. There are 3 categories of yarding methods being considered:

- Ground-based (tractor, including tractor end-lining, rubber-tired skidder and feller buncher)
- Cable (including ground lead, high lead and skyline)
- Special (including animal, helicopter, and other)

a) The Harvesting Practices That Were Not Chosen:

Animal. This method was rejected because the landowner and contract loggers do not own or have access to livestock for this purpose. Animal logging cannot generate a sufficient flow of logs for shipment to the mills. For an industrial landowner, the use of animals for yarding is too slow. This method may be suitable for a small, non-industrial landowner. There is no assurance that this method would provide greater protection than the proposed methods. Therefore, it is more feasible for the landowner to utilize conventional logging equipment (i.e., tractors and cable yarding equipment).

Helicopter. This method is potentially feasible because there are no topographical, physical, or safety reasons that would preclude the use of helicopters on this project. However, the increased costs associated with helicopter yarding were weighed against many operational variables, availability of other equipment, seasonal restrictions/timing of operations, proximity to the town of McCloud and road use restrictions. Based upon economics, this method was rejected as being unnecessarily costly relative to other harvesting methods.

Cable, including cable high lead and cable skyline. None of the harvest units in this plan are on slopes that exceed 50% and most are less than 15%. While this method is feasible, the increased costs associated with cable yarding, when weighed against operational variables including availability of other equipment, seasonal restrictions/timing of operations, and road use restrictions make this method economically uncompetitive. Based upon these facts, this method was rejected as being unnecessarily costly relative to other harvesting methods.

b) The Harvesting Practices That Were Chosen:

Ground-based yarding, including tractor, end/long-lining, rubber tired skidder, and feller buncher. This method is feasible because the area has favorable slopes for ground base yarding, and the entire area was previously harvested using tractors, feller bunchers, and/or skidders. Tractor roads already exist throughout the area. Where this method is used, it has been mitigated to a level of insignificance through implementation of all measures contained in the FPRs. This method would allow the LTO the option to utilize available equipment.

5. Delaying the Timing of the Project, or Alternative Project Locations on the Ownership:

This alternative would involve carrying out the harvesting proposed in this THP at a different location and time, other than where and when it is proposed.

Effectively managing timberland requires harvesting timber when it is most effective to do so. Stands are chosen for harvest based on a variety of parameters including age, stocking levels, current growth rate, and the goals of the landowner. As most of the stands that would normally be selected for harvest using these criteria are constrained by regulations, delaying or operating elsewhere on the property is considered less feasible in comparison to this project.

Delaying the timing of the project for a number of years, say 5 to 10 years, was examined as an alternative to the project as proposed. This alternative would attain some of the landowner's objectives by allowing the landowner to manage the parcel for timber production, but postponing the operations would prevent the landowner from maximizing the productivity of these stands.

While an alternative that simply delayed harvest would avoid, at least for now, any potential or unanticipated adverse environmental effects that might be associated with the project as proposed, this alternative could potentially result in other significant, undesirable effects. Specifically, the delay in harvest could affect maximum sustained yield. Also, not making environmental improvements to the site may present some adverse effects. Improvements proposed in the THP for existing roads to reduce erosion and runoff would not be accomplished at this point in time. In addition, the landowner would be required to harvest in another location at this time to supply the local mills and meet other financial obligations. In that event, the harvest from the alternative location would be evaluated for potentially significant effects, including consideration of further alternative project locations. In brief, the harvest needs to occur somewhere, now. The proposed location presents the best mix of opportunity to meet the requirements of the applicable requirements to maximize sustained production and avoid significant impacts.

6. Alternative Land Uses:

This alternative would involve the landowner's use of the property for purposes other than for managing timber for growth and harvest which could be done due to the property being zoned for heavy industrial, however the property has been vacant and not utilized for many years and requires some clean up and improvements in order to manage and enhance what healthy timberlands exist and to reduce the fuel hazard.

The number of possible uses for any relatively sizeable parcels of land, such as in this landowner's case, is theoretically very large. One may presume that land could be marketed and sold for residential, recreational, agricultural, and/or timber harvesting activities. As with the alternative of selling the property to the public or imposing a conservation easement, such alternatives would not attain most of the basic objectives of the project.

Conclusions:

This THP as proposed is preferred over the alternatives for the following reasons:

- The No Project Alternative. To maintain and enhance the land base, the project needs to move forward. potential environmental mitigation will be foregone without this project. The landowner acquired this land being zoned for heavy industrial to enhance and manage the property for aesthetic reasons, and potential fire hazard reductions and to utilize the property that has been neglected and rundown for many years. This project is one of many needed to allow the landowner to fully utilize this land. This alternative was therefore rejected.

- Public Purchase of the Timber/Timberland or Purchase of the Timber/Timberland as a Conservation Easement Alternative. The landowner is unwilling at this time to consider selling the property, finding its highest and best use in the treatment proposed in the THP. It is doubtful that a conservation easement is consistent with heavy industrial zoning unless it provides for maximum sustained production. Pursuant to the FPRs, extensive conservation measures constraining operations but allowing management are already in place for these timberlands. The landowner has received no reasonable offers to purchase either the property or a conservation easement on the property. This alternative was rejected because it is inconsistent with the landowner's LTSY goals, the project objectives, and it appears infeasible.

- Alternative Silvicultural Methods and Harvesting Practices. Those alternative silvicultural and harvest practices that are appropriate have been proposed; the RPF has exercised professional judgment and has demonstrated proper justification for the methods chosen. The THP is consistent with MSP, LTSY goals of the landowner and protection of the resources as required by the FPRs. The THP review process and pre-harvest inspections allow the various agencies opportunities to make recommendations to change the RPF's silviculture or yarding method choices, if it is deemed necessary for protection of the resources. Therefore, alternative practices beyond those proposed were rejected.

- Delaying the Timing of the Project, or Alternative Project Locations on the Ownership. If this project is not allowed to occur, another project of similar scope would need to be proposed to balance the effect of not conducting this project, where and when it is proposed. This alternative is rejected because it is inconsistent with the project objectives and would not lessen potential impacts on the environment. Such alternatives also poses risks of creating adverse impacts by accelerating or concentrating re-entry elsewhere, or inhibiting performance of road improvement and erosion control to be done as part of the proposed project.

- Alternative Land Uses. There does not appear to be any feasible alternative land uses that the RPF can identify at this time that would be legal under the applicable zoning. Under the FPRs Timber Harvesting Plan permit, the landowner enters into an agreement designed to keep the company implementing the operational and conservation measures designed for land uses consistent with those proposed in this THP. This alternative was, therefore, rejected.

PLAN ADDENDUM TO ITEM 13(a)

SECTION III

Plan Submitter Responsibility (14 CCR 1035):
The plan submitter, or successor in interest, shall:

a) Ensure that an RPF conducts any activities that require an RPF.
b) Provide the RPF preparing the plan or amendments with complete and correct information regarding pertinent legal rights to, interests in, and responsibilities for land, timber, and access as these affect the planning and conduct of timber operations.

c) Sign the THP certifying knowledge of the plan contents and the requirements of this section.

(1) Retain an RPF who is available to provide professional advice to the LTO and timberland owner upon request throughout the active timber operations regarding:

- the plan,
- the Forest Practice Rules, and
- other associated regulations pertaining to timber operations.

(2) The plan submitter may waive the requirement to retain an RPF to provide professional advice to the LTO and timberland owner under the following conditions:

- the plan submitter provides authorization to the timberland owner to provide advice to the LTO on a continuing basis throughout the active timber operations provided that their timberland owner is a natural person who personally performs the services of a professional forester and such services are personally performed on lands owned by the timberland owner;
- the timberland owner agrees to be present on the logging area at a sufficient frequency to know the progress of operations and advise the LTO, but not less than once during the life of the plan; and
- the plan submitter agrees to provide a copy of the portions of the approved THP and any approved operational amendments to the timberland owner containing the General Information, Plan of Operations, THP Map, Yarding System Map, Erosion Hazard Rating Map and any other information deemed by the timberland owner to be necessary for providing advice to the LTO regarding timber operations.

(3) All agreements and authorizations required under 14 CCR 1035(d) (2) shall be documented and provided in writing to the Director to be included in the plan.

(4) Within five (5) working days of change in RPF responsibilities for THP implementation or substitution of another RPF, file with the Director a notice which states the RPF's name and registration number, address, and subsequent responsibilities for any RPF required field work, amendment preparation, or operation supervision. Corporations need not file notification because the RPF of record on each document is the responsible person.

(5) Provide a copy of the approved THP and any approved operational amendments to the LTO.

(6) Notify the Director prior to commencement of site preparation operations. Receipt of a burning permit is sufficient notice.

(7) Disclose to the LTO, prior to the start of operations, through an on-the-ground meeting, the location and protection measures for any archaeological or historical sites requiring protection if the RPF has submitted written notification to the plan submitter that the plan submitter needs to provide the LTO with this information.

Notification of Commencement of Operations (14 CCR 1035.4):

Each calendar year, within fifteen days before, and not later than the day of the startup of a timber operation, the Timber Harvesting Plan Submitter, unless the THP identifies another person as responsible, shall notify CDF of the start of timber operations. The notification, by telephone or by mail, shall be directed to the appropriate CDF Ranger Unit Headquarters, Forest Practice Inspector, or other designated personnel.

Minimum Stocking Standards (14 CCR 1071):

Within five years after the completion of timber operations or as otherwise specified in the rules, a report of stocking on the entire area logged under the plan and shown on a revised map shall be filed with the Director by the timber owner or

the agent thereof. If stocking is required to be met upon completion of timber operations, the stocking report shall be submitted within six months of the completion of operations.

Waterbreaks (14 CCR 934.6):

(h) Waterbreaks or any other erosion controls on skid trails, firebreaks, abandoned roads, and site preparation areas shall be maintained during the prescribed maintenance period and during timber operations as defined in PRC Sections 4527 and 4551.5 so that they continue to function in a manner which minimizes soil erosion and slope instability and which prevents degradation of the quality and beneficial uses of water. The method and timing of waterbreak repair and other erosion control maintenance shall be selected with due consideration given to the protection of residual trees and reproduction and the intent of 14 CCR 934.

(i) The prescribed maintenance period for waterbreaks and any other erosion control facilities on skid trails, cable roads, layouts, firebreaks, abandoned roads, and site preparation areas, shall be at least one year. The Director may prescribe a maintenance period extending as much as three years after filing of the work completion report in accordance with 14 CCR 1050.

Timber Operations, Winter Period (14 CCR 934.7 (c), (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.

Maintenance and Monitoring of Logging Roads and Landings (14 CCR 943.7)

The following maintenance and monitoring standards shall apply to logging roads and landings:

(b) Logging roads that are used in connection with stocking activities shall be maintained throughout such use, even if this extends beyond the prescribed maintenance period.

(i) The prescribed maintenance period for erosion controls on logging roads and associated landings and drainage structures, including appurtenant, abandoned, and deactivated logging roads and landings shall be at least one year. The Director may prescribe a maintenance period extending up to three years in accordance with 14 CCR 1050.

License for Erosion Control Maintenance (14 CCR 1022.3):

A timber operator license is not required for the maintenance of erosion control structures following the completion of timber operations described in an approved work completion report for a THP.

PLAN ADDENDUM TO ITEM 14

SILVICULTURE

Subsection (b): Post harvest stocking levels

- Shelterwood Removal prescription currently contains a minimum of 300-point count as described in 14 CCR 932.7 (b)(1). The trees to be harvested are dominant overstory trees with an understory of primarily ponderosa pine and minor amounts of cedar and white fir varying in age from approximately 2-30 years old. Regeneration shall not be harvested unless it is dead, dying, diseased or substantially damaged by timber operations. Upon completion of harvest operations the shelterwood removal will contain a minimum of 300-point count as defined in 14 CCR 932.7 (b)(1) for Site Class III. The shelterwood removal step shall only be used once in the life of the stand unless otherwise agreed to by the Director.
- Selection: Stands that are proposed for the Selection method are generally composed of a variety of age and size classes. By selectively thinning the stands, this operation will promote improved growth and forest health. This proposed

plan would, on average, meet or exceed the minimum stocking standard of 75 ft^2/ac of basal area (Site III) Stocking standards for Selection are stated in the plan and will be reported within six months of harvest.

- Commercial Thinning: The unit is comprised of well to heavily stocked stands of unevenaged ponderosa pine with minor amounts of cedar and white fir. Age of the released stand is 30 to 100 years old. Site class for this stand is site III. In many cases, the predominant trees are diseased, declining in vigor, or both. This stand is at an appropriate (if not advanced) age for thinning. Stocking standards where the stand is composed of perharvest dom. and co-dom. trees less than 14 in. dbh., a minimum of 100 trees per acre greater than 4 in. dbh. stocking is required to be left. These stocking standards shall be met immediately after the completion of operations.

PLAN ADDENDUM TO ITEM 23

WINTER OPERATIONS

Explanation: A Winter Operating Plan (WOP) is needed to preserve the McCloud Partners LLC's option for conducting timber operations. Operations in hard frozen conditions that have the least potential to damage soils.

Justification: Specific measures will be taken in winter timber operations to minimize the potential of erosion and/or soil movement into watercourses, as well as soil compaction from concentrated ground-based equipment operations other than truck roads and landings.

Mitigation: Numerous mitigations detailed in the WOP, achieve CEQA and FPR compliance; no need to duplicate those provisions here.

PART

Revised 01/26/2015

SECTION IV

1. Cumulative Effects Analysis
2. Greenhouse Gas Analysis
3. Watershed and Biological Assessment Area Maps
4. Past and Present Activity Maps

Section IV--Cumulative Effects Analysis

I. Introduction

The following section, regarding cumulative effects for the McCloud THP, generally follows the outline given in Technical Rule Addendum #2 and CDF guidance. In addition, woven into this checklist format are assessments and analysis germane to specific environmental issues. Following sections will provide general information and a summary of predicted impacts to Watershed, Soil, Biological, Recreation, Visual, and Traffic resources. For ease of reading, all references to FPR checklists or CDF guidance is provided in a normal font, **while McCloud Partners LLC's response, comments, and analysis are shown in bold font.**

II. Cumulative Impacts Assessment Checklist (14 CCR 932.9):

(This checklist summarizes the results of analysis of various potential cumulative impacts related to the McCloud Mill THP and the associated assessment area. The analysis that resulted in the following determinations is described in subsequent sections of this Cumulative Effects Analysis.)

A.) Do the assessment area(s) of resources that may be affected by the proposed project contain any past, present, or reasonably foreseeable probable future projects?

YES ***XXX*** NO_____

If the answer is yes, identify the projects(s) and affected resource subject(s).

Please refer to the following assessment.

B.) Are there any continuing, significant adverse impacts from past land use activities that may add to the impacts of the proposed projects?

YES_____ NO ***XXX***

If the answer is yes, identify the activities, describing their location, impacts, and affected resource subject(s).

C.) Will the proposed project, as presented, in combination with past, present, and reasonably foreseeable probable future projects identified in items (A) and (B) 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, reasonably 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

(a) "Yes, after mitigation" means that potential significant adverse impacts are left after application of the forest practice rules and mitigation or alternatives proposed by the plan submitter.

(b) "No after mitigation" means that any potential for the proposed timber operation to cause significant adverse impacts has been substantially reduced or avoided by mitigation measures or alternatives proposed in the THP and application of the forest practice rules.

(c) "No reasonably potential significant effects" means that the operations proposed under the THP do not have a reasonable potential to join with the impacts of any other project to cause cumulative impacts.

The determinations made in the above table resulted from cumulative effects analysis contained in subsequent sections of this analysis. Mitigation strategies for each resource subject are summarized on the following page.

D.) If column (a) is checked in (C) above describe why the expected impacts cannot be feasibly mitigated or avoided and what mitigation measures or alternatives were considered to reach this determination. If column (b) is checked in (C) above describe what mitigation measures have been selected which will substantially reduce or avoid reasonably potential significant impacts except for those mitigation measures or alternatives mandated by application of the rules of the Board of Forestry.

Watershed Mitigation—

- The LTO shall not park fuel trucks, trailers, etc. or dispense fuel within a WLPZ or any watercourse.

Soil Productivity Mitigation—

- No additional mitigation measures beyond those of the Forest Practice Rules.

Biological Mitigation—

- Although hardwood density is variable or non-existent, approximately five square feet basal area (BA) of hardwoods (primarily Black Oak and poplars), if it exists prior to harvest, shall be retained.

- Proposed harvest areas will be field-assessed during silvicultural prescription development and marking. Personnel will have training and experience in identification of raptors, nest structures, and associated evidence of stand usage. Any listed or Board Sensitive species nest found within the THP will prompt consultation with CDFW and CDF prior to operations in the vicinity, per CCR 959.2.

Recreational Mitigation—

- No additional mitigation measures beyond those of the Forest Practice Rules.

Visual Mitigation—

No additional mitigation measures beyond those of the Forest Practice Rules.

Traffic Mitigation—

- This proposed THP will be a small scale operation with minimal log truck traffic. This THP will generate a maximum of 5 loads per day.

Greenhouse Gas Emissions—

- No additional mitigation measures beyond those of the Forest Practice Rules.

Climate Change & Green House Gases—

- The draft THP Greenhouse Gas Emissions Calculator released by Cal Fire and dated June 11, 2010, was used to predict potential environmental impact from greenhouse gas emission related to this project. The completed form is attached to this plan. The results indicate carbon stocks will decline as a result of operations under this plan but will recoup within a period of 11 years under uneven-aged management due to growth after harvest. Planned operations in the project area over a 100-year planning horizon under uneven-aged management will result in a total Net emission of 147.61 metric tonnes of carbon dioxide equivalent and sequestration of 12,990 metric tonnes of carbon dioxide equivalent. This 88 acre project area is only a portion of the ownership acres. This property is zoned for heavy industrial and not for timber production; the likelihood of a future harvest plan is low.

III. Identification of Resource Areas

Watershed Assessment Area:

The assessment area for watershed resources is comprised of the one CalWater version 2.2.1 planning watersheds that the THP lies within (5505.220103, McCloud), (see Biological & Watershed Assessment Area Map at end of Section IV). The guidelines offered by the California State Board of Forestry and Fire Protection, Technical Rule Addendum No. 2, were used as the rationale for the establishment of the assessment area. Beneficial uses of water, watershed effects, and watercourse condition were assessed.

The area of assessment focuses primarily on the THP. Other attributes under consideration include, but are not limited to, areas historically known to be geologically unstable, industrial purposes, and domestic use. This WAA allows for a logical consideration of effects when projects combined with watershed attributes in the WAA drainage are analyzed.

This WAA was developed and assessed as per CDF guidelines set forth in 14 CCR 932.9 Board of Forestry Technical Rule Addendum No. 2 Cumulative Impacts Assessment - Appendix Technical Rule Addendum.

Soil Productivity Assessment Area:

The assessment area is the proposed operating area. This is the only area where a potential impact could occur from equipment operations.

Biological Assessment Area:

The assessment area will vary according to the mobility and size of territory of the various species of concern, e.g.:

- For plants and natural communities, the assessment area consists of the proposed logging area.
- For the Northern spotted owl, the assessment area is that area up to 1.3 miles from the plan boundary and that area within ¼ mile of appurtenant roads.
- For all other animals, the assessment area is the same as the Northern spotted owl, the assessment area is that area up to 1.3 miles from the plan boundary.

Recreation Assessment Area:

The assessment area includes all areas within 300 feet of the proposed project boundary, as per CDF guidelines. This 300' assessment area surrounding the plan was chosen because it offers adequate evaluation when considering audio and visual impacts of timber operations.

Visual Assessment Area:

The assessment area is comprised of those portions of the plan that are readily visible to a significant number of people within 3 air miles of the project area as per CDF guidelines. This assessment area surrounding the plan was chosen because it offers adequate evaluation when considering the visual impacts of timber operations.

Traffic Assessment Area:

The assessment area includes Mill street, Haul Road, E. Colombero Drive, Shasta Avenue, Broadway Avenue, Industrial way, and E Minnesota Avenue. These roads are all located in the town of McCloud and may possibly be used.

Greenhouse Gas Emissions Area:

Only the ground within the project area (Harvest area) is considered. This is the only area where a potential impact could occur from harvesting operations that can be assessed.

IV. Identification of Information Sources

a) Individuals Contacted:

Paul Chapman – Manager, Wes Solus – RPF, Paul Ederer - RPF; Campbell Timberland Management; P.O. Box 1540, McCloud, CA 96057; (530) 964-2776.

Timothy English – Forester, Jimmy Smith, Forester; Black Fox Timber Management Group, Inc.; P.O. Box 687, McCloud, CA 96057; (530) 964-9756.

Jim Wolter – Manager/RPF; Hancock Forest Management; P.O. Box 1950, McCloud, CA 96057; (530) 964-9756.

McCloud Ranger District. Shasta Trinity National Forest; P.O. Box 1620, McCloud, CA 96057; (530) 964-2184

Wheeler Birdwell III, RPF-Sierra Pacific Industries, P.O. Box 496014, Redding, CA 96049-6014 (530) 378-8136

David Marshall – Manager/RPF, Bascom Woods LLC; P.O. Box 636, McCloud, CA 96094: (530) 918-9777

Brian Shaw – Spotted Owl Expert (SOE #0029) Klamath Wildlife Resources, 1760 Kenyon Drive, Redding, CA 96001, (530)244-5652

Andrew Yarusso – California Department of Fish and Wildlife : (530) 841-2566 Phone call and field visit on October 27, 2014

b) Records/Sources Examined:

Barclay's California Code of Regulations, Title 14, Division 1.5 – Department of Forestry and Fire Protection (Forest Practice Rules – 2013 and 2014)

Timber Harvesting Plan Records; Watershed Mapper program.

Siskiyou County's Assessors Parcel Information. 311 4th Street #108, Yreka, CA 96097. 11/14/2014

Aerial Photographs; Hancock Forest Management. 2002 and 2010. And Google earth; 1993-2012

McCloud (2012) and Elk Springs (1998), 7½' USGS Quad maps; National Geographic Maps, 2001 and TOPO!.

Soil and Vegetation Survey, McCloud Area, Shasta and Siskiyou Counties; California Department of Forestry and Fire Protection and USDA Soil Conservation Service; 1992

Soil Survey of Shasta-Trinity Forest Area, California; USDA Forest Service and the University of California; 1993

CA Natural Diversity Database; September 2014.

Selected Rare Plants of Northern California; Univ. of CA Agriculture and Natural Resources Publication #3395.

Inventory of Rare and Endangered Vascular Plants of California; CA Native Plant Soc. Special Publication No. 1 (sixth edition); 2001

The Jepson Manual—Higher Plants of California; Ed. By J. C. Hickman; 1993

Pests of the Native California Conifers; D. Wood, T. Koerber, R. Scharpf, and A. Storer (Eds.); 2003

http://www.calflora.org/—Information regarding plant species of concern.

California Wildlife Habitat Relationships System, http://www.dfg.ca.gov/whdab/html — Information on various wildlife species.

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/impaired_waters_list/r5_2008_ir_stfrpt_30jan09.pdf (303d Listings)

http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/303d/pdf/Category_4a_and_5.pdf (303d Listings)

http://www.cnps.org/

Aubry, K.B. and C.M. Raley 2006. Ecological characteristics of fishers in the Southern Oregon Cascade range. Unpublished report. USDA - Forest Service - PNW, Olympia, WA.

McCammon 2010 A status review of the fisher in California. Report to the Fish and Game Commission. California Department of Fish and Game. February 2010, p.104

Sierra Pacific Industries. 2012. Fisher natal den use on managed timberlands in California fisher data compiled from cooperative studies, study cooperators: California Department of Fish and Wildlife, Sierra Pacific Industries, U.S. Fish and Wildlife Service and North Carolina State University, 4 pages.

Zielinski, W.J. R.L. Truex, G.A. Schmidt, F.V. Schlexer, K.N. Schmidt, and R.D. Barrett. 2004. Resting habitat selection by fishers in California. Journal of Wildlife Management 68(3) 475-492.

Watershed Cumulative Effects Assessment

1) Beneficial Uses

There is one Class IV that flows through the plan area. Squaw Valley Creek, a class I watercourse is the only watercourse that flows through the McCloud watershed. The beneficial uses of water include:

- **Existing domestic water supply**
- **Existing cold freshwater habitat**
- **Existing cold spawning**
- **Existing wildlife habitat**

Squaw Valley Creek, the Class I watercourse within the assessment area north and south of highway 89 is hydrologically connected to the McCloud River. The McCloud River is above Shasta Lake. Shasta Lake is an anadromous fish barrier, but does harbor healthy populations of fish. All planning watershed above Shasta Lake are listed by the California Department of Fish and Game as non-restorable for anadromous fisheries. Therefore, the planning watershed where this project occurs is not considered a watershed with listed anadromous salmonids, and are not subject to that section of the Forest Practice Rules.

2) Watershed Resource Assessment Area Attributes:

General information regarding the McCloud Planning Watershed (PW's):

	McCloud
Size (Acres)	1,340
Primary Channel Orientation	North-South
Minimum Elevation (Feet)	3,120
Maximum Elevation (Feet)	3,360
Downstream Planning Watershed	Pig Creek
Hydrological Region	Sacramento River
Hydrological Unit	McCloud River
Hydrological Area	Wyntoon
CA 2.2 ID	5505.220103
Watersheds with listed anadromous salmonids	No
Anadromous Fish	No
303(d) Listed	No

Precipitation Attributes--Precipitation analyses for the WAA show that the area receives an average of approximately 50" of precipitation (snow) per year. Virtually the entire drainage receives a two-year, one-hour maximum precipitation intensity of 0.40 inches/hour.

3) Current Stream Channel Conditions

There is one class I watercourse that runs through the WAA: Squaw Valley Creek. Squaw Valley Creek is a class I watercourse that is adjacent to the plan area. The closest point of the harvest area to Squaw Valley Creek is approximately 372 feet. The timber harvest plan area is located on the McCloud Mill property that has a water drainage system that was designed to maintain water runoff from reaching the domestic water supply of the town of McCloud when the mill was actively operating. The Mill is no longer active however this water drainage system is still functional. There are two class IV ponds outside the harvest area that have a chain link fence around the perimeter of the ponds, no harvesting will take place within the fenced area. There is one unclassified swale located within the harvest area, no protection measures are being proposed. There is one class IV watercourses within the harvest area that is a drainage channel that originally was designed to carry water to an old bark pond on the south side of Squaw Valley Creek. This class IV watercourse is not known to carry water on a normal basis but has the potential on a rain on snow event. The protection measures for this class IV watercourse is a 15 ft. ELZ to ensure the integrity of the banks, therefore there shall not be any potential impacts to cumulative effects on beneficial uses of water.

4) Past, Present, and Future Activities

Past Forest Management and Timber Harvesting: ***The following THPs have been filed and/or operated on within the Watershed Assessment Area and/or Biological Assessment Area over the past 10-years:***

THP# / Exemption #	TRS	Silviculture Acres in Assessment Area
2-07-004-SIS*	39N03W 1	GS-159 SS-115 CT-87
2-08-004-SIS*	39N03W 1	CONV-31
2-09-065-SIS*	39N02W 7, 5	CC-9 CT-16 GS-9 SEL-7
2-09-086-SIS*	40N03W 36	GS-60
2-11-039-SIS*	39N03W 1	SS-25 GS-24 CT-50
2-13-030-SIS*	40N03W 36 40N02W 31, 32 39N02W 6, 5	CT-435 GS-483 SS-70 NH-64 SEL-26 ALTSTSS-39
2-14EX-651-SIS	39N02W 6 39N03W 1 40N02W 31 40N03W 36	Harvesting dead, dying or diseased trees of any size, fuel wood, or split products in amounts less than 10 percent of the average volume per acre.

*Note: * denotes plans that are only partially within the Assessment Areas. Abbreviations for silviculture methods are: CT-commercial thinning, CC-clear cut, SEL-selection, GS-group selection, REHAB- rehabilitation, SS-sanitation/salvage, STR-seed tree removal, SWR-shelterwood removal, ALT-alternative, SWSS- Shelterwood seed step, STSS-Seed tree seed step ROW-right of way, NH-No Harvest Area, CONV-Conversion.*

Current Forest Management and Timber Harvesting: *The following THPs have been filed and/or have current operations within the Watershed Assessment Area and/or Biological Assessment Area:*

THP # 2-13-030-SIS

*Note: * denotes plans that are only partially within the Assessment Areas. Abbreviations for silviculture methods are: CC-clear cut, TRAN-Transition, GSEL-group selection, San/Sal-sanitation/salvage, SWR-shelterwood removal.*

Reasonably Foreseeable Future Projects: *The following project(s) will occur within the Watershed Assessment Area* and/or Biological Assessment Area*:*

Lands within the McCloud Mill THP Watershed Assessment Area are comprised of primarily private lands including Hancock Forest Management, Four Rails Inc. C/O McCloud Railway Company and many small private landowners. McCloud Partners LLC., owns approximately 281 acres representing 20% of the lands in the watershed assessment area. The property owned by the McCloud Partners LLC is zoned heavy industrial and not TPZ, so the potential of future timber harvesting occurring on this property is not very likely.

Proposed Timber Harvesting and Road Construction: The proposed McCloud Mill THP does not propose any new road construction. Silvicultural treatments will cover approximately 88 acres including 7 acres of Shelterwood Removal, 34 acres of Selection, 24 acres of Commercial Thinning and 23 acres of No Harvest.

Other Activities— The use of herbicides will not be used within the THP area.

5) Current Channel Conditions Outside Assessment Area Potentially Contributing to a Reduction in Beneficial Uses

Both natural geological factors and rain-on-snow events have potentially affected streams and stream channels downstream of the assessment area.

Rain-on-snow events have typically led to the most damaging floods within the vicinity. The McCloud Mill THP lies in the zone in which these melting conditions occasionally occur at the lower elevations. Floodwaters produced by these events have a tendency to degrade stream channel stability downstream.

6) Watershed Resources—Analysis of Potential Cumulative Effects

(a) Sediment Effects: Sediment-induced CWEs occur when earth materials transported by surface or mass wasting erosion enter a stream or stream system at separate locations and are then combined at a downstream location to produce a change in water quality or channel condition. The eroded materials can originate from the same or different projects. Potentially adverse changes are most likely to occur in the following locations and situations:

- Downstream areas of reduced stream gradient where sediment from a new source may be deposited in addition to sediment derived from existing or other new sources.
- Immediately downstream from where sediment from a new source is combined with sediment from other new or existing sources and the combined amount of sediment exceeds the transport capacity of the stream.
- Any location where sediment from new sources in combination with suspended sediment from existing or other new sources significantly reduces the survival of fish or other aquatic organisms or reduces the quality of waters used for domestic, agricultural, or other beneficial uses.
- Channels with relatively steep gradients containing accumulated sediment and debris that can be mobilized by sudden new sediment inputs, such as debris flows, resulting in debris torrents and severe channel scouring.

Potential significant adverse impacts of cumulative sediment inputs may include:

- Increased treatment needs or reduced suitability for domestic, municipal, industrial, or agricultural water use.
- Direct mortality of fish and other aquatic species.
- Reduced viability of aquatic organisms or disruption of aquatic habitats and loss of stream productivity caused by filling of pools and plugging or burying streambed gravel.
- Accelerated channel filling (aggradation) resulting in loss of streamside vegetation and stream migration that can cause accelerated bank erosion.
- Accelerated filling of downstream reservoirs, navigable channels, water diversion and transport facilities, estuaries, and harbors.
- Channel scouring by debris flows and torrents.
- Nuisance to or reduction in water related recreational activities.

Situations where sediment production potential is greatest include:

- Sites with high or extreme erosion hazard ratings.
- Sites that are tractor logged on steep slopes.
- Unstable areas.

The McCloud Mill THP is predicted to not have a significant cumulative watershed effect with regard to sediment. There is a class IV watercourse and two unclassified swales within the plan area that does not flow water on a normal basis but has the potential in a rain on snow event.

Mitigation to avoid the potential for increased sediment yields involve both on the ground choices made regarding project harvest and yarding alternatives. These project area conditions and the McCloud Partners mitigation strategies, along with BMPs embedded within the Forest Practice Rules will ensure that this THP will not significantly contribute to sediment effects within the assessment area.

(b) Water Temperature Effect: Water temperature related CWEs are changes in water chemistry or biological properties caused by the combination of solar warmed water from two or more locations (in contrast to an individual effect that results from impacts along a single stream segment) where natural cover has been removed.

Cumulative changes in water temperature are most likely to occur in the following situations:

- Where stream bottom materials are dark in color
- Where water is shallow and has little underflow
- Where removal of streamside canopy results in substantial, additional solar exposure or increased contact with warm air at two or more locations along a stream.
- Where removal of streamside canopy results in substantial, additional solar exposure or increased contact with warm air at two or more streams that are tributary to a larger stream.
- Where water temperature is near a biological threshold for specific species.

Significant adverse impacts of cumulative temperature increases include:

- Increases in the metabolic rate of aquatic species.

- Direct increases in metabolic rate and/or reduction of dissolved oxygen levels, either of which can cause reduced vigor and death of sensitive fish and other sensitive aquatic organisms.
- Increased growth rates of microorganisms that deplete dissolved oxygen levels or increased disease potential for organisms.
- Stream biology shifts toward warmer water ecosystems.

The McCloud THP is predicted to not have a significant cumulative watershed effect with regards to water temperature as there is a class IV watercourse and two unclassified swales within the plan area that does not flow water on a normal basis but has the potential in a rain on snow event. This plan complies with best management practices incorporated into the Forest Practice Rules to limit the amount of canopy removal within the watercourse and lake protection zones.

(c) Organic Debris: CWEs produced by organic debris can occur when logs, limbs, and other organic material are introduced into a stream or lake at two or more locations. Decomposition of this debris, particularly the smaller sized and less woody material, removes dissolved oxygen from the water and can cause impacts similar to those resulting from increased water temperatures. Introduction of excessive small organic debris can also increase water acidity. Large organic debris is an important stabilizing agent that should be maintained in small to medium size, steep gradient channels, but the sudden introduction of large, unstable volumes of bigger debris (such as logs, chunks, and larger limbs produced during a logging operation) can obstruct and divert stream flow against erodible banks, block fish migration, and may cause debris torrents during periods of high flows.

Removing streamside vegetation can reduce the natural, annuals inputs of litter to the stream (after decomposition of logging-related litter). This can cause both a drop in food supply, and resultant productivity, and a change in types of food available for organisms that normally dominate the lower food chain of streams with an overhanging or adjacent forest canopy.

The McCloud Mill THP is predicted to not have a significant cumulative watershed effect with regards to organic debris. Proposed harvesting will neither deposit nor remove debris from stream channels. Therefore, problems stemming from the sudden removal or large inputs of wood are not expected to occur in assessment area streams as a result of this project. There is a class IV watercourse and two unclassified swales within the plan area that do not flow water on a normal basis but has the potential in a rain on snow event.

(d) Chemical Contamination: Potential sources of chemical CWEs include run-off from roads treated with oil or other dust-retarding materials, direct application or run-off from pesticide treatments, contamination by equipment fuels and oils, and the introduction of nutrients released during slash burning or wildfire from two or more locations.

The McCloud Mill THP is predicted to not have a significant cumulative watershed effect with regards to chemical contamination as no herbicides will be used as a part of or a result of this timber harvest plan. Following FPRs, as well as other state and federal laws, will greatly reduce the risk of chemical contaminants entering assessment area streams. The LTO shall not park fuel trucks, trailers, etc. or dispense fuel within a WLPZ or any watercourse.

(e) Peak Flow Effects: CWEs caused by management induced peak flow increases in streams during storm events are difficult to anticipate. Peak flow increases may result from management activities that reduce vegetative water use or produce openings where snow can accumulate (such as clear-cutting and site preparation) or that change the timing of flows by producing more efficient runoff routing (such as insloped roads). These increases, however, are likely to be small relative to natural peak flows from medium and large storms. Research to date on the effects of management activities on channel conditions indicates that channel changes during storm events are primarily the result of large sediment inputs.

The McCloud Mill THP is predicted to not have a significant cumulative watershed effect with regards to peak flows. Proposed silviculture includes an even aged treatment consisting of a shelterwood removal and Uneven-aged treatments consisting of selection and commercial thinning. The even aged treatment under a shelterwood removal consists of 7 acres, and unevenaged commercial thinning consists of 24 acres, selection consisting of 34 acres, and non-harvest area consisting of 23 acres, totally approximately 88 acres. Considering that the total size of the Watershed Assessment Area is approximately 1,340 acres, the potential effects of this shelterwood removal, commercial thinning, selection and non-harvest area (approximately 7% of the assessment area) on peak flows dynamics will not be significant.

(f) *Summary of Watershed Resource Cumulative Effects*

The beneficial uses of the assessment area were considered in light of current stream channel conditions, the effects of past projects, and expected on-site effects of this proposed project. Future projects were also considered with regards to their potential impacts. With regards to sediment, water temperature, organic debris, chemical contamination, and peak flow effects, past, present, and reasonably foreseeable future project impacts were considered to be slight so that they would not significantly contribute to downstream cumulative effects (after proposed mitigation).

Potential environmental effects have been projected to come from the following general categories: sediment, water temperature, organic debris, chemical contamination, and peak flows. Both the current project (McCloud Mill THP) and reasonably foreseeable future projects in the assessment area have the potential to impact each of these factors; however, the combined present and future activities are not likely to have a significant impact, as in the case of this THP. A summary of the logic that went into these conclusions, along with the mitigation incorporated into this THP, as follow:

Sediment—No activities are planned in the McCloud Mill THP or anticipated in other reasonably foreseeable future projects within the assessment area that would likely increase or cause surface or mass wasting erosion. Situations in which sediment production may be most problematic, sites with high or extreme soil hazard ratings; steep slopes logged with tractors; and unstable areas within the THP do not occur in this plan area. Much of the sediment that reaches watercourses is related to crossings and road construction within or adjacent to a WLPZ. . No future projects are envisioned that would be expected to result in significant increases in sediment production. Therefore, McCloud Partners LLC judges that the proposed THP will not cause or add to significant cumulative impacts to watershed resources.

Water Temperature—No activities are planned in the McCloud Mill THP or anticipated in other, future actions within the assessment area that would likely increase stream temperatures. Water temperatures can most readily be affected by either water diversions or removal of shading on streams and near-stream habitats. The McCloud Mill THP and reasonably foreseeable future projects neither plan nor anticipate a significant removal of shading from the streams. WLPZ riparian protection rules will adequately protect streams from temperature.

Organic Debris—No activities are planned in the proposed THP or anticipated in other, future actions within the assessment area that would likely introduce organic debris into streams. In addition, the WLPZs will be managed in a manner that will allow for a reasonable input of large wood into streams over time. By following the FPRs, as related to management of the WLPZs, and mitigating potential impacts to areas that could possibly activate mass failures resulting in the deposition of large amounts of wood into streams, McCloud Partners LLC., judges that the proposed project will not cause or add to significant cumulative impacts to watershed resources.

Chemical Contamination—No herbicides or any other activities are planned in the McCloud Mill THP or anticipated in other, reasonably foreseeable future projects within the assessment area that would likely introduce chemical contaminants into streams. McCloud Partners LLC. will voluntarily require that operators refrain from parking fuel trucks within WLPZs or any watercourse, and refueling will not be allowed in those areas. McCloud Partners LLC., judges that the proposed project will not cause or add to significant cumulative impacts to watershed resources.

Peak Flows—Peak flows may be affected by large-scale alteration of vegetation cover; however, the McCloud Mill THP, in conjunction with reasonably foreseeable future projects, is not expected to cause large-scale alterations of this type adjacent to or access to watercourses. McCloud Partners LLC., judges that the proposed project is not expected to cause or add to significant cumulative impacts to watershed resources.

Soil Productivity Cumulative Effects Assessment

The following procedure will be used to assess the potential for cumulative impacts on soil productivity as a result of the proposed project alone and in combination with past and future timber operations.

A. Soil Productivity Impacts Inventory

Cumulative soil productivity impacts occur when the combined impacts of a sequence of management activities produce a significant reduction in soil productivity. These impacts may occur as part of separate activities on the same project, as residual effects of past projects, and as the likely impacts of future projects.

The assessment area for cumulative soil productivity impacts is limited to the area of the proposed project.

Forest management activities are required to be conducted in a manner that assures "where feasible, the productivity of timberlands is restored, enhanced, and maintained". Therefore, productivity losses resulting from site disturbance in excess of that required by suitable silvicultural and harvesting practices, whether conducted individually or in sequence, must be considered as significant.

Impact significance must also be considered relative to the soil productivity potential of the area in question. Losses that can be considered acceptable on highly productive lands may be unacceptable, or even exceed the productive potential, of lower site lands. For example, productivity reductions from loss of growing space associated with development of roads and skid trails necessary for timber management on high site lands may be greater than the total unit-area productivity of a poor site.

The proposed THP area is comprised predominantly of well-drained, moderately deep to deep soil types of the Shastina Loam and the Shasta loamy sand families.

As per the Soil Survey of Shasta-Trinity Forest Area-California (USFS) and the Soil and Vegetation Survey-McCloud Area (CDF and SCS). These soil types are primarily suited for timber production, although they are also suited for wildlife production and watershed.

In general terms, the soils found within the proposed THP area are well suited for forest management and are associated with good site quality, moderate to good tree growth, moderate to rapid permeability, and slow runoff.

B. Soil Productivity Resources Assessment

Site factors to be assessed for cumulative soil productivity impacts include:
1. Organic matter loss,
2. Surface soil loss,
3. Soil compaction,
4. Growing space loss.

The relationship between these site factors and soil productivity is described in Section B of the appendix to Technical Rule Addendum Number 2.

The potential impact of successive management activities must be assessed for each of these factors individually and in combination, and the overall impact should be classed as significant when:

- The area disturbed by proposed timber operations will exceed that required by the silvicultural and harvest systems approved for use under the proposed THP, including unnecessary duplication of existing skid trails, roads, landings, yarding disturbance, and mechanical site preparation.
- The amount of organic matter loss and soil displacement with use of the proposed silvicultural and harvesting systems will substantially exceed that of other, feasible systems.
- The amount of compaction and puddling with use of the proposed silvicultural and harvesting systems will substantially exceed that of other, feasible systems, under the soil moisture conditions expected at the time of proposed operations.
- The combined loss of soil productivity from loss of growing space, organic matter loss, soil displacement, and soil compaction from the proposed operations will substantially exceed that of other feasible combinations of silvicultural and harvesting systems.

1. Organic Matter Loss

Displacement or loss of organic matter can result in a long term loss of soil productivity. Soil surface litter and downed woody debris are the store-house of long term soil fertility, provide for soil moisture conservation, and support soil microorganisms that are critical in the nutrient cycling and uptake process. Much of the chemical and microbial activity of the forest nutrient cycle is concentrated in the narrow zone at the soil and litter interface.

Displacement of surface organic matter occurs as a result of skidding, mechanical site preparation, and other land disturbing timber operations. Actual loss of organic matter occurs as a result of burning or erosion. The effects of organic matter loss on soil productivity may be expressed in terms of the percentage displacement or loss as a result of all project activities.

Erosion and volatilization during burning are the primary causes of organic matter loss. The standard Forest Practice Rules require the installation of waterbreaks following harvest operations, for the purpose of minimizing the potential for erosion. The proposed plan will likely not increase the amount of erosion that has occurred in the plan area, due to the generally gentle slopes with and the installation of waterbreaks following operations. The majority of the THP will utilize silviculture methods that will not require burning for site preparation primarily due to whole tree yarding. Shelterwood Removal, Commercial Thinning and Selection units may have landing piles to be burned. The possibility of loss of organic matter from this THP is not likely to be significant.

The amount of organic matter loss and soil displacement with use of the proposed silvicultural and harvesting systems is not expected to substantially exceed that of other, feasible systems.

2. Surface Soil Loss

The soil is the storehouse of current and future site fertility, and the majority of nutrients are held in the upper few inches of the soil profile. Topsoil displacement or loss can have an immediate effect on site productivity, although effects may not be obvious because of reduced brush competition and lack of side-by-side comparisons or until the new stand begins to fully occupy the available growing space.

Surface soil is primarily lost by erosion or by displacement into windrows, piles, or fills. Mass wasting is a special case of erosion with obvious extreme effects on site productivity. The impacts of surface soil loss may be evaluated by estimating the proportion of the project area affected and the depth of loss or displacement.

Surface soil loss can be avoided by keeping the organic layer intact as discussed above, and through the proper installation of waterbreaks and minimizing the number of skid trails. By keeping the organic layer intact, raindrop impact is reduced significantly. The standard WLPZ measures, combined with soil stabilization measures in the Forest Practice Rules provide a buffer between the logging area and streams. Given these considerations and the restrictions within the standard Forest Practice Rules, surface soil loss is not expected to be significant. There is a class IV watercourse and two unclassified swales within the plan area that do not flow water on a normal basis but has the potential in a rain on snow event.

3. Compaction Losses

Compaction affects site productivity through loss of large soil pores that transmit air and water in the soil and by restricting root penetration. The risk of compaction is associated with:

- Depth of surface litter.
- Soil structure.
- Soil organic matter content.
- Presence and amount of coarse fragments in the soil.
- Soil texture.
- Soil moisture status.

Compaction effects may be evaluated by considering the soil conditions, as listed above, at the time of harvesting activities and the proportion of the project area subjected to compacting forces.

Soil compaction is inevitable where ground based operations occur. By limiting the area of skid trails and by utilizing existing trails and whole tree yarding where feasible, the area of compacted soils will be limited.

The amount of compaction and pooling associated with the proposed silvicultural and harvesting systems is not expected to substantially exceed that of other, feasible systems, under the soil moisture conditions expected at the time of proposed operations.

4. Growing Area Losses

Forest growing space is lost to roads, landings, permanent skid trails, and other permanent or non-restored areas subjected to severe disturbance and compaction.

This project does not propose any construction of new roads or landings. This project does not call for the abandonment of existing seasonal roads or landings. This project also proposes to utilize the existing road, landing and trail network for the express purpose of avoiding the development of new systems that would contribute to a loss in growing space where feasible. The maintenance of existing roads will enable the transportation of forest products and facilitate forest management activities. There are no proposed new roads or landings; therefore there will not be any loss of Growing space in result of this Timber Harvest Plan. It is not expected that operations will result in a significant amount of growing space loss to this site.

C. Impacts Evaluation

Will the proposed project, as presented, alone or in combination with the impacts of past and future projects have a reasonable potential to cause or add to significant cumulative soil productivity impacts as a result of:

			Yes, after mitigation		No, after mitigation		No, reasonably potential significant impacts
1.	Organic matter loss						xxx
2.	Surface soil loss						xxx
3.	Soil compaction						xxx
4.	Growing space loss						xxx
5.	Any combination of items 1 through 4						xxx

Biological Resources Cumulative Effects Assessment

1. Known or Predicted Wildlife Resources and Assessment of Potential Impacts

A number of resources were assessed to determine if there were known or potential rare, threatened, endangered, or sensitive species within the assessment area. Sources included: CA Natural Diversity Database; RAREFIND (for quadrangle within the assessment area, McCloud (2012) and Elk Spring (1998); CNPS database; analysis of WHR habitats within the assessment area; and communications with adjacent landowners.

The following rare, threatened, endangered, or sensitive species exist within the assessment area or have the potential to exist due to the presence of habitat and operation provisions for several species that may occur in the plan area (See Section II, Item 32(a) and 32(b). A short description of each species' ecological/biological characteristics, legal status, known status within the assessment area, and mitigation (if needed) to address any potential impacts follows:

a) **Rare plants—Aleppo avens (*Geum aleppicum*) is a perennial herb found in Great Basin scrub, lower montane coniferous forest, and meadow and seeps habitats. This THP has potential habitat for this species which is ranked as a 2B.2 species on the California Native Plant Societies (CNPS) rare and endangered plant inventory. According to CNPS the Aleppo avens is fairly endangered in California but more common elsewhere. This species is not listed under the federal ESA or the CESA. According to the CNDDB this species is known to occur within and adjacent to the plan area. The RPF or supervised designee did not observe this plant species during unit layout.**

   If any sensitive plants are identified, the plants will be flagged, mapped, and a 25 foot zone of no operations will be established around plant occurrences. In consultation with CDF&W and Cal Fire, equivalent or more effective protection measures may be developed and amended to the THP

b) **Fisher: There are no known detections of fisher within or adjacent to the THP area, however, potential suitable foraging habitat for the species exists within and adjacent to the THP area. Fisher is currently a Federal Endangered Species Act (ESA) candidate species. The fisher is not currently listed under the California Endangered Species Act (CESA), but it is a federal candidate threatened species under the federal ESA. In 2010, the DFG recommended the species is not warranted for listing under the State ESA, however, at this time the species is considered a candidate species. Specific operational measures are described in Section II, Item 32 that ensures that take of fisher shall not result from the proposed THP.**

Assessment area description and rationale: The assessment area for the Pacific Fisher is a variety of conifer habitats within the planning watershed (See Section III, fisher). The use of the planning watershed assessment area allows for den site and/or habitat assessment within and/or adjacent to the plan area.

Pre-project habitat condition: Fisher denning, resting and foraging habitats may occur in portions of the planning watershed. Denning habitat is typically older, decayed conifer or hardwood trees with cavities or structures large enough to support a denning female. Resting habitat is typically forested areas with larger, older, decayed trees large enough to support a resting fisher. Foraging habitat is any habitat that supports a wide range of small mammals and is present within the THP area.

Post-project habitat condition: The retention of large hardwoods where they exist will be prioritized within the THP area. Specific habitat maintenance measures for these key components are described in Section II, Item 32(a). By using this strategy of habitat maintenance and protection of denning sites if and when they occur, no significant cumulative adverse impacts are expected to occur to this species as a result of this THP.

c) Northern spotted owl: The species was listed federal threatened in 1990. The range of the spotted owl is delineated into 12 physiographic provinces based on recognized landscape subdivisions exhibiting different physical and environmental features (Thomas et al 1993 as reported in USFWS 2008). The three provinces important to California are the California Coast, California Klamath, and the California Cascades. The McCloud Mill is within the California Klamath and California Cascades provinces. In California, the NSO is listed as candidate under the CESA. The California Forest Practice Rules ensure that a THP will not individually result in a "take" or cause a significant cumulative adverse impact on any individual of the species.

The listing criteria determined the NSO was at risk to extinction "due to loss and adverse modification of suitable habitat as a result of timber harvesting and exacerbated by catastrophic events such as fire, volcanic eruption, and wind storms". Private forested timberlands have been managed for commercial timber values since the early 1900's. Consequently, these forests are relatively young (< 100 years old) with small (< 10 acres), isolated patches of older trees. On-going timber harvest and fuels management have contributed to this diverse forest mosaic.

Forest management activities have the potential to alter forest characteristics and influence the availability and quality of habitat for NSO. The modification of forest stand conditions through timber harvest has the greatest potential to affect (both adversely and beneficially) NSO because of the immediate and long-term effects it has on habitat conditions and prey availability. Silvicultural treatments such as shelterwood removal and seed tree removal and clearcutting, may benefit NSO by accelerating the development of owl habitat and increasing prey abundance and by reducing the risk of catastrophic wildfire. Other forest management activities such as road construction and maintenance can result in undefined levels of habitat modification and disturbance.

Based on the CNDDB search the known Spotted Owl observations are more than 1.5 miles away from the proposed harvest area. Specifically, the proposed THP ensures that "take" will not occur based on discussions with the U.S. Fish and Wildlife Service (USFWS), CAL FIRE Senior Environmental Scientist – Forest Practice Biologist Stacy Stanish and Spotted Owl Expert Brian Shaw as described in 14 CCR § 939.9(e). Based on these consultations and a previous determination by USFWS for survey exemption in this area and overall lack of suitable habitat for NSO, this THP will not have a significant cumulative adverse impact on this species as a result of this plan.

d) Oregon snowshoe hare: This species is likely present within the THP or biological assessment area, and is known to occur in the scoping area. Snowshoe hares are abundant in dense stands of Manzanita that develop following a major fire. Oregon snowshoe hares were apparently not historically common in California. These species are likely present within the plan area and are rarely seen because it hides during the day in forms of dense cover. Based on information in Section II, Item 32 of the plan, no additional operational provisions are necessary to maintain suitable habitat for the species and no significant cumulative adverse impacts are expected to occur to this species as a result of this plan.

e) Sierra Nevada red fox: Suitable habitat for the Sierra Nevada red fox occurs within the Biological Assessment Area and within the plan area. General Habitat is "Many High Elevations". Preferred habitat appears to be red fir and lodgepole pine forests in the subalpine zone and alpine fell-fields. The current range and distribution of the red fox is unknown. The fox may hunt in forest openings, meadows, and barren rocky areas associated with its high elevations habitats. The subspecies is known to inhabit vegetation types similar to those used by the marten and wolverine. Threats to the Sierra Nevada red fox are unknown. According to the CNDDB there is one known Sierra Nevada Red Fox location within the Biological assessment area and within approximately one half mile of the plan area. No sign of the species presence within the THP area have been observed despite repeated site visits by the RPF and forestry and wildlife staff. If this species is discovered within the plan operational provisions for this state listed species are described in Section II, Item 32a. Accordingly, no significant cumulative adverse impacts are expected to occur to this species as a result of this plan.

f) Willow Flycatcher: A rare to locally uncommon, summer resident in wet meadow and montane riparian habitats, at 2000-8000 feet in the Sierra Nevada and Cascade Range. Most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willows. Dense willow thickets are required for nesting and roosting. Low exposed branches are used for singing posts and hunting perches. After consultation and field visit with CDFW Andrew Yarusso the THP area was determined to contain marginal potential habitat for the Willow Flycatcher. The

majority of potential habitat is outside the harvest area. There are no known occurrences within the plan area or in the biological assessment area. If this species is discovered within the plan operational provisions for this state listed species are described in Section II, Item 32a. Accordingly, no significant cumulative adverse impacts are expected to occur to this species as a result of this plan.

g) Townsend's big-eared bat: There are no known detections of Townsend's big-eared bat within or adjacent to the THP area, however potential suitable nesting habitat for the species exists within the THP area. The species is currently a candidate for state listing. If this species is discovered within the plan operational provisions for this state listed species are described in Section II, Item 32a. Accordingly, no significant cumulative adverse impacts are expected to occur to this species as a result of this plan.

h) Gray wolf: This species is not known to occur within the THP area, but has been detected in the biological assessment area. General habitat is diverse including Tundra, Forests, Grasslands, and deserts. Primary habitat requirements are the presence of adequate ungulate prey, water, and low human contact. The species was just currently listed as Endangered by the State of California. Based on information in Section II, Item 32 of the plan, no additional operational provisions are necessary to maintain suitable habitat for the species and no significant cumulative adverse impacts are expected to occur to this species as a result of this plan.

i) Non-listed Raptors: Red-tailed hawk *(Buteo jamaicensis)*, Rough legged *(Buteo lagopus)*, Cooper's *(Accipiter cooperii)* and sharp-shinned *(Accipiter striatus)* hawks (smaller cousins of the goshawk), and a variety of owl species (Great Horned, Northern Pygmy, Flammulated, Western Screech & Northern saw-whet) have the potential of nesting within the assessment area. Both the Cooper's and sharp-shinned hawk are DFG Species of Concern. A non-systematic survey of potential habitat within the THP area was conducted by the RPF, forestry and wildlife staff. No non-listed hawks or owls were discovered. Suitable habitat for these species will be retained following forest management activities including measures described in Section II, Item 35 of this THP. If any of these species are discovered within the plan operational provisions for this unlisted species are described in Section II, Item 35 of the plan. Accordingly, no significant cumulative adverse impacts are expected to occur to this species as a result of this THP.

THP will maintain habitat for these species in a number of different ways. First, the Class I watercourse within the Biological Assessment area is not within the harvest area. Second, hardwoods will be retained with where they exist and are not a safety hazard. These features will make suitable denning structures and places where foraging may occur. Third, large down wood may be retained in harvest units to the degree possible. By following these mitigation strategies, significant cumulative impacts are not expected from this project or other, future projects.

2. Known Significant Wildlife or Fishery Resource Concerns

There are no known significant wildlife or fishery resource concerns; therefore this plan is unlikely to affect this species.

3. Aquatic and Near-Water Habitat Conditions

The section of Squaw Valley Creek within the WAA contains several houses along the watercourse that is well shaded by numerous trees and riparian vegetation. Riparian areas within the assessment area generally have moderate to high canopy closure and are dominated with Ponderosa pine, with minor amounts of white fir and Douglas fir. Hardwoods are also present, to a small extent including poplar and black oak. Adjacent to riparian areas there are few residual larger trees with some defects. The result, when coupled with the FPRs, will be that no significant impacts are expected from this or future, foreseeable projects.

5. Biological Habitat Conditions of the THP and Surrounding Areas—

a) Multi-storied Canopy—Management of stands within this THP area has not been intensive in the past since it is a heavy industrial site designed to function as a sawmill. However, with the lack of forest management activities silvicultural options are more flexible. The use of selection as a silvicultural method will help maintain that multi-stored canopy structure for wildlife habitat diversity.

Most of the stands in this project will be treated under both even aged and uneven aged silviculture systems, with a variety of tree species, heights, and diameters retained. This will result in a mix of stands throughout the assessment area. The use of shelterwood removal will bring another age class into the habitats found in this area and the commercial thinning will create a healthier more vigorous stand. Following this management strategy should ensure that no significant impacts result from this project or future, foreseeable projects.

d) Road Density – Overall, the density of roads within these watersheds is low, with some roads receiving moderate amounts of vehicular traffic from local citizens of the community. The presence of terrestrial wildlife species in the area was noted during field reconnaissance, it is unlikely that there will be an adverse impact on large mammals due to road density. The intermittent nature of access to the assessment area provides the potential for occasional disturbance to wildlife. No evidence exists to suggest that road density in this project area presents a cumulative

impact on wildlife resources and it is predicted that this project and foreseeable, future projects are not expected to result in significant impacts.

e) Hardwood Cover—the hardwoods that exist in the project area are mainly poplars with minor amounts of black oak.

No hardwood trees will be harvested commercially as part of this plan; thus, there will not be a landscape level impact associated with a reduction of mast producing trees. Based upon this retention strategy cumulative impacts are not expected to occur from either this project or foreseeable, future projects.

f) Wildlife Habitat Diversity— the assessment area is dominated by Ponderosa Pine stands and brush fields. Stand size and density vary widely within the assessment area with the seedling, sapling, and pole size classes almost all directly attributable to the lack of past management activities.

Harvest operations associated with the McCloud Mill THP will help balance some of the WHR size-class and canopy conditions, making for more well-rounded wildlife habitat. This harvest operation will move a number of stands from size class 4 into a size class 1, bringing more diversity into the plan area at a coarse stand structure level. Even-age management will promote an improved distribution of size class 1 and 2 stands within the assessment area. Retention of hardwoods will also maintain or enhance habitat diversity. Based upon the existing mix of vegetation types, sizes, and densities, and the project's predicted changes to the habitat types, no significant cumulative impacts are expected to occur.

g) Late Seral (Mature) Forest Characteristics and Habitat Continuity—There are no late seral stands or patches of late seral within the plan area that meet the State's late seral definition (i.e. multi story structure, large decadent trees, snags, and large downed logs). Technical Rule Addendum #2 has different criteria for evaluation:

Late Seral (Mature) Forest Characteristics: Determination of the presence or absence of mature and over-mature forest stands and their structural characteristics provide a basis from which to begin an assessment of the influence of management on associated wildlife. These characteristics include large trees as part of a multilayered canopy and the presence of large numbers of snags and downed logs that contribute to an increased level of stand decadence. Late seral stage forest amount may be evaluated by estimating the percentage of the land base within the project and the biological assessment area occupied by areas conforming to the following definitions:

- Previously harvested forests are in many possible stages of succession and may include remnant patches of late seral stage forest which generally conform to the definition of unharvested forests but do not meet the acreage criteria.

The late-seral characteristics of the THP area and throughout most of the assessment area were eliminated by past operations and utilization of the sawmill. The majority of the assessment area consists of mature Ponderosa pine stands with minor amounts of white fir, douglas fir and large brush fields in the understory. While the plan area does not meet the definition of late-seral forest, certain late-seral characteristics will be retained within the harvest area.

In order to create functional late-seral habitat characteristics in the future, the Board of Forestry has implemented rules to manage WLPZ's as late seral reserves. These rules require landowners to retain large, decadent, residual conifers to provide perches, nesting structures, and recruitment of large down wood. The plan as proposed will not alter the mature forest characteristics or any special habitat elements required by wildlife within the assessment area. No significant adverse impacts on the environment are likely to occur as result of this THP.

h) Special Habitat Elements—As mentioned previously poplar and black oak will be retained to varying levels in proposed harvest units where present and throughout the assessment area as a whole.

Recreational Resources Cumulative Effects Assessment

A. Recreational Resources Inventory

The recreational assessment area is generally the area that includes the logging area plus 300 feet. To assess recreational cumulative impacts, identify the recreational activities involving significant numbers of people in and within 300 feet of logging area (e.g. fishing, hunting, hiking, picnicking, camping, etc.).

The proposed THP area is private property however portions of the surrounding 300 feet adjacent to the plan area is a mixture of private residential property, industrial private property and public property where recreation does occur. There are gates restricting public access to the THP area. Other lands adjacent to the plan area are private or community property and are open to the public. These lands include a public park, residential, and timber production lands.

Identify any recreational Special Treatment Areas described in the Board of Forestry rules on the plan area or contiguous to the area. If a public use of the area is identified, continue to Part B.

Hoo Hoo Park.

B. Change in Recreational Resources

Discuss whether the timber operation will significantly alter the recreational opportunities on the logging area or within 300 feet of the logging area.

Timber operations should have no significant impact on the recreational use of lands within the logging area or on the adjacent lands within 300 feet. The lands containing this project are zoned for heavy industrial and have been used as a timber sawmill since the late 1800s up until 2002. This THP will have a similar however lesser impact to the area as previous projects over the past decade had within the assessment area.

C. Other Projects

Information on other projects in the assessment area that might interact with the effects of the proposed timber operation need to be identified and discussed. Discuss the following:

1. Any past or future projects in the recreational assessment area that are under the ownership or control of the timber/timberland owner that will impact recreational opportunities used by the public identified in Part A, above.

None known or reasonably expected in the future except for those discussed above.

2. Any known future projects planned or expected in the area for assessment of recreational impacts that are not under the control of the timber/timberland owner that will impact recreational opportunities used by the public identified in Part A, above.

None known.

D. Impacts Evaluation

Will the proposed project, as presented, in combination with the impacts of past and future projects, as identified in Parts A through C, above, have a reasonable potential to cause or add to significant cumulative impacts to recreation resources?

Yes (after mitigation).....	_____
No (after mitigation).....	_____
No (no reasonably potential significant effects).....	**XXX**

Visual Resources Cumulative Effects Assessment

A. Visual Resource Inventory

The visual assessment area is generally the logging area that is readily visible to significant numbers of people who are no further than three miles from the timber operation.

1. Identify any Special Treatment Areas designated as such by the Board of Forestry because of the visual values on or near the plan area?

Hoo Hoo Park.

2. Determine how far the proposed timber operation is from the nearest point that significant numbers of people can view the timber operation. At distances of greater than 3 miles from viewing points, activities are not easily discernable and will be less significant.

The timber harvest area is located adjacent to residential property, industrial property, private timberland and a community park. The harvest area is located at the north end of the town of McCloud. The property is zoned for heavy industrial and was an operating sawmill up until 2002.

3. Identify the manner in which the public identified in 1 and 2, above, will view the proposed timber operation (e.g. from a vehicle on a public road, from a stationary public viewing point, from a pedestrian pathway, etc.).

The majority of the public viewing the THP will see more of a park like setting. The silvicultural methods chosen for this plan area surrounding Hoo Hoo Park is commercial thinning and selection which will be thinning out and removing the unhealthy, poor form, dead, dying, or diseased trees creating a healthier better growing stand.

If the information in item 1 or 2, above, identifies a significant visual resource, continue with section B, below.

B. Change in Visual Resource

Discuss the probability of the timber operation changing the visual setting viewed by the public as a result of vegetation removal, creation of slash and debris, or soil exposure.

Potential visual impacts were considered in the development and selection of silvicultural methods for this THP. There will be slash and other logging debris visible to the public as a result of this operation, but those visual impacts will be short lived as the slash will be treated in pursuant to Title 14 CCR 937.2.

C. Other Projects

Information on other projects in the assessment area that might interact with the effects of the proposed timber operation needs to be identified and discussed. Discuss the following:

1. Any past and future projects in the visual assessment area that are under the ownership or control of the timber/timberland owner and that could interact to cause a significant change in any identified visual resource.

There are no projects in the past or reasonably foreseeable future that would combine with this project to create a negative cumulative visual effect.

2. Known future projects in the visual assessment area that are not under the control of the timber/timberland owner and could interact with any identified visual resources.

There are no future projects known at this time.

D. Impacts Evaluation

Will the proposed project, as presented, in combination with the impacts of past and future projects, as identified in Parts A through C, above, have a reasonable potential to cause or add to significant cumulative impacts to visual resources?

Yes (after mitigation).....	_____
No (after mitigation).....	XXX
No (no reasonably potential significant effects).....	_____

Vehicular Resources Cumulative Effects Assessment

A. Traffic Resource Inventory

The traffic assessment area involves the first roads not part of the logging area on which logging traffic must travel. To assess traffic cumulative effects:

1. Identify whether any publicly owned roads will be used for the transport of wood products. (If the answer to item 1 indicates that public roads will not be used, then no further assessment is needed.)

Publicly owned roads will be used for the transport of wood products including Mill Rd., E Colombero Dr., Broadway Ave, Haul Rd., Shasta Ave, E Minnesota Ave., Tucci Ave and State Highway 89. Other roads to be used for transportation of wood products are privately owned.

2. Identify any public roads that have not been used recently for the transport of wood products and will be used to transport wood products from the proposed timber harvest.

Tucci Ave., Shasta Ave., and E Minnesota Ave.

3. Identify any public roads proposed for the transport of wood products that have existing traffic or maintenance problems.

None known.

B. Activity Levels

Discuss how the logging vehicles used in the timber operation will change the amount of traffic on public roads, especially during heavy traffic conditions.

The proposed logging area is located within the town of McCloud. Logging vehicle traffic will slightly increase to having a maximum of five loads per day. This is a small scale logging operation that will be done in small areas at a time. Logging traffic from the proposed THP should not significantly change the amount of traffic on public roads.

C. Other Projects

Information on other projects in the assessment area that might interact with the effects of the proposed timber operation needs to be identified and discussed. Discuss the following:

1. Other past or future projects on lands under the control of the timber/timberland owner that will add significantly to traffic on public roads during the periods these roads are used by logging vehicles from the proposed timber operation.

   None Known

2. Any known future projects not under the control of the timber/timberland owner that will impact public road traffic during the period that these roads are used by logging vehicles from the proposed timber operation.

   None Known

D. Impacts Evaluation

Will the proposed project, as presented, in combination with the impacts of past and future projects, as identified in Parts A through C above, have a reasonable potential to cause or add to significant cumulative impacts to vehicular traffic on public roads?

Yes (after mitigation).....	_____
No (after mitigation).....	***XXX***
No (no reasonably potential significant effects).....	_____

McCloud Mill THP Unevenaged GHG Calculations

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				Harvest Periods	Inventory		Growth Rates		Harvest Volume	
Multipliers to Estimate Carbon Tonnes per MBF (Sampson, 2002)				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)
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	**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
Ponderosa Pine	98%	1.675	14.38	User must enter harvest cycles to 100 years and/or at least three entry cycles.	0	18	0	500	0	8	0
Redwood	0%	1.675	13.42		20	20	0	500	0	7	0
Douglas fir	1%	2.254	12.14		40	23	0	500	0	9	0
True firs	1%	2.254	11.18		60	24	0	500	0	9	0
Hardwoods		2.214	11.76		80	25	0	500	0	10	0
Conversion of Board Feet to Cubic Feet	0.165	Pounds per Metric Tonne	2,204		100	25	0	500	0	10	0
					0	0	0	0	0	0	0
Multipliers to Estimate Total Carbon Tonnes per MBF	Conifer	1.81			0	0	0	0	0	0	0
	Hardwoods	1.95			0	0	0	0	0	0	0
Multipliers to Estimate Merchantable Carbon Tonnes per MBF	Conifer	1.07			0	0	0	0	0	0	0
	Hardwoods	0.88			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	
	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:	
from above (Time of Harvest as years from project approval)	**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	33	0	119	0	None	0
20	36	0	133	0	None	0
40	42	0	152	0	None	0
60	43	0	159	0	None	0
80	45	0	166	0	None	0
100	45	0	166	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		46	0.00	Sum of emissions (Metric Tonne	0

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McCloud Mill THP Unevenaged GHG Calculations

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:**(((36 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:** (1200 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:** (((.18 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	(0.02)	62	1	-0.01	-0.05	1	-0.01	-0.07	0	0.00	0.00	-0.01	**Step 13.** Enter Estimated Load Average: MBF/Truck	4	-0.13056
20	(0.02)	72	1	0.00	-0.03	1	-0.01	-0.05	0	0.00	0.00	-0.01			-0.11424
40	(0.02)	72	1	0.00	-0.04	1	-0.01	-0.07	0	0.00	0.00	-0.01	**Step 14.** Enter Estimated Round Trip Haul in Hours	4	-0.14688
60	(0.02)	72	1	0.00	-0.04	1	-0.01	-0.07	0	0.00	0.00	-0.01			-0.14688
80	(0.02)	72	1	0.00	-0.05	1	-0.01	-0.08	0	0.00	0.00	-0.01			-0.1632
100	(0.02)	72	1	0.00	-0.05	1	-0.01	-0.08	0	0.00	0.00	-0.01			-0.1632
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	-0.12				-0.26			-0.41			0.00	-0.08			-0.86

Breakout into multiple production sites and by harvest year

McCloud Mill THP Unevenaged GHG Calculations

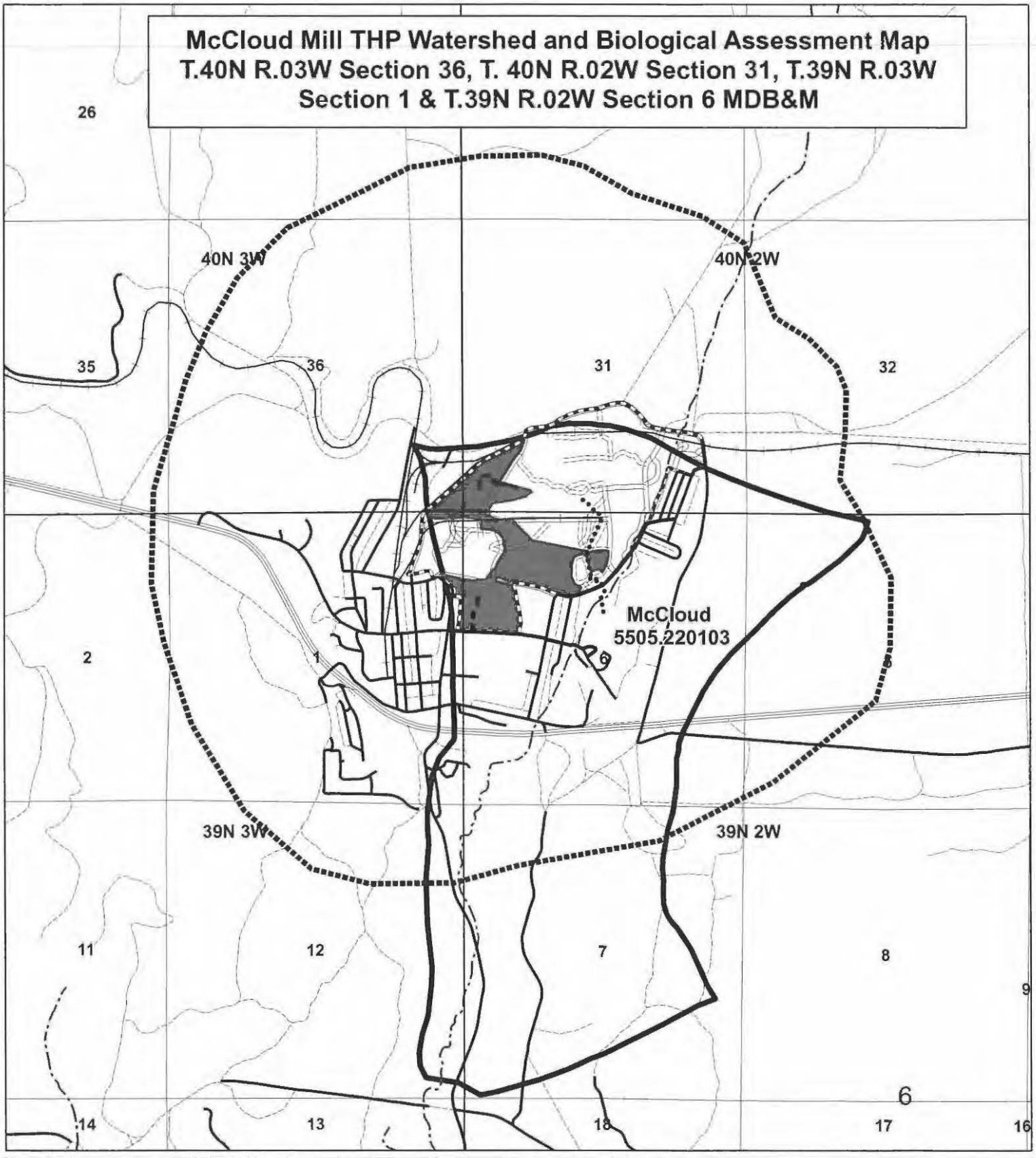
Project Carbon Accounting: Harvested Wood Products and Processing Emissions

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	98%	0%	30.86	0.00	-0.20	20.67	0.00	15.73	0.00
20	98%	0%	27.00	0.00	-0.17	18.09	0.00	13.77	0.00
40	98%	0%	34.72	0.00	-0.22	23.26	0.00	17.70	0.00
60	98%	0%	34.72	0.00	-0.22	23.26	0.00	17.70	0.00
80	98%	0%	38.57	0.00	-0.25	25.84	0.00	19.67	0.00
100	98%	0%	38.57	0.00	-0.25	25.84	0.00	19.67	0.00
0	0%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Sum of emissions associate with processing of lumber			-1.30	Sum of CO2 equivalent in wood products		104.23	0.00

McCloud Mill THP Unevenaged GHG Calculations

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		11 Years
Live Trees (Conifers and Hardwoods)	119.34	165.75	
Wood Products		104.23	
Site Preparation Emissions		0.00	
Non-biological emissions associated with harvesting		-1.74	
Non-biological emissions associated with milling		-1.30	
Sum of Net Emissions/Sequestration over Identified Harvest Cycles (CO2 metric tonnes)		147.61	
Project Summary			
Project Acres	Step 17- Insert the acres that are part of the harvest area.	88	
Total Project Sequestration over defined Harvesting Periods (CO2 metric tonnes)		12,990	


McCloud Mill THP Watershed and Biological Assessment Map
T.40N R.03W Section 36, T. 40N R.02W Section 31, T.39N R.03W
Section 1 & T.39N R.02W Section 6 MDB&M
26
40N 3W
40N 2W
35
36
31
32
McCloud
5505.220103
2
1
6
39N 3W
39N 2W
11
12
7
8
9
6
14
13
18
17
16
McCloud Mill Property Boundary
Harvest Area
Biological Assessment Area
CalWater Watershed Boundary
Class I watercourse
Class IV watercourse
Unclassified swale
Highway
Permanent Private Road
Permanant Public Road
Seasonal Private Road
Seasonal Public Road
Railroad
0 0.25 0.5 0.75 1 Miles
McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998
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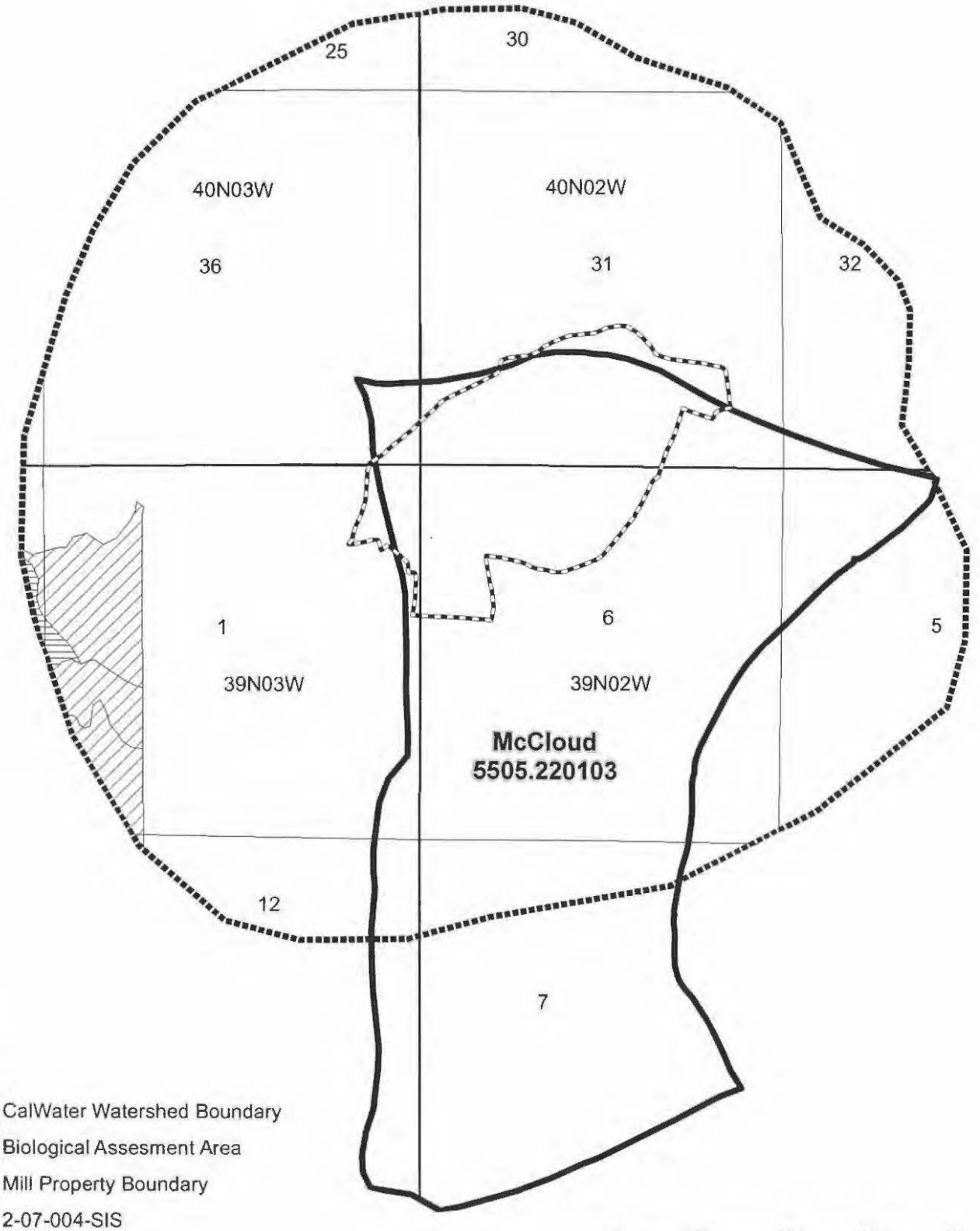
N

McCloud Mill THP Past & Present Activities Map 1 of 7



CalWater Watershed Boundary
Biological Assesment Area
Mill Property Boundary
2-07-004-SIS
Intermediate Treatment
Unevenaged Mgt.
Evenaged Mgt.
Special Prescription & other mgt.

0 0.3 0.6 0.9 1.2 Miles

McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998

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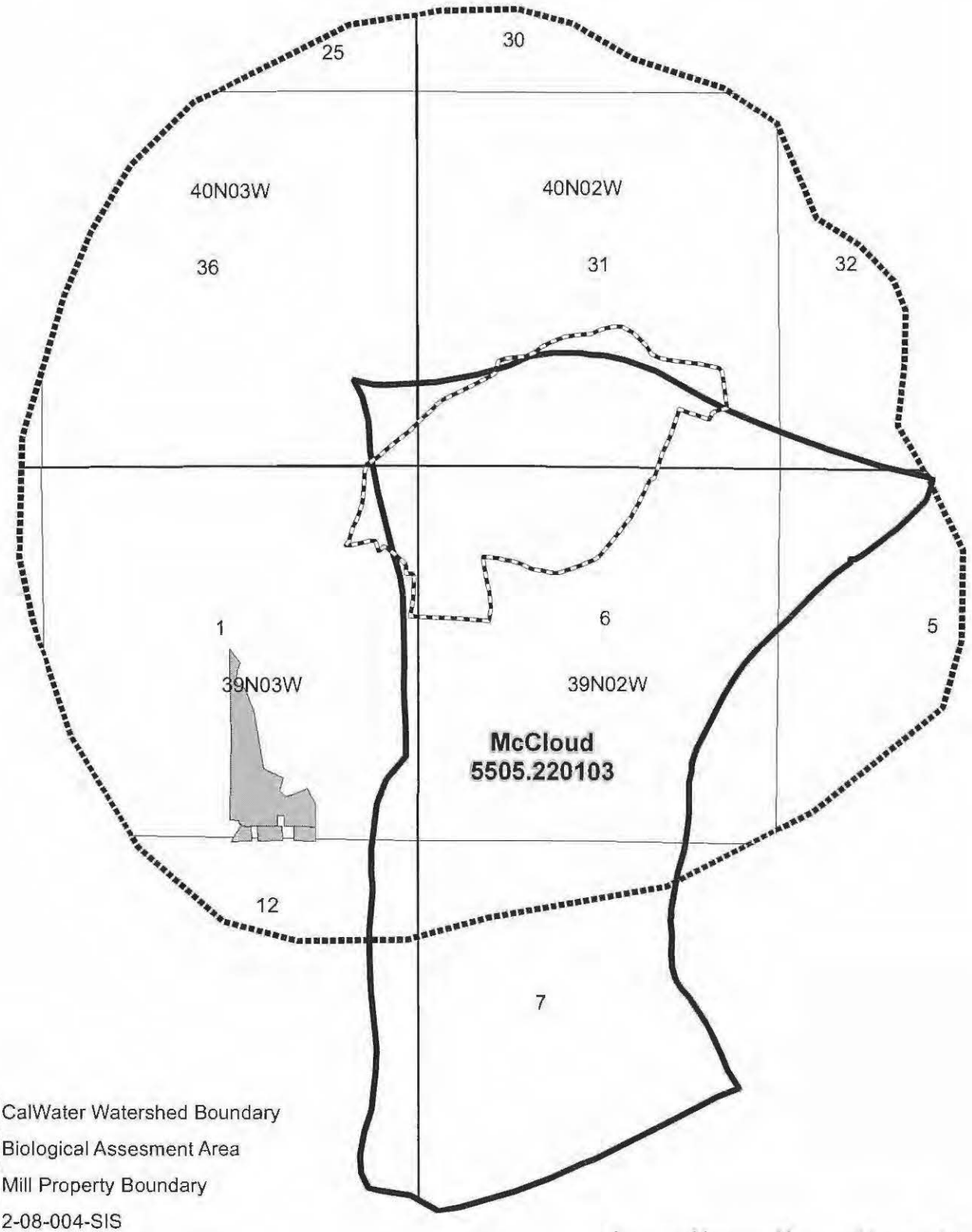
McCloud Mill THP Past & Present Activities Map 2 of 7



CalWater Watershed Boundary
Biological Assesment Area
Mill Property Boundary
2-08-004-SIS
Intermediate Treatment
Unevenaged Mgt.
Evenaged Mgt.
Special Prescription & other Mgt.

0 0.3 0.6 0.9 1.2 Miles

McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998

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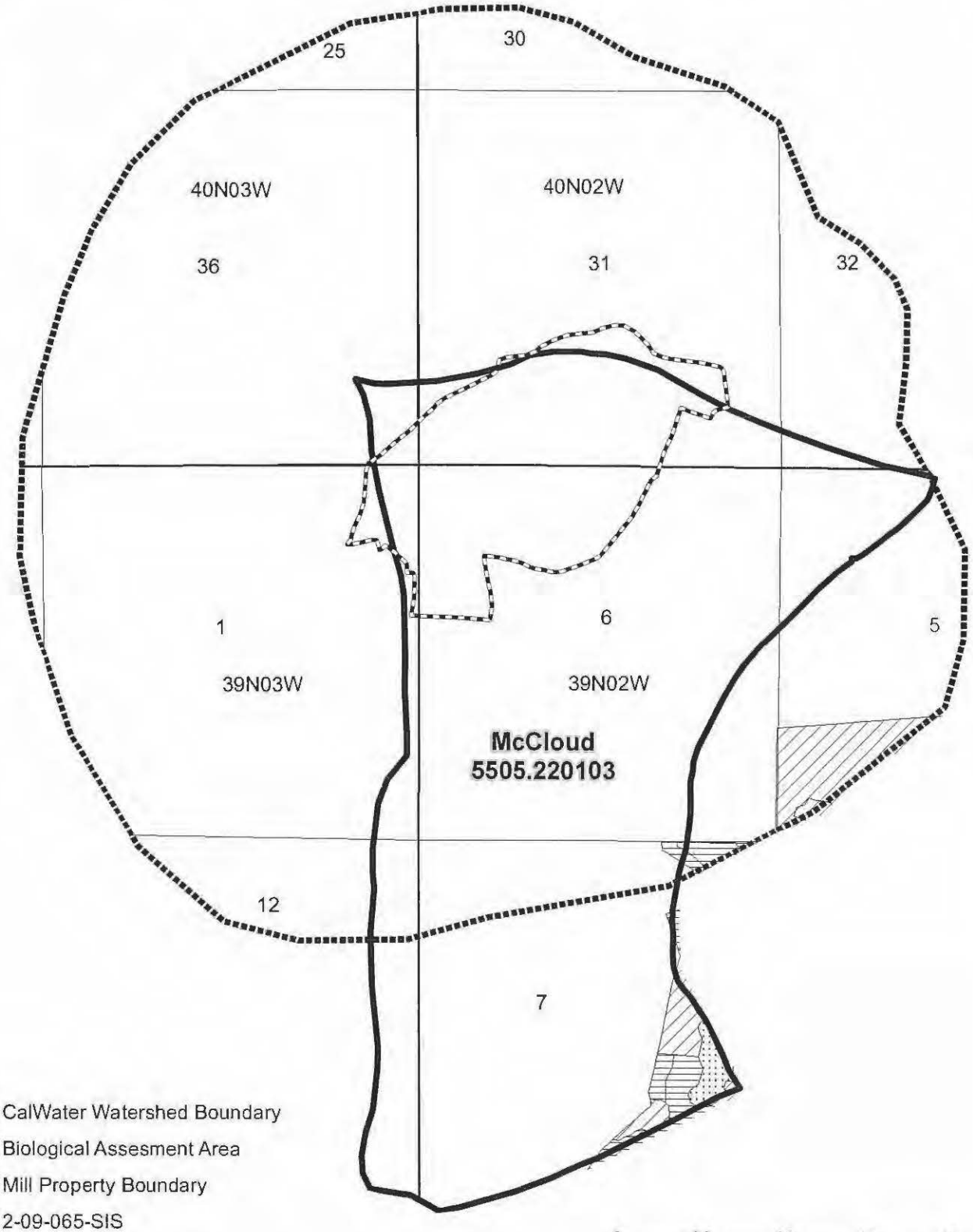
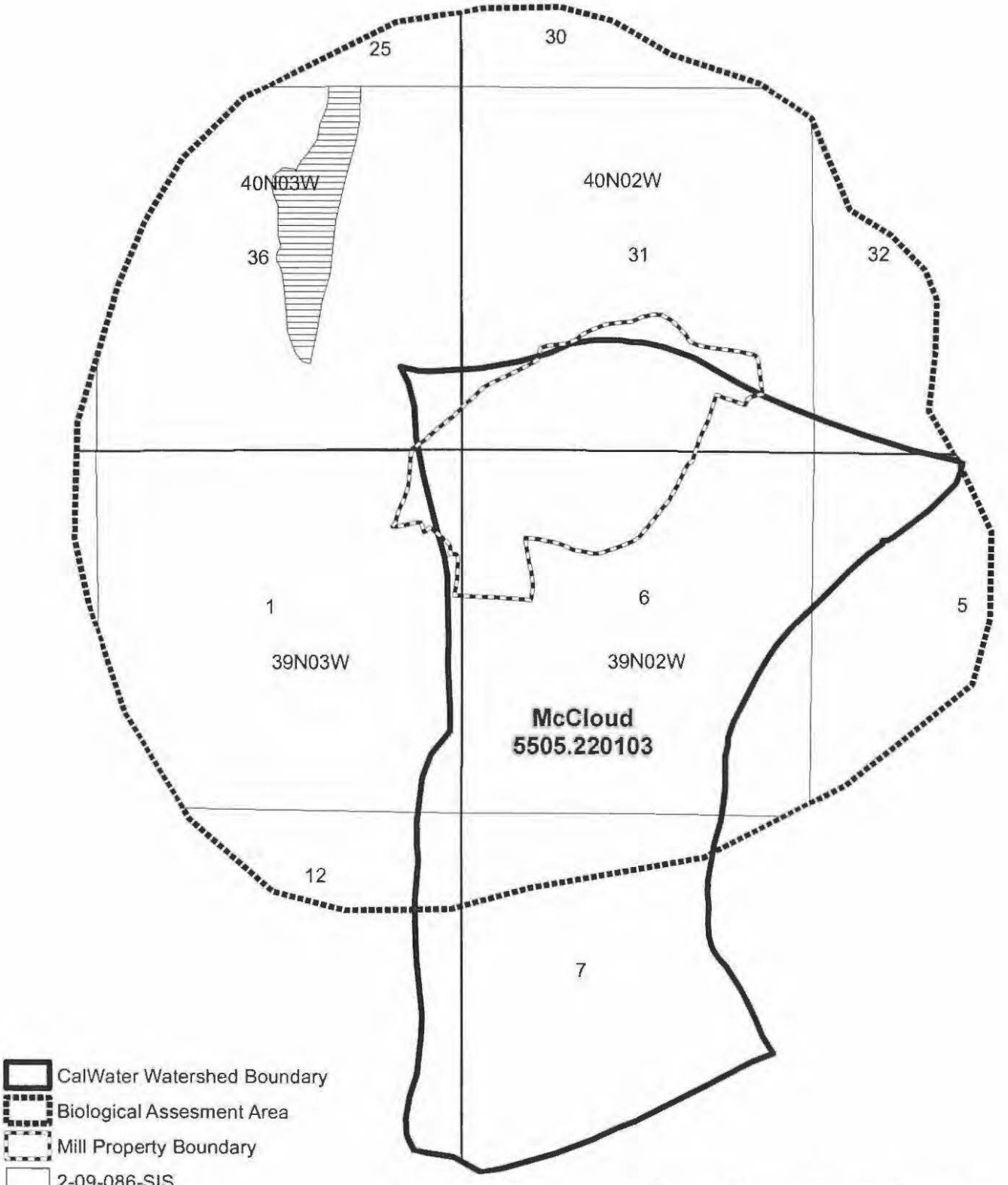
63 | McCloud Mill THP

McCloud Mill THP Past & Present Activities Map 3 of 7



McCloud Mill THP Past & Present Activities Map 4 of 7



McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998

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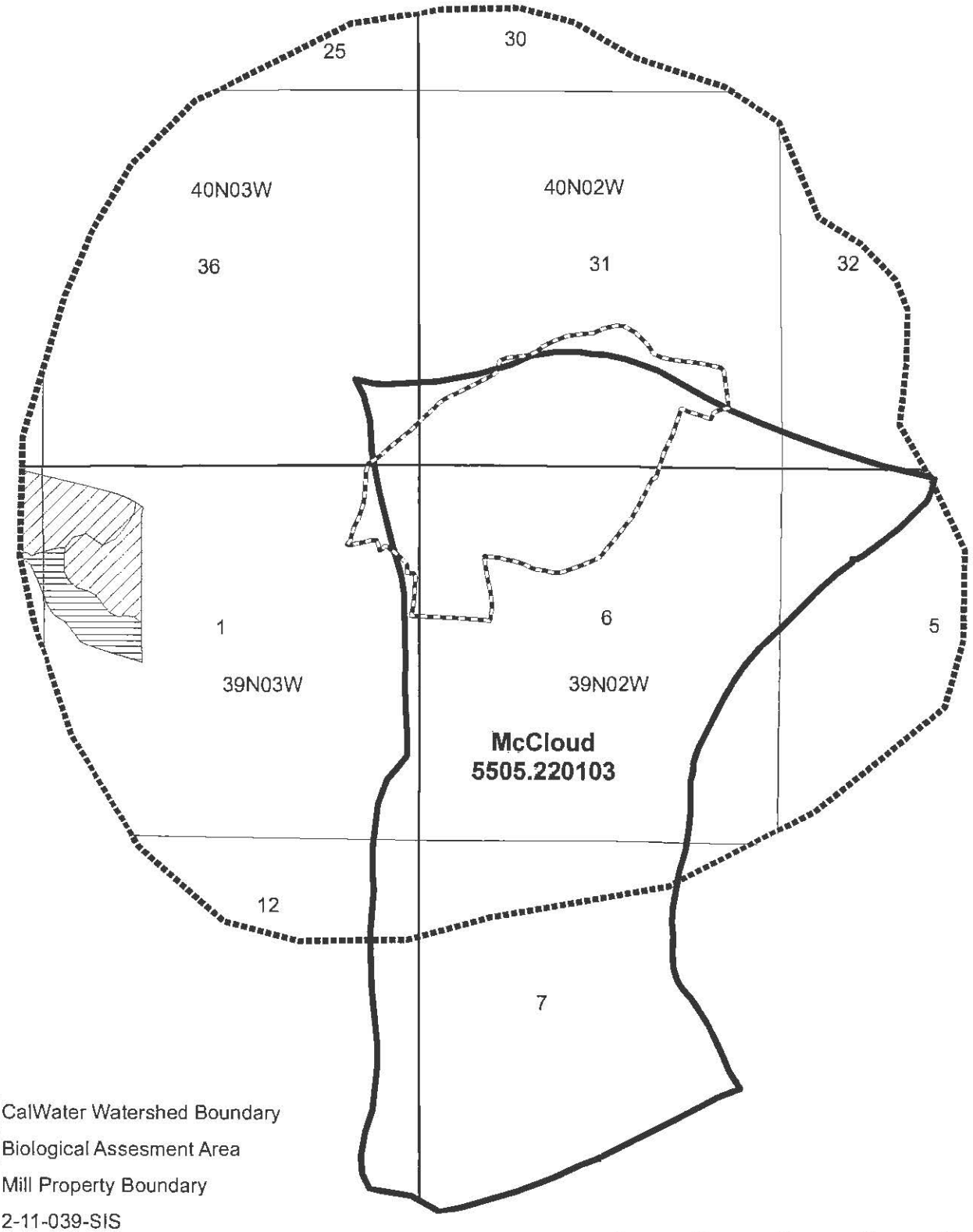
65 | McCloud Mill THP

McCloud Mill THP Past & Present Activities Map 5 of 7



CalWater Watershed Boundary
Biological Assesment Area
Mill Property Boundary
2-11-039-SIS
Intermediate Treatment
Unevenaged Mgt.
Evenaged Mgt.
Special Prescription & other mgt.

0 0.3 0.6 0.9 1.2 Miles

McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998

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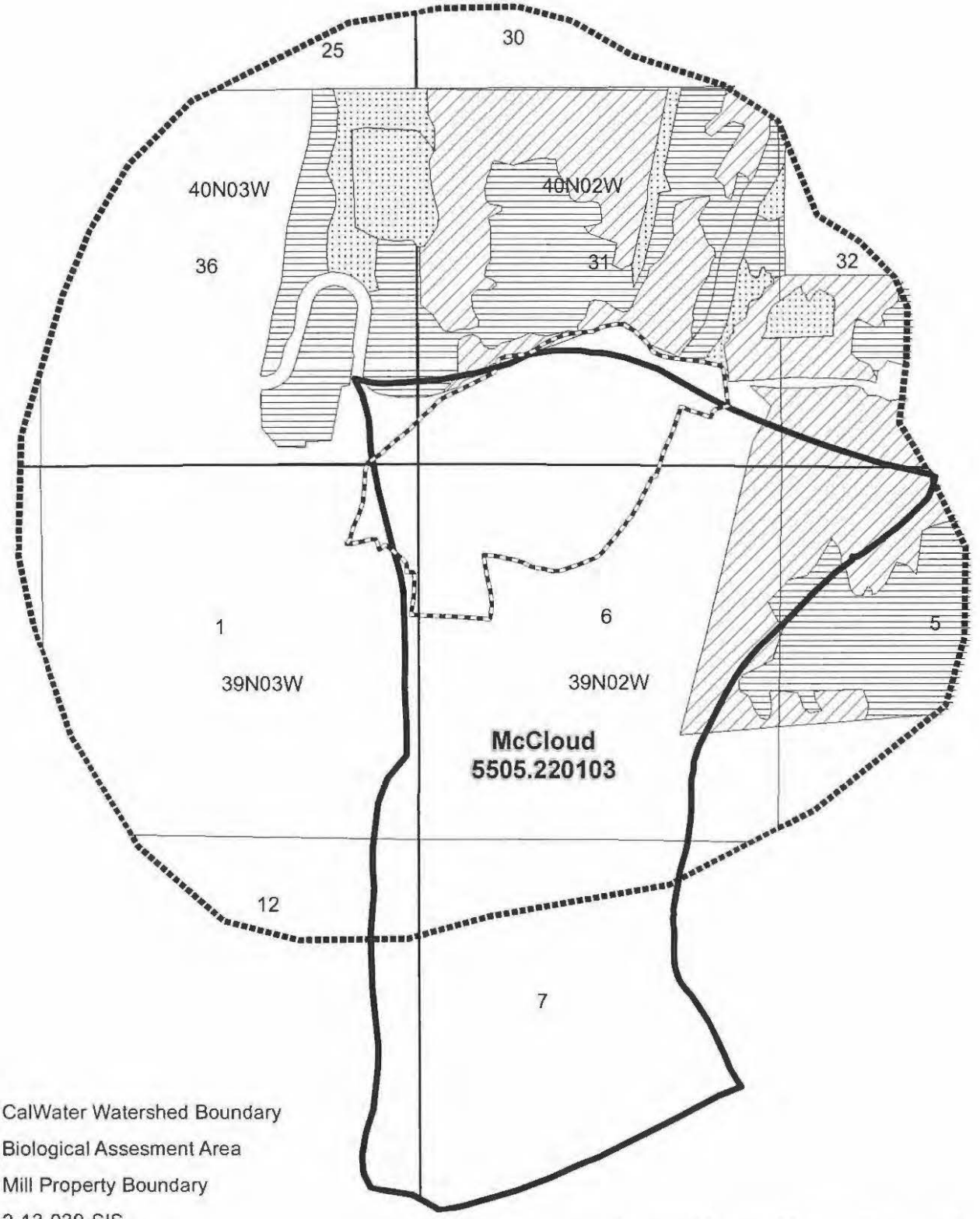
McCloud Mill THP Past & Present Activities Map 6 of 7



McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998

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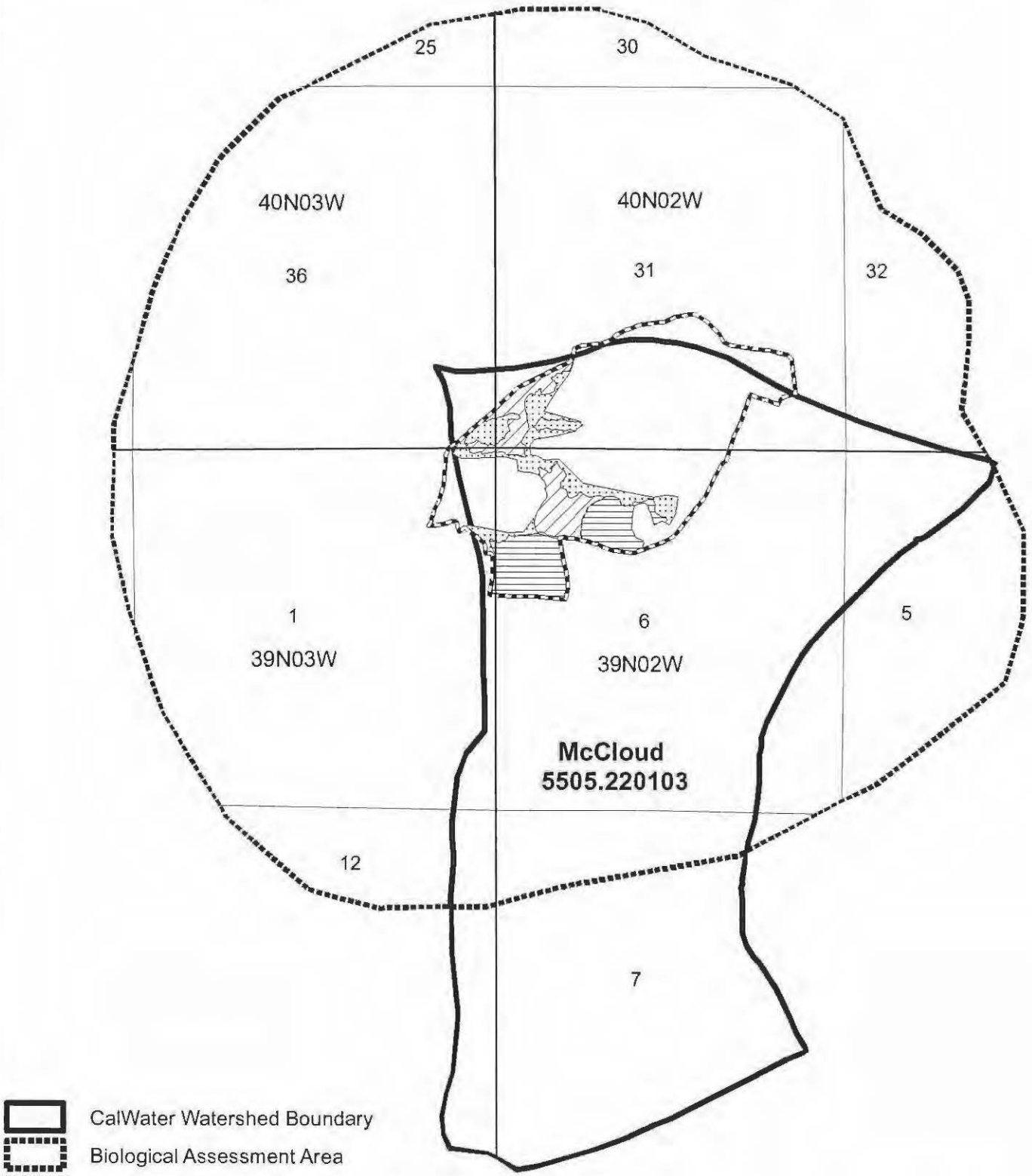
McCloud Mill THP Past & Present Activities Map 7 of 7



CalWater Watershed Boundary

Biological Assessment Area

McCloud Mill Property Boundary

Intermediate Treatment

Unevenaged Mgt.

Evenaged Mgt.

Special Prescription & other mgt.

0 0.3 0.6 0.9 1.2 Miles

McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998

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SECTION V

1. Erosion Hazard Rating Worksheet
2. CNDDB Map
3. Northern Spotted Owl Support Documentation
4. Domestic Waters Downstream Landowner Sample Letter
5. Adjacent Landowner List
6. Proof of Publication

McCloud Mill THP Erosion Hazard Rating Worksheet

Harvest Area	Shelterwood Removal	Commercial Thin	Selection
Soil Type	309/310	309/310	309/310
Soil Detachability	18	18	18
Soil Permeability	1	1	1
Depth to Restrictive Layer	1	1	1
% Surface Course Fragments Greater Than 2 MM	6	6	6
Sub Total	26	26	26
Slope Factor	1	1	1
Protective Vegetative Cover	3	3	3
Two Year, One-Hour Rainfall	5	5	5
Total Sum of Factors	35	35	35
Erosion Hazard Rating	L	L	L
Yarding Type	**Tractor**	**Tractor**	**Tractor**

A. Soil Texture	Fine	Moderate	Coarse
1 Detachability rating	Low	Moderate	High
	1 to 9	10 to 18	19 to 30
2. Permeability rating	Slow	Moderate	Rapid
	5 to 4	3 to 2	1
B. Depth to Restrictive Layer or Bedrock rating			
	Shallow	Moderate	Deep
	1" to 9"	20"to 39"	40" to 60"
	15 to 9	8 to 4	3 to 1
C. % Surface Coarse Fragments Greater Than 2mm in Size including Roads or Stones rating			
	Low	Moderate	High
	1 to 39%	40 to 70%	71 to 100%
	10 to 6	5 to 3	2 to 1

II. Slope Factor						
Slope rating	5 to 15%	16 to 30%	31 to 40%	41 to 50%	51 to 70%	71 to 80%
	1 to 3	4 to 6	7 to 10	11 to 15	16 to 25	26 to 35

III. Protective Vegetative Cover Remaining After Disturbance rating			
	Low	Moderate	High
	0 to 40%	41 to 80%	81 to 100%
	15 to 8	7 to 4	3 to 1

IV. Two year, one Hour Rainfall intensity (Hundredth inch) rating				
	Low	Moderate	High	Extreme
	(-)30 to 39	40 to 59	60 to 69	70 to 80(+)
	1 to 3	4 to 7	8 to 11	12 to 15

EHR Rating			
Low	Moderate	High	Extreme
<50	50 to 65	66 to 75	>75

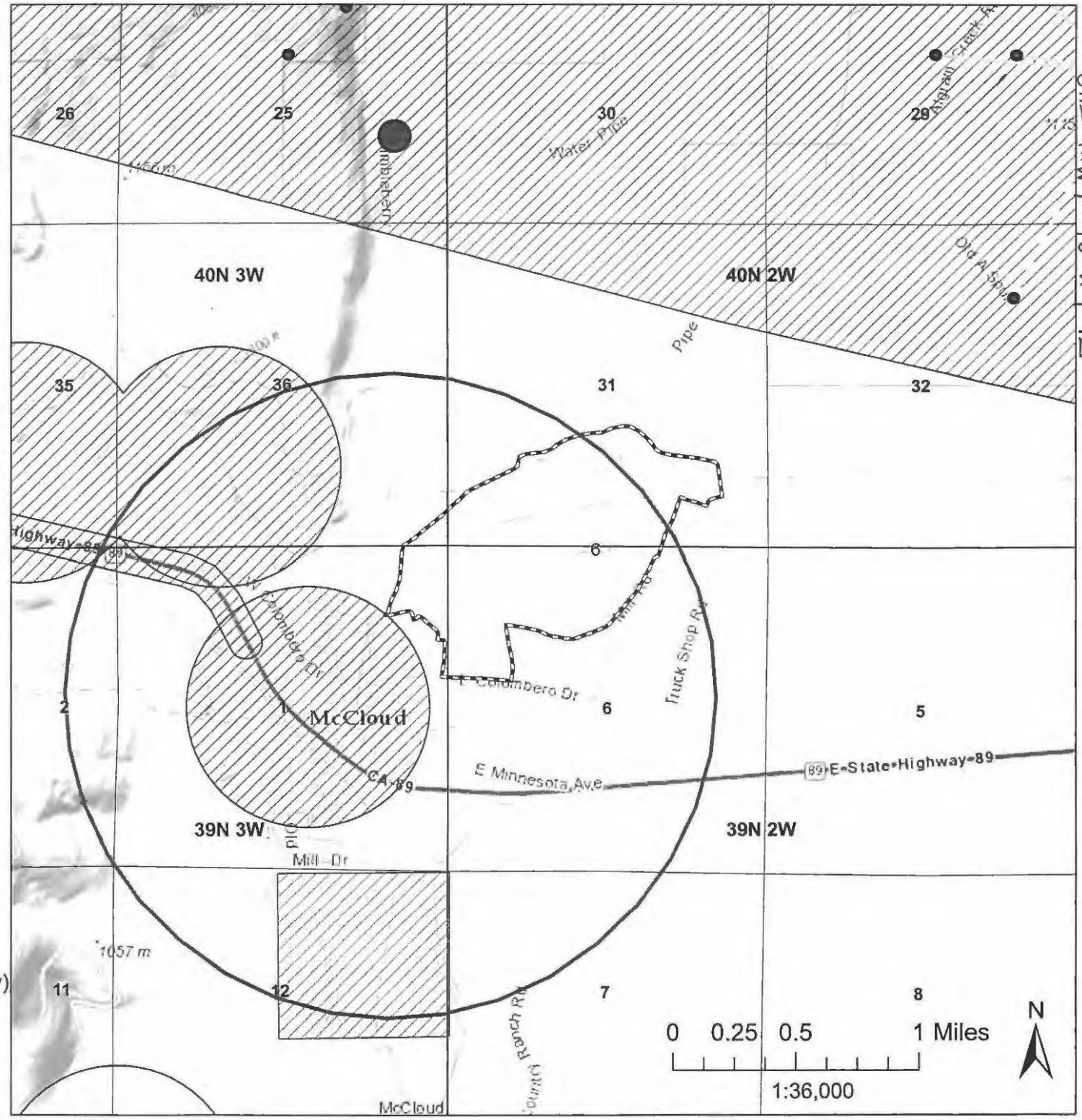
Soil Types (USDA from Soil Survey of Shasta-Trinity Forest Area, California Forest Service and soil Conservation Service)

310 Shastina Loam Family, Association 0-5% slope
309 Shasta Loamy Sand Family, Association 0-5% slope

McCloud Mill THP Area CNDDB Map

Legend

- McCloud Mill Property Boundary
- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)
- Spotted_Owl_Observations
- Spotted_Owl_Spider_Diagram



Gmail by Google

Black Fox <blackfoxtimber2@gmail.com>

FW: NSO Survey Exemption - Black Fox Timber Management

1 message

Brian Shaw <kpgco@charter.net> Tue, Sep 23, 2014 at 4:07 PM
To: Timothy English <timenglish@blackfoxtimber.com>, Katie Heman <katieheman@blackfoxtimber.com>
Cc: traviswizner@blackfoxtimber.com, jimmysmith@blackfoxtimber.com

Hi Tim,

Below is the response to our request to CALFIRE for the requirement/non-requirement for Northern Spotted Owl surveys for the McCloud Mills future THP.

Well – this went as well and as smooth as we hoped it would. They put SOE requests on the top of the pile, and it's good to see evidence of this, with their extremely quick response (3 days).

NSO surveys, as described by the CALFIRE biologist below – as per our request - will not be required for the future McCloud Mill THP. I do believe that this will make the client very happy!

Make sure to print e-mail out and submit it with the eventual THP that you submit to CALFIRE in Section V of the Plan, as Mike Bacca suggests below.

I sent the NSO CALFIRE – McCloud Mills submittal paperwork to you via e-mail to you yesterday, and have sent a hard copy to you as well in the mail.

So, very good news –

Have a good day,

Brian Shaw

Owner/Biologist

Klamath Wildlife Resources

1760 Kenyon Drive

Redding, CA 96001

530-244-5652 (Office)

72 | McCloud Mill THP

530-524-8474 (Cell)

From: Bacca, Mike@CALFIRE [mailto:Mike.Bacca@fire.ca.gov]
Sent: Tuesday, September 23, 2014 9:43 AM
To: kpgco@charter.net
Subject: FW: NSO Survey Exemption - Black Fox Timber Management

Brian,

Here is a response to your letter date Sept. 18, 2014 regarding the need for NSO surveys prior to the submission of the McCloud Mill Salvage, include this e-mail string and the information you sent CAL FIRE in section V of the plan with the other NSO information. Please let me know if you have any further questions

Michael J. Bacca, RPF #2236

Forester III, Cascade, Sierra & Southern Regions

Forest Practice Manager

CAL FIRE

California Department of

Forestry and Fire Protection

6105 Airport Road

Redding, CA. 96002

Phone (530) 224-2481

Fax (530) 224-4841

Cell (530) 941-7179

mike.bacca@fire.ca.gov

From: Stanish, Anastasia@CALFIRE
Sent: Tuesday, September 23, 2014 8:36 AM
To: Bacca, Mike@CALFIRE
Subject: NSO Survey Exemption - Black Fox Timber Management

Mike,

As you requested, I reviewed Klamath Wildlife Resources letter (dated 18 Sept 2014) request for exemption from NSO surveys for Black Fox Timber Management. Given the proposed project's location within the town of McCloud, a previous determination by USFWS for survey exemption in the same area, and overall lack of suitable habitat for NSO, the request for survey exemption is reasonable.

Let me know if you have any questions.

Stacy Stanish
Senior Environmental Scientist – Forest Practice Biologist
CAL FIRE
CA Department of Forestry and Fire Protection
6105 Airport Road

Redding, CA 96002

Anastasia.Stanish@fire.ca.gov

74 | McCloud Mill THP

Klamath Wildlife Resources

Date: 9/18/14

To: CALFIRE
6105 Airport Road
Redding, CA 96002
C/O Mike Bacca or
Spotted Owl Analyst/Wildlife Biologist

Subject: NSO Surveys Prospectively Not Needed For New THP, Siskiyou County

Hello Mr. Bacca,

As the consulting biologist and SOE (Brian Shaw) for Black Fox Timber Management out of McCloud CA, we have a new client that is planning to harvest timber right in the town of McCloud within the bounds of the Old McCloud Mill Site. Please see the following attached items to use for reference as part of this request for concurrence on our assertion that NSO surveys should not be required for this very small timber harvest planning area located within the city limits of the town of McCloud:

- USFS Location Map
- Air Photo Site Map
- Timber Harvest Boundary Map
- Spotted Owl Territory (CNDDB) Location Map
- Survey Exempt USFWS TA Letter from Hancock Forest Management

It is the finding of this SOE that due to the following reasons, that protocol NSO surveys should not be required for this small timber harvest plan on this McCloud Mill property. First of all, the area is listed as a "survey exempt" (no surveys) area for protocol NSO surveys within the September 22, 2011 USFWS Technical Assistance letter given to Hancock Forest Management Lands, which again is attached for your review. The sections that are listed within this "survey exempt" area are within the same sections that are proposed for a THP in the future for this subject property. Please see the attached maps that show that the following township/range/sections fall within these "survey exempt" sections listed within the TA letter:

T40N R3W, Section 36
T40N R2W, Section 31
T39N R2W, Section 6
T39N R3W, Section 1

As it further states in the Hancock USFWS TA letter, these sections are "exempt from survey" due to the fact that they "do not contain suitable nesting/roosting habitat or high quality foraging habitat AND are greater than .25 miles from suitable nesting/roosting habitat or high quality foraging habitat. It goes on to say that due to the poor condition of habitat contained with these sections and the very low occurrences of NSO in this portion of the NSO's range, exemptions from surveys and modification to seasonal restrictions are also possible; and that Survey results from both Hancock lands, other private lands and federal lands adjacent to these areas over the last two decades indicate that there are two historical NSO territories somewhat close to the property, but at over 1.5 miles away.

Due to these reasons that are already listed within an existing NSO USFWS TA, in addition to the fact that

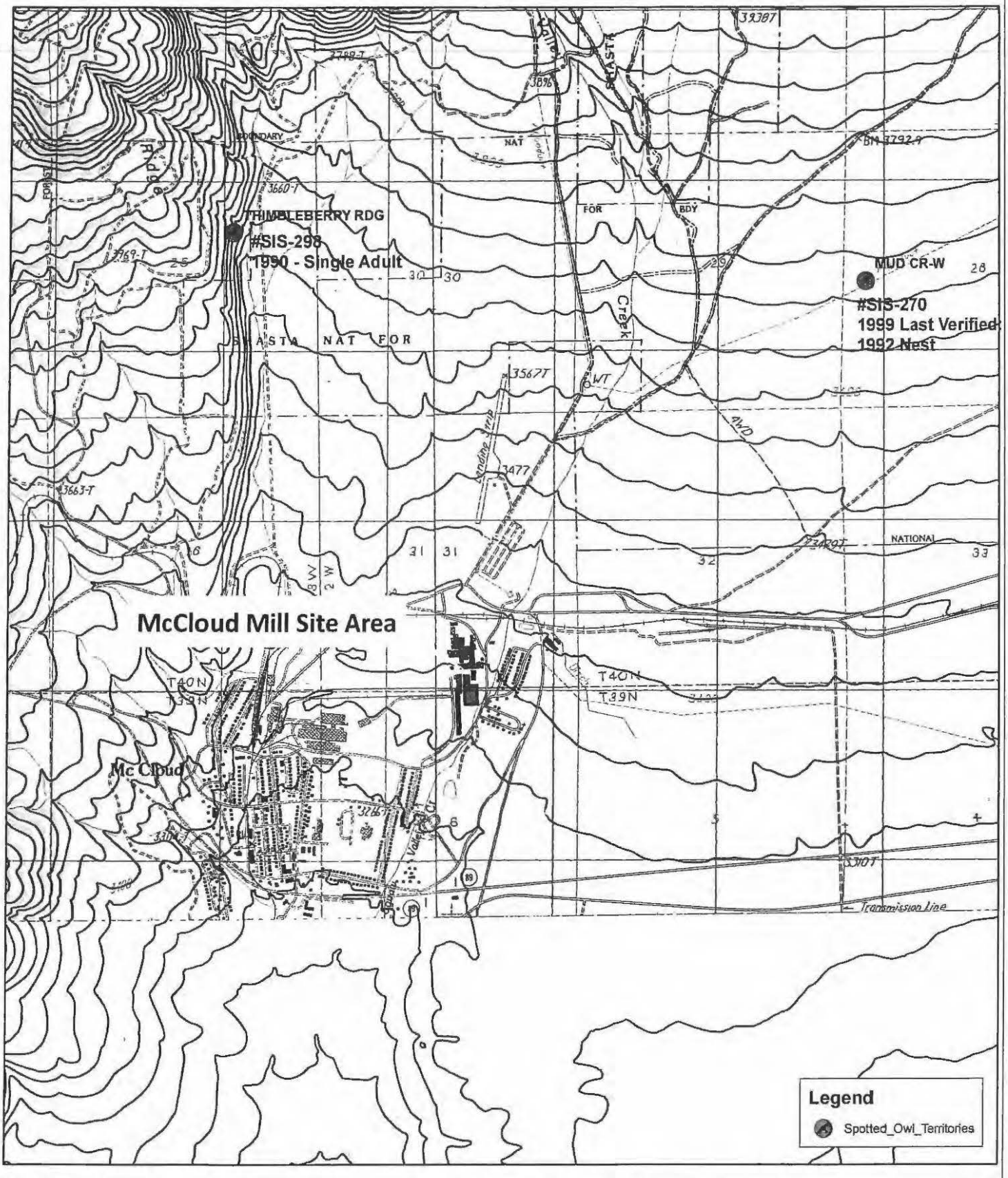
this property is far smaller than the entire Hancock timberland base, as well as the fact that it lies within the city limits of the town of McCloud (not typical habitat for NSO), it is the finding of this SOE on behalf of Black Fox Timber Management that protocol surveys for northern spotted owl should be exempted from this very small THP.

On additional important item is that this property, within the bounds of the town of McCloud is already zoned as "heavy industrial" and "non-TPZ land", as this was the former site of the McCloud Mill that thrived in McCloud for many decades.

Please contact SOE, Brian Shaw if any additional information is needed regarding this request for assistance/concurrence on this finding.

Thank you –

Brian Shaw
Spotted Owl Expert #29
Klamath Wildlife Resources

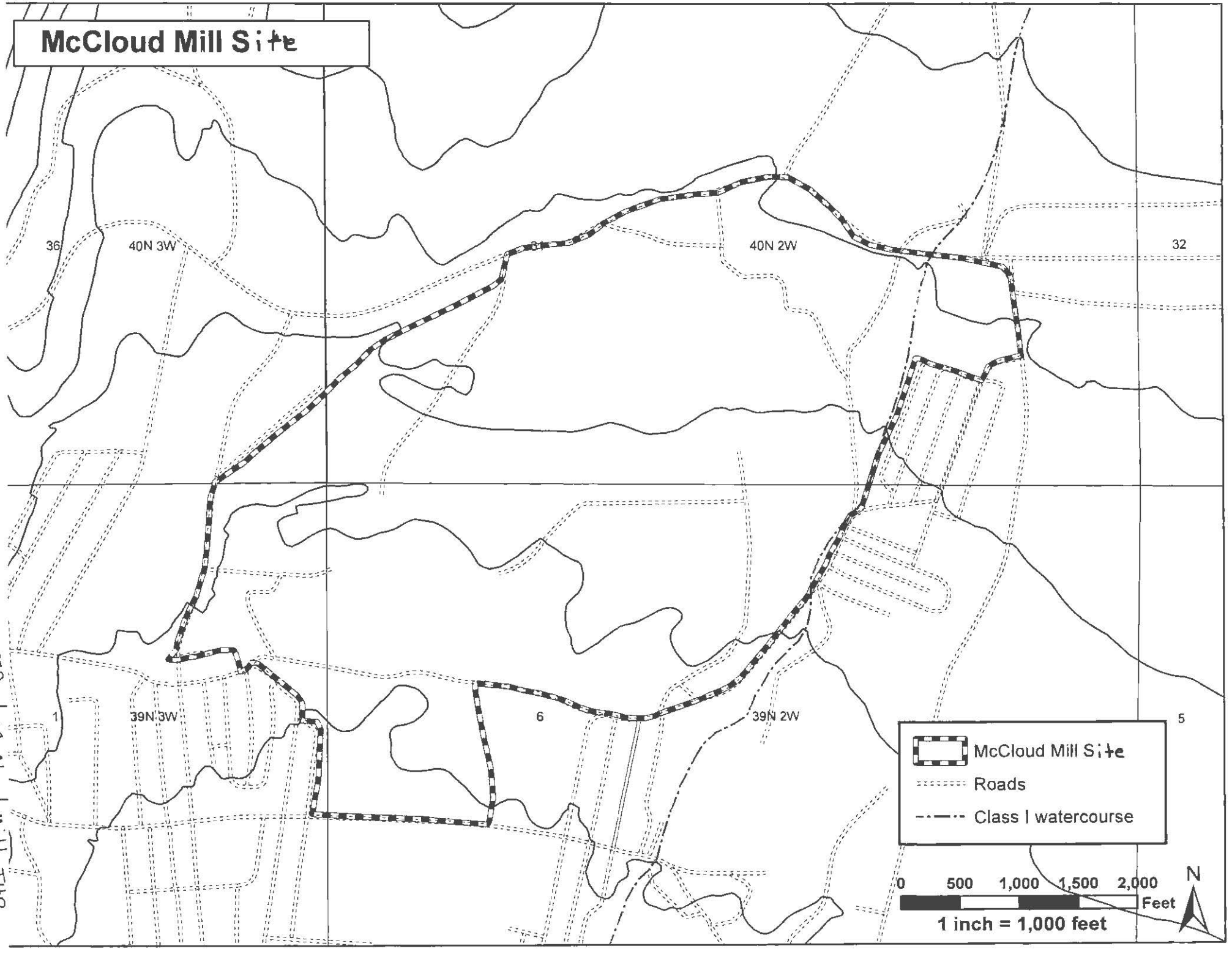


Map Prepared by: Brian Shaw
Spotted Owl Expert
Klamath Wildlife Resources
9/10/14

McCloud Mill Property Site THP Proposed Area And Nearest Historical NSO Territory Centers

0 0.3 0.6 1.2 Miles

McCloud Mill Site
40N 2W
M 96



79 | McCloud Mill THP

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Yreka Fish and Wildlife Office
1829 South Oregon Street
Yreka, California 96097
Tel: (530) 842-5763 Fax: (530) 842-4517

IN REPLY REFER TO:

81333-2011-TA-0026

September 22, 2011

Mr. Tim McBride
Hancock Forest Management
17700 SE Mill Plain Blvd., Suite 180
Vancouver, Washington 98683

Subject: 2011-2017 Modifications to Northern Spotted Owl Survey Requirements on Hancock Forest Management-Owned lands

Dear Mr. McBride:

This is in response to your request for U.S. Fish and Wildlife Service (Service) technical assistance, dated and received in this office on May 16, 2011. Supplemental information pertaining to this request was received on May 19, 2011, June 1, 2011, and September 12, 2011. A field review with Mr. Stuart Farber of W.M. Beaty & Associates and Ms. Jan Johnson, of my staff was conducted on August 30, 2011. Technical assistance for Hancock Forest Management-owned lands was previously provided on November 26, 2007 (81333-2007-TA-0013). At issue is the potential for incidental take of the federally listed northern spotted owl (*Strix occidentalis caurina*) (NSO). After reviewing the information, the Service offers the following technical assistance:

Your request proposes amending or updating the provisions described in the 2007 technical assistance letter to incorporate the following factors: Recently declared 'abandoned' activity centers, recent NSO habitat review utilizing 2008 U.S. Fish and Wildlife Service habitat guidelines, and the 2011 NSO Survey Protocol (2011 Protocol). Upon reviewing the data, air photos, GoogleEarth© imagery and field validation of habitat typing, the Service agrees that surveys and/or seasonal restrictions, as described in the 2011 Protocol on specified portions of Hancock ownership may be modified as follows (the following legal descriptions in bold below amend the 2007 technical assistance):

1. *Survey Exemption* ("Category 1"): For portions of the ownership that do not contain suitable nesting/roosting habitat or high quality foraging habitat AND are greater than 0.25 mile from suitable nesting/roosting habitat or high quality foraging habitat, surveys are not required. The portions of Hancock ownership meeting this description are located in the following sections of Siskiyou and Shasta Counties, M. D. B. & M:

80 | McCloud Mill THP

1, 2, 11, 12, and 14 of Township 39N, Range 03W;
3, 4, 5 and 6 of Township 39N, Range 02W;
27, 28, 35, and 36 of Township 40N, Range 03W;
14, 31, 32, 33, 34, 34, and 36 of Township 40N, Range 02W;
12 of Township 41N, Range 02W;
13, 14, and 17 of Township 41N, Range 01W;
32 of Township 42N, Range 01E;
4, 5, 6 and 7 of Township 41N Range 01E;
8, 18, 19, and 20 of Township 41N, Range 01E;
1 and 12 of Township 41N, Range 01W.

2. *Modified 0.25 mile Survey Areas or Modified Seasonal Restriction* ("Category 2"): This applies to portions of the ownership that do not contain suitable nesting/roosting habitat or high quality foraging habitat, BUT are less than 0.25 mile from suitable nesting/roosting habitat or high quality foraging habitat, surveys are required unless operations occur between July 10 and January 31 of any given year. If surveys are conducted, it is only necessary to survey those areas of suitable nesting/roosting habitat or high quality foraging habitat within 0.25 miles of the proposed operations. The portions of Hancock ownership meeting this description are located in the following sections of Siskiyou and Shasta Counties, M. D. B. & M:

   3, 10, 15, 22, 23, 26, 27, and 34 of Township 39N, Range 03W;
   36 of Township 39N, Range 01W;
   4 of Township 39N, Range 01E;
   14, 23, 26, 32, 33, and 34 of Township 40N, Range 03W;
   17, 20, and 29 of Township 40N, Range 02W;
   14, 15, 24, and 36 of Township 41N, Range 02W;
   1, 10-12, 15, 16, 18-24, 28, 29, and 31 of Township 41N, Range 01W;
   8, 16, 18, 19, and 28 of Township 41N, Range 01E;
   36 of Township 42N, Range 01W;
   16 and 30, of Township 42N, Range 01E.

3. *Modified 0.5 mile Survey Area* ("Category 3"): This applies to a limited portion of the ownership that does not contain suitable nesting/roosting habitat, but may contain high quality foraging habitat, AND is less than 0.25 mile from suitable nesting/roosting habitat or high quality foraging habitat. If future THPs ensure retention of high or low quality NSO foraging habitat post-harvest, a modified 0.5 mile survey area covering suitable nesting/roosting habitat or high quality foraging habitat within 0.5 mile of the proposed operations could occur. The limited portions of Hancock ownership meeting this description are located in the following sections of Siskiyou and Shasta Counties, M. D. B. & M:

   3 and 10 of Township 38N, Range 03W.

Exemptions from surveys and modification to seasonal restrictions are possible due to the poor condition of habitat contained within these sections and the very low occurrences of NSO in this portion of the NSO's range. Habitat on Hancock ownership, for the areas described, is largely unsuitable or of such a quality that NSOs are not expected to utilize it for nesting or roosting. Survey

results from Hancock and adjacent federal and non-federal landowners over the last two decades indicate that there are two historical NSO pair sites (SIS0319 and SHA0036) and one historical territorial single site (SIS0286) within 0.5 mile of Hancock exemption areas described above (California Department of Fish and Game 2011).

There are additional areas of Hancock ownership that meet the conditions described in the exemption areas above, but are not being considered under these modifications. For the portions of Hancock ownership not listed above, 2011 Protocol surveys of northern spotted owl nesting/roosting and high quality foraging habitat are required. Because of the high elevations of portions of the McCloud area, the Service understands that snow conditions on Hancock lands may preclude timing requirements described in the 2011 Protocol; we recommend Hancock clearly document access limitations on field forms when these situations occur.

The Service may request additional information or documentation at any time regarding the implementation of these modifications to the 2011 Protocol. The Service assumes all other provisions of the 2011 NSO Protocol will be met. With this understanding, the Service agrees that exemptions from surveys and modification of seasonal restrictions as described above are not likely to result in the incidental take of northern spotted owls. This concurrence is valid until December 31, 2017, or unless new information reveals effects to northern spotted owls in a manner or to an extent not considered in this analysis.

The Service appreciates the efforts taken by Hancock staff, the complete information provided for this review, and the opportunity for field review. All maps and data used to provide this technical assistance are on file at this office. If you have questions please contact Jan Johnson, Fish and Wildlife Biologist, at (530) 841-3102 or Jan_Johnson@fws.gov.

Sincerely,

for Erin

Erin Williams
Field Supervisor

cc: Mike Bacca, CAL FIRE
Jon Miller, CAL FIRE
Ray Wedel, CAL FIRE
Stuart L. Farber, W. M. Beaty & Associates

Sample

November 17, 2014

Herman & Candace Tuiolemotu,
Po Box 795
McCloud, CA 96057-0795

Dear Herman & Candace Tuiolemotu,

We are in the process of preparing the McCloud Mill Timber Harvest Plan (THP) for the landowners, McCloud Partners, LLC. The THP is in the McCloud planning watershed near Squaw Valley Creek on the northern side of the town of McCloud. The proposed plan area is in portions of Section 6 T39N, R02W, Section 1 39N R03W, section 31 T40N, R02W, and section 36 T40N, R03W(see attached map).

We are requesting that you provide any information to us as to the presence of surface domestic water use from the THP area, uses from Squaw Valley Creek or within an area 1000' downstream of the proposed THP. Domestic Water Use is defined by the Forest Practice Rules as:

> **Domestic Water Use** means the use of water in homes, resorts, motels, organization camps, developed campgrounds, including the incidental water of domestic stock for family sustenance or enjoyment and the irrigation of not more than one half acre in lawn, ornamental shrubbery, or gardens at any single establishment. The use of water at a developed campground or resort for human consumption, cooking or sanitary purposes is a domestic use.

Current state law and the Forest Practices Regulations require that we seek information from landowners within 1000' downstream of any proposed THP for the purpose of identifying surface domestic water uses that may be affected by the proposed THP. Current law also requires that we request your response within 10 days of the post-marked date of this letter.

If surface domestic water use is noted by you or other landowners, mitigation measures will be incorporated into the THP, if needed, to protect the domestic water use.

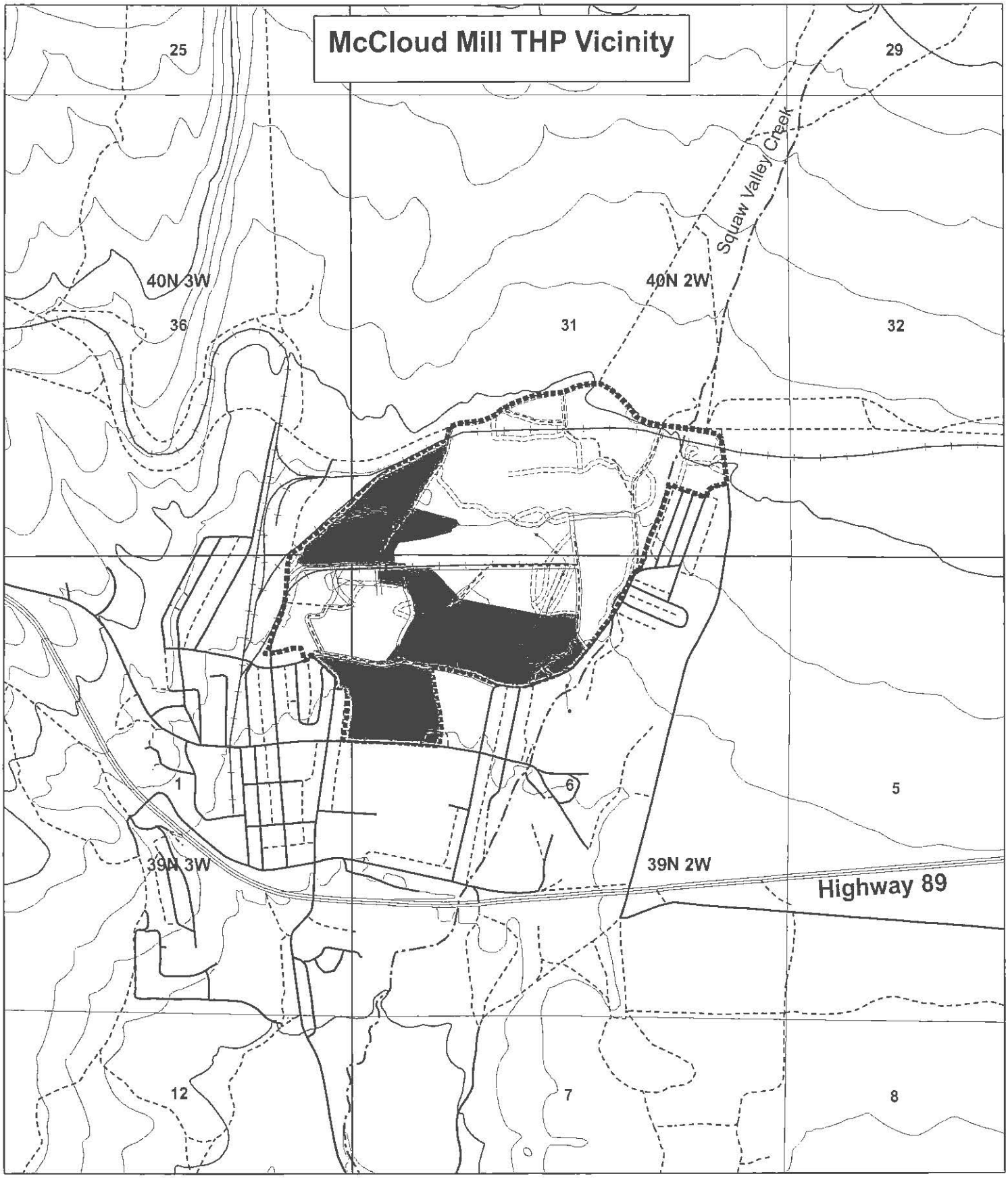
This THP is in the mid stages of preparation. There will be other opportunities for public comment on the THP after it has been submitted to CAL FIRE for their review and approval. Please contact CAL FIRE or their web site at www.fire.ca.gov for more information on the THP review process.

If you have any information or questions, please feel free to contact me at the phone number, email or address below.

Sincerely,

Katie Benson

Katie Benson
Black Fox Timber Mtg. Group
Po Box 687
McCloud, CA 96057
katieheman@blackfoxtimber.com
(530) 350-0801 Office
(530) 964-9757 Fax #


McCloud Mill THP Vicinity
25
29
Squaw Valley Creek
40N 3W
40N 2W
36
31
32
1
6
5
39N 3W
39N 2W
Highway 89
12
7
8
Mill Property Boundary
Harvest Area
Permanent Private Paved road
Permanent Private Rocked Road
Railroad, cinder, Private
Seasonal Rocked Roads
Permanent Paved Road
Highway
Class I watercourse
Class IV watercourse
0 1,000 2,000 3,000 4,000
Feet
McCloud 7.5 USGS Quad 2012
Elk Spring 7.5 USGS Quad 1998
1 inch = 2,000 feet
N
84 | McCloud Mill THP

Adjacent Landowners within 300 feet of the THP area

Harris, Carol A ETAL c/o Alice Styers
PO Box 175
McCloud, CA 96057-0175

Hancock Forest Management
PO Box 1950
McCloud, CA 96057

Harper, James H & Tammy M
975 Keegan Drive
Santa Rosa, CA 95407

McCloud Community Service District
Po Box 640
McCloud, CA 96057

Baker, Beatrice Bertha Trustee
Po Box 775
McCloud, CA 96057

McCloud High School District
624 Everitt Memorial Highway
Mt Shasta, CA 96067-2047

Smith, Dana C & April A Gray
PO Box 651
McCloud, CA 96057-0651

Peterson, Ted A & Janice L
6 Bluebell Street
American Canyon, CA 94503

Citizens Telecommunications CO CA
3 High Ridge Park
Stamford, CT 06905

McCloud Union School District
McCloud Elementary School
Po Box 700
McCloud, CA 96057

County of Siskiyou
305 Butte St.
Yreka, CA 96097

Four Rails Inc. C/O McCloud Railway Co
Po Box 1500
McCloud, CA 96057

Barbarick, Gary Lee
3775 Marcella Dr.
Auburn, CA 95602

Stone, Patricia A ETAL
Po Box 35
McCloud, CA 96057-0035

Bailey, James H & Neva C
Po Box 469
McCloud, CA 96057-0469

Berryman Dennis L & Jackie R Trust
Po Box 377
McCloud, CA 96057-0377

Taylor, Fredrick M & Mary Burr
5526 Dunsmuir Ave. #16
Dunsmuir, CA 96025

Tuiolemotu, Herman & Candace M
CP Contract #979869
Po Box 795
McCloud, CA 96057-0795

Moore, Michelle Reginal Britt c/o Herbert J Britt
Po Box 270
McCloud, CA 96057-0270

Hurley, James B
25 Norwich St.
San Francisco, CA 94110

Kerley, Charles Lindell Trust
440 Airport Rd.
Stevensville, MT 59870-6336

Fornero, Joseph & Judith L Trust
Po Box 98
McCloud, CA 96057-0098

Thompson, John M & Gertrude D
Po Box 423
McCloud, CA 96057-0423

Facey, Chester R & Marlene
1934 S. Old Stage Rd # 21
Mt Shasta, CA 96067

Huffman, Jack W & Nickie A ETAL
Po Box 441
McCloud, CA 96057-0441

Baldini, Randall
Po Box 369
McCloud, CA 96057

Roberts, David L & Elaine J
1934 S. Old Stage Road #30
Mt Shasta, CA 96067

Bergstrom, Harold & Lori
1480 Warington Road
Santa Rosa, CA 95404

Parks, Donna Rae Trust
Po Box 785
McCloud, CA 96057-0785

Farren, Richard G & Pamela J Trustee
809 Sir Francis Ave.
Capitola, CA 95010

Scouten, Dennis M & Shirley A
Po Box 182
McCloud, CA 96057-0182

Menke, Randy A & Kathleen R
5208 Badger Road
Santa Rosa, CA 95409

Bickley, Frank E & Joanne M
1550 Carmel Way
Red Bluff, CA 96080-3634

Carter, David J & Terri L Trust
23 Crest View Court
Orinda, CA 94563

Glynn, Dolores E Trust ETAL
Po Box 292
McCloud, CA 96057-0292

Gutsch, Richard T & Maureen G Trustee
2156 Contra Costa Court
Santa Rosa, CA 95405

Adjacent Landowners within 300 feet of the THP area

Wilson, Yvonne E & Donald L Trust
Po Box 901
McCloud, CA 96057-0901

Hall, Thomas L & Paula R
Po Box 537
McCloud, CA 96057-0537

Bovero, Kenneth A & Mary Michelle
28 Brown Drive
Novato, CA 94947-7404

Ferry, John Angelo Trustee
108 Creek View Ln.
Rogue River, OR 97537

Bambino, James & L E Trust
Po Box 1074
McCloud, CA 96057-1074

Napper, Gregory S & Carolyn O ETAL
1331 Quail Meadow Dr.
Mt Shasta, CA 96067

Powell, Thomas P
3964 Kiara Circle,
Fairfield, CA 94533

Hanson, Donald J & Mary Joyce
Po Box 5
McCloud, CA 96057

Purdy, Kim Elaine
710 Chesterfield Way
Rocklin, CA 95765

Morgan, Amy S.
3050 Wisconsin Street
Oakland, CA 94602

Huffman, Todd B & Marie A
5615 Cougar Way
Weed, CA 96094

Wolff, James H & Elizabeth W
Po Box 865
McCloud, CA 96057-0865

Blankenship, Clifford & Zacher Carol
3675 Seasons Ct.
Redding, CA 96001

Stewart, Sybil Elizabeth Trust
Po Box 884
McCloud, CA 96057

Adams, Thomas & Edith Ellen Trust
Po Box 601
McCloud, CA 96057

Truttman, Frank L Jr.
Po Box 144
Olema, CA 94950-0144

PROOF OF PUBLICATION
(2015.5 C.C.P.)

Mt. Shasta Area Newspapers
Mount Shasta Herald,
Weed Press, Dunsmuir News
STATE OF CALIFORNIA,
County of Siskiyou

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the Administrative Assistant of the Mt. Shasta Area Newspapers, newspapers of general circulation, published weekly in the cities of Mount Shasta, Weed, and Dunsmuir, County of Siskiyou, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Siskiyou, State of California, under the dates of: Mount Shasta Herald-July 9, 1951, Case Number 14392; Weed Press-June 22, 1953, Case Number 15231; Dunsmuir News-May 25, 1953, Case Number 15186; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspapers and not in any supplement thereof on the following dates, to-wit:

November 26,

all in the year 2014

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Mount Shasta, California,
this 26th day of November
2014.

Marella Gerace
Authorized Signature

THIS SPACE IS FOR THE COUNTY CLERKS' FILING STAMP

PROOF OF PUBLICATION OF

Domestic Water Supply Information Request

Black Fox Timber Management Group is currently preparing the McCloud Mill Harvest Plan (THP) in Siskiyou County. The THP is located on the north end of McCloud, CA. The legal description is: portions of Section 6, T39N, R02W, Section 1, T39N, R03W, Section 31, T40N, R02W, and Section 36, T40N, R03W, MDB&M. As per the California Code of Regulations Title 14 § 1032.10, information is requested regarding surface domestic water use from Squaw Valley Creek, or any other tributaries or ditches within the THP area or within 1,000 feet downstream of the THP boundary so that those supplies may be adequately protected during operations. Responses to this notice are requested within 10 days from the date of this publication. Please respond to: Katie Benson, Black Fox Timber Mtg. Group, PO

2-14-110515

ATTENTION

I. 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 88 THROUGH PAGE 125

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

PAGE_____ THROUGH PAGE _____

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

PAGE_____ THROUGH PAGE _____

II. 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 _____

December 30, 2014

Deputy Chief, Forest Practice
California Department of Forestry
and Fire Protection
6105 Airport Road.
Redding, CA 96002

RE: THP 2-14-110-SIS
RPF Response to 1st Review Questions:

REVIEW TEAM QUESTIONS

RPF - Please provide the following information prior to the PHI (if a PHI is required) and have the information available in writing for the Review Team members prior to the PHI. Please also send a copy of your response to these questions to the Review Team in Redding. Failure to send a copy of these responses to the Redding office may result in delays of approval.

1. Page 4, Item #7: Per page 54 the THP is adjacent to a special treatment area. Therefore, please check "Yes" for "Special Treatment Area" and specifically address the proposed silviculture under Visual Resources in the Cumulative Impacts Analysis as it relates to Hoo Hoo Park...

RPF Response: RPF agrees with this statement. See revised pages 4 and 55. dated 12-30-2014.

2. Page 8, Item 14b provides two stocking standards for commercial thinning. Please revise the silviculture map on page 26 to identify where each stocking standard will be applied.

RPF Response: RPF agrees with this statement. The majority of the commercial thinning stands preharvest dominate and codominate crown canopy is occupied primarily by trees less than 14 in DBH. The areas where larger trees are mixed in are too small to map. Please see revised page 8. dated 12-30-2014.

3. Page 8-9, Item 14b states "*trees to be removed shall be marked with blue paint at DBH with a stump mark*". The item goes on to state that *a harvest unit shall not use both a leave tree and cut tree paint scheme unless separated*..... Please clarify how the harvest trees in each unit will be identified for harvest.

RPF Response: RPF agrees with this statement. See revised pages 8 and 9. dated 12-30-2014.

4. Page 12, Item #23: Item #23(b) states "Yes" with regards to site preparation occurring within the winter period. Additionally, the winter operations discussion addresses site preparation occurring within the winter period. This is in conflict with what is stated in Item #14(i). Please clarify this conflict and revise the appropriate THP pages.

RPF Response: RPF agrees with this statement. See revised pages 12 and 13. dated 12-30-2014

5. Page 14, Item 26. The plan proposes an ELZ for the Class IV watercourse. Please describe what heavy equipment operations are allowed in the ELZ.

RPF Response: RPF agrees with this statement. See revised page 15. dated 12-30-2014.

P.O. Box 687 - McCloud, CA 96057
Phone (530) 964-9756

6. Page 19, Item 32 Rare Plants. Is a floristic survey planned for the harvest area prior to operations? If so, please revise the plan to include amending the results of the survey into the plan prior to the start of operations.

RPF Response: No floristic survey is planned for the harvest area, this area is zoned for heavy industrial. A 9 quad search of plant species of concern that may potentially be affected by this harvest plan was completed using CNDDB and the CNPS inventories. See revised page 19. dated 12-30-2014

7. Section IV Cumulative Effects Analysis –Chemical Contamination: Please disclose if herbicides may be used as a part of or a result of this timber harvest plan. If herbicides may be used, please provide an analysis to address the following issues at minimum:
    a. Analyze the potential cumulative impacts associated with the proposed use of herbicides. Since the THP must evaluate these potential effects, please provide a discussion which evaluates cumulative impacts from herbicide use in conjunction with past, present and reasonably foreseeable future projects.
    b. The range of herbicides which may be used must be thoroughly discussed, including discussion of the methods of application, mitigation and the potential effects on the environment.
    c. Describe the application method. For example, application by aircraft is significantly different from hand application both in the materials used and the necessary mitigation measures which are to be followed. How will residual trees and watercourses be protected from herbicide drift if aerial application methods are used?
    d. Please also include information on the mitigation measures to be employed to prevent adverse impacts from occurring. For example, clarification as to the locations of spraying near waterbodies and measures included to avoid contamination.

RPF Response: No herbicides will be used as a part of or a result of this timber harvest plan, please see page 44 under "Other Activities". Also please see revised pages 46-47. dated 12-30-2014.

8. As this plan will not be approved prior to January 1, please ensure the NTMP is in conformance with the New Road Rules. The rules can be found at

    http://www.bof.fire.ca.gov/regulations/approved_regulations/2014_approved_regulations/roadrules2013.pdf

    http://www.bof.fire.ca.gov/regulations/approved_regulations/2014_approved_regulations/tra5_final.pdf

    A Q and A reference for the new road rules can be found at

    http://calfire.ca.gov/resource_mgt/downloads/RoadRules_Q&A_document(final).pdf

RPF Response: This THP will be in conformance with the New Road Rules.

9. **Comments to Landowner:** This plan may require coverage under the Central Valley Regional Water Quality Control Board's Conditional Waiver of Waste Discharge Requirements or other permit. Additional information may be found at (WQ):
    http://www.waterboards.ca.gov/centralvalley/water_issues/timber_harvest/

RPF Response: Landowners have been notified and any requirements or permits necessary will be followed and obtained.

10. Reorganize Confidential Archaeological Addendum (CAA) so that Parts 9 and 10 are collated before Parts 11 and 12.

Archaeologist Response: Archaeologist agrees with this statement.
RPF Response: RPF agrees with this statement please see revised pages 97-98. dated 12-30-2014.

11. Revise Part 9 of the CAA to include enforceable protection for the reported historic features. It is recommended that you include a flagged Equipment Exclusion Zone for each and provisions for directional felling adjacent trees away.

Archaeologist Response: Archaeologist agrees with this statement.
RPF Response: RPF agrees with this statement please see revised page 97. dated 12-30-2014.

12. Revise pagination on Location Map for site ARP-8-31-14-01 (P.110) to read Page 3 of 4.

Archaeologist Response: Archaeologist agrees with this statement.
RPF Response: RPF agrees with this statement please see revised page 110. dated 12-30-2014.

13. Revise site number on Continuation Sheet site ARP-9-1-014-01 (P.116) to include complete site number. Note that the "-01" is missing.

Archaeologist Response: Archaeologist agrees with this statement.
RPF Response: RPF agrees with this statement please see revised page 116 and also revised page 114 for pagination correction. dated 12-30-2014.

14. Revise pagination on the Location Map form in the site record for ARP-9-1-14-02 (P.119) to read Page 3 of 5.

Archaeologist Response: Archaeologist agrees with this statement.
RPF Response: RPF agrees with this statement please see revised page 119. dated 12-30-2014.

15. Revise Primary Record for CA-SIS-2325H, Resource Name line (P.122), to include the word "Update". Also revise pagination on Location Map in same record (P.124) to read Page 3 of 4.

Archaeologist Response: Archaeologist agrees with this statement.
RPF Response: RPF agrees with this statement please see revised pages 122 and 124. dated 12-30-2014.

Thank you.

Sincerely,

Timothy D. Cain
Forester, RPF #91
(530) 964-9756
info@blackfoxtimber.com

enc.

ERRATA SHEET 2-14-110-SIS

1. Replace pages 4 and 55 with revised pages 4 and 55 dated 12-30-2014.
2. Replace page 8 with revised page 8 dated 12-30-2014.
3. Replace pages 8 and 9 with revised pages 8 and 9 dated 12-30-2014.
4. Replace pages 12 and 13 with revised pages 12 and 13 dated 12-30-2014.
5. Replace page 15 with revised page 15 dated 12-30-2014.
6. Replace page 19 with revised page 19 dated 12-30-2014.
7. Replace pages 46 and 47 with revised pages 46 and 47 dated 12-30-2014.
10. Replace pages 97 and 98 with revised page 97 and 98 dated 12-30-2014.
11. Replace page 97 with revised page 97 dated 12-30-2014.
12. Replace page 110 with revised page 110 dated 12-30-2014.
13. Replace pages 114 and 116 with revised pages 114 and 116 dated 12-30-2014.
14. Replace page 119 with revised page 119 dated 12-30-2014.
15. Replace pages 122 and 124 with revised pages 122 and 124 dated 12-30-2014.

P.O. Box 687 - McCloud, CA 96057
Phone (530) 964-9756

Gouvea, Terri@CALFIRE

From: blackfoxtimber2@gmail.com on behalf of Katie Heman <katieheman@blackfoxtimber.com>
Sent: Monday, January 12, 2015 9:57 AM
To: Review Team Redding Inbox@CALFIRE
Subject: PHI Response for THP # 2-14-110-SIS
Attachments: MillPHI resopnses.pdf

Please see the attached PHI responses for the McCloud Mill THP # 2-14-110-SIS.

-- Thank you

Katie Benson

Black Fox Timber Mtg. Group
PO BOX 687
McCloud, CA 96057
katieheman@blackfoxtimber.com
530-350-0801 cell
530-964-9756 office
530-964-9757 Fax#

BLACK FOX TIMBER MANAGEMENT GROUP INC.

RECEIVED
JAN 12 2015
REDDING
FOREST PRACTICE

January 12, 2015

Deputy Chief, Forest Practice
California Department of Forestry
and Fire Protection
6105 Airport Road.
Redding, CA 96002

RE: THP 2-14-110-SIS
RPF Response to PHI Recommendations:

THP 2-14-110-SIS		
CAL FIRE PHI RECOMMENDATIONS		
☐ In conformance		
☐ Not in conformance – Denial Recommended		
☒ In conformance if recommendations are agreed upon		
PHI map attached as part of the recommendation?	Yes ☐	No ☒
Supplemental materials provided (CD's, aerial photos, etc)	Yes ☐	No ☒
RPF: Please respond to each recommendation provided below and indicate: (1) Whether or not you concur with the recommendation and (2) Provide any necessary revisions or documentation.		

The RPF shall:

1. Item 30, Hazard Reduction:

a) Add protection measures: Slash loading in the harvest areas shall be reduced by whole tree skidding, limbing shall take place on the log landings and that all residual timber harvest slash remaining on landings shall be disposed of through burning, chipping or removal.
RPF Response: **RPF agrees with this recommendation please see revised page 17 dated 01-12-2015.**

b) Add protection language for a 100 foot FPZ adjacent to the Public Roads and Special Treatment Zone surrounding the Municipal Hoo Hoo Park which requires the disposal of residual timber harvest slash greater than 1 inch in diameter through burning, chipping or removal.
RPF Response: **RPF agrees with this recommendation please see revised page 17 dated 01-12-2015.**

c) Remove the language addressing the extension of the FPZ burning requirements.
RPF Response: **RPF agrees with this recommendation please see revised pages 17, 28 and 37 dated 01-12-2015.**

d) Remove the language which states that 10% of slash piles may be left.
RPF Response: RPF agrees with this recommendation please see revised page 17 dated 01-12-2015.

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Phone (530) 964-9756

CONFIDENTIAL
PHI Recommendations – Archaeology
2-14-110-SIS McCloud Mill

1. As per 14CCR 949.1(c)(11). Specifically address the protection measures to be implemented both within the site boundaries and within 100 feet of the site boundaries and include the following protection measures: Trees harvested within the site boundaries shall be directionally felled away from the site and end-lined out of the site and trees within 100 feet of the site boundary shall be directionally felled away from the site.
   RPF Response: RPF agrees with this recommendation please see revised page 97 dated 01-12-2015.

2. Add the following protection measures to the historic railroad grade sites: Trees shall be directionally felled away and only existing skid crossings shall be used.
   RPF Response: RPF agrees with this recommendation please see revised page 97 dated 01-12-2015.

Thank you.
Sincerely,

Timothy D. Cain
Forester, RPF #91
(530) 964-9756
info@blackfoxtimber.com
enc.

ERRATA SHEET 2-14-110-SIS

1. Replace pages 17, 28 and 37 with revised pages: 17, 28 and 37 dated 01-12-2015.
2. Replace page 97 with revised page: 97 dated 01-12-2015.

P.O. Box 687 - McCloud, CA 96057
Phone (530) 964-9756

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FOREST PRACTICE

BLACK FOX TIMBER MANAGEMENT GROUP INC.

Reviewed by:
Dist by:
Dist. Date:
PU ___ PS
FS ___ TO
WO ___ TLO
ARCH LTO
RPF DMG
WSP. BOE
OTHER: ___
FPS
Status:

January 26, 2015

Deputy Chief, Forest Practice
California Department of Forestry
and Fire Protection
6105 Airport Road.
Redding, CA 96002

RE: THP 2-14-110-SIS
RPF Response to Second Review:

1st Review Question #1: Hoo Hoo Park is shown on map page 23. As per 14 CCR 1034(x)(14) please map the 200 foot special treatment area (STA) boundary around this park.
RPF Response: RPF agrees with this recommendation please see revised page 23 dated 01-26-2015.

1st Review Question #2: Page 37 Section III, Item 14. Please revise the stocking description for commercial thinning to be consistent with revised Item 14.b on page 8.
RPF Response: RPF agrees with this recommendation please see revised page 37 dated 01-26-2015.

Final review of the plan in anticipation of approval has revealed the following minor issues requiring clarification/revision. Please address the following:

Item 18, page 10. n) As there are no WLPZs on the THP area, please remove this statement.
RPF Response: RPF agrees with this recommendation please see revised page 11 dated 01-26-2015.

Item 23, page 13: Bullet point 11 states that exceptions may be proposed. Are exceptions proposed? If not please remove the last two sentences of this paragraph as they do not pertain to the plan.
RPF Response: RPF agrees with this recommendation, no exceptions are proposed; please see revised page 13 dated 01-26-2015

The RPF will grant an extension of the public comment period for 10 working days from the date CAL FIRE receives my response

Thank you.
Sincerely,

Timothy D. Cain
Forester, RPF #91
(530) 964-9756
info@blackfoxtimber.com
enc.

PART OF PLAN

ERRATA SHEET 2-14-110-SIS

1. Replace page 23 with revised page: 23 dated 01-26-2015.
2. Replace page 37 with revised page: 37 dated 01-26-2015.
3. Replace page 11 with revised page: 11 dated 01-26-2015.
4. Replace page 13 with revised page: 13 dated 01-26-2015.