#### **APPENDIX C**

#### TIMBER HARVESTING PLAN

FOR ADMIN. USE ONLY		STATE OF CALIFORNIA		FOR ADMIN. USE ONLY		
1	8	DEPARTMENT OF FORESTRY		THP No.		
2	9	AND FIRE PROTECTION		Date Rec'd:		
3	10	RM-63 (06-2018)		Date Filed		
4	11			Date Approved		
5	12	THP Name:		Date Expires		
6	13					
7	14	If this is a MODIFIED THP [     is this a MODIFIED THP for FUEL HAZARD REDUCTION	ורח	Extension: [] Am # 3		

If THP is any one of the modified types above complete appropriate modified checklists at end of general section

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. All rule references are from Title 14 CCR; when cited, the form text will only make reference to the rule number itself. The THP is divided into six sections. See separate instructions for information on completing this form. NOTE: The form must be printed fegibly in ink or typewritten, an online version is available at \_\_\_\_\_\_. Additional space may be inserted, as needed, to provide required information. Please distinguish answers from questions by font change, bold or underline.

#### SECTION I - GENERAL INFORMATION

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

1.	REGISTERED PROFESSIONAL FORESTER:							
	RPF Signature: Kabud A	_Lic. No	2302		D	ate J	luly 26, 2019	
	RPF Printed Name: Robert Hutcheson			Phone	(530) 96	14-975	6	
	Address 105 E. Minnesota Ave, PO Box 687	City	McCloud	State	CA	_Zip _	96057	•
	Emeil: <u>bobhutcheson@blackfoxtimber.com</u>							
2.	LICENSED TIMBER OPERATOR(S): Name Unknown (If unknown, so state	m You mus	t notify CAL FIRE, t	y amendment, of L1	Lic.	No	operations)	
	Address							<del>.</del>
	City	State	Z	p	_Phone_			
	Email:							
	Signature:							
3.	TIMBERLAND OWNER(S) OF RECORD: Nams <u>McCloud</u> Address <u>P.O. BOX ISIC (909</u> City <u>MCCLOUD</u> Email: <u>BRUCE C MCCP. 10</u>	mil	1 ROAD	) , <u>9605</u> 7	Phone	5	30 355	7600
	Signature:							

TIMBER OWNER(S) OF RECORD: Name <u>McCloud Partners LLC.</u>

Address P	0.	BOX	1810	(909	MILi	RU	AD	)			
City Mc				-				96057 Phone	530	355.	7600
Email: BRU	ICE	em	CCP.	10							
Signature:	Sau	ar	But								

NOTE: The Timber Owner is responsible for payment of a yield tax. Per State of California Revenue and Taxation Code sections 38104 and 38115. Timber Yield Tax information may be obtained at: Timber Tax Section, MiC: 60, California Department of Tax and Fee Administration, P.O. Box 942879, Sacramento, California 94279-0060. Phone 1-800-400-7115 OR 1-916-274-3330. For Timber Tax information, please see our website at: <a href="https://www.boe.ca.gov/proptaxes/timbertax.htm">www.boe.ca.gov/proptaxes/timbertax.htm</a>.

5. PLAN SUBMITTER(S): Name Bruce Berlinger

The submitter is the person who owns, leases, contracts, or operates on timberland. If the submitter is not identified in (2), (3), or (4), above, an explanation of his/her authority to submit the plan should be provided in Section III. [1032.7(a) and 1034(e)].

(909 MILL RD 1810 Address State CA zip 96057 Phone 530 355-7600 City Email: Signature:

6. ON-SITE CONTACT: Name <u>Unknown</u> <u>BRUILE</u> <u>BRRLING</u> <u>CR</u> List person to contact on-site who is responsible for the conduct of the operations. If unknown, so state; name must be provided for inclusion in the THP prior to start of timber operations.

Address P.D. BOX IBID (909 MILL RD) State CA Zip 96057 Phone 530 355-7600 city Mcliaup Email: BRUCE C MCCP.

#### Amendment

(Acknowlegements)

#### **REGISTERED PROFESSIONAL FORESTER (RPF) RESPONSIBILITY ACKNOWLEDGEMENT**

(As per 14 CCR § 1035.1)

**RPF Certified to Provide Professional Advice:** 

Name: Robert D Hutcheson

Street Address/PO Box: 105 E. Minnesota Ave./P.O. Box 687 City: McCloud Zip Code: 96057

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:** d'

3 X

6.(a) Expected date of commencement of timber operations: Date of conformance of this amendment

6.(b) Expected date of completion of timber operations: February 9, 2020 or expiration of any extension that is granted

8. LOCATION OF THE TIMBER OPERATION by legal description:

Base and Meridian: [X] Mount Diablo	[🗆] Humboldt	[🗆] San

Bernardino

Section	<u>Township</u>	<u>Range</u>	<u>Acreage</u>	<u>County</u>	Assessor's Parcel Number (Optional)
6	39N	2W	59	Siskiyou	
1	39N	3W	4	Siskiyou	
31	40N	2W	45	Siskiyou	
36	40N	3W	4	Siskiyou	

TOTAL ACREAGE 112 (Logging Area Only)

9. X Yes X No Has a Timberland Conversion been submitted? If Yes, list expected approval date or permit number and expiration date if already approved. Expected approval is September 1, 2019.

- 13 e. After considering the rules of the Board of Forestry and Fire Protection and the mitigation measures incorporated in this THP, I (the Registered Professional Forester) have determined that the timber operation (mark all that apply):
  - [□] <u>will</u> have a significant adverse impact on the environment. (Statement of reasons for overriding considerations should be contained in Section III).
  - [X] will not have a significant adverse impact on the environment.
  - [X] 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 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

Robot D Here Date Aug 5, 2019

4

### Amendment

#### SECTION II

#### 14.(a)

Silvicultural Prescription	Acres
Shelterwood Removal Step	2
Commercial Thinning	16
Selection	34
Conversion	44
No Harvest	16
Total Acres	112

14.(d)

Areas to be harvested under conversion shall be flagged with blue and yellow flagging. All trees shall be harvested within these areas.

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

**Note:** if any "item is answered "yes" provide the required information pursuant to the associated rule. Specific LTO operational information should be provided in Section II. Explanation and justification should normally be included in Section III.

26. a. Yes No Are there any watercourses or lakes which contain Class I through IV waters on or adjacent to the plan area? If yes, as applicable, provide: the class, associated WLPZ or ELZ width, and protective measures; determined from 916.5 [936.5, 956.5] Table I, 916.4 (936.4, 956.4)(c), and/or 916.9 [936.9, 956.9] et seq. Specify if Class III or IV watercourses have a WLPZ or ELZ.

The discussion in the original THP said that the nearest point of the plan was within 372 feet of Squaw Valley Creek. The nearest point for the amended area is approximately 240 feet from Squaw Valley Creek. There are no watercourse within or adjacent to the amended area. One unclassified swale falls within the amended area. No protection was proposed in the original plan and none is proposed for the amended area. Other provisions discussed in Item 26.a. of the original plan are current.

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 February 6, 2019 publication was given to the Mt. Shasta Herald News of the amendment to the Old Mill THP. On January 25, 2019, "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.

- **32.** NOTE: See THP Form Instructions or the CDF Mass Mailing, 07/02/1999, section on "CDF Guidelines for Species Surveys and Mitigations" to complete these questions.
  - a. X Yes No Are any plant or animal species, including their habitat, which are listed as rare, threatened or endangered under federal or state law, or a sensitive species by the Board, associated with the THP area? If yes, identify the species and the provisions to be taken for the protection of the species. For general protection of nest sites of sensitive species see 939.2(b)9c)(d) on page 23.

#### Animals

#### Northern Spotted Owl (Strix occidentalis caurina) (NSO):

Surveys for NSO for the original THP, were waived as a result of consultation with Stacy Stanish (CalFire Forest Practice Biologist). For the proposed amendment, Black Fox Wildlife Biologist Isidro Barela contacted Stacy Stanish to confirm that surveys would be waived for operations. She confirmed that no surveys would be required for operations under the amendment. See Section V (email).

#### Fisher (Pekania pennanti): CDFW Species of Special Concern, ESA Candidate

The fisher was previously listed as a Federal Endangered Species Act (ESA) candidate species from 2014 to 2016 until U.S. Fish & Wildlife withdrew the proposal. The fisher's federal status was removed and its state status remained a Species of Special Concern. In September 2018 as a result of a court ruling vacating The Service's 2016 decision to withdraw the fisher's candidacy, the proposal was reopened changing the fisher's federal status to an ESA Candidate. There are no new known occurrences within the THP area since the original THP approval according to CNDDB.

<u>Townsend's Big-Eared Bat (Corynorhinus townsendii)</u>: CDFW Species of Special Concern, Federal Sensitive Species.

The Townsend's big-eared bat it is no longer a candidate under CESA. There are no new occurrences within the Biological Assessment Area for Townsend's big-eared bats since the original approved THP.

#### Sierra Nevada Red Fox (Vulpes vulpes necator): CESA Threatened, ESA Endangered

The Sierra Nevada red fox is now listed as Endangered with the Federal Endangered Species Act. No new observations of the red fox have been recorded with in the THP area according to CNDDB.

Gray Wolf (Canis lupus): CESA Endangered, ESA Endangered

The gray wolf was state listed under the CESA by the California Fish and Wildlife as "Endangered" on June 4<sup>th</sup>, 2014. The most recent wolf activity zone is outside of the plan area.

• If an active den or rendezvous for this species is observed, all vegetation disturbing activities within 200 feet

will be suspended and the RPF or representative will contact CDFW for consultations. The consultation will be amended into the plan as a minor amendment. Any incidental wolf sightings shall be reported to the California Department of Fish and Wildlife.

Northern Goshawk (Accipiter gentilis): CDFW Species of Special Concern

There are no known northern goshawk (NOGO) Acs within the Biological Assessment Area of the amendment. NOGO nesting habitat consists of old-growth forest with more than 60% closed canopy with breeding sites including Douglas-fir and aspen groves. During pre-harvest activities and harvest NOGOs will be watched and listened for. If a new NOGO active nest site is discovered the following protection measures will be implemented:

- CDFW will immediately be notified and a minor amendment will be filed.
- Within ¼ mile of the nest all vegetation disturbing activities will be suspended.
- Within 375-foot radius buffer all operations will be suspended.

#### Cascades Frog (Rana cascadae): Candidate Species CESA

The Cascades frog's breeding sites typically include areas of shallow still-water, lakes, ponds, and stream-associated wet meadow habitats. Oviposition typically occurs between April and July coinciding with spring snowmelt. Within the THP there is no known occurrences of the Cascades frog, but there are occurrences within the Biological Assessment Area according to CNDDB. Within the THP a class I watercourse (Squaw Valley creek) runs North to South on the East boundary of the THP area but outside of the amended and operational area. The watercourse is further than 250 feet away from the proposed THP amended area; therefore, this species is unlikely to be affected.

• If Cascades frogs are detected all operations within 100 feet of the watercourse will cease and Cal Fire shall be notified and the RPF will consult with Cal Fire and the DFW to establish protection measures.

#### Foothill Yellow-Legged Frog (Rana boylii): CESA Candidate

No known sighting of the foothill yellow-legged frog has been recorded within THP, however the Biological Assessment Area is within its distribution range according to consultation with CDFW Andrew Yarusso. Foothill yellow-legged frogs inhabit watercourse for movement, rarely traveling further than 10 feet from the watercourse, with the furthest distance recorded being 120 feet. Within the THP, a class I watercourse (Squaw Valley creek) runs North to South on the East boundary of the THP area but outside of the amended and operational area. The watercourse is further than 250 feet away from the proposed THP amended area; therefore, this species is unlikely to be affected.

• If the foothill yellow-legged frog is detected all operations within 120 feet will cease and Cal Fire shall be notified and the RPF will consult with Cal Fire and the DFW to establish protection measures.

#### Southern Long-Toed Salamander (Ambystoma macrodactylum): Federal Species of Special Concern

The southern long-toed salamander subspecies is known to occur in mixed Sierra Nevada coniferous forests and alpine communities above 6,500 Feet elevation. Long-toed salamanders utilize springs, ponds, small lakes, slow-moving steams, and marshlands for breeding and larval development. No known occurrences have been recorded for southern long-toed salamander within the THP, however a detection has been recorded within the Biological Assessment Area according to CNDDB. Within the proposed amended area, no aquatic habitat exists; therefore, this species is unlikely be affected by this amendment.

 If southern long-toed salamanders are detected within the THP all operations within 50 feet will cease and Cal Fire shall be notified and the RPF will consult with Cal Fire and the DFW to establish protection measures.

#### **Plants**

Scoping for rare plants was done in consultation with CDFW prior to submission of this amendment. This resulted in the survey list of seven plant species below. A survey was conducted by the RPF for these species on July 18, and 23, 2019. No rare or listed plant species were discovered during surveys. See description under "Scoping and Survey for Rare Plants", in amendment to Section V.

#### **Survey Species from Scoping**

Rattlesnake Fern (*Botrypus virginianus*) – State Rank S2, Rare Plant Rank 2B.2 Habitat for this species includes bogs and fens, lower montane coniferous firest (mesic), meadows and seeps, and riparian forests. It occurs at elevations ranging from 700-1200 meters. It has been found in the high Cascade range, Cascade range foothills, and the Klamath range.

Pallid Bird's-Beak (<u>Cordylanthus tenuis ssp. pallescens</u>) - State Rank S1, Rare Plant Rank 1B.2 This species is found on gravelly soil between shrubs in openings of lower montane coniferous forests and on roadsides. It occurs at elevations ranging from 1,100 to 1,600 meters. It is found near Mount Shasta and has a very limited known range.

#### Jepson's Dodder (*Cuscuta jepsonii*) – State Rank S1, Rare Plant Rank 1B.2

This species is a parasitic annual vine that is found on Ceanothus diversifolius, and Ceanothus prostrates. Elevational range is from 1200-2300 meters. It is possible that Jepson's dodder has been extirpated from the state. It has historically been found in the Klamath ranges, high north coast ranges, Cascade range foothills, high Cascade range, and the high Sierras.

Oregon Fireweed (*Epilobium oreganum*) – State Rank S2, Rare Plant Rank 1B.2. This species is found in montane meadows and forest openings at elevations ranging from 1200-1850 meters. It is known to occur in the Klamath ranges and high Cascades range (Mount Shasta).

#### Aleppo Avens (Geum aleppicum) - State Rank S2, Rare Plant Rank 2B.2

This species occurs in meadows at elevations ranging from 1000-1600 meters. It is known to occur in the high Cascades range, the Modoc plateau, and the Warner mountains.

Marsh Skullcap (*Scutellaria galericulata*) - State Rank S2, Rare Plant Rank 2B.2 This species occurs in wet sites, meadows, streambanks, and conifer forests. It is known to occur in the Modoc Plateau region, the Warners, and the high Sierras at elevations ranging from 1,000 to 2,500 meters.

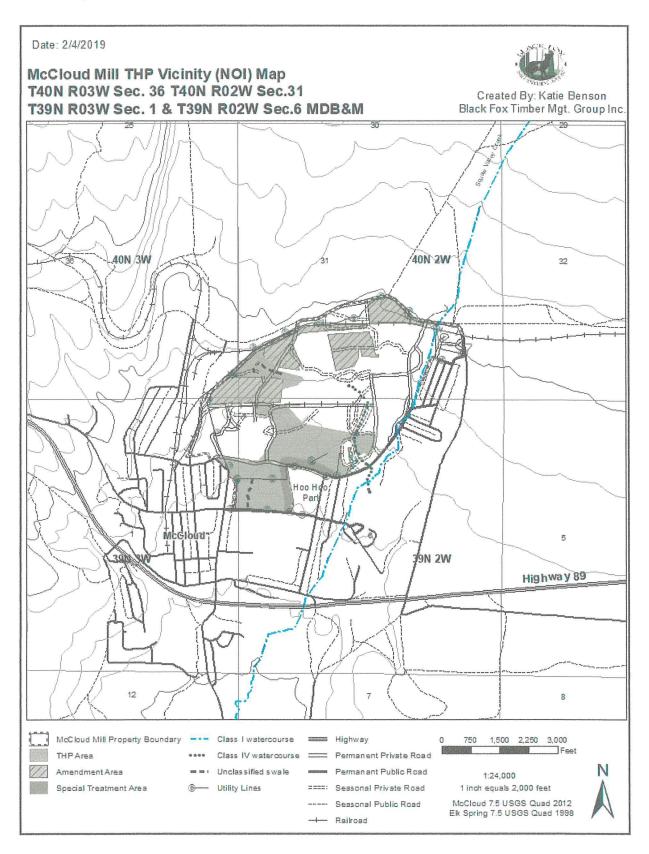
Siskiyou Clover (*Trifolium siskiyouense*) - State Rank SH, Rare Plant Rank 1B.1 This species occurs in wet mountain meadows in the Klamath Range. It is found at elevations from 800 to 1,400 feet.

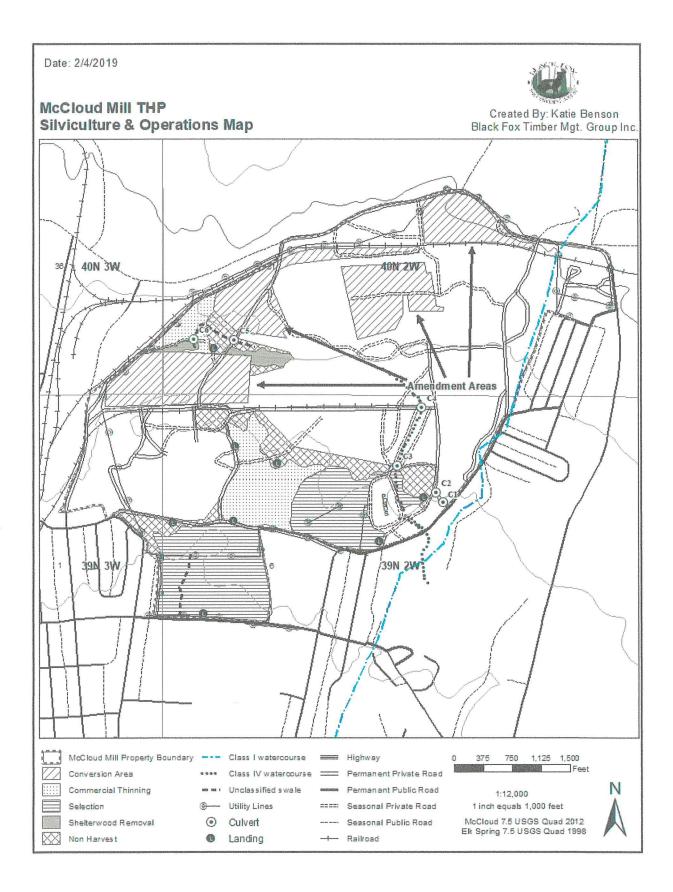
<u>Minimum Protection Measures</u> (Unless Otherwise Specified): Sensitive plants are species that meet the definitions of rare, threatened, or endangered provided in the California Environmental Quality Act Guidelines (§15380, Title 14, California Code of Regulations), which typically includes

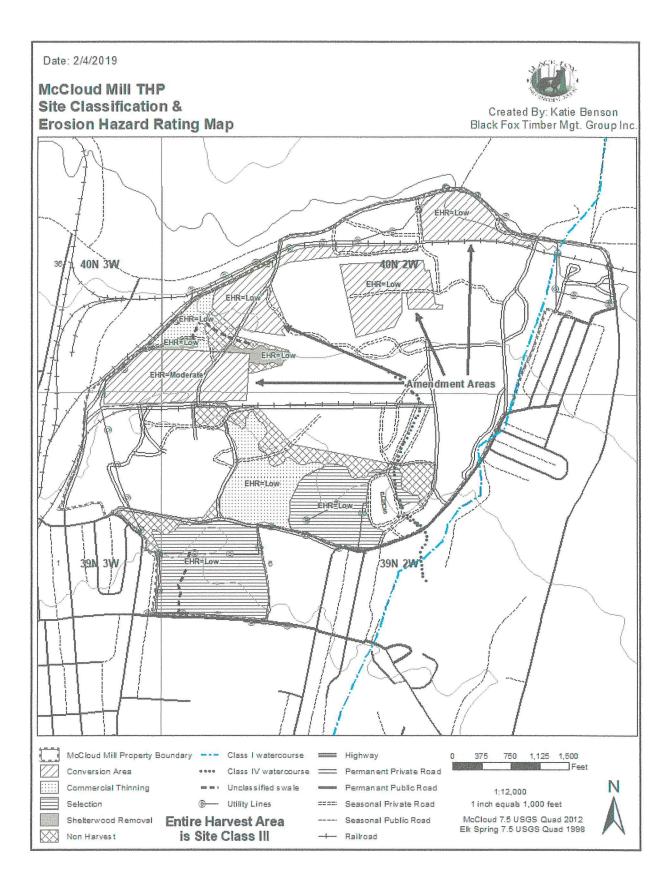
California Rare Plant Rank 1A, 1B, 2A, 2B, and some 3 species, if a sensitive plant is discovered following approval of the amendment within the THP area, a Special Treatment Zone (STZ) consisting of a 50' buffer shall be flagged around the individual or group of plants using Special Treatment Zone flagging. No operations shall occur within the STZ unless a consultation with CDFW occurs as to specific mitigation measures. Trees bordering the STZ shall be directionally felled away from the zone. No herbicides shall be used within the STZ unless a consultation with CDFW occurs as to specific mitigation measures. No other protection measures are needed.

\_38 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 Steve Wilson, Unit Forester Forest Practice Inspector 530-598-2604







#### **SECTION III**

#### 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 approved McCloud Mill Timber Harvest Plan (2-14-110 SIS) is approximately 88 acres. The amendment partially overlaps the approved plan but adds approximately 24 acres making a total amended area of 112 acres.

#### **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.

#### PROJECT ALTERNATIVES ANALYSIS

#### **Project Description as Proposed - Conversion Area:**

This amendment to 2-14-110 SIS is a proposal to convert 44 acres from functioning forest land to commercial use. The existing zoning for the proposed conversion area as well as the original THP is Heavy Industrial District. The amended area includes 20 acres of the original plan that has been logged under the plan. This

includes 8 acres that were logged under Commercial Thinning silviculture, 5 acres that were logged under Shelterwood Removal Step silviculture, and 7 acres that were designated "Non-Timberland Area" under the original plan.

#### **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:

• <u>To maintain a balanced stand structure.</u> The silvicultural prescriptions (even age and un-evenaged 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.

• <u>To harvest timber, while mitigating potentially significant impacts on the environment.</u> 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.

• <u>To develop the commercial capacity of the property to include 1) a solar power generating facility, and</u> 2) a manufacturing facility, as part of the overall ownership.

#### 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. The solar farm will contribute to energy independence and offset greenhouse gases. The manufacturing facility will contribute to the financial viability of the property.

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.

#### Cascades Frog (Rana cascadae): Candidate Species CESA

The Cascades frog's breeding sites typically include areas of shallow still-water, lakes, ponds, and stream-associated wet meadow habitats. Oviposition typically occurs between April and July coinciding with spring snowmelt. Within the THP there is no known occurrences of the Cascades frog, but there are occurrences within the Biological Assessment Area according to CNDDB. Within the THP a class I watercourse (Squaw Valley creek) runs North to South on the East boundary of the THP area but outside of the amended and operational area. The watercourse is further than 250 feet away from the proposed THP amended area; therefore, this species is unlikely to be affected.

• If Cascades frogs are detected all operations within 100 feet of the watercourse will cease and Cal Fire shall be notified and the RPF will consult with Cal Fire and the DFW to establish protection measures.

#### Fisher (Pekania pennanti): CDFW Species of Special Concern, ESA Candidate

The fisher was previously listed as a Federal Endangered Species Act (ESA) candidate species from 2014 to 2016 until U.S. Fish & Wildlife withdrew the proposal. The fisher's federal status was removed and its state status remained a Species of Special Concern. In September 2018 as a result of a court ruling vacating The Service's 2016 decision to withdraw the fisher's candidacy, the proposal was reopened changing the fisher's federal status to an ESA Candidate. There are no new known occurrences within the THP area since the original THP approval according to CNDDB.

#### **SECTION IV**

#### Page 39 II (C ) Cumulative Impacts Assessment Checklist

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 Productivit y			X
3	Biological		X	
4	Recreation			X
5	Visual		X	
6	Traffic		X	
7	Wildfire Risk and Hazard			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.

#### **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 planning horizon is estimated at 1 years because no harvest will occur following conversion of the project area. The completed form follows. The results indicate carbon stocks will decline as a result of operations under this plan but will recoup within a period of 101 years. According to the model, planned operations in the project area over a 1-years will result in total Net emission/sequestration of -10.23 metric tonnes of carbon dioxide equivalent and sequestration of 409 metric tonnes of carbon dioxide equivalent. Since all trees are cut and no growth is projected, ending stocks for live trees and wood products is zero. Since this is a conversion assuming no retention following harvest and no reforestation requirement, this value must be adjusted to reflect only site prep emissions and non-biological emissions as follows:

Site Prep emssions	2.49
Non Biological emissions	0.18 (sum of harvesting and milling emissions)
Total emissions	2.67 metric tonnes per acre * 40 acres = 107 metric tonnes

#### Wildfire Risk and Hazard-

• Conversion areas will be cleared of vegetation in the course of completing the conversion to a solar farm.

#### Page 40 and 41

III. Identification of Resource Areas

#### Watershed Assessment Area:

The Watershed Assessment Area shall consist of CalWater version 2.2.1 planning watersheds McCloud (5505.220103) and Squaw Valley Creek (5505.220102).

#### Wildfire Risk and Hazard Area:

The assessment area for Wildfire Risk and Hazard shall be the same as the Watershed Assessment Area - CalWater version 2.2.1 planning watersheds McCloud (5505.220103) and Squaw Valley Creek (5505.220102), within which the THP lies.

#### Watershed Cumulative Effects Assessment

#### 1) Beneficial Uses

There is one Class I that flows through the plan area. Squaw Valley Creek, a class I watercourse originates at approximately 8,500 on the south side of Mount Shasta. It is the only class I 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:

	McCloud	Squaw Valley Creek
Size (Acres)	1,340	10,985
Primary Channel Orientation		
	North-South	North-South
Minimum Elevation (Feet)	3,120	3,360
Maximum Elevation (Feet)	3,360	11,250
Downstream Planning Watershed	Pig Creek	McCloud
Hydrological Region	Sacramento River	Sacramento River
Hydrological Unit	McCloud River	McCloud River
Hydrological Area	Wyntoon	Wyntoon
CA 2.2 ID	5505.220103	5505.220102
Watersheds with listed		
anadromous salmonids	No	No
Anadromous Fish		
	No	No
303(d) Listed	۲۰۰۰ ۳۷۷۹۹ ۵۰۹ ۵۹۹ ۵۰۰ ۵۰۰ ۵۰۰ ۵۰۰ ۵۰۰ ۵۰۰ ۵۰۰ ۵	
	No	No
2-Year 1-Hour Precipitation Intensity	4" per hour	Range from 4" to 8" per hour at upper elevation

General information regarding the McCloud and Squaw Valley Creek Planning Watersheds (PW's):

Precipitation Attributes--Precipitation analyses for the WAA show that the area receives an average of approximately 50" of precipitation (snow) per year.

#### 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
2-09-086-SIS*	40N03W 14,23,24,36	ALT SS - 143
		CC - 14
		GS - 18
		CC-9
2-09-065-SIS*	39N02W 7, 5	CT-16
		GS-9
		SEL-7
-	40N03W 36	CT-409
2-13-030-SIS*	40N02W 17,20,29,31, 32	GS-489
	39N02W 6, 5	SS-70
		NH-181
		SEL-26
		ALT STSS-39
· · · · · · · · · · · · · · · · · · ·		ALT SWR - 18
2-14-001-SIS*	40N02W 17,19,30	ALT CC – 183
	40N03W 25	SEL - 9
2-15-066-SIS	40N02W 7	ALT CC – 214
	40N03W 1,2,11,13,14	CC - 69
		ROW 14
		SEL - 9
2-15-068-SIS*	40N03W 2,11	ALT CC – 6
		ROW 0.4
		<u>SWR - 5</u>
2-16-042-SIS*	40N03W 36	GS - 23
2-14EX-651-SIS	39N02W 6	Harvesting dead, dying or diseased trees of any size, fuel
	39N03W 1	wood, or split products in amounts less than 10 percent of
	40N02W 31	the average volume per acre.
	40N03W 36	
2-18EX-00904-SIS	40N02W 29,30	1038j Pilot Project (Sel) - 76

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# / Exemption #	TRS	Silviculture Acres in Assessment Area
2-13-030-SIS*	40N03W 36 40N02W 31, 32	CT-435 GS-483
	39N02W 6, 5	SS-70
		NH-64
		SEL-26
a a second a		ALTSTSS-39
2-14-001-SIS*	40N02W 17,19,30	ALT CC – 183
	40N03W 25	SEL - 9
2-15-066-SIS	40N02W 7	ALT CC - 214
	40N03W 1,2,11,13,14	CC 69
		ROW – 14
		SEL - 9
2-15-068-SIS*	40N03W 2,11	ALT CC - 6
		ROW - 0.4
		SWR - 5
2-16-042-SIS*	40N03W 36	GS - 23
2-15NTMP-003*	39N02W 6, 7, 12, 18	Asp/Mdw/Wet - 12
		FB/Def Sp – 7
		GS - 278
2-14EX-651-SIS	39N02W 6	Harvesting dead, dying or diseased trees of any size, fuel
	39N03W 1	wood, or split products in amounts less than 10 percent of
	40N02W 31	the average volume per acre.
	40N03W 36	
2-18EX-00904-SIS	40N02W 29,30	1038j Pilot Project (Sel) - 76

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, Asp/Mdw/Wet=Aspen/Meadow/Wet Area Restoration, FB/Def Sp = Fuelbreak/Defensible Space.

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

Hancock Forest Management plans a THP in S 14, 23, 24, & 26 of T40N R03W. No silviculture or acreage is available yet. 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.

Other privately held timberlands within the WAA will continue to support periodic timber harvest and associated timberland management activities into the foreseeable future.

#### Wildfire Risk and Hazard Assessment

A. Assessment Area – The area chosen for the assessment of wildfire risk and hazard is the planning watershed (same as the Watershed Assessment). This area was chosen because of the proximity of the project and the town of McCloud which is the primary focus for the assessment of wildfire risk and hazard.

- B. Background Information
  - Fire Hazard Severity Zone The project and surrounding State Responsibility areas are ranked as very high in terms of fire hazard severity according to the 2007 Fire Hazard Severity Rating map for Siskiyou County adopted by Cal Fire.
  - Recent Fires The following table summarizes recent fires in Shasta and Siskiyou affecting the general area in which the project lies. No significant fires were recorded within the assessment area.

Year-Name	Acres	Location		
2006-Lakin Fire	54	26 miles NE of McCloud		
2011 Ward Fire	550	4 miles S of Castella		
2012 Bagley Fire	46,011	4 miles W of Big Bend		
2014 Boles Fire	479	Weed		
2015 Stephens Fire	200	18 miles NE of McCloud		
2015 Military Fire	58	Military Pass Road		
2016 Mill Fire	56	E of Weed		
2017 Bradley Fire	54	Dunsmuir		
2018 Carr/Hirz/Delta Fires	339,112	N Shasta County into the Sac. River Canyon		
2019 Shastina Fire	127	N of Weed		

- Existing Fuelbreaks and Hazard Reduction Activities
  - There are several fuelbreak projects in the vicinity established by the local fire safe council that are in need of significant maintenance.
  - Pacific Forest Trust has done some fuel reduction activities on the Schroll timberlands including some roadside treatments south of McCloud.
  - Funding has be applied for to install fuel treatments along highway 89 west and east of McCloud.
  - USFS has ongoing prescribed burning on their lands including along highway 89 and Pilgrim Creek Road.
- Existing and probable future fuel conditions The harvesting that was planned prior to this amendment for this THP has been completed including required fuels treatment. Surrounding areas are managed forest land containing a mosaic of timber types including uneven and even aged forest stands. Ground fuels are generally broken up by harvesting activity, although areas of continuous and semi-continuous brush exists in the assessment area. This combination of conditions is likely to persist.
- Road Access The area is well roaded due to long history of forest management.

#### C. Affect of Proposed Treatments on Fire Risk and Hazard

The conversion of the proposed treatment to a non-forest use will result in fire breaks between the town and forest land to the north. Additionally, access improvements and ongoing maintenance associated with the solar farm will improve access to the area for the purpose of fire suppression and prevention activities. This results in a reduction of fire related risk to the community as well as a reduction in fire hazard. Therefore, it is the opinion of the RPF that the project as planned will not result in adverse impacts associated with wildfire risk or hazard.

This worksheet add	resses the seque	station and en	nissions as:	sociated with th	e project area's balar	ice of harvest, inven	tory, and growth plus a	ny emissions associated v	with site preparation. Complete the in	put for Steps 0-8 on thi	is worksheet.
	Forest Type			Harve	est Periods	Inv	entory	G	Browth Rates	Harvest Vo	lume
Multipliers	Multipliers to Estimate Carbon Tonnes per MBF (Sampson, 2002)			Time of Harvest (y	ears from project approval)	Conifer Live Tree Volume (MBF/Acra) - 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 Harve / Treated Basal A (BA/Acre)
Forest Type	Step 0. Identify the approximate percentage of conifers by volume within the harvest plan. Must sum to 100%	(merchantable) to Total	Pounds Carbon per Cubic Foot	entry cycles should be	Step 1. future harvest entries. The re- supported by management plan, 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 grow th of conifors between harvests based on estimated grow th in management plan, if available. Must be entered for each harvest cycle identified in Step 1.	Step 5. Insert average amutal periodic growth of hardwoods between harveats 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 hardw ood basal a harvested/treated j acre
Douglas-fir	50%				C	1.7		0		1.7	
ledw ood	50%		13.42		C	0	0	0		0	
ines	0%		12.14		C	0	0	0		0	
rue firs	0%		11.18		C	0	0	0		0	
lardw oods		2.214	11.76		C	0	0	0	0	0	
Conversion of Board Feet to Cubic Feet	0.165	Pounds per Metric Tonne	2,204		0	0 0	0	0	0	6 0	
Multipliers to Estimate Total	Conifer	1.7	4	at least three	Contraction of the contraction o	0	c	0	0	0	
Carbon Tonnes per MBF	Hardwoods	1.9		entry cycles.	c	Ū	0	0	D	0	
Multipliers to Estimate	Conifer	1.0	A	1							
Merchantable Carbon Tonnes per MBF	Hardwoods	0.8		-							
and the second	That all be do			1	an land a gar ya Angal ya Ang	<u>In an an</u>					Contract of the second s
				Harvest Periods	Inventory Conversito to ha	on to Carbon (prior rvest)		sion to Carbon Dioxide prior to harvest)	Site Preparatio	n	
					Conifer Live Tree Tonnes (C/acre)	Hardwood Live Trees Tonnes (C/acre)	Conifer Live Tree Tonnes (CO <sub>2</sub> equivalent/acre)	Hardwood Live Tree Tonnes (CO <sub>2</sub> equivalent/acre)	Step 8. Enter the value (in bold) for each harvest cycel th activities, as averaged across the		
				from above (Time of	Computed:	Computed:			Heavy- 50% or more of the project area is covered with t preparation or stumps are removed (mobile emissions esti per acre, biological emissions estimated at 2 metric tonner	mated at .429 metric tonnes CO2e	
				Harvest as years from project approval)	MBF * Conifer Multiplier from Step 0.	BA*Volume/Basal Area Ration (to convert to MBF) * Hardw cod Multiplier from Step 0.	Computed: Conversion of carbon to CO <sub>2</sub> (3.67 tonnes CO2 per 1 tonne Carbon)	Computed: Conversion of carbon to CO <sub>2</sub> (3.67 tonnes CO2 per 1 tonne Carbon)	Medium - >25% <50% of the project area is covered will site preparation (mobile errisoions estimated at .202 metric emissions estimated at 1 metric tonne per acre).		
									Light - 25% or less of the project area is covered with be preparation (mobile emissions estimated at .09 metric tonn emissions estimated at .5 metric tonnes per acre).		
									None - No site preparation is conducted.		
				0	3	0	11		Heavy None	-2.49	1
				0		0	0		None	0	
				0			0		None	0	1
				0	the second se	0	u u			U	1
				0	0		0				3
				0	0	0	0		none	0	
				0	0	0	0	0	None	0	
				0	0 0 0	0	0	0	None None	0	
								0 0 0	None		

#### Project Carbon Accounting: Harvesting Emissions

This worksheet ad	Idresses the non-biol	ogical emissions	associated v	vith the proje	ct area's ha	rvesting activi	ties. Comp	lete the inp	out for Steps 9	- 14 on this	worksheet				
Harvest Periods	Falling Operations	Production per Day	Emissions A	Associated wand Loaders			s Associat rs and Skid			ons Associ Helicopter		Landing Saws	Truc	king Err	issions
from Inventory, Grow th, and Harvest Page (Time of Harvest as years from	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	convert to metric	IS gallons diesel per 2 pounds carbon / g tonnes carbon)* 3: O2 equivalent//Prod	gallon )/2205 to 67 to convert to	Assumption: ((55 equipment * 6.12 p convert to metric to metric tonnes CO2	ounds carbon / g nnes carbon)* 3.	allon )/2205 to 67 to convert to	equipment * 5 poun metric tonnes cart	nds carbon / gallo	n )/2205 to convert to vert to metric tonnes	Assumption: (((.16 gallons gasoline per MBF * 5.33 (pounds carbon per gallon))/2205(conversion to matric tornes) * 3.67 (a convert to metric tornes) * 3.67 (a convert to metric tornes) * 4.67 per acre harvested. Applies to all species w hether harvested or not.	the mbf/hour) /((6 carbon/gallon)/2	5 gallons dies 2205 (conver	(from below , to compute sel/hour * 6.12 pounds sion to metric tonnes ric tonnes carbon dioxide
project approval)	Computed. Metric Tornas 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 equivalient/mbf (metric tonnes)	Computed. Yarders and Loaders CO2 equivalent per Acre Harvested (metric tonnes)	Step 11. Enter number of piaces of equipment in use per day for each harvest entry	Computed. Tractor and skidder CO2 equivaliant/mbf (metric tonnes)	Computed. Tractors and Skidders CO2 equivalent per Acre Harvested (metric tonnes)	Step 12. Enter number of pleces of equipment in use per day for each harvest entry	Computed. Helicopter CO2 equivalient/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 1	14 haiow	Computed. Estimated Metric Tonnes CO2e per harvested acre for each harvesting period.
0	(0.00)	15	1	-0.02	-0.04	The second s	-0.04	-0.06	Ó	0.00	0.00	0.00		4 Delow	-0.026962099
0	-	o	0	0.00	0.00	0	0.00			0.00		0.00	Enter Estimated Load Average:	4.2	0
0	-	0	Q	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0.00	Step 14.	1993	0
o	-	0	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0.00	Enter Estimated		0
0	-	0	0	0.00	0.00	0	0.00			0.00		0.00	Round Trip Haul in		0
0	-	0	0	0.00	0.00	0	0.00			0.00	0.00	0.00	Hours		0
0	-	0	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		0.00			0
0	-	0	0	0.00	0.00	0	0.00			0.00		0.00			0
0		0	0	0.00	0.00	0	0.00		and the first as a set that the standard of the stand	0.00		0.00	and the state of t		0
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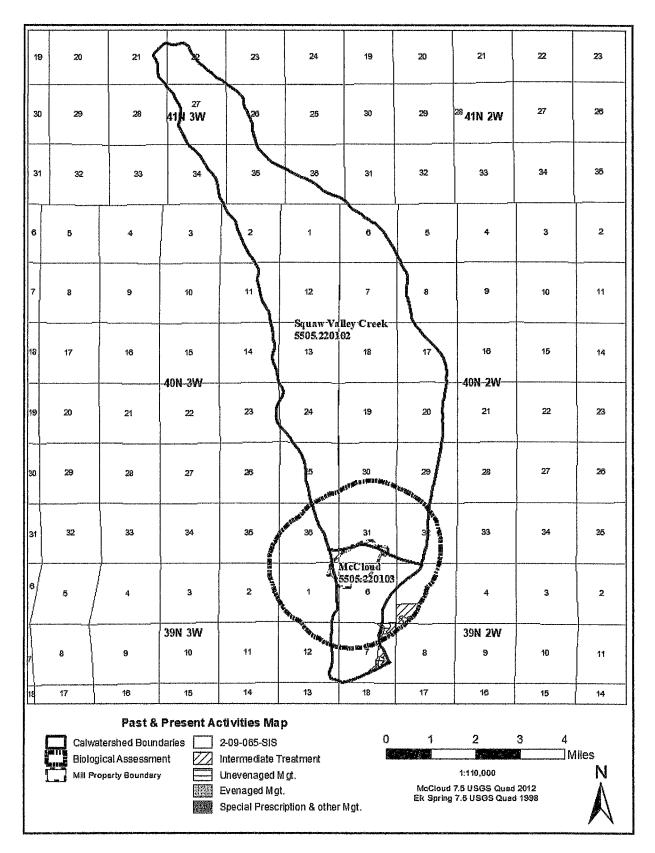
	Pr	oject Ca	rbon Accour	nting: Harv	ested Wood Pro	ducts and P	rocessing Em	nissions		
This worksheet ad					harvesting activities. Compl					
Harvest Periods			st Carbon Delivered to		Non-Biological Emissions Associated with Mills	Quantity of Fores	Carbon Remaining Milling (Mill Efficiency)	Long-Term 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	Step 16. Insert the percentage of hardwoods	Computed: The merchantable portion determined by the conversion factors	Computed: The merchantable portion determined by the conversion factors (Sampson, 2002) on the	Calculated.	The difference between carbon delivered to mills and carbo remaining after milling is assumed to be emitted immediate		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%	
	conifer trees harvested that are subsequently delivered to sawmills	harvested or treated that are subsequently delivered to sawmills	(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.	Inventory, Growth, and Harvest worksheet. This is multiplied by the percent delivered to mills to reflect the carbon delivered to mills.	The CO2e associated with processing the logs at the mill	The efficiency rating from mills in Califomia is 0.67 (DOE 1605b) for conifers	The efficiency rating from mills in California is .5 (DOE 1605b) for hardwoods	Estimate. The carbon in landfills at year 100 is 29.8% of the initial carbon produced in wood products.	Estimate. The carbon in landfills at year 100 is 29,8% of the initial carbon produced in wood products.	
0	100%	0%	6.49		-0.04			3.31		
0	100%	0%	0.00		0.00		0.00	0.00		
0	100%	0%	0.00	0.00	0.00		0.00	0.00		
0	100%	0%	0.00	0.00	0.00		0.00	0.00		
0	100%	0%	0.00	0.00	0.00		0.00	0.00		
0	100%	0%	0.00	0.00	0.00		0.00			
0	100%	0%	0.00	0.00	0.00		0.00			
0	100%	0%	0.00		0.00		0.00			
0	100%	0%	0.00		0.00		0.00	0.00		
0	100%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
		Sum of en	nissions associate with proce	essing of lumber	-0.04	Sum of CO2 equiva	lent in wood products	3.31	0.0	

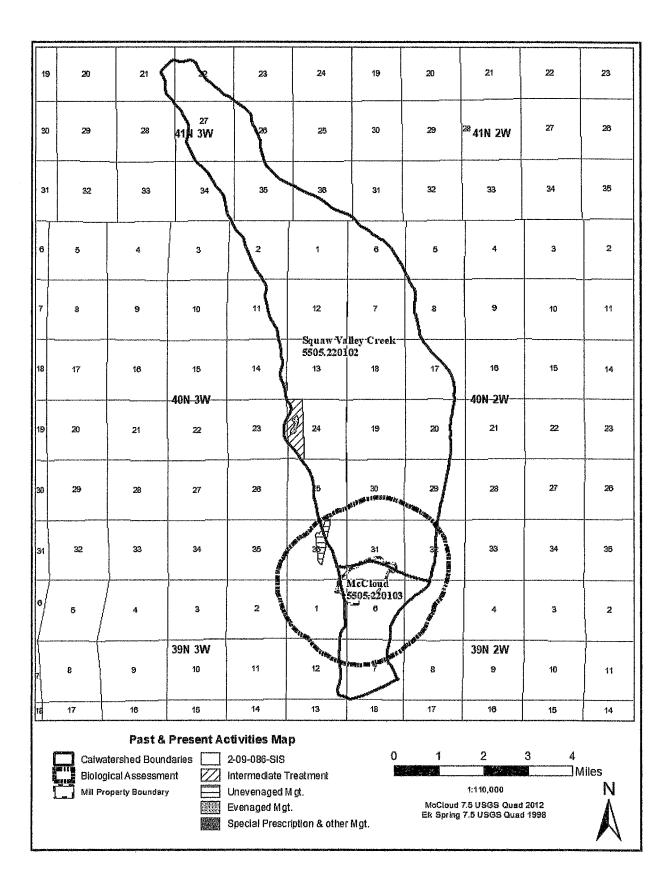
	Summary		Years until Carbon Stocks are Recouped from Initial Harvest (Includes Carbon in Live Trees,
	Beginning Stocks	Ending Stocks	Harvested Wood Products, and Landfill)
Emissions Source/Sink/Reservoir	Metric Tonnes CO2 Per Acre B		101 Years
Live Trees (Conifers and Hardwoods)	10.87	FALSE	
Wood Products		3.3	1
Site Preparation Emissions		-2.4	9
Non-biological emissions associated with harvesting		-0,1	4
Non-biological emissions associated with milling		-0.0	4
Sum of Net Emissions/Sequestration over Identified Harvest Cycles (CO2 metric tonnes)		-10.2	3
F	Project Summary		
Project Acres	Step 17- Insert the acres that are part of the harvest area.		0
Total Project Sequestration over defined Harvesting Periods (CO2 metric tonnes)		(40)	

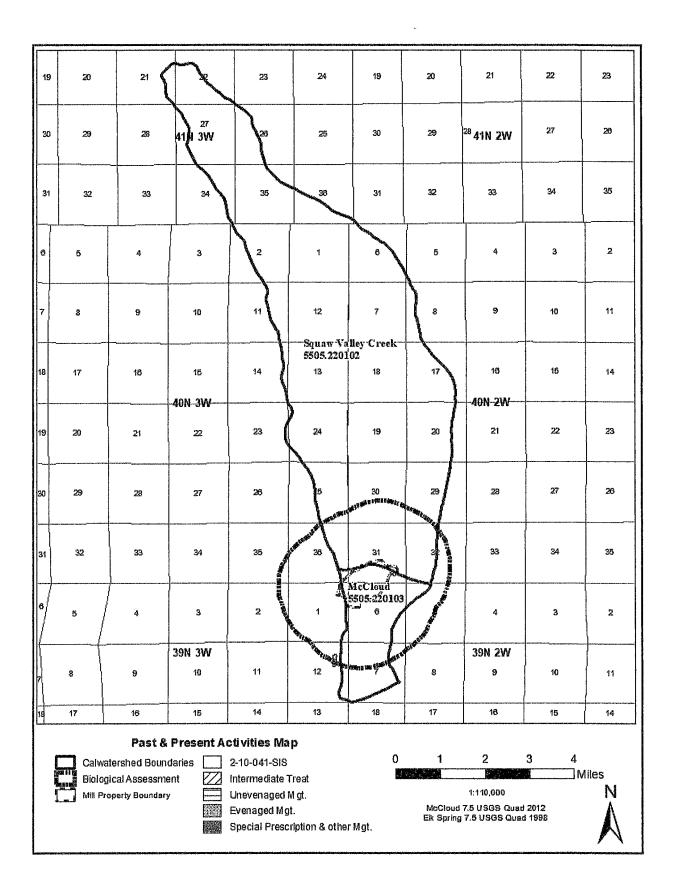
ears	Conifer														
	Starting Inventory (MBF/Acre)	Starting Inventory (CC2-e Tonnes/Acre)	Harvest (MBF/Acre)	Annual Inventory Estimate (M8F/acre)	Estimated CO2 equivalent in kiventory (Metric Tonnes/Acre)	Estimated CO2 equivalent harvested in total tree (Matric Tonnes/Acre)	Portion of Harvest Delivered to Mil	Amount CO2 equivalent transferred to the mill (bole portion w/o bark of the tree) (Metrio Tonnes/Aore)	In Use Decay Curve of Wood Products (Conifer) (%)	CO2 -e in in-use harvested wood products (Metrio Tonnes/Acre)	Fraction of CO2 equivalent remaining in landfills (%)	CO2 -e in Landfills (Metric Tonnes/Acre)	Combined CO e In Landfills and In-use (Metric Tonnes/Acre		
harvest	2	11 	2			11	100%	6	0.68	4	0.02	0.12	4.5		
2						· · · · · · · · · · · · · · · · · · ·		-	0.60	4	0.05	0.33	4.3		
3									0.57	4	0.07	0.43	4.1		
5		14. A. C. San	••••••••••••••••••••••••••••••••••••••				1940 (N. 1940)	·····	0.52	3	0.09	0.61	3.9		
7	10000000000000000000000000000000000000					į	and the second sec		0.50 0.48	33	0.11 0.12	0.69	3.9		
8			-					-	0.46	3	0.13	0.84	3.8		
10								-	0.42	3	0.15	0.98	3.7		
11 12				-	-			-	0.41	3	0.16 0.17	1.05	3.		
13 14			-		· · · ·		and the second second		0.39	32	0.18	1.16	3.		
15		10.7.1P 2015	······································	-			1000		0.38	2	0.19	1.26	3.		
18					·		h. Series		0,36	2	0.20	1.31	3.		
18 19									0.34	2	0.22	1.40 1.44	3.		
20	191000	New West		-		-	Pag and the second of the	-	0.32	2	0.23	1.48	3. 3.		
21 22		an a			·				0.32	2	0.23	1.62 1.55	3.		
23 24	10002000	Constant Street		-		-	1999 (1997) (1997) (1997) 1997 - 1997 (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1		0.30	2	0.25	1.69	3.		
25	SAM AN TH			-					0.30	2	0.26	1.62 1.66	3.		
28 27		Contraction of the second		-			and the second secon		0.29	2	0.26	1.68	3		
28				-		-		· · · · · · · · · · · · · · · · · · ·	0.28	2	0.27	1.74	3.		
29	Land Day 9 Story Caller						10.000 (0.000) 10.000 (0.000)	•	0.27	2		1.77	3		
30 31	State Ballet of Charles				·····			-	0.27	2	0.28	1.79	3		
32	- Constant Strategy								0.28	2	0.28	1.84	3		
33	111 117 116 20 210		-	-	-	+		-	0.25	2	0.29	1.86	3		
34				-	-	-			0.25	2	0.29	1.89	3		
35 36		2010 (AUC) (AUC) AUC) (AUC) (AUC) (AUC)					1999 - 1997 -		0.25	2		1.91 1.93	3		
37	$\sigma_{i} = M_{i} = m_{i}$	Starting .	·····			- ·		-	0.24	2	0.30	1.95	Э		
38 39		And Anna Anna Anna Anna Anna Anna Anna A	······································		······			-	0.23	2		1.97	3		
40 41			·	<u>_</u>		-			0.23	1		2.01 2.03	3		
42	的代表的影响	Softer Product							0.22	1	0.32	2.05	3		
43 44									0.22	1		2.06	3		
45	- Harrison Contraction of the	Sector Sector	······				<u>. 1898 - 1995</u>		0.21	1	0.32	2.10	3		
46		na de Branga de Logo Trainé de Logo Alban			- 		Aller and an and a second s		0.21	1		2.11	3		
48 49									0.20	1	0.33	2.14 2.16	3		
50	195 A. 195			-		-			0.20	1	0.33	2.16	3		
51 52	Alexandra (Maria)				·		Na lange en frans Na falska skriger e		0.19	1	0.33	2.16	3		
53 54					-				0.19	1		2,16	3		
55		1.000		-		÷			0.19 0.18	1	0.34	2.23	3		
56 57		and the second	-				and an		0.18 0.18	1	0.34	2.23	3		
58				-			Sec. Williams		0.18	1	0.34	2.23	3		
59 60			-			· -			0.18	1		2.29			
61 62					·				0.17 0.17	1		2.29			
63	的知识的问题	和国家在在学		-			a se angla		0.17	1	0.35	2.29			
64 65		and a start of the	<u> </u>						0.16	1		2.34			
66 67	Section 20	a start and a start of the			······································			·····	0.16	1	0.36	2.34			
68	William States		·····						0.16	1	0.36	2.34 2.34			
69 70		San Sector (Sector) And Sector (Sector)							0.15 0.15	1		2.40			
71	and the second	205 (2010) (1995) -		-			-200 S. S.		0.15	1	0.37	2.40			
72 73	11.1 19. 10. 10. 10				-	-		-	0.15	1		2.40			
74 75	ale a girlade	1. 1. 1. 1. 1. 1. 1.							0.15	1	0.38	2.44			
76	12,246,022	and a second strain of the second s	-						0.15	1	0.38	2.44			
77 78									0.14 0.14			2.44			
79	C. S.	Second Charles		-	-	-	the providence in the		0.14	1	0.38	2.48			
80 81	ALC: NOT		*			-			0.14 0.14			2.48			
82 83	1.6-1.250	State Land			-		<u></u>		0.13		0.38				
84					· · ·				0.13	1	0.39	2.53			
85 86			•						0.13	1		2.53			
87	Call Strate Astro	Sec. Sec. 1	•	-	· · · · · · · · · · · · · · · · · · ·	-	6. Jan 1995	•	0.13	1	0.39	2.53	1		
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90 91	M. Galler			<u>-</u>				······································	0.12	1	0.40	2.56			
92	A CONTRACT	2012 202				-		-	0.12	1	0.40	2.66			
93 94									0.12						
95	Even and the	能够加速的特别的		-		-		· · · · · · · · · · · · · · · · · · ·	0.12	1	0.40	2.60			
96 97	Carl Charles						Sec. 17 March 1995		0.12			2.60			
98 99		1. 20.00 - 10 Octo			·····		10.15.002		0.11	1	0.40	2.60			
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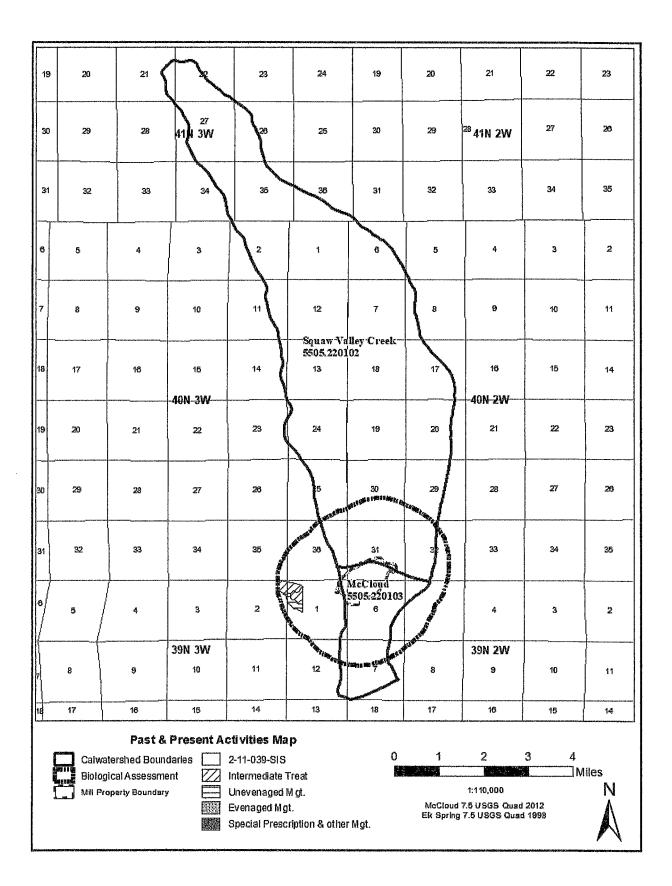
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Starting Inventory (BA/Acre)	Starting Inventory CO2-e (Metric Tonnes/Acre)	Harvest (BA/Acre)	Annua) Inventory (BA/acre)	Estimated CO2 equivalent in Inventory (Metric Tonnes/Acre)	Estimated CO2 equivalent harvested In total tree (Metrio Tonnee/Acre)	Portion of Harvest Delivered to Mill (%)	Amount CO2 equivalent transferred to the mil (bole portion w /o bark of the tree) (Metric Tonnes/Acre)	In Use Decay Curve of Wood Products (Conifer) (Metric Tonnes/Acre)	CO2 -e in in-use harvested w cod products (Metric Tonnes/Acre)	Fraction of CO2 equivalent remaining in landfills (%)	CO2 -e in Landfills (Metric Tonnes/Acre)	Combined CO2-e in Lendfills and h-use (Metric tonnes/Acrej	
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				-			-	0.46	-	0,05 0.08			
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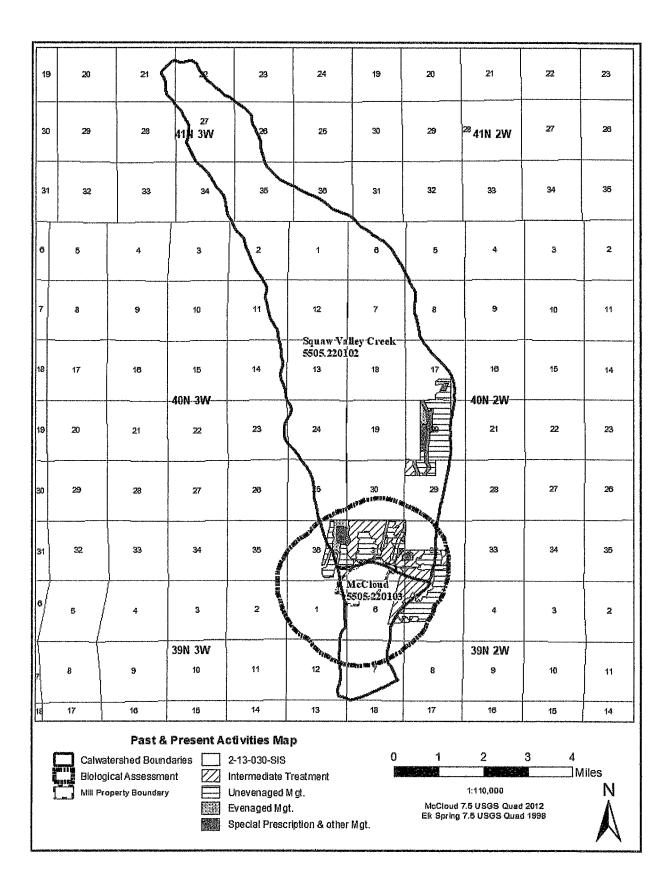
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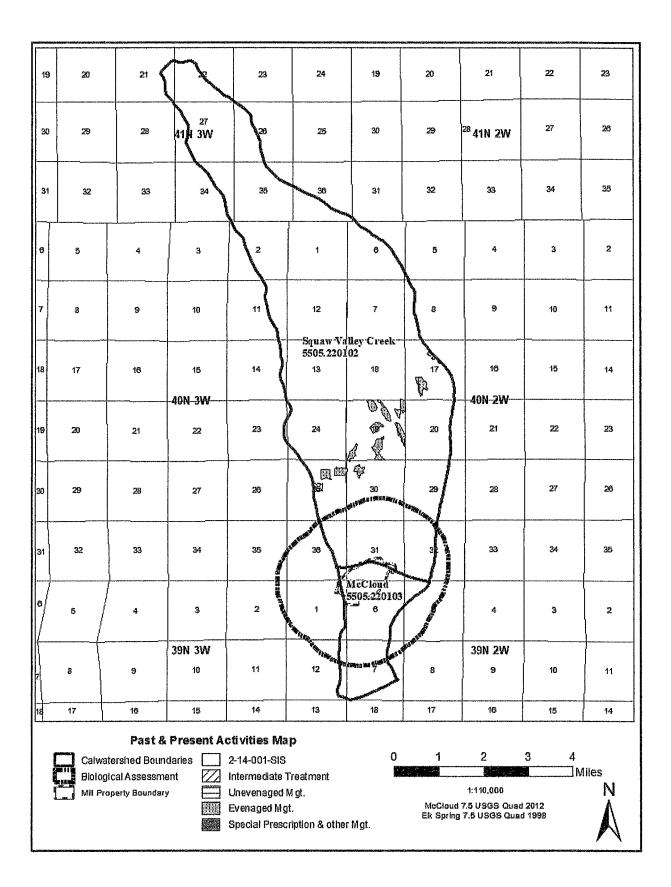


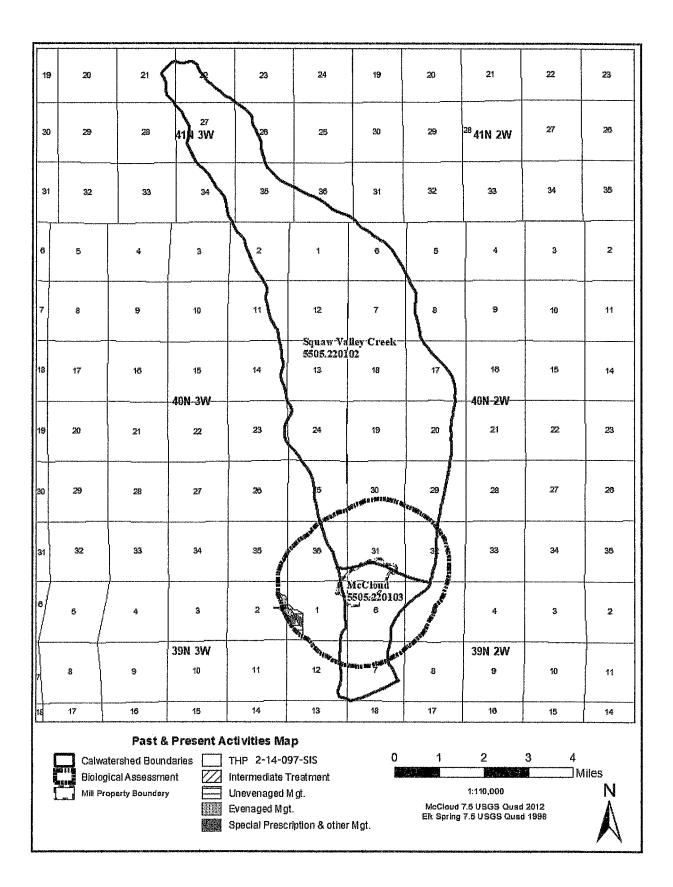


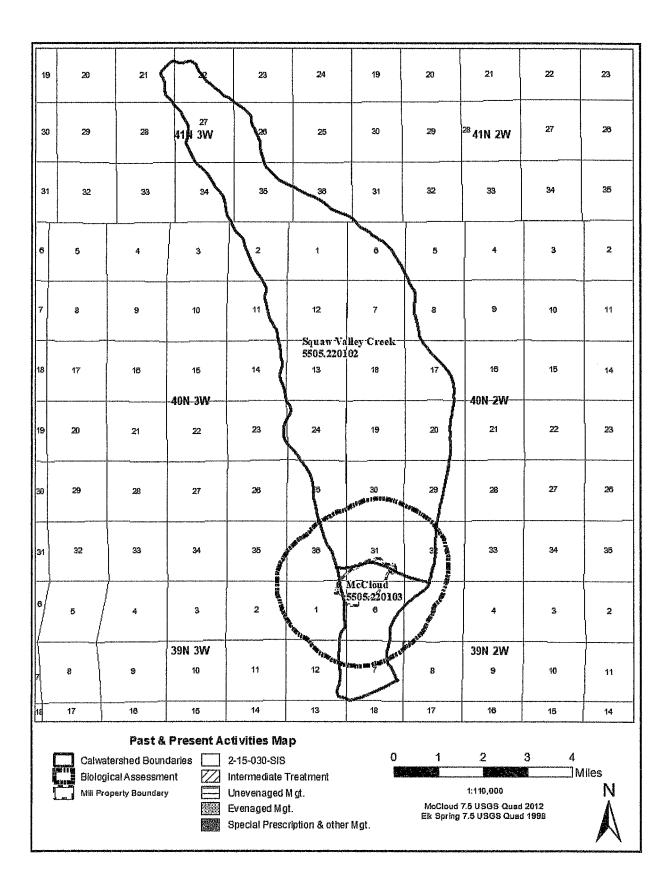


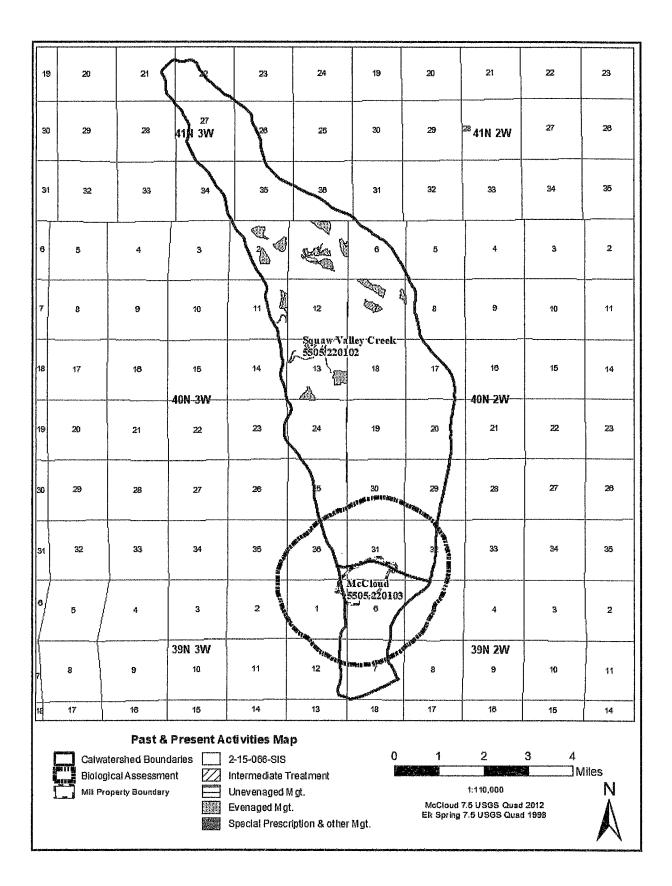


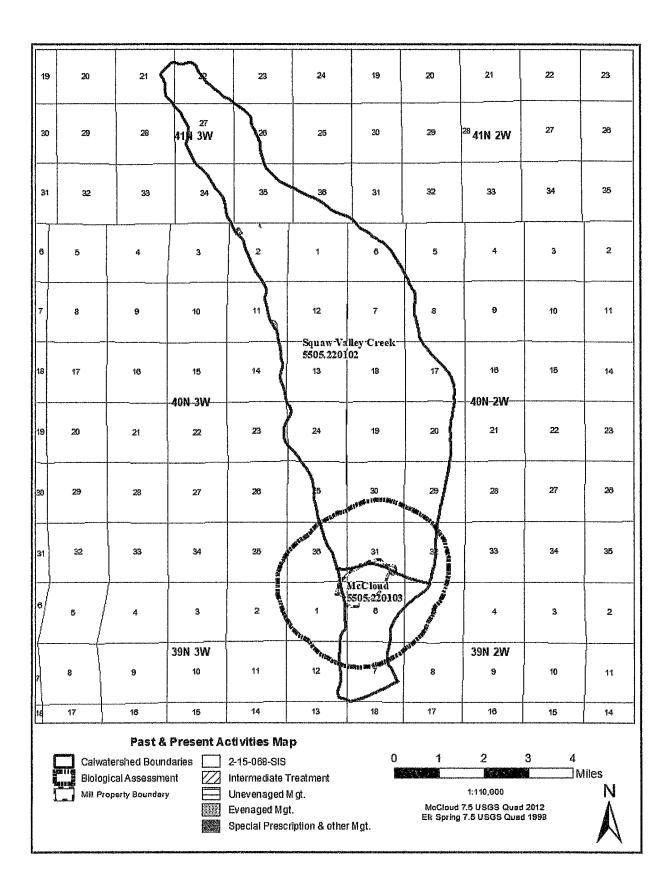


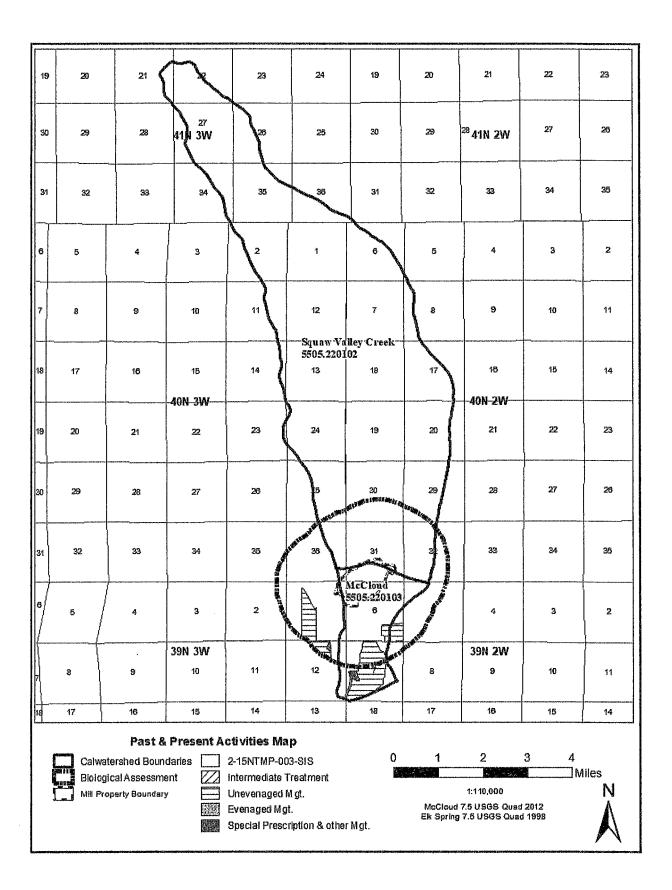


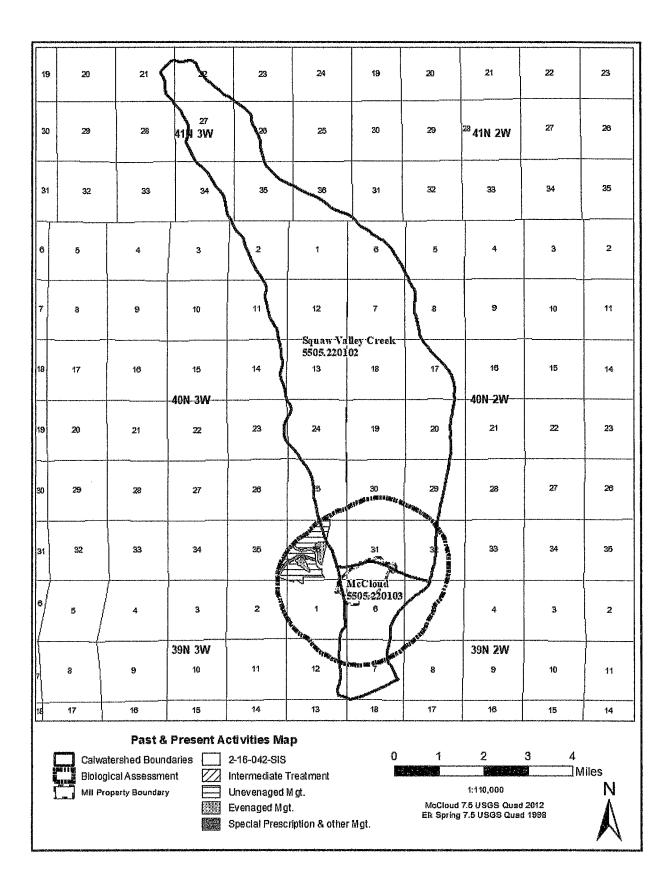


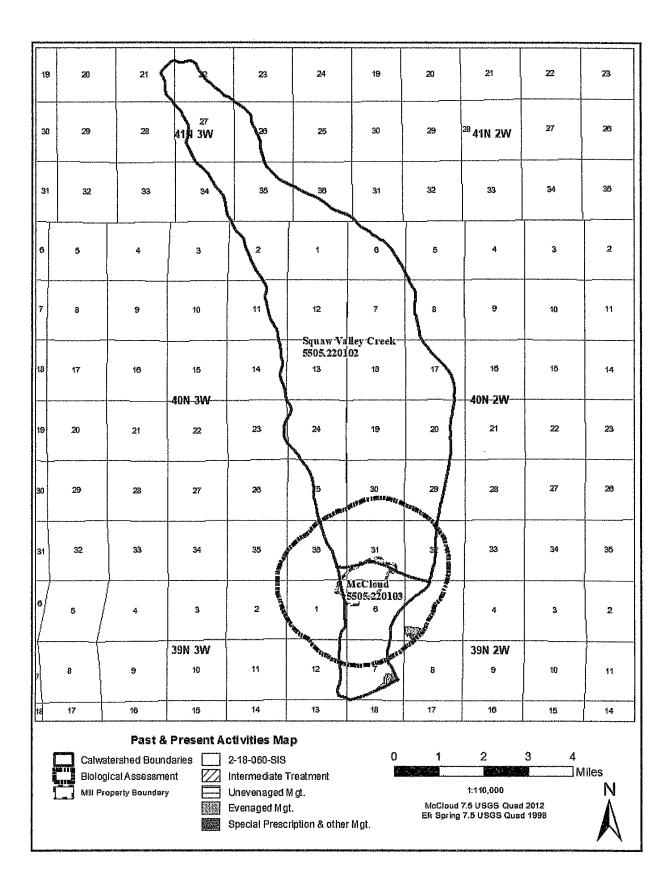












### **Erosion Hazard Rating (EHR)**

#### ESTIMATED SURFACE SOIL EROSION HAZARD

I. SOIL FACTORS				FACTOR	R RATING B	Y AREA
A. SOIL TEXTURES	FINE	MEDIUM	COARSE	309	310	
1. Detachability	Low	Moderate	High	27	4-7	····
Rating	1-9	10-18	19-30		17	
2. Permebility	Slow	Moderate	Rapid	1	2	
Rating	5-4	3-2	1	<b>_</b>	2	

#### **B. Depth to Restrictive Layer or Bedrock**

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

#### C. Percent Surface course Fracments Greater than 2 mm in Size Including rocks or stones

ni galagi gʻili (quad qar illara ga dano i Liar phrondara yyor vini yoʻr da ifa	Low	Moderate	High			1	CTOR	1
	(-) 10-39%	40-70%	71-100%	4	4	1	TING B	Ŷ
Rating	10-6	5-3	2-1			Α	В	
					SUBTOTAL 🌧	33	24	

#### **II. SLOPE FACTOR**

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

#### **III. PROTECTIVE VEGETATION COVER REMAINING AFTER DISTURBANCE**

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

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

	Low	Moderate	High	Extreme			
	(-) 30-39	40-59	60-69	70-80 (+)	6	6	
Rating	1-3	4-7	8-11	12-15			
					55	46	

TOTAL SUM OF FACTORS → 55 46

#### **EROSION HAZARD RATING**

<50	50-65	66-75	>75			
Low (L)	Moderate (M)	High (H)	Extreme ( E )	M	L	
		THE DETE	RMINATION IS 🔿			

#### **NSO Consultation**

From: Isidro Barela [mailto:<u>isidrobarela@blackfoxtimber.com]</u> Sent: Monday, February 04, 2019 9:41 AM To: Stanish, Anastasia@CALFIRE <<u>Anastasia.Stanish@fire.ca.gov</u>> Subject: Old Mill Amendment NSO Consultation

Hello Stacy,

I am working with Black Fox Timber's RPF Bob Hutcheson (RPF #2302) on a major amendment on the McCloud Old Mill THP (THP 2-14-110-SIS) which you helped us with Northern spotted Owl consultation. The purpose of this amendment is to convert a portion of the existing plan and add 42 adjacent acres for the purpose of solar power generation.

In the original plan which we received consultation from yourself, Brian Shaw, and Jen Jones (USFWS) and a determination was made by USFWS for a survey exemption in this area due to the lack of suitable NSO habitat. Since this amendment is taking place ~4 years later I wanted to reconsult with you to determine whether anything has changed in regard to NSO's since the original plan and to determine if surveys will still be waived. Also, I've included a map of the proposed areas of conversion for your reference. I appreciate your help!

Thank you,

--Isidro Barela Wildlife Biologist Black Fox Timber Management Group Inc. 105 E. Minnesota Avenue P.O. Box 687 McCloud, CA 96057

# On Wed, Feb 20, 2019 at 12:20 PM Stanish, Anastasia@CALFIRE <<u>Anastasia.Stanish@fire.ca.gov</u>> wrote:

Isidro, this email is in response to your request for a waiver of NSO survey. Because the project area is within the general town limits of McCloud, provides no habitat to support NSO, and the project is greater than 1.3 miles from any known NSO AC, the waiver of survey for the project area remains waived. I obtained concurrence with DFW's Robert Hawkins on this determination.

Please let me know if you have any questions.

Stacy Stanish, RPF No. 3000 Senior Environmental Scientist - Forest Practice Biologist

CA Department of Forestry and Fire Protection 6105 Airport Road Redding, CA 96002 Phone: (916) 616-8643 <u>Anastasia.Stanish@fire.ca.gov</u>

#### **Scoping and Survey for Rare Plants**

Scoping for the original list of sensitive plants for consideration was generated from a query of the CNDDB for the twelve USGS Quadrangles containing and surrounding the map. The twelve Quads are as follows:

- 1. Hotlum
- 2. Mt. Shasta
- 3. Ash Creek Butte
- 4. Rainbow Mtn.
- 5. City of Mt. Shasta
- 6. McCloud
- 7. Elk Springs
- 8. Kinyon
- 9. Dunsmuir
- 10. Girard Ridge
- 11. Lake McCloud
- 12. Grizzly Peak

The final scoping list was determined in consultation with Robin Fallscheer, Environmental Scientists, CDFW. The table below shows the scoping list:

Old Mill Amendment - 12 Quad Sc	oping List			
Scientific_Name	Common_Name	Global_Rank	State_Rank	Rare_Plant_Rank
Ageratina shastensis	Shasta ageratina	G3	S3	1B.2
Anisocarpus scabridus	scabrid alpine tarplant	G3	S3	1B.3
Balsamorhiza lanata	woolly balsamroot	G3	S3	1B.2
Botrychium crenulatum	scalloped moonwort	G4	S3	2B.2
Botrychium pinnatum	northwestern moonwort	G4?	S2	2B.3
Botrychium pumicola	pumice moonwort	G3	S1	28.2
Botrypus virginianus	rattlesnake fern	G5	S2	2B.2
Campanula shetleri	Castle Crags harebell	G2	S2	1B.3
Campanula wilkinsiana	Wilkin's harebell	G2	S2	18.2
Carex halliana	Oregon sedge	G4	S2	28.3
Chaenactis suffrutescens	Shasta chaenactis	G3	S3	18.3
Clarkia borealis ssp. borealis	northern clarkia	G3T3	S3	1B.3
Cordylanthus tenuis ssp. pallescens	pallid bird's-beak	G4G5T1	S1	1B.2
Cuscuta jepsonii	Jepson's dodder	G1	S1	18.2
Draba carnosula	Mt. Eddy draba	G2	S2	1.B.3
Epilobium oreganum	Oregon fireweed	G2	S2	18.2
Erigeron bloomeri var. nudatus	Waldo daisy	G5T4	S3	2B.3
Erigeron nivalis	snow fleabane daisy	G4G5	\$3	28.3
Eriogonum pyrolifolium var. pyrolifolium	pyrola-leaved buckwheat	G4T4	S3	2B.3
Erythranthe taylorii	Shasta limestone monkeyflower	G2	S2	1B.1
Erythronium klamathense	Klamath fawn lily	G4	S2	28.2
Eurybia merita	subalpine aster	G5	SH	2B.3
Geum aleppicum	Aleppo avens	G5	S2	28.2
Howellanthus dalesianus	Scott Mountain howellanthus	G3	S3	4
Huisea nana	little hulsea	G4	S3	2B.3
Hymenoxys lemmonii	alkali hymenoxys	G4?	S2S3	2B.2
		·		

Baker's globe mallow	G4	<b>S</b> 3		4.2
Castle Crags ivesia	G1	S1	18.3	
three-ranked hump moss	G5	S4		4.2
broad-nerved hump moss	G5	S3	28.2	
woodnymph	G5	S2	2B.2	
northern adder's-tongue	G5	S1	2B.2	
Shasta orthocarpus	G1	S1	18.1	
Holzinger's orthotrichum moss	G3	S2	1B.3	
Cascade grass-of-Parnassus	G5T4	S3	2B.2	
thread-leaved beardtongue	G3	S3	1B.3	
Mt. Shasta sky pilot	G5T2	S2	18.2	
Pacific fuzzwort	G4G5	S3S4		4.3
Gasquet rose	G5T3T4	S2	1B.3	
marsh skullcap	G5	S2	28.2	
Cascade alpine campion	G4	S3	2B.3	
Siskiyou clover	GH	SH	1B.1	
little-leaved huckleberry	G5	S3	2B.2	
-	Castle Crags ivesia three-ranked hump moss broad-nerved hump moss woodnymph northern adder's-tongue Shasta orthocarpus Holzinger's orthotrichum moss Cascade grass-of-Parnassus thread-leaved beardtongue Mt. Shasta sky pilot Pacific fuzzwort Gasquet rose marsh skullcap Cascade alpine campion Siskiyou clover	Castle Crags ivesiaG1three-ranked hump mossG5broad-nerved hump mossG5woodnymphG5northern adder's-tongueG5Shasta orthocarpusG1Holzinger's orthotrichum mossG3Cascade grass-of-ParnassusG5T4thread-leaved beardtongueG3Mt. Shasta sky pilotG5T2Pacific fuzzwortG4G5Gasquet roseG5T3T4marsh skullcapG5Cascade alpine campionG4	Castle Crags ivesiaG1S1three-ranked hump mossG5S4broad-nerved hump mossG5S3woodnymphG5S2northern adder's-tongueG5S1Shasta orthocarpusG1S1Holzinger's orthotrichum mossG3S2Cascade grass-of-ParnassusG5T4S3thread-leaved beardtongueG3S3Mt. Shasta sky pilotG5T2S2Pacific fuzzwortG4G5S3S4Gasquet roseG5T3T4S2marsh skullcapG5S2Cascade alpine campionG4S3Siskiyou cloverGHSH	Castle Crags ivesiaG1S11B.3three-ranked hump mossG5S4broad-nerved hump mossG5S32B.2woodnymphG5S22B.2northern adder's-tongueG5S12B.2Shasta orthocarpusG1S11B.1Holzinger's orthotrichumG3S21B.3mossG5T4S32B.2thread-leaved beardtongueG3S31B.3Mt. Shasta sky pilotG5T2S21B.3Pacific fuzzwortG4G5S3S41B.3marsh skullcapG5S22B.2Cascade alpine campionG4S32B.2Siskiyou cloverGHSH1B.1

#### Of that original 45 species on the scoping list, 38 were eliminated:

Scientific_Name	Common_Name	Rationale
Ageratina shastensis	Shasta ageratina	Outside geographic range, no limestone,
		metavolcanics cliffs, chaparal
Anisocarpus scabridus	scabrid alpine tarplant	Project below elevational range, no open ridges or
		slopes
Balsamorhiza lanata	woolly balsamroot	Found in foothill woodlands
Botrychium crenulatum scalloped moonwor		Project below elevational range, lack seeps or
		stream margins
Botrychium pinnatum	northwestern moonwort	Project below elevational range, no moist fields or
		shrubby slopes
Botrychium pumicola	pumice moonwort	Project below elevational range, no open volcanic
		soils
Campanula shetleri	Castle Crags harebell	Found in rock crevices none on project, Outside
		geographic range
Campanula wilkinsiana	Wilkin's harebell	Project is below elevational range, NO wet
		meadows, streamsides
Carex halliana	Oregon sedge	Found in northern juniper woodland, Project is
		below elevational range
Chaenactis suffrutescens	Shasta chaenactis	No serpentine soils
Clarkia borealis ssp. borealis	northern clarkia	Outside geographic range
Draba carnosula	Mt. Eddy draba	Project is below elevational, No rocky slopes
Erigeron bloomeri var. nudatus	Waldo daisy	No serpentine soils
Erigeron nivalis	snow fleabane daisy	Project is below elevational range, found in
		volcanic rocks, meadows
Eriogonum pyrolifolium var.	pyrola-leaved buckwheat	Project is below elevational range, found in alpine
pyrolifolium		fell fields
Erythranthe taylorii	Shasta limestone	Associated with limestone, rocky outcrops around
	monkeyflower	Shasta Lake – none in project area

Erythronium klamathense	Klamath fawn lily	Found in lodgepole, red fir forests-none in project area, project is below elevational range
Eurybia merita	subalpine aster	Project is below elevational range, outside geographic range
Howellanthus dalesianus	Scott Mountain howellanthus	Project is below elevational range, No serpentine soils
Hulsea nana	little hulsea	Project is below elevational range, No volcanic talus
Hymenoxys lemmonii	alkali hymenoxys	Found in sagebrush scrub and yellow pine forests
lliamna bakeri	Baker's globe mallow	Found in mt. slopes, junitper woodland, lava beds – none in project area
lvesia longibracteata	Castle Crags ivesia	Outsie geographic range, associated with granite rock crevices- none in the project area
Meesia triquetra	three-ranked hump moss	Found in rich fens, arctic, boreal habitats – none in the project area
Meesia uliginosa	broad-nerved hump moss	Found in rich fens, moist calcareous soil banks, soil covered rock crevices – none in the project area
Moneses uniflora	woodnymph	Found in moist mossy conifer forests – none in the project
Ophioglossum pusillum	northern adder's-tongue	Found in marsh edges, low pastures in valley grasslands, freshwater wetlands none in the project area
Orthocarpus pachystachyus	Shasta orthocarpus	Found in openings in sagebrush scrub – none in the project area
Orthotrichum holzingeri	Holzinger's orthotrichum moss	Found on rocks in and along streams – none in the project area
Parnassia cirrata var. intermedia	Cascade grass-of-Parnassus	Found in wetlands, outside geographic range
Penstemon filiformis	thread-leaved beardtongue	Found in open rocky places among shrubs, yellow pine forests – none in project area
Polemonium pulcherrimum var. shastense	Mt. Shasta sky pilot	Project is below elevational range, found on volcanic talus – none in project area
Ptilidium californicum	Pacific fuzzwort	Project is below elevational range, usually epiphytic on trees, fallen and decaying logs and stumps
Rosa gymnocarpa var.	ne yn yn arwenn a gerner a gerner y fan de gerne o de namte dyn de ander fan meneddiel o ym Afrikan argen yn yn	Geographic Range, No serpentine soils
serpentina	Gasquet rose	
Silene suksdorfii	Cascade alpine campion	Project below elevational range, Found in Alpine fell fields – none in project area
Vaccinium scoparium	little-leaved huckleberry	Project below elevational range, found in rocky sub-alpine woodland
	****	

### The resulting 7 species are the list of species for pre-operation surveys.

Scientific_Name	Common_Name
Botrypus virginianus	rattlesnake fern
Cordylanthus tenuis ssp. pallescens	pallid bird's-beak
Cuscuta jepsonii	Jepson's dodder
Epilobium oreganum	Oregon fireweed
Geum aleppicum	Aleppo avens
Scutellaria galericulata	marsh skullcap
Trifolium siskiyouense	Siskiyou clover

#### **Pre-Survey Preparations**

In preparation for surveys, specimens of plants on the survey list were located and examined where they were available and blooming. A field trip for this purpose was organized and led by Merissa Hanisko, CDFW Botanist. The email below is a summary of that field trip:

### Field visit Plant Locations Inbox

Hanisko, Merissa@Wildlife <Merissa.Hanisko@wildlife.ca.gov> Attachments Jul 17, 2019, 6:46 AM (6 days ago) to me, Katie, Shannon

Hi,

Following are the locations of the plant occurrences that we visited on Monday July 8. What a great day!

Pondosa CalFire Station Cuscuta jepsonii California Natural Diversity Database (CNDDB) Occurrence #9

Shasta Trinity National Forest-Harris Springs Road Dry Lake Rorippa columbiae CNDDB Occurrence #21

Shasta Trinity National Forest-Little Mount Hoffman Collomia larsenii

CNDDB Occurrence #2

Hulsea Nana CNDDB Occurrence #10

Shasta Trinity National Forest-Near Medicine Lake Carex halliana CNDDB Occurrence #1

Klamath National Forest-Orr Lake Campground Scutellaria galericulata CNDDB Occurrence #14

I'm still working on getting all of the photos ready to send. Photos of Hulsea nana are attached.

~Merissa

Merissa Hanisko

Environmental Scientist California Department of Fish and Wildlife Northern Region 625 S. Main Street Yreka, CA 96097 (530) 841-2568 merissa.hanisko@wildlife.ca.gov

On July 18, 2019, the RPF visited a site located on the northeast flank of Black Butte which is a CNDDB occurrence of Cordylanthus tenuis ssp pallescens. This site was known to the RPF from previous survey efforts

with a plan written in 2018. The species was abundant on site and flowering. The elevation of the Black Butte site is approximately 4,400 feet compared to approximately 3,380 at the project site.

On August 20, 2018, the RPF located and photographed Botrypus virgianianus at a CNDDB site near Montgomery Creek at an elevation of approximately 2,150 feet. This observation was verified by Robin Fallscheer, CDFW Botanist.

The RPF was unable to examine examples of Epilobium oreganum, Geum aleppicum, and Trifolium siskyouense prior to surveys. However, prior to surveying the RPF compiled a field guide to assist in the potential identification of all species on the survey list which included those species not viewed prior to surveys. The field guide included the descriptions, dichotomous key, and high quality photos for each species (no photos were available for Trifolium siskiyouense). An example from the field guide follows:

#### Botrypus virgiananus (Rattlesnake fern)

Habit: Plant often robust, herbaceous, deciduous; roots 2 mm thick (1 cm from base), smooth, yellow to brown. Leaf: bud hairy; trophophore sessile, < 20 cm wide, ultimate segments linear to ovate, veins free, forked, margins entire to coarsely serrate to deeply lobed; sporophore stalk long, 2--3-pinnate. Chromosomes: 2n=184.</li>
Ecology: Moist shaded valleys along small streams; Elevation: 700--1200 m. Bioregional Distribution:KR, CaR; Distribution Outside California: throughout America, Europe, Asia.

#### Dicotomus key (Family only ie. Genus)

 Trophophore simple, entire, not midribbed, veins netted with included veinlets; sporangia sunken in simple axis of sporophore ..... OPHIOGLOSSUM

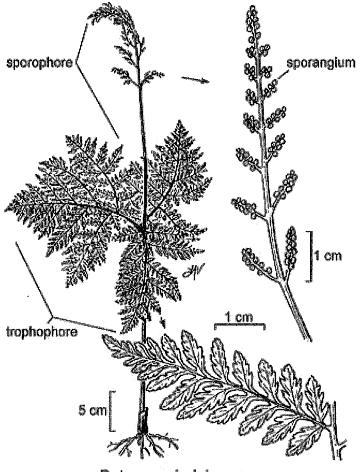
1 Trophophore generally compound (small, simple, entire or 0), generally midribbed, veins free,

forked; sporangia sessile or short-stalked, not sunken, in generally pinnatelybranched sporophore

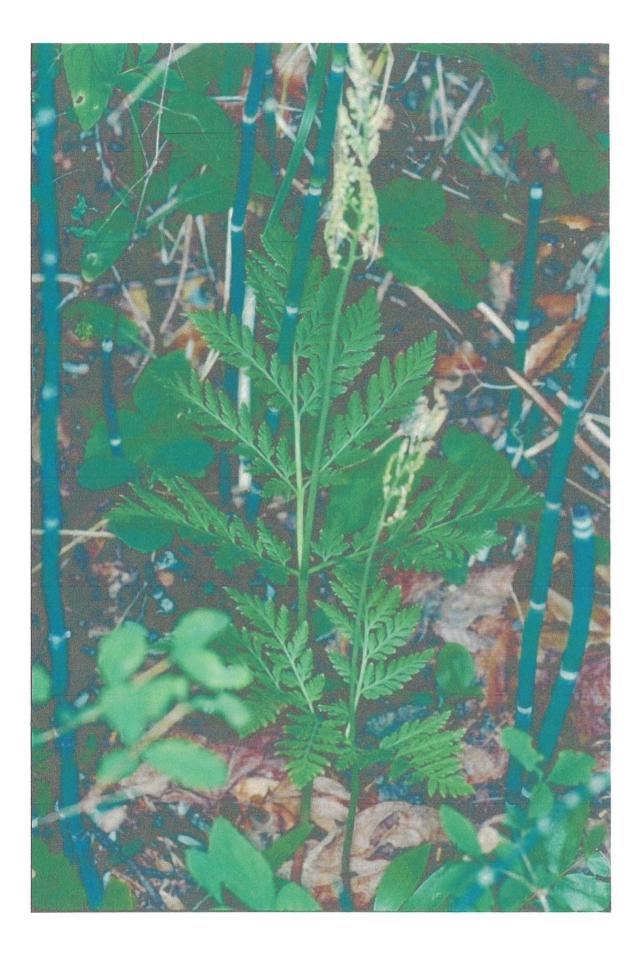
- 2. Leaf bud glabrous, trophophore generally < 10 cm wide, generally 1–2-pinnate (0) ..... BOTRYCHIUM
- $\frac{2}{2}$  Leaf bud hairy, trophophore generally > 10 cm wide, generally 2–4-pinnate

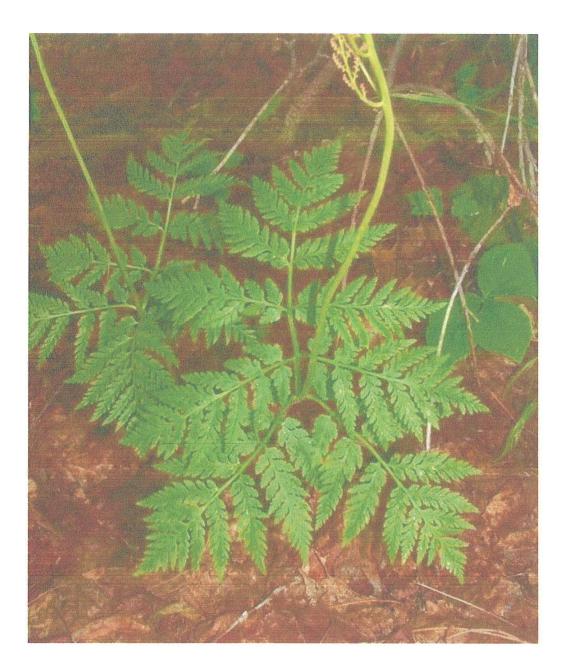
<u>3.</u> Leaf deciduous, sporophore and trophophore joined well above ground level; trophophore sessile, blade thin, membranaceous <u>..... BOTRYPUS</u>

<u>3'</u> Leaf evergreen for 1 year, sporophore and trophophore joined at to slightly below ground level; trophophore stalked, blade thick, leathery <u>..... SCEPTRIDIUM</u>



Botrypus virginianus © Regents of the University of California







#### **Field Survey**

The survey was conducted on July 18, and 23, 2019 over an eight-hour period. The map below shows travel routes taken:

#### Results

Botrypus virginianus – This species was not discovered during surveys. It is found in mesic environments such as shaded valleys along streams, bogs, fens, lower montane forests with moderate moisture regimes, meadows seeps, and riparian forests. Mesic sites in the survey are limited to man-made depressions associated with drainage of the site which was historically used for sawmill activities such as log/lumber and equipment storage. These sites were surveyed with no ferns discovered. One fern was discovered occurring in full sun on dry sites. This species was much taller than Botrypus virginianus (averaging 2.5 to 3 feet). It was likely a bracken similar fern.

Cordylanthus tenuis ssp. pallescens - This species was not discovered during surveys. It is found on open volcanic alluvium often associated with yellow pine forests. The survey site may contain potential habitat. The sub-species of Cordylanthus tenuis has a very limited known range with one large population located on the northeast lower slope of Black Butte northwest on Mount Shasta City. Plants in that population were examined on July 18 and were found to be in the beginning of flowering. This site is at a higher elevation than the survey area so plants occurring on the survey site should have been fully in bloom at the time of the survey.

Cuscuta jepsonii – This species was not discovered during surveys. This species occurs as a parasite on Ceanothus diversifolius and Ceanothus prostratus. C. prostratus was present in the survey area. Particular attention was given to discovery and examination of all occurrences of the host. No species of Cuscuta were discovered.

Epilobium oreganum – This species was not discovered during surveys. It occurs in bogs and fens with an affinity for serpentine soils. Plant communities where this species may be found include yellow pine, red fir, lodgepole, and subalpine forests, freshwater wetlands, and wetland-riparian communities. Limited seasonally wet areas exist as man-made drainage related structures within the survey area. These were surveyed with no species of Epilobium discovered.

Geum allepicum – This species was not discovered during surveys. It usually occurs in wetlands associated with meadows. Occassionally this species will occur in non-wetlands. Plant communities where this species occur include sagebrush scrub, and yellow pine forests. With the possible exception of man-made drainage structures, there are no wet areas in the project area. These structures were surveyed with no Geum discovered.

Scutellaria galericulata – This species was not discovered during surveys. It occurs in wetlands within medows or freshwater marshes. Plant communities include yellow pine forests, freshwater wetlands, and wetland-riparian communities. There are no significant wetland associated habitat. Only limited seasonally wet man-made drainage areas occur. These were surveyed with no Scutellaria galericulata discovered.

Trifolium siskiyouense - This species was not discovered during surveys. This species is found in wet mountain meadows. One species of Trifolium was discovered during surveys. Using the dichotomous key it was determined that the Trifolium discoverd was not T. siskiyouense since the key placed it in Group 2 (Involucre forming vestigial ring, inflorescence sessile). T. siskiyouense is in Group 1.

One species belonging to the Grindelia genus was discovered during surveys. The RPF emailed photos of the plant to CDFW with the following response:

Bob Hutcheson <bobhutcheson@blackfoxtimber.com>

to Merissa, Robin

Hi Merissa - I discovered this while surveying on the McCloud mill project. Grindelia but don't know the species.

Bob Hutcheson Black Fox Timber Management Group Office - (530) 964-9756 Mobile - (530) 925-9671

------Forwarded message ------From: **Bob Hutcheson** <<u>bobhutcheson@blackfoxtimber.com</u>> Date: Fri, Jul 19, 2019 at 8:45 AM Subject: To: Bob Hutcheson <<u>bobhutcheson@blackfoxtimber.com</u>>

Attachments area

Hanisko, Merissa@Wildlife <Merissa.Hanisko@wildlife.ca.gov>

to Robin@Wildlife, me

Hi Bob,

Thanks for the photo of Grindelia. I'm not able to determine which species it is based on the photo. There are a few non special status Grindelia species that occur in our area.

Interestingly, when I looked at CalFlora I noticed there is an herbarium specimen from Montague of a federal Threatened Grindelia, Grindelia fraxinipratensis. The CNDDB only includes three records of G. fraxinipratensis and they are all located in the east side of Inyo County. There is one other herbarium specimen from Davis Creek in Modoc County. The Montague herbarium specimen is from 1915 and the current species determination of G. fraxinipratensis is "uncorrected". This might be a species we should keep on our radar. I did look at the Jepson key for distinguishing characteristics of G. fraxinipratensis and was able to determine based on the number of ray flowers and shape of the flower head that the Grindelia in your photo is not G. fraxinipratensis.

Thank you,

Merissa

Merissa Hanisko Environmental Scientist California Department of Fish and Wildlife Northern Region 1625 S. Main Street Yreka, CA 96097 (530) 841-2568 merissa.hanisko@wildlife.ca.gov

#### **Domestic Water Downstream Sample Letter**



January 30, 2019

John Hancock Mutual Life Insurance Co 17700 Mill Plain Blvd., Ste 180 Vancouver, WA 98683-7582

**RE: Request for Information on Potentially Affected Resources** 

Dear Sir or Madam:

I am in the process of preparing an amendment to the Old Mill Timber Harvest Plan (THP) in Siskiyou County. The THP location is as follows:

Township 40N R02W, Portions of the S ½ of Section 31; Township 39N R02W, Portions of the NW ½ of Section 6; Township 40N R03W, Portions of the SE ¼ of Section 36; Township 40N R03W, Portions of the NE ¼ of Section 1, MDB&M.

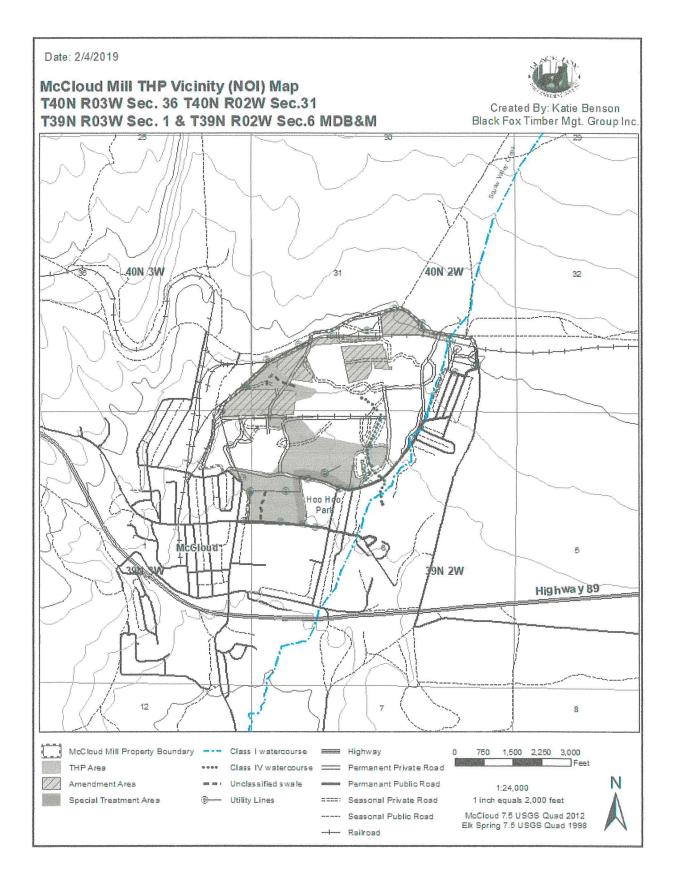
The project is within one air miles north of the community of McCloud, CA. The amended area is located within the McCloud, and Squaw Valley Creek planning watersheds (see attached map).

This notice is to request information you might have regarding any sensitive plant or animal species; past (10 year), present, or future (5 years) projects, including harvest plans and road ...construction or abandonment; archaeological resources; domestic water supplies; or other issues and concerns that may be affected by timber harvesting activities. There are no watercourses in the plan area with the exception of one ephemeral class III that runs through the southeast corner of the property. The closest higher order watercourse is Squaw Valley Creek which is approximately 250 feet to the east of the amended area

If you have any knowledge of at-risk resource that could be affected by this proposed project, please contact me at the address listed below within ten (10) days of receipt of this letter. If any resources of the types mentioned above could potentially be affected, measures will be taken to ensure the protection of those resources as required under the California Forest Practice Rules.

Black Fox Timber Management Group, Inc. Attn: Foxy THP P.O. Box 687 McCloud, CA 96057

Thank you for your assistance, Bob Hutcheson RPF #2302 Black Fox Timber Management Group, Inc. (530) 964-9756 office (530) 925-9671 mobile bobhutcheson@blackfoxtimber.com



### **Adjacent Landowner List**

FOUR RAILS INC PO BOX 1500 MC CLOUD CA 96057-1500

JOHN HANCOCK MUTUAL LIFE INSURANCE CO 1770 MILL PLAIN BLVD., STE 180 VANCOUVER WA 98693-7582

#### Adjacent Landowner Sample Letter & Responses



January 30, 2019

John Hancock Mutual Life Insurance Co 17700 Mill Plain Blvd., Ste 180 Vancouver, WA 98683-7582

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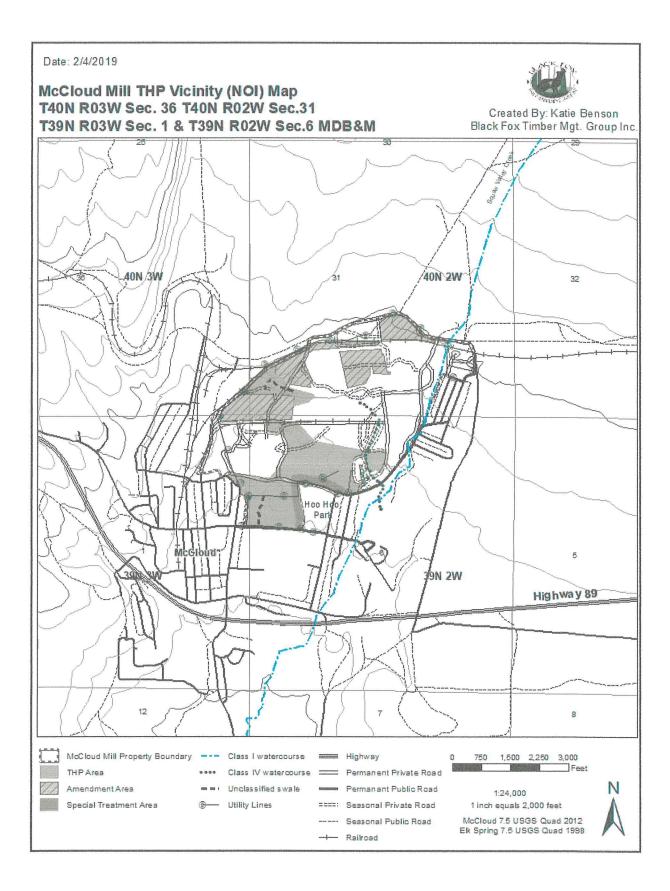
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Black Fox Timber Management Group, Inc. Attn: Foxy THP P.O. Box 687 McCloud, CA 96057

Thank you for your assistance,

Bob Hutcheson RPF #2302 Black Fox Timber Management Group, Inc. (530) 964-9756 office (530) 925-9671 mobile bobhutcheson@blackfoxtimber.com



#### Landowner Response

Jim Wolter <JWolter@hnrg.com>

Wed, Jan 16, 8:50 PM

to me

Bob:

The Bordertown THP lies in both watersheds. There are two more operating seasons remaining on Bordertown THP. HFM plans to harvest some of the area immediately north of the truck scales and over to Thimbleberry Ridge this season.

In addition, HFM will be working on a new thp located in sections 14, 23, 24 and 26 T40N R3W. I have not put together the silviculture for that thp as of yet, but will be doing it soon.

Jim

**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:

February 6,

all in the year 2019

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

Dated at Mount Shasta, California,

this 6th\_day of February.

2019.

/s/ Marcella Gerace Authorized Signature

#### **PROOF OF PUBLICATION OF**

**Pablic Notice** Black Fox Timber Management Group is currently preparing a major amend-ment to the Old Mill Harvest Plan (THP) in Siskiyou County. The amendment is located on the north edge of McCloud, CA. Legal description is: Portions of Section 31 T40N R02W, Portions of Section 36 T4N R03W, and Derthans of Section 36 T4N R03W, and Derthans of Section 36 T4N R03W, and Portions of Section 1 T39N R03W, MDB&M. As per the California Code of Regulation Title 14\$1032.10, information is requested regarding surface domestic water use from Squaw Valley Creck, or any other tributaries or ditches within 1,000 feet downstream of the THP boundary so that those 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 Bob Hutcheson, Black Fox Timber Management Group, PO Box 687, McCloud, CA 96057, (530) 964-9756 (office), bobhutche-son@blackfoxtimber.com. 8311 msan fe6c

#### **PROOF OF PUBLICATION**

# CONFIDENTIAL AMENDMENT #3

## то тнр # 2-14-110-SIS

# **ATTENTION**

#### THE FOLLOWING AMENDMENT 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 62 THROUGH PAGE 106

#### CONFIDENTIAL AMENDMENT #3

## TO THP # 2-14-110-SIS

# **ATTENTION**

#### THE FOLLOWING AMENDMENT 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 62 THROUGH PAGE 106