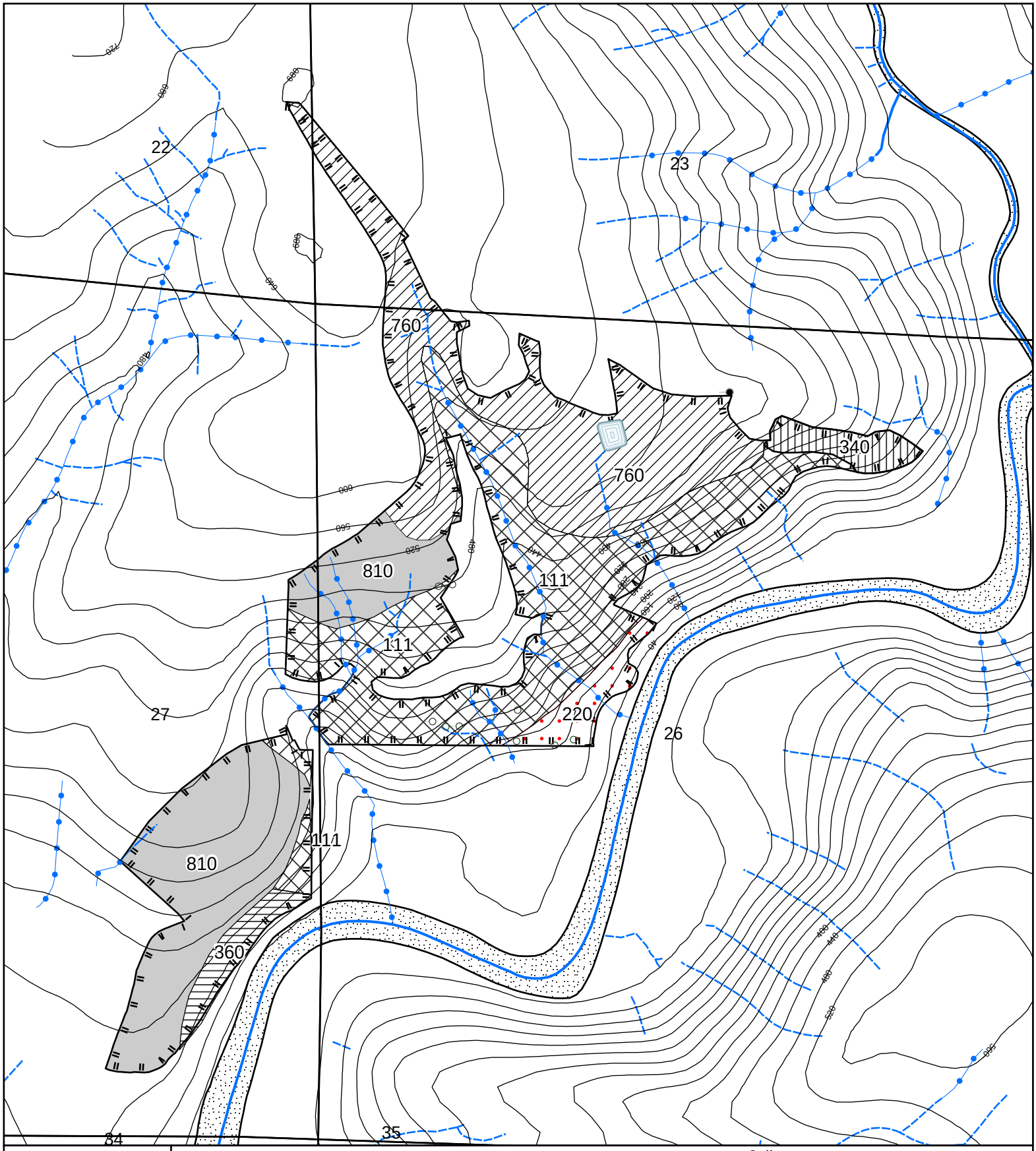
Copper Top THP

Section V

Table of Contents



Copper Top THP

Soils Map

Portions of:
T11N R15W Sec 22, 23, 26,& 27
Scale: 1:10,000
Contour Interval: 40 ft.

Class I Watercourse
Class II Watercourse
Class III Watercourse
CII Wet Area
Wet Areas
Retention Ponds
Gualala River Polygon
THP Boundary

Soils

111- Vandamme-Irmulco-Tramway complex, 50 to 75 percent slopes

220- Bigriver loamy sand, 0 to 5 percent slopes

340-Irmulco-Tramway complex, 30 to 50 percent slopes

360- Coastal beaches

760-Shinglemill-Gibney complex, 2 to 9 percent slopes

810-Quinliven-Ferncreek complex, 2 to 15 percent slopes

Erosion Hazard Rating

	Soil Series Name	Map Unit	% Area
A	Bigriver loamy sand, 0 to 5 percent slopes	220	8.1%
B	Coastal beaches	360	2.8%
C	Irmulco-Tramway complex, 30 to 50 percent slopes	340	7.4%
D	Quinliven-Ferncreek complex, 2 to 15 percent slopes	810	24.7%
E	Shinglemill-Gibney complex, 2 to 9 percent slopes	760	22.9%
F	Vandamme-Irmulco-Tramway complex, 50 to 75 percent slopes	111	34.2%
		Total Area	100%

A. Soil Texture	Fine	Medium	Coarse	A	B	C	D	E	F
Detachability Rating	Low	Moderate	High	26	30	18	17	23	13
	1-9	10-18	19-30						
Permeatility Rating	Slow	Moderate	Rapid	1	1	2	2	4	1
	5-4	3-2	1						

B. Depth to Restrictive Layer or Bedrock	Shallow	Moderate	Deep	A	B	C	D	E	O
Depth	1"-9"	10"-39"	40"-60" (+)	1	0	1	10	1	3
Rating	15-9	8-4	3-1						

C. Percent Surface Coarse Fragments (>2mm)	Low	Moderate	High	A	B	C	D	E	O
% >2mm	10%-39%	40%-70%	71-100%	10	0	10	4	10	10
Rating	10-6	5-3	2-1						

Sub Total									38	31	31	33	38	27

II. Slope Factor							A	B	C	D	E	O
Slope	5-15%	16-30%	31-40%	41-50%	51-70%	71-80% (+)	1	1	5	2	2	27
Rating	1-3	4-6	7-10	11-15	16-25	26-35						

III. Protective Vegetative Cover Remaining After Disturbance	Low	Moderate	High	A	B	C	D	E	O
% Coverage	0-40%	41-80%	81-100%	5	5	5	5	5	5
Rating	15-8	7-4	3-1						

IV. Two-Year, One-hour Rainfall Intensity (.01)											
	Low	Moderate	High	Extreme	A	B	C	D	E	O
Rainfall	(-) 30-39	40-59	60-69	70-80 (+)	12	12	12	12	12	12
Rating	1-3	4-7	8-11	12-15						

Total Sum of Factors									56	49	53	52	57	71

Low (L)	Moderate (M)	High (H)	Extreme (E)	A	B	C	D	E	O
50	50-65	66-75	>75	M	M	M	L	L	E
The Determination is									

Erosion Control Plan

Copper Top Timber Harvest Plan

On June 23, 2004 the North Coast Regional Water Quality Control Board adopted General Waste Discharge Requirements for timber harvest activities on non-federal land (Order #R1-2004-0030). These requirements require technical reports to be developed as a basis for corrective actions undertaken to control sediment, fuel, and other potential waste discharge sources within the project area. These reports include an Erosion Control Plan (this document), a Fuel Management Plan, and an Inspection Plan. The Fuel Management Plan applies to tanks over 1,320 gallons. No such tanks shall be used for this project; therefore, a Fuel Management Plan has not been prepared. The Inspection Plan is found at the end of this Erosion Control Plan.

RPF who prepared the Erosion Control Plan: Mark Pugsley, RPF #3097.

Date Erosion Control Plan prepared: June 27,2024.

The Erosion Control Plan must identify all controllable sediment discharge sources in the project area, including those roads used for timber harvest activities owned by or under the control of the landowner. "Controllable sediment discharge sources" are defined as sites or locations, both existing and those created by proposed timber harvest activities, within the project area that meet all of the following conditions:

1. Is discharging or has the potential to discharge sediment to waters of the state in violation of applicable water quality requirements or other provisions of the General Waste Discharge Requirements (WDRs),
2. Was caused or affected by human activity, and
3. May feasibly and reasonably respond to prevention and minimization management measures.

Between May 2023 and September 2023, field inspections of the project area, including those roads used for timber harvest activities owned by or under the control of the landowner, were inspected for sites defined as controllable sediment discharge sources. All watercourses and harvest units were walked during the course of the preparation of the THP. Several unstable areas were found near watercourses but will not be discussed here because they do not meet #2 and #3 of the definition for controllable sediment discharge sources.

A table of identified sites is attached to this document.

Inspection Plan

Inspections conducted prior to the winter period shall be designed to assure that sediment prevention measures are properly installed and maintained; winter period inspections should be designed to assure and assess management measure performance and determine if new controllable sediment discharge sources developed; post-winter period inspections should be designed to assure that the management measures have functioned adequately and whether any new controllable sediment discharge sources have developed. Management measures shall be evaluated for adequacy and proper implementation and whether additional management measures are required in accordance with the terms of the Order.

Qualified professionals shall conduct all specified inspections of the Project site to identify areas causing or contributing to a violation of applicable water quality requirements or other provisions of the General WDRs. The following person(s) may be conducting the inspections:

John Bennett (707) 894-4245

The following inspection requirements shall occur once the startup of timber harvest activities begin within Project areas:

At a minimum, conduct inspections each year and throughout the duration of the Project while Timber Harvest Activities occur and the Project is covered under General WDRs as follows:

1. By November 15 to assure Project areas are secure for the winter; and
2. Once following ten (10) inches of cumulative rainfall commencing on November 15 and prior to March 1, as worker safety and access allows; and
3. After April 1 and before June 15 to assess the effectiveness of management measures designed to address controllable sediment discharges and to determine if any new controllable sediment discharge sources have developed.

The only winter operations proposed in this plan are potentially timber falling on gentle ground away from watercourses. Pick-up travel may occur during extended dry periods resulting in dry soil conditions.

If during any inspection or during the course of conducting timber harvest activities, a violation of an applicable water quality requirement or conditions of the General WDRs is discovered, the provisions of section III.B.3. shall be followed. For all other inspections conducted pursuant to section III.G. where violations are not discovered, the Discharger shall submit a summary report to the Executive Officer by June 30 for each year of coverage under the General WDRs or upon termination of coverage. The summary report shall at a minimum include the date of each inspection, the inspector's name, the location of each inspection, and the title and name of the person submitting the summary report. The inspection reports shall be signed by the Discharger or their duly authorized representative, pursuant to section IV.S.

Map Point	Type	Description	Treatment	Delivery Risk	Delivery Potential	Total Site Volume	Treatment Priority
4	Complex	18” Metal DR. Inlet is partially buried, and outlet is entirely buried. Class III watercourse crossing with no watercourse crossing place. No active erosion observed	DRC: Excavate inlet and outlet and inspect for rust. Replace with 18" minimum culvert if necessary. If culvert is sound no further treatment. WC: if wet at times of operations drain via a 4” flex pipe. After operations and prior to the winter period, install dip to drain feature after operations.	Medium	2yd	10yd	Medium
8	Complex	WC: Class III crossing with 18” metal culvert that is rusting through. Functioning. Seep: 50 feet east of WC is a is a bank seep that runs across the road with no drainage feature in place. Minimal erosion occurring at site and no sediment delivery to watercourse was observed.	WATERCOURSE CROSSING: Replace with 24" minimum culvert. Refer to Sec II, Item 38 Typicals. Bank Seep: if wet at time of operations drain via a 4" flex pipe, after operations remove flex pipe and install dip to drain feature after operations.	Medium	2 yd	5 yd	Medium
9	WATERCOURSE CROSSING	36” metal culvert with inlet rusting out. Functioning.	Replace culvert with 36" minimum culvert. Refer to Sec II, Item 38, Typicals.	Low	1 yd	10 yd	Medium
11	TRACTOR CROSSING	Existing Class III tractor crossing.	If utilized: Use only if crossing is dry. After operations, slash pack approaches within ELZ	Low	3yd	3yd	High

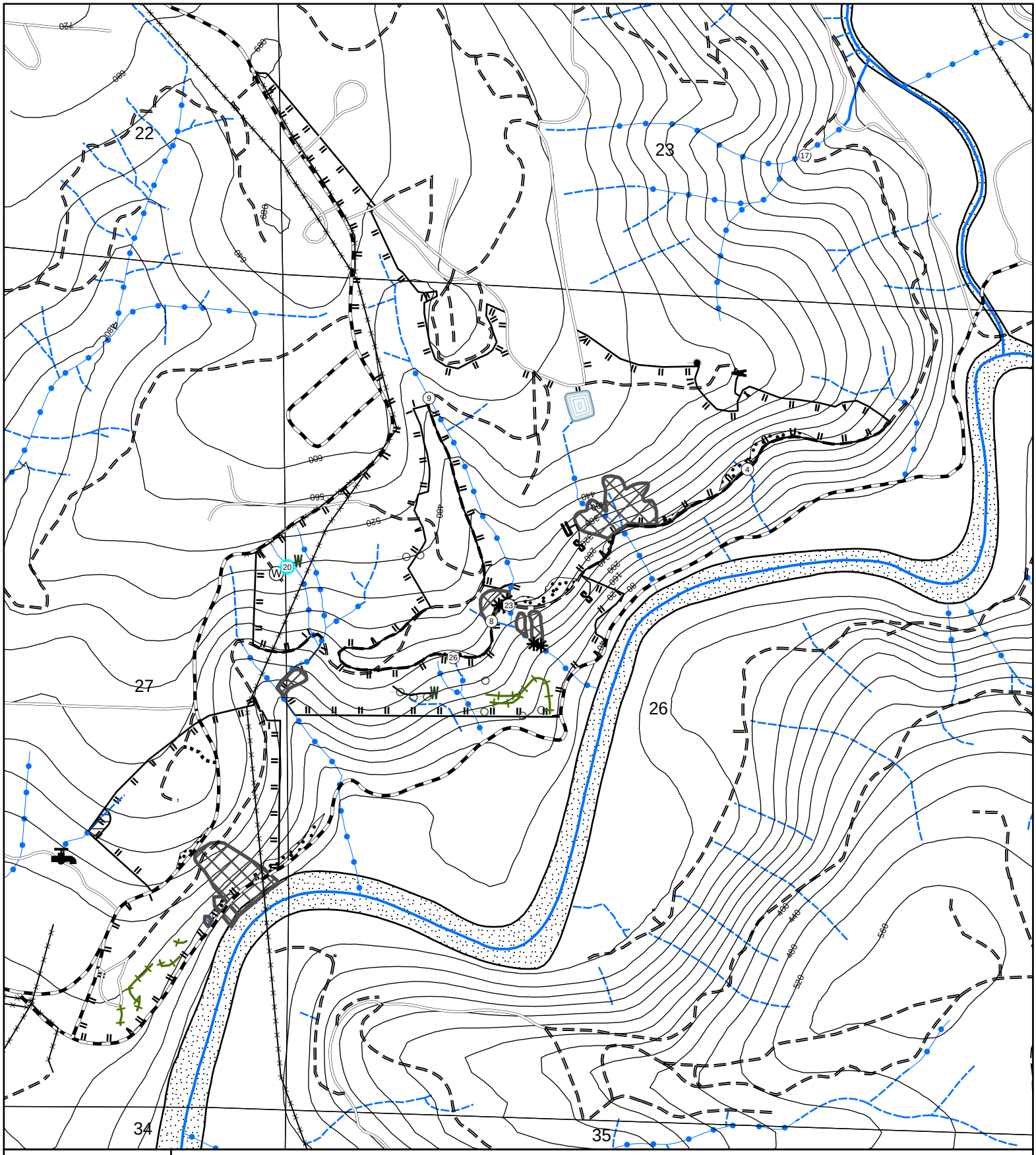
Delivery Risk = Probability of sediment delivery. Delivery Potential =What is the rate of delivery in the event of failure Deliverable site volume = What volume of the site is likely to deliver sediment. Treatment priority = High priority sites should be treated first year of ground-based operations at site. Moderate priority sites should be treated by end of 3rd year. Low priority sites should be treated by end of 5th year or completion of timber operations, whichever is first.

			prior to the winter period. Refer to Sec II, Item 38 Typicals. If NOT utilized: no treatment proposed.				
17	WATERCOURSE CROSSING	Pulled Class II Crossing. Functioning	Install temporary crossing utilizing 30" minimum diameter culvert. Remove crossing after operations Refer to Item 38, Typicals	Low	1 yd	1 yd	Low
20	TRACTOR CROSSING	Proposed CII Tractor Crossing. Tractor crossing occurs at area of low gradient(5%). Proposed WLPZ skid trail and crossing will require minimal tree removal and avoids the removal of sprouting species roots.	If utilized: Install a tractor crossing using a 12" minimum culvert to drain feature. Retain core zone trees and vegetation to the extent feasible. After operations: Slash pack WLPZ skid trail and waterbar to the Extreme EHR standard. If not utilized: No treatment	Low	1 yd	1 yd	Medium
21	TRACTOR CROSSING	Existing Class III tractor crossing.	If utilized: Use only if dry. After operations, slash pack approaches within ELZ prior to the winter period. See Item 38, Typicals. If NOT utilized: no treatment proposed.	Low	3 yd	3yd	High
23	Watercourse Crossing	Existing Class II watercourse crossing utilizing a 40” metal culvert. The WC is located at the base of a steep cut into a rock face. The WC has evidence of being overtopped during high flow events resulting in minor road erosion.	Remove WC and replace culvert with a 40” minimum culvert. Move culvert inlet away from rock wall 1-3’ well maintaining sufficient road prism width to allow for logging vehicle traffic. To the extent feasible remove rocks that jut out of rock face and direct flows away from crossing site. Refer to	High	3yd	10yd	High

Delivery Risk = Probability of sediment delivery. Delivery Potential =What is the rate of delivery in the event of failure Deliverable site volume = What volume of the site is likely to deliver sediment. Treatment priority = High priority sites should be treated first year of ground-based operations at site. Moderate priority sites should be treated by end of 3rd year. Low priority sites should be treated by end of 5th year or completion of timber operations, whichever is first.

			Sec II, Item 38 Typicals.				
26	Watercourse Crossing	An 18” metal culvert that forms the head of Class III. Inlet is partially buried and outlet is rusting through.	Replace with 24” minimum culvert. Refer to Sec II, Item 38 Typicals.	Medium	2yd	5yd	Medium

Delivery Risk = Probability of sediment delivery. Delivery Potential =What is the rate of delivery in the event of failure Deliverable site volume = What volume of the site is likely to deliver sediment. Treatment priority = High priority sites should be treated first year of ground-based operations at site. Moderate priority sites should be treated by end of 3rd year. Low priority sites should be treated by end of 5th year or completion of timber operations, whichever is first.



Copper Top THP
ECP Map

Portions of:
T11N R15W Sec 22, 23, 26,& 27
Scale: 1:10,000
Contour Interval: 40 ft.

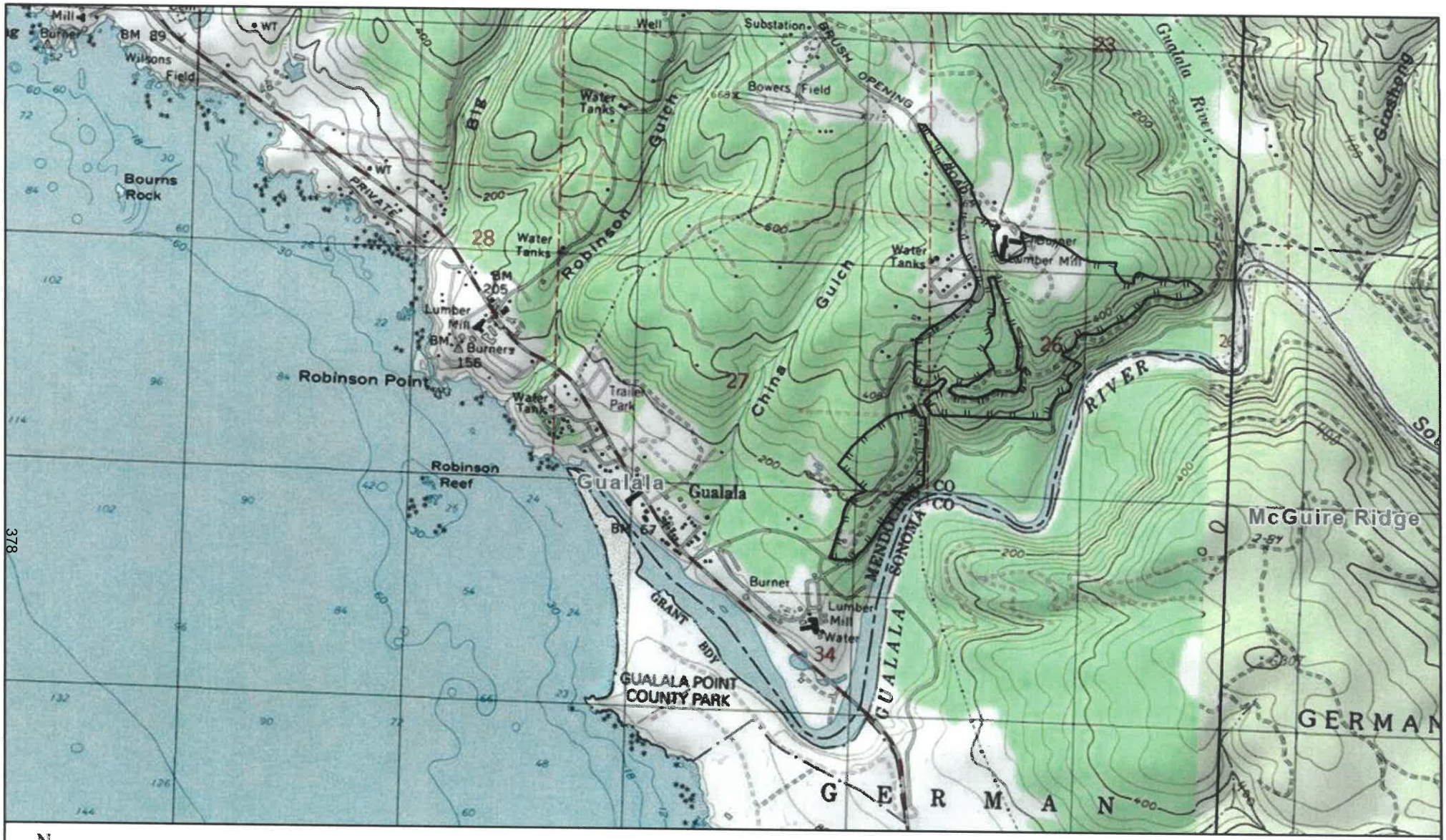
- Class I Watercourse
- Class II Watercourse
- Class III Watercourse
- CII Wet Area
- Wet Areas
- Retention Ponds
- Gualala River Polygon
- THP Boundary
- Private Seasonal Road
- Private Permanent Road
- Public Road
- Proposed Road
- Appurtenant Skid Trail
- WLPZ/ELZ Skid Trail
- Steep Slope Skid Trail
- STZ Skid Trail
- CCCSTA Skid Trail
- No Harvest Area
- Small Unstable Area
- WLPZ_Landing
- Unstable Areas
- Cut Bank Failure
- Domestic Water Intake
- ECP Site

*All Areas Site Class II/III
*All Areas Tractor Yarding

7/16

Copper Top THP

Domestic Water Supply Notifications and Responses



N

Scale: 1:24,000

T11N R15W Section 22,23,26, and 27 MDBM

Contour= 40'

Mcguire Ridge and Gualala 7.5' USGS Quad(Digital Reproduction)

Copper Top THP

Project Vicinity Map

Legend

USGS 24k Topo Map Boundaries

Project Boundary

Copper Top

Geology Supporting Documents

- CEG Report
- CGS Pre-consultation
- Big Pepperwood Watershed Slide Report*

*This report is a combination of orthophoto analysis conducted by Tim Best, CEG and unstable features by RPFs. This analysis is limited in scope and should not be considered a formal assessment.

Engineering Geologic Evaluation of the Copper Top Timber Harvest Plan

Mendocino County, California

Prepared for:

Redwood Empire Sawmills

June 2023

424025

Phone: (707) 459-4518 **Email:** info@shn-engr.com
Web: shn-engr.com • 335 S. Main Street, Willits, CA 95490-3977

Phone: (707) 459-4518 **Email:** info@shn-engr.com **Web:** shn-engr.com
335 S. Main Street, Willits, CA 95490-3977

Reference: 424025

June 3, 2024

Jesse Weaver, RPF, and Mark Pugsley, RPF
Redwood Empire Sawmills
P.O. Box 156
26800 Asti Road
Cloverdale, CA 95425

Subject: Engineering Geologic Evaluation of the Copper Top Timber Harvest Plan, Mendocino County, California

Jesse Weaver and Mark Pugsley:

This report presents the results of a focused geologic evaluation of the Copper Top Timber Harvest Plan (THP). This investigation is focused on the evaluation of landslide potential and an assessment of whether the proposed harvest activities may lead to mass wasting that would increase sediment delivery to watercourses in the area. The harvest operations are subject to standard Forest Practice Rules criteria. The THP is located east of Gualala in the Big Pepperwood Creek watershed within the larger Gualala River watershed. The results of this investigation are based on review of the pre-consultation letter prepared by California Geological Survey (CGS) for the Copper Top THP (dated February 22, 2024), published geologic maps and literature, the previous management conducted on the property, interpretation of a variety of available aerial imagery, and a field reconnaissance.

If you have any questions, please call (707) 459-4518.

Sincerely,

SHN

Christina Tipp

Christina M. Tipp, CEG
Engineering Geologist

CMT/GDS:ame

Enclosure: Report

P:\Willits\2024\424025-RedwoodEmpireSawmill-THP\PUBS\rpts\20240603-CopperTopTHP.docx

Engineering Geologic Evaluation of Copper Top Timber Harvest Plan
Mendocino County, California

Prepared for:
Redwood Empire Sawmills

Christina M. Tipp, CEG

Prepared by:

335 S. Main St.
Willits, CA 95490-3877
(707) 459-4518

June 2023

QA/QC: CMT CMT
Reference: 424025

Table of Contents

List of Illustrations

Abbreviations and Acronyms

Term	Definition
CAL FIRE	California Department of Forestry and Fire Protection
CCCSTA	California Coastal Commission Special Treatment Area
CDMG	California Department of Conservation, Division of Mines and Geology
CEG	Certified Engineering Geologist
CGS	California Geological Survey
GRT	Gualala Redwoods Timber
H:V	horizontal:vertical
Ka	Gualala Formation and/or Anchor Bay member map unit
NR	no reference
Qmt	Marine Terrace Deposits map unit
RPF	Registered Professional Forester
Tg	German Rancho Formation map unit
THP	Timber Harvest Plan
WLPZ	watercourse and lake protection zones

Introduction

This report presents the results of a focused geologic evaluation of the Copper Top Timber Harvest Plan (THP). This investigation is focused on the evaluation of landslide potential and an assessment of whether the proposed harvest activities may lead to mass wasting that would increase sediment delivery to watercourses in the area. The harvest operations are subject to standard Forest Practice Rules criteria. The THP is located east of Gualala in the Big Pepperwood Creek watershed within the larger Gualala River watershed (see Figure 1).

The results of this investigation are based on review of the pre-consultation letter prepared by California Geological Survey (CGS) for the Copper Top THP (dated February 22, 2024), published geologic maps and literature, the previous management conducted on the property, interpretation of a variety of available aerial imagery, and a field reconnaissance. This investigation is consistent with the work scope outlined in CGS *Note 45: Guidelines for Engineering Geologic Reports for Timber Harvesting Plans* (CGS, 2013a). We had a field meeting and performed a focused field reconnaissance with a Redwood Empire Sawmills project forester, Mark Pugsley, on April 2, 2024. During our reconnaissance, we visited areas of concern identified by the project forester and shown on a CGS geologic map prepared during a pre-consultation meeting, features of interest identified in published geologic maps, and areas where the topography was suggestive of potential instabilities. The site reconnaissance was focused on unstable locations chosen by the Registered Professional Forester (RPF), areas outside of the limits of the THP were not evaluated (with the exception of the mid-section of the THP). In this report, we use the terminology presented in CGS Note 50 (CGS, 2013b) and in Cruden and Varnes (1996). Landslide age classes described herein are based on the criteria defined in Keaton and DeGraff (1996).

In the completion of our investigation, we have reviewed the following maps and documents:

- THP mapping showing areas of concern identified by the project forester
- Geologic reports and published geomorphic maps covering the plan area and immediate vicinity (Fuller and Curtis, 2002; Blake and others, 2002; Wentworth and others, 1998; Williams and Bedrossian, 1976)
- CGS Landslide Inventory Database
- Light detection and ranging (LiDAR-based contour map
- Aerial Photographs
- Previous THPs and Review Memorandums provided by Redwood Empire Sawmill

Previous engineering geologic reports were prepared for areas that overlap with the Copper Top THP, including a report by Timothy Best (2005), Thomas Spittler (1989) for THP #1-90-652 MEN, and the Belladonna THP (2008). Review memorandums by Haydon and Spittler (1999) for THP #1-99-460 MEN, review by Department of Forestry and Fire Protection for THP #1-08-086 MEN, and unstable areas mapped in the Big Pepperwood Creek PWS map set (Best, 2024) were reviewed.

Site and Plan Description

The Copper Top THP consists of 1 unit encompassing approximately 163 acres located in the Big Pepperwood Creek Planning Watershed, which is within the larger Gualala Watershed. The THP area extends along and (primarily) east/southeast of Old Stage Road and north of Gualala Road and toward

the east, see Figure 1. Both roads, the lumber mill located in the northern section of the THP, and several dirt roads provide access to the THP area. There is an access road (referred to herein as "the main road") along the lower portion of the THP that provides access to a lot of the THP area in addition to the public roads bordering the plan. The THP has been logged in the past; therefore, existing roads, previously used roads, and abandoned skid trails may be used and/or re-opened for use for ground-based yarding.

The plan area has an irregular shape and, therefore, encompasses multiple Class II and III watercourses and a variety of slope gradients. The harvest area typically slopes down toward the Gualala River (Class I watercourse) with elevations ranging from 90 feet near the Gualala River at the southeastern boundary to 675 feet in the northern portion of the harvest area. Moderate to steeply sloping natural hillsides generally ranged from 45 to 25 percent slopes (equivalent to 2:1 to 4:1, horizontal:vertical [H:V]), with an occasional 82 percent slope (1.2:1, H:V). Cutbanks made for roads and skid trails were the steepest slopes observed on the site, as steep as 100 to 150 percent slopes (1:1 to 0.7:1, H:V). There are relatively flat to gentle areas in the northern section of the THP by the lumber mill with 17 to 6 percent slopes (equivalent to 6:1 to 15:1, H:V). The Class II watercourses have incised the hillside terrain and generally appear hydraulically connected to the Gualala River.

Proposed silviculture consists of single tree selection, California Coastal Commission Special Treatment Area (CCCSTA) selection, and No Harvest. CCCSTA areas will retain 75 square-feet per acre of basal area. The entire project will be harvested utilizing ground-based operations with limited use of tractors on steep slopes (slopes >50%). The THP area maintains timber of approximately 35 percent redwood, 30 percent Douglas fir, 15 percent Bishop pine, 15 percent hardwood, and 5 percent Grand fir.

Pertinent data relative to the Copper Top THP is included in Table 1.

Table 1. Assessment Location and Operation Information

Assessment Location	Information
Legal Description	Sections 22, 23, 26, and 27 of T11N, R15W (Mendocino Baseline and Meridian (MDBL&M))
USGS 7.5-minute Quadrangle	Gualala 7.5-minute quadrangle
Cal Watershed	Big Pepperwood Creek PW (1113.850201) within Gualala River watershed
Units	One
Silviculture	Single Tree Selection, California Coastal Commission Special Treatment Area (CCCSTA) Selections, and Harvest Restrictions as Recommended below
Yarding Technique	Ground based, limited use of tractors on steep slopes (slopes > 50%)

Management adjacent to watercourses is dictated by prescriptions outlined in the California Forest Practice Rules (2024) and consists of harvest restrictions of variable widths (relative to slope steepness). The restrictions occur along watercourses and are referred to as watercourse and lake protection zones (WLPZ).

A residential subdivision is located northwest of the THP, opposite Old Stage Road. Other structures including residences, the Gualala Redwoods Timber (GRT) office, and lumbermill buildings are located within or adjacent to the limits of the THP. The slope gradients near the structures generally ranged from 6 to 9 percent (equivalent to 11:1 to 16:1, H:V), with the exception of the GRT office. The GRT office

is located on a relatively flat building and parking lot pad in an area with slopes up to 17% (equivalent to 6:1, H:V).

There are no active domestic water sources within the plan area.

Previous Management

The Copper Top THP occupies ground that was most recently harvested in 2008 under THP 1-08-086 MEN and was also entered under previous THPs (1-05-023 MEN, 1-99-560 MEN, and 1-90-652 MEN). As mentioned above, the majority of this THP was evaluated in previous THPs. Table 2 lists the previous plans which overlap or are adjacent to the Copper Top THP.

Table 2. Previous Timber Harvesting Plans (THPs)

THP #	Informal THP Title	Geologic Report reference
1-90-652 MEN	Green Bridge THP	Spittler, 1990
1-99-460 MEN	Review of THP	CDMG, 1999
1-05-023 MEN	Clover THP	Best, 2005
1-08-086 MEN	Belladonna THP	Belladonna, 2008

1-99-460 THP was mostly concentrated northwest/west of the Copper Top THP, and those harvest areas are primarily located outside the harvest limits of the current plan. The maps show wet or marsh areas on the lower slopes of the Copper Top THP and alongside the Gualala River.

The Clover THP (1-05-023) consisted of nine separate units and appears to partially overlap the subject THP along the east side.

The Belladonna THP (1-08-086) has significant overlap with the subject THP, with extended boundaries down to Gualala Road and farther to the southeast. The map of unstable areas within the Belladonna THP boundaries was reviewed and features that were mapped within the boundaries of the Copper Top THP were revisited, described, and included in our mapping (see Figure 2 for an overall map of unstable areas). The erosion hazard risk was found to be moderate to high.

The instabilities encountered during previous THPs that overlap with the Copper Top THP are included in our Figures 4, 5, and 6 (Appendix 1) and in the Table of Unstable Areas (Appendix 2) where confirmed.

Aerial Photographic Review

We obtained aerial photographs of the project area for evaluation of land management and landslide history. The photographs ranged from 1947 to 2020. The photographs that were viewed in stereo include the following years: 1965, 1971, 1972, 1988, and 1994. The photographs from the other years mentioned were not available in stereo. In addition, Google Earth and NETROnline imagery was reviewed to supplement the aerial photographs and to evaluate the land history since 2020. Observations related to harvest management and slope instabilities are presented below.
The 1947 aerial photograph covers the entire THP, and the area appears densely forested. Gualala Road, Old Stage Road, and a few dirt roads are visible within the THP area. The area of the lumber mill on the relatively flat area is fairly bare. The topography indicates where incised watercourses are located, similarly to today and draining down to the Gualala River.

In the 1959 photograph, abundant skid trails are visible surrounding the THP area and the main road along the bottom of the THP area is very prominent. Harvest operations are apparent northeast and west of the THP area, as well as surrounding the lumber mill.

By 1961, the lumber mill footprint appears the same, the roads that were graded by 1959 remain in use and a few skid trails or dirt access roads extend into the THP area.

The 1965 set only covers the southwest corner of the THP area. Roads leading upslope and into the THP are evident.

In the 1971 and 1972 photograph sets, skid trails into the area are still evident and a road from the lumber mill area down to the main access road above Gualala Road is apparent. The THP area appears densely forested. Bare ground was observed in the location of the rock pit where the cutbanks are located and landings were created.

There is a bare spot in the forest upslope of the Gualala River and Gualala Road, outside the limits of the THP, that is apparent in many of the photos after 1982. The bare spot connects up to old roads that disappear beneath the canopy in later years, suggesting the bare spot is a landing.

The THP area appears similar in the 1988 photo with the access roads and skid trails visible and area forested. The locations of the incised watercourses are evident by the topography and continue to drain down toward the Gualala River.

Harvest operations appear to have occurred by 1994 on the site as short cable yard corridors appear to extend from the THP to the road along the northwest boundary and the forest appears less dense then in previous years.

In the 2005 and 2009 photographs, harvest activities appear to have occurred in the mid-section of the THP area, including the area in the middle that has been removed from the THP area. The tree canopy appears thinner, skid trails and roads extend through the mid-section of the THP area, and landings are more apparent. Vegetation has grown in around the rock pit cutbank location and the adjacent landings by 2005 and 2009.

Harvest operations are evident within the THP area in the 2012 photograph. The main road that leads to the lumber mill is evident, and there are several roads and skid trails that extend from the main road into the THP area. Landings are visible and the tree canopy appears less dense, particularly in the mid-section and toward the north. Minimal activities appear to have occurred between Gualala Road and the main road along the base of the THP.

The area appears to have experienced vegetation re-growth by 2014, as the site appears dense with trees and the tree canopy is covering the previous skid trails. The main road which connects to the lumber mill remains obvious.

The tree canopy appears to continue experiencing re-growth and filling in from 2014 to 2018. The cutbank by the rock pit remains apparent as does the main road up to the lumber mill and to Old Stage Road. The bare spot is evident in the 2018 photograph and skid trails connect to this location.

In the 2020 photograph, only the main road, Gualala Road, and Old Stage Road are apparent. The tree canopy continues to increase. The topographic dent in the tree canopy shows where the watercourse though the middle of the site and another watercourse farther to the west are both located, which is identical to the watercourse locations in the 1947 photographs.

In addition to reviewing aerial photographs, we reviewed the available historic images available on Google Earth and NETROnline for the years 2020-2023. The site appears similar to the 2020 photograph description above. The main access road near the base of the THP, Gualala Road, and Old Stage Road all appeared to be in the same location over the length of time the photographs covered. The watercourses that have incised the topography remained in the same locations as did the Gualala River.

There were no large slope instabilities visible at the scale of the photos during the length of time reviewed. This does not conclude that no landslides or unstable areas formed from 1947 to 2023, simply that there were no large-scale instabilities that were visible through the tree canopy. However, the locations of the roads appeared identical over the course of the years, which suggests there were no large-scale instabilities that caused a road to be moved or closed a road for a significant period of time. In addition, the few watercourses evident in the aerial photographic review also remained in the same locations with flow paths that did not appear disrupted.

Geologic, Geomorphic, and Seismic Setting

Geologic Setting

The geologic maps (Fuller and Curtis, 2002; Blake and others, 2002; Wentworth and others, 1998) for this THP indicate the THP is primarily underlain by bedrock labeled as German Rancho Formation (map unit Tg). The upper elevations of the THP in the north are partially underlain by Marine Terrace Deposits (map unit Qmt). The southwest portion is underlain by Qmt at the higher elevations and Gualala Formation and/or Anchor Bay member (map unit Ka) at lower elevations. The geologic contacts between the three deposits are shown on the geologic map and extends through the THP area, refer to the geologic map, Figure 3 in Appendix 1.

The Marine Terrace Deposits are Holocene to Pleistocene in age and consist of “clast-supported deposits of relatively uniform grain size overlying wave-cut benches. The degree of consolidation, amount of soil profile development and elevation of the unit above sea level increased with age of the deposit.”

The German Rancho Formation is described as Eocene and Paleocene rocks that “consist of marine sandstone, conglomerate and thin to thick interbeds of sandstone and mudstone. Sparse fossils indicate their age’s range from Paleocene to middle Eocene. Some sandstone beds have significant porosity.”

The Anchor Bay member of the Gualala Formation bedrock unit is described as “thin to thick interbeds of marine sandstone and mudstone, interspersed with massive sandstone and conglomerate. Mega fossils indicate they are of Upper Cretaceous age. Porosity is very low…. The rocks…are overlain conformably by the “strata of German Rancho.”

Deposits of the German Rancho Formation and Anchor Bay bedrock member were observed at shallow depths beneath colluvial soils in road and skid trail cuts, as boulders in debris slides, in headscarps of unstable features, and within incised watercourses. Bedrock appeared to be shallow (within 1 to 3 feet of the ground surface) where it was observed on moderate to steep slopes. The slopes where the

Marine Terrace deposits were located were generally gentle slopes covered with thick vegetation; thus, the marine terrace deposits were not observed during our reconnaissance.

The site is in close proximity to the San Andreas fault zone and the geologic mapping (Fuller and others, 2002; Blake and others, 2002) shows fault splays extending through the THP between the differing bedrock units and through the German Rancho Formation (see Figure 3). The bedrock in this region has been deformed due to regional tectonic activity including uplift and displacement, which is expressed in the various bedding orientations mapped by Blake and others (2002). Bedding is shown oriented east-west and northwest with dips toward the northeast, north, northwest, southwest, and southeast. The main stem of the Gualala River follows the San Andreas fault, and then the river meanders through the incised terrain in the river valley downslope and south of the project area to drain towards the Pacific Ocean (west).

Geomorphic Setting

The Big Pepperwood and Gualala River watershed have experienced high levels of landslide activity due to high rainfall, tectonic uplift, steep slopes from tributary incision, sheared rock, and ground shaking due to earthquakes. The large storms, earthquakes, and fires trigger slope instability and causes stream sedimentation to fluctuate with the varying naturally occurring events.

The site is located in a topographically dynamic area with descending elevations from the lumber mill in the northern portion of the property down toward the south/southeast where the Gualala River is present. The THP is within terrain that ranges from gently sloping land to moderately and steeply sloping hillsides. The watercourses within this THP connect to the Gualala River, which flows west to the Pacific Ocean.

The plan area consists of mostly Class II and III watercourses that are hydraulically connected to the Gualala River (Class I watercourse). The Class II watercourses were incised from 1 to 4 feet within the THP area and generally exposed bedrock in the channel bottom with colluvial soils above. Class III watercourses lacked significant incision. The fairly straight watercourse through the middle of the THP area that transitions from a Class II to Class III and has moderate side slopes down to the channel bottom. During the reconnaissance, we observed rock exposed in the channel bottom, suggesting this watercourse has incised through the colluvial soils and hillside terrain over a long period of time. The rock channel bottom suggests incision of the channel by the watercourse is no longer occurring, in addition to the rock face observed at 1b where a small waterfall drains down to a 4-foot-diameter culvert. This watercourse was visible on all aerial photographs and surficial imagery reviewed.

Slope inclinations range from relatively flat land at the lumber mill to gently sloping ground (northern portion of THP) to moderately and steeply inclined slopes. Steep slopes, which includes cutbanks made during construction of the road, were primarily located above Gualala Road, along the south/southeast boundary of the THP. The steep slope inclinations, including some cutbanks, range from 66 to 40 percent slopes (equivalent to 1.5:1 to 2.5:1, H:V). A few cutbanks were oriented as steep as 100 to 150 percent slopes (equivalent to 1:1 to 0.7:1, H:V). Gentle to moderate slopes were generally situated along the northern and central portions of the THP with slopes that range from 33 to 16 percent slopes (equivalent to 3:1 to 6:1, H:V).

During our reconnaissance, we observed the main access road for the THP, located in the lower portion of the area, and a few old skid trails had been carved into the surficial landscape. The skid trails are

generally overgrown and vegetated across the plan area. Cutbanks generally ranged from 2 to 15 feet high along skid trails and roads. The highest cutbanks, up to 30 to 40 feet high, were observed at the rock pit (CB-2) and the road extending northeast from the rock pit (CB-3). Some minor sloughing or unraveling of material from the cutbanks (less than ¼ cubic yard) was visible at the cutbanks due to the steepness of the cuts made for the road; however, any failed material appears to be caught by the ditches along the inboard side of the roads. Bedrock and native soils were observed in the cutbanks. The observed cutbanks appeared to be capable of holding the steep inclinations they were excavated at across the THP area.

The majority of the unstable areas were also located along roads and skid trails and on steep slopes descending toward watercourses.
Within the study area, we have mapped unstable features described as debris slides, debris flow/torrent tracks, inner gorge, and a complex area of various types of landsliding and debris slide activity. Generalized descriptions of the unstable slope features encountered in the harvest are listed in the table below:

Table 3. Mapped Geologic and Geomorphic Features Related to Landsliding

Geologic/Geomorphic Feature Name	Description
Debris Slide Slope	Steep (generally greater than 65%), well vegetated slopes that have been sculpted by numerous debris slide events; vegetated soils and colluvium above shallow soil/bedrock interface may be disrupted by active debris slides or bedrock exposed by former debris sliding; slopes near angle of repose may be relatively stable except where weak bedding planes and extensive bedrock joints and fractures are parallel to the slope.
Debris Slide	Unconsolidated rock, colluvium, and soil that has moved slowly to rapidly downslope along a relatively steep (generally greater than 65%) shallow translational failure plane; forms steep, unvegetated scars in the head region and irregular hummocky deposits (when present) in the toe region; scars likely to ravel and remain unvegetated for many years; revegetated scars recognized by steep, even-faceted slope and light-bulb shape; includes scarp and slide deposits.
Debris Flow/Torrent Track	Long stretches of bare, generally unstable stream channel banks scoured and eroded by the extremely rapid movement of water-laden debris; commonly triggered by debris sliding in the upper part of the drainage during high intensity storms; scoured debris may be deposited downslope as a tangled mass or organic material in a matrix of rock and soil; debris may be reactivated or washed away during subsequent events.
Inner Gorge	A geomorphic feature formed by coalescing scars originating from landsliding and erosional processes caused by active stream erosion. The feature is identified as that area beginning immediately adjacent to the stream channel below the first break in slope.
Landslide	Possess features or styles of movement suggestive of two or more types of sliding. The upper portion of the landslide appears to be behaving as a rotational or translational slide but then, as movement continues, the toe (or lower portions of the failure) disintegrates into a failure more appropriately characterized as an earthflow. Can be quite variable in size, up to hundreds of acres, and generally are deep seated. This designation should also include cutbank, cut slope and fill slope failures as well as rock fall and rock topple modes.

Table 3. Mapped Geologic and Geomorphic Features Related to Landsliding

Geologic/Geomorphic Feature Name	Description
Translational/Rotational Landslide Slide	Relatively cohesive slide mass with a failure plane that is deep-seated in comparison to that of a debris slide of similar areal extent. The sense of motion along slide plane is linear in a translational slide and arcuate or rotational in a rotational slide; complex versions with rotations heads and translational movement or earthflows downslope are common.
Earthflow	Mass movement resulting from slow to rapid flowage of saturated soil and debris in a semi-viscous, highly plastic state; after initial failure, the flow may move, or creep, seasonally in response to destabilizing forces.

Unpublished maps pinpointing the locations of unstable areas and a correlating inventory list were created by Tim Best (dated 2024) utilizing aerial photography. The maps and list were not field confirmed by Best. There are only a few unstable areas mapped by Best (2024) that are within the boundaries of the THP. We visited the area within the THP boundary where he denoted unstable areas (1103, 1104, 1105, and 1100) and have included the unstable areas that are field confirmed in this report. Several unstable areas were mapped downslope of the THP area. In addition, there were two unstable features mapped in the southwest portion of the THP between a skid trail and a road (1876 and 1877); however, those areas where not listed on the inventory list provided by the RPF.

The CGS Landslide Inventory dataset and mapping by Fuller and others (2002) shows a large dormant mature rockslide within the limits of the THP. The CGS interpretation of the feature states "probable (75% confident it is a landslide; one or two geomorphic features suggesting a landslide origin; features recognizable but subdued by erosion)...shallow – 0 to 10 ft...mapped in 2002." The rockslide is mapped on a steep hillside where rock outcrops were visible in headscarps of small unstable features and along watercourses; however, there was no indication of this slide while in the field and no surface expression when viewing geographic information system (GIS) and LiDAR imagery. The area of the mapped slide has been incised by watercourses and disturbed by roads, skid trails, and landings. Based on the lack of evidence in the field and imagery of this feature, dissected body of the feature, and the dormant mature age of the feature stated by CGS, this rockslide is not included as an unstable area in our mapping and has very low to negligible potential of sediment delivery to watercourses.

The landslide inventory database has also mapped debris slide slopes extending along the base of the THP area from the main access road down to Gualala Road and down to the river in a location. This mapping was completed in 1984. The area is densely forested in the photographs we reviewed from 1947 to 2020. In addition, smaller slope instabilities were mapped by CGS, Davenport (1984), and Fuller and others (2002) within the debris slide slope area within the THP that correspond with unstable features and/or cutbanks included in our mapping. Refer to Figure 3 for the features mapped by Fuller and others (2002).

During our reconnaissance, we observed that the ground has disturbed surface geomorphology across portions of the THP due to skid trail construction, logging activities (dragging felled logs, re-distribution of soils during road/trail construction), and cut and fill roads and landings. Field reconnaissance, aerial photographs, and LiDAR all indicate logging has occurred within the area of this THP, which has altered the original landscape. The gentler slopes of the northern portion and the central/western portion are

generally free of slope failures, and the areas appear more stable overall due to the reduced slope inclinations when compared to the lower portions of the THP area where slope gradients increase.

Seismic Setting

Northwestern California is the most seismically active region in the continental United States. The THP area is located immediately west of the San Andreas fault zone and just outside the limits of the Alquist-Priolo Fault Zone (Slosson, 1974). Surface ruptures have occurred along the San Andreas fault in many locations in California. The recurrence interval between earthquakes on the northern San Andreas fault is not currently known. Paleoseismic studies at Fort Ross, along the Sonoma county coast, suggest at least four and perhaps as many as six, surface rupturing earthquakes on the fault in the past 2,000 years (Simpson and others, 1996).

According to the Earthquake Shaking Potential for California map (Branum and others, 2016), the site will experience stronger earthquake shaking more frequently due to the proximity of a major, active fault (San Andreas Fault).

There are numerous sources that could potentially provide large earthquakes and strong ground shaking, in addition to the San Andreas fault zone. More than 60 earthquakes have produced discernible damage in the region since the mid-1800s, and historic seismic paleoseismic studies suggest there are six distinct sources of damaging earthquakes in the region.

1. **Mendocino Triple Junction (MTJ):** Infrequent moderate magnitude earthquakes occur in the complex triple junction region. These events are generally shallow, onshore events in the magnitude (M) of 5 to 6 range.
2. **Mendocino Fracture Zone**: This high-angle, east-west trending fault represents the plate boundary between the Gorda and Pacific plates. It generates predominantly right-lateral strike-slip earthquakes.
3. **Gorda Plate**: This relatively small plate remnant is breaking up as it approaches the subduction zone. Frequent earthquakes are generated along left-lateral strike-slip faults within the plate itself. The plate is subducting a northeastward direction.
4. **Faults within the North American Plate:** Along the leading edge of the North American plate where it overrides the Gorda plate, oblique compression is manifested along a broad, northwest trending fold-and-thrust-belt. Individual faults within the belt could produce earthquakes in excess of M7. Movement along the fault may occur as co-seismic slip in-conjunction with slip on another fault (that is, San Andreas, MTJ, or Cascadia event).
5. **Cascadia Subduction Zone:** This is the most significant potential seismic source in the north coast region. A great subduction event may rupture along 200 kilometers or more of the coast from Cape Mendocino to British Columbia, may be up to M9.5. Paleoseismic studies along the subduction zone suggest that great earthquakes are generated along the zone every 300 to 800 years. The last large subduction earthquake occurred in 1700. A great subduction earthquake would generate long duration, very strong ground shaking throughout the Pacific Northwest.

Due to the seismically active nature of the area, there is a significant potential that strong ground shaking will occur in the future and that it may compromise slope stability. Strong ground accelerations may destabilize hillsides that are stable under static conditions and trigger new slope failures or reactivate dormant-historic landslides. Site response during strong ground motion will depend on a

complex interaction between site-specific conditions of earth materials, topography, lithology, hydrology, earthquake wave travel path and distance to the earthquake source.

Characterization of the THP Area

The Copper Top THP area consists of one harvest unit, shown on Figure 1. To describe the THP area we will discuss the "northern half," which is the area along Old Stage Road and northeast across to the pond and northward, and then below that and southward is the "southern half." The southern half is where all the unstable areas were located and cutbanks were generally encountered; refer to Figure 2 for an overview of the THP. Figures 4, 5, and 6 show the unstable areas and cutbanks in more detail. The entire THP area will consist of single tree selection using ground-based operations for harvest. Harvest operations should implement the standard Forest Practice Rules, including WLPZ restrictions and retentions.

Northern Half of THP Area

This portion of the harvest area has gentle to moderate slopes with slope inclinations ranging from 6 to 17 percent slope (equivalent to 15:1 to 6:1 H:V). The ground beneath the lumber mill is relatively flat land. Abundant harvest activities have occurred in this area at the mill and adjacent to it. This area drains toward the incised Class II watercourse through the middle of the THP area and downslope toward the south. A rain catchment pond is located in this part of the site as well. A few Class II and III watercourses extend through the northern half of the THP and flow downslope toward the Gualala River. Skid trails, roads, landings, a pond, and the lumber mill are all located on the gentler topography in this portion of the THP area. As mentioned previously, the Class II/III watercourse that extends through the central portion of the THP has moderate side slopes, but the channel has incised down to bedrock where observed during the reconnaissance.

There were no unstable areas observed in this area; however, a cutbank along Old Stage Road was evaluated. We did note that the ground surface has been disturbed and graded from past harvest activities, refer to our aerial photographic review above for the history. There are no harvest restrictions recommended due to unstable areas in this portion of the THP area; however, we recommend a harvest restriction on the cutbank (feature CB-4) along Old Stage Road.

Southern Half of THP Area

The southern portion of the harvest area, including the disconnected southwest section, generally consists of moderate to steep slopes with slope inclinations ranging from 25 to 82 percent slope (equivalent to 4:1 to 1.2:1 H:V) with steeper cutbank slopes at the rock pit and along the road extending northeast. Multiple Class II and III watercourses extend through this area, draining downslope toward the Gualala River. Bedrock is fairly shallow in this portion of the THP and was visible on steep slopes, at the channel bottom of watercourses, in headscarps of unstable features, and in cutbanks.

All of the unstable areas encountered in this study are located within the southern half of the THP area, and on moderate to steeply sloping terrain. The ground surface has been altered on these slopes to create roads, skid trails, landings for previous timber activities, and potentially man-made incised channels perpendicular to the slope to transport logs (features observed east of the lumber mill within the THP plan).

Slope failures mapped within this section consist of debris slides, landslides, inner gorge, debris flow/torrent tracks and debris slide slope failures. We have included previously mapped unstable areas where we confirmed their existence in the field and have added a few additional unstable areas. Refer to Figures 4, 5, and 6 for our mapping and the Tables in Appendix 2 for the inventory list of both unstable areas and cutbanks.

Harvest restrictions will be implemented on unstable areas and cutbanks in this portion of the THP.

Slope Stability

This engineering geologic evaluation of the Copper Top THP incorporates geologic field mapping, review of aerial photographs and geologic maps, review of GIS and LiDAR data, review of published and unpublished landslide mapping, and review of THPs and THP reviews which overlap or are adjacent to the subject THP. The field inspections were made to select areas where unstable areas were specified by the RPF, CGS geologist, and or observed in aerial photos and/or LiDAR and GIS topographic tools. Our focused field reconnaissance included visiting previously mapped features to confirm their presence or absence and our evaluation included a more in-depth and thorough analysis than simply aerial photographic interpretations. If a previously mapped unstable area was confirmed in our study, it is included in this report. During the field reconnaissance we observed that some mapped unstable areas were mapped as landslides but were cutbanks or landings. This report and mapping supersede previous mapping relative to current mass wasting conditions within the THP area.

During our assessment (April and May 2024), we encountered nine slope failures within the plan area and two areas with multiple overlapping/intersecting slope failures (feature 1a,1b,1c and 9). All of the observed slope instability features are delineated as either debris slides, debris flow/torrent track, inner gorge failures, translational and rotational landslides, or debris slide slopes. The features are described on the landslide inventory and labeled as ID# 1 through 11 on Figures 4, 5, and 6 in Appendix 1. Note that features 1a, 1b, 1c, and 5 are technically outside of the THP area, but in such close proximity to a road and watercourse and surrounded by or adjacent to harvest areas that we have included the features in our mapping and discussion.

The debris slides were generally 1 to 5 feet deep (features 1a, 1b, 1c, 5, 7, 8, 10) and active suspended to dormant historic in terms of activity status, with two dormant historic debris slides 8 to 10 feet deep (features 3 and 11). A dormant historic debris flow/torrent track (feature 2) and active suspended inner gorge (feature 4) were two slope instabilities observed within the THP area. Additionally, there were two areas that consisted of multiple episodes of landsliding and debris slides, unstable areas 1a, 1b, 1c and 9. The features 1a, 1b, 1c consists of a larger dormant historic debris slide (1a) with small active suspended features (1b and 1c) that have occurred within the limits of the larger feature. The unstable area labeled 9 is a fairly large area that includes convergent, coalescing slope failures. Based on the definition of inner gorge (presented above) in the forest practice rules, feature 9, is considered an inner gorge slope instability. The headscarps of feature 9 when viewed in the field were very subdued occupied by straight trees, and there was no evidence of recent activity, scarps, or bare soils. The headscarps appear more apparent when reviewing LiDAR. The lateral boundaries of the feature when viewed in the field and on LiDAR are subdued and vague. The slope failures occur on a steep hillside that slopes down to Class II/III watercourses. Feature 9 appears dormant historic at the headscarp. Upslope of the access road (which is also upslope of Gualala Road), the trees within the feature are leaning and the slope may have experienced some active suspended movement, likely due to the cut excavated for

the access road. The outline of this feature includes the outer boundary of the conglomerate of the slope failures.

The cutbanks are fairly steep and may experience small soil slumps during heavy rains where soil is undermined or unraveling rock where the cut is undermined. Bedrock and residual soil were exposed in the cuts observed. The cutbank failures did not appear to deliver sediment to watercourses. Failed cutbank debris is expected not to exceed 5 cubic yards, but generally less than 1 cubic yard, at any location. If a failure does occur, the material could easily be removed. The cutbank failures are generally considered a maintenance issue with a low potential for impacts related to sediment delivery.

Bedrock was observed to be fairly shallow within the THP, especially on the moderate to steep slopes. Rock was observed in channels, headscarps of unstable areas, and in cutbanks throughout the THP.

Details of the observed features (unstable areas and cutbanks) are described in the Tables in Appendix 2. Unstable areas outside the limits of the harvest boundaries (excluding features 1a, 1b, 1c) were not inspected.

Landslide Mitigation

A primary strategy of reducing mass wasting during forest management operations is to apply the California Forest Practice Rules, including designating WLPZ along watercourses, and evaluating the potential for sediment delivery in unstable areas. In addition to the application of WLPZ per State Forest Practice Rules, harvest restrictions are prescribed for other features and cutbanks to limit the potential for sediment delivery to watercourses. Additionally, harvest restrictions include protections related to public safety and public road accessibility. Detailed recommendations for harvest restrictions are discussed below in the “Recommendations” section. Mass-wasting features that are mapped but beyond the limits of the timber harvest plan are neglected from the recommendations below.

Public Safety

The THP is located near a residential subdivision, Old Stage Road (county road with public access), Gualala Road (county road with public access) and a campground, with the GRT office and other residences located within the limits of the THP boundary. The THP is primarily located downslope of Old Stage Road, except for a small area in the southwest corner. There was one cutbank noted and no unstable areas along Old Stage Road. The THP area is only adjacent to Gualala Road for a short length of road and the unstable areas and cutbanks that are adjacent to the road have harvest restrictions, retention standards, and WLPZ no cut areas. In our opinion, the recommended harvest restrictions and general location of the THP a distance north and upslope of Gualala Road are adequate for keeping the public safe during travel on Gualala Road during harvest operations.

Based on the gentle slopes near the residences and subdivision, the risk of impacts on neighboring properties is considered low.

There is no setback for the GRT office; we understand the owner would like to thin the trees surrounding the building. It is in the best interest of the owner to maintain their office; thus, no restrictions are requested by SHN.

Recommendations

Proposed harvest restrictions for the Cooper Top THP are presented below. Refer to the detailed figures in Appendix 1 for the slope features discussed below.

Timber Harvest Restrictions

Based on the information provided to us by the project forester and our review of site conditions, we recommend the following proposed harvest restrictions be implemented to reduce sediment delivery potential and reduce future erosion potential within the THP. The restrictions below are in addition to the standard forestry practice guidelines for harvest in WLPZ and CCCSTA areas, which will be applied for harvest operations.

- The inner gorge feature 4, which is within the channel and has delivered sediment and has potential to do so in the future, should be designated as no-cut. The application of no-cut zones to inner gorge areas is intended to provide additional mitigation in areas of elevated sediment delivery potential. We recommend a 25-foot, no-cut buffer around the feature. In addition, we do not recommend cable yarding corridors through this feature.
- The debris slide, feature 7, should be considered a no-cut due to the activity status of the feature and proximity to the Gualala Road.
- Feature 9 is an inner gorge feature consisting of multiple coalescing landslides, debris slides, and debris slide slopes. The upper limits of this feature were not experiencing movement and had an abundance of straight trees; thus, we recommend a minimum of 100 square feet of basal area be retained within the upper 125 feet of the mapped feature. The 100-square-foot basal retention applies for a buffer of 25 feet beyond the upper limits of the feature. The areas below 125 feet from the upper boundary of the feature are considered no-cut.
- Features 6 and 8 may be harvested if a minimum of 100 square feet of basal area is retained and a 25-foot buffer is applied, in addition, to a no-cut within 100 feet of Gualala Road (upslope side of Gualala Road).
- The cutbanks are primarily located along timber roads within the THP and a small section of public roads and have potential to affect public safety if steepened or disturbed too drastically; thus, we recommend the cutbanks retain a minimum of 100 square feet of basal area during harvest operations. We have identified eight cutbanks, see Figures 4, 5, and 6. We recommend a 25-foot buffer around cutbank CB-3.
- The following select unstable areas, features 2, 3, 10, and 11 and areas within a buffer of 25 feet may be harvested if a minimum of 100 square feet of basal area is retained.
- The portions of unstable areas and cutbanks that are located within WLPZ should be considered no-cut.
- For public safety measures, we recommend a setback buffer of 50 feet from residential structures.

Harvest operations will consist of single tree selection and will include ground-based logging tactics. A buffer of 25 feet will be applied to all unstable features and specified cutbanks. Unstable areas and cutbanks will be flagged prior to harvest entries, and harvest of trees on unstable areas and cutbanks will be individually marked by the project forester. Unstable areas and cutbanks will be designated as Equipment Exclusion Zones, except if accessing the area via approved roads or skid trails.

Road and Skid Trail Recommendations

The THP involves reopening of abandoned skid trails and roads. Existing roads and skid trails that will be reopened generally only need to be maintained with vegetation removal and maintenance. If soil is moved during the re-opening of roads, the material should not be placed as sidecast fill; soils should be hauled to a stable storage area.

There was a 4-foot-diameter culvert along the Class II/III watercourse downstream of feature 1B on the inboard side of the landing and road. During our reconnaissance, it appeared that the flows on the watercourse overtopped the culvert during the last winter season and flowed onto the landing and likely off the edge of the landing to the watercourse. This event would have delivered sediment from the landing to the watercourse. We recommend performing a hydrologic analysis of the upslope watershed to evaluate the size of the culvert at this location to verify the culvert diameter is adequate. In our opinion, it appears as though the culvert inlet is placed too close to the rock face at this location and that pulling the culvert away from the inboard side would allow for more water to collect prior to draining through the culvert and would limit clogging of the culvert if rock falls collect at the base of the rock face in front of the culvert. This would require digging out the culvert to relocate it farther south by 1 to 3 feet. In addition, maintaining the culvert to ensure it remains clear of debris and free flowing after storms is recommended.

Conclusions

Geologic assessments addressing landslide hazards and risks were conducted for the proposed harvest operations in the Copper Top THP by a State Licensed Certified Engineering Geologist (CEG). The purpose of geologic input for this THP evaluation is/was to assess the proposed harvest area with respect to sediment delivery to watercourses as a result of landsliding.

The logging operations presented in the proposed Copper Top THP have a low probability of accelerating the contribution of landslide-derived sediment downslope to bodies of water and a low risk of affecting public facilities if our recommendations are implemented as stated. No-cut or reduced harvest levels will be implemented on slopes posing a hazard to aquatic or public resources and noted unstable slopes. The restrictive practices proposed on unstable slopes will result in the retention of a variably thick assemblage of timber and shrubs following the completion of operations. Timber remaining will continue to provide canopy coverage, root strength, transpiration, and interception mechanisms. Applying our recommendations presented here in addition to the State Forest Practice Rules during harvest will locally decrease canopy coverage and root strength; however, in our opinion, the overall reduction will be minor and is expected to have a low probability of increasing landslide rates and sediment delivery to watercourses.

Although harvest restriction methods are proposed for unstable areas and cutbanks, future failures cannot be prevented from occurring on these slopes. For example, inner gorge slopes are inherently prone to mass-wasting events and sensitive to high intensity rain events; therefore, it is reasonable to assume that the dynamic hill slope process affiliated with these geomorphic features will continue regardless of whether management activities occur or not. It has been demonstrated that unseasonably high intensity and long-duration rainfall events or large magnitude earthquakes can trigger landslides in these types of geologic environments, whether the ground is forested or not. Consequently, restricting logging operations on these slopes does not preclude ground movement from occurring.

Standard of practice and best professional judgement were used to assess the present and future slope stability risks to assist the RPF in developing the Copper Top harvest plan to ensure it does not increase risk to the resources present in the Big Pepperwood Creek and Gualala River watersheds.

Limitations

The analyses, conclusions, and recommendations contained in this report are based on site conditions that we observed at the time of our investigation, our current understanding of proposed project, and our experience with similar projects in similar geologic environments. We have assumed that the information obtained from our limited observations is representative of conditions throughout each of the harvest units. If differing conditions are encountered during operations, our department should be notified immediately so that we can reevaluate the applicability of our conclusions and recommendations. Such an evaluation may result in reconsidered and/or amended recommendations. If proposed harvest unit locations and intended uses change from those described in this report, our recommendations should also be reviewed.

In addition, because the project area is located in a dynamic environment that is subject to large scale, catastrophic events (great earthquakes, large storms, etc.), we cannot preclude changes that may occur in the future that could alter site conditions. Consequently, we reserve the right to make such adjustments to our report that may be required by passage of time, change in condition, or in the consideration of additional or more pertinent data that may become available in the future.

Figures contained within this report are for illustrative proposes only and the location of the landslides and their dimensions are approximate. Any differences that may be noted in dimensions, locations, etc., are not likely to affect the conclusions contained within this report significantly.

SHN has prepared this report for exclusive use on this project in substantial accordance with the generally accepted practice as it exists in the site area at the time of our study, including time and budget constraints. No warranty is expressed or implied.

Lastly, this report applies only to the sites described above. Because of the high degree of variability in geology in this region, it is not possible to extrapolate the results described herein to any other site. This report is to be considered in its entirety. No part, section, paragraph, sentence, or phrase is to be quoted, evaluated, or otherwise used without considering its context and relationship to the entire report.

References

Best, T.C. (March 15, 2005). “Focused Engineering Geologic Review of a Proposed Timber Harvest Plan.” (Clover THP). Unpublished consultant reports. NR:Best.

---. (January 22, 2024). Unstable Areas in the Big Pepperwood Creek PWS, Map Sheets. NR:Best.

Blake, M.C., Graymer, R.W., and Stamski, R.E. (2002). “Geologic Map and Map Database of Western Sonoma, Northernmost Marin, and Southernmost Mendocino Counties, California.” USGS Miscellaneous Field Studies Map MF-2402.

Branum, D., R. Chen, M. Petersen, and C. Wills. (2016). “Earthquake Shaking Potential for California, ”California Geological Survey Map Sheet 48, Scale 1:1,700,000. NR:CGS.

Bryant, W.A., and Hart, E.W. (2007). “Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act (with index to Earthquake Fault Zones Maps)”. California Division of Mines and Geology Special Publication 42. NR:California Department of Conservation, CGS.

California Department of Conservation. (2024). Landslide inventory maps. Accessed at: https://maps.conservation.ca.gov/cgs/lsi/app/.

California Geological Survey (CGS). (January 2013a). Note 45, Guidelines for Engineering Geologic Report for Timber Harvest Plans. NR:CGS.

---. (January 2013b). Note 50, Factors Affecting Landslides in Forested Terrain. NR:CGS.

---. (February 22, 2024). Focused Engineering Geologic Pre-Consultation for Copper Top Timber Harvesting Plan, Gualala River watershed, Mendocino County, California.

California Department of Conservation, Division of Mines and Geology (CDMG). (1990). “Engineering Geologic Review of Timber Harvesting Plan 1-90-652 MEN”, October 19, 1990. NR:CDMG.

California Department of Forestry and Fire Protection (CAL FIRE). (2008). “5400 Forest Practice Regulation and Timber Taxation” (Preharvest Inspection, THP 1-08-086 MEN), August 23, 2008. State of California:CAL FIRE.

---. (2024). “California Forest Practice Rules 2024, Title 14, California Code of Regulations, Chapters 4, 4.5 and 10.” State of California:CAL FIRE.

Cruden, D.M., and Varnes, D.J. (1996). Landslide Types and Process, in Turner, A.K., and Schuster, R.L., (editors), Landslides Investigation and Mitigation: National Research Council Transportation Research Board Special Report 247, pg. 36-75.

Davenport, C.W. (1984). Geology and Geomorphic features related to Landsliding, Gualala 7.5’ Quadrangle, Mendocino County, California, OFR 84-48.

Fuller, M.S., Haydon, W.D., Purchell, M.G., Custis, K. (2002). Geologic and Geomorphic Features Related to Landsliding, Gualala River Watershed, Sonoma and Mendocino Counties, California, CGS

Fuller, M.S. and Custis, K. (2002). Report on the Geologic and Geomorphic Characteristics of the Gualala River Watershed, California, CGS.

Google Earth Pro. (2024). Gualala Road. Accessed April 2024.

Gualala Redwoods, Inc. (2008). Excerpt from Belladonna II THP 1-08-0086 MEN, undated.

Keaton, J.R., and DeGraff, J.V. (1996). Surface Observation and Geologic Mapping, in Turner, A.K., and Schuster, R.L., (editors), Landslides Investigation and Mitigation: National Research Council Transportation Research Board Special Report 247, pg. 178-230.

Simpson G.D., J.S. Noller, K.I. Kelson, and W.R. Lettis. (1996). Logs of Trenches Across the San Andreas Fault, Archae Camp, Fort Ross State Historic Park, Northern California: Final Technical Report for National Earthquake Hazard Reduction Program Grant #1434-94-G-2474.

Slosson, James E. (July 1, 1974). State of California, Special Studies Zones, Gualala Quadrangle. NR:CDMG.

Spittler, T.E. and Haydon, W.D. (1999). “Engineering Geologic Review of Timber Harvesting Plan 1-99-460 MEN”, December 9, 1990. NR:CDMG.

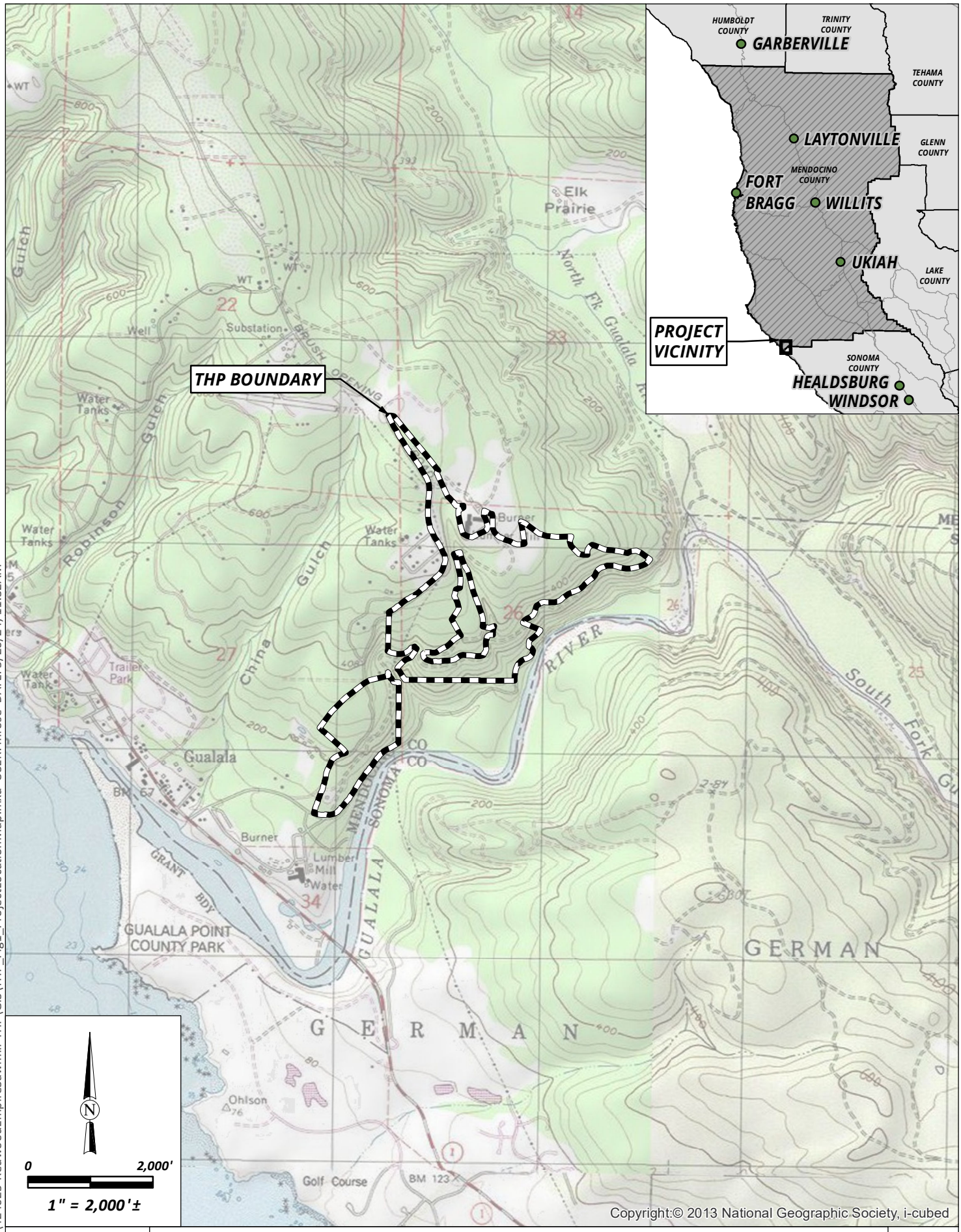
Spittler, Thomas E. (October 16, 1989). “Memorandum: Engineering Geologic Review of Timber Harvesting Plan 1-90-652 MEN.” Santa Rosa, CA:CGS.

Wentworth, C.M., Jones, D.L., and Brabb, E.E. (1998). Geology and regional correlation of the Cretaceous and Paleogene rocks of the Gualala block, California, Society of Economic Paleontologists and Mineralogists, Book 84, p. 3-26.

Williams, J. W., and T. L. Bedrossian. (1976). Geologic factors in coastal zone planning, Schooner Gulch to Gualala River, Mendocino County, California: California Division of Mines and Geology, Open-file Report 76-3, 36 p., 2 maps.

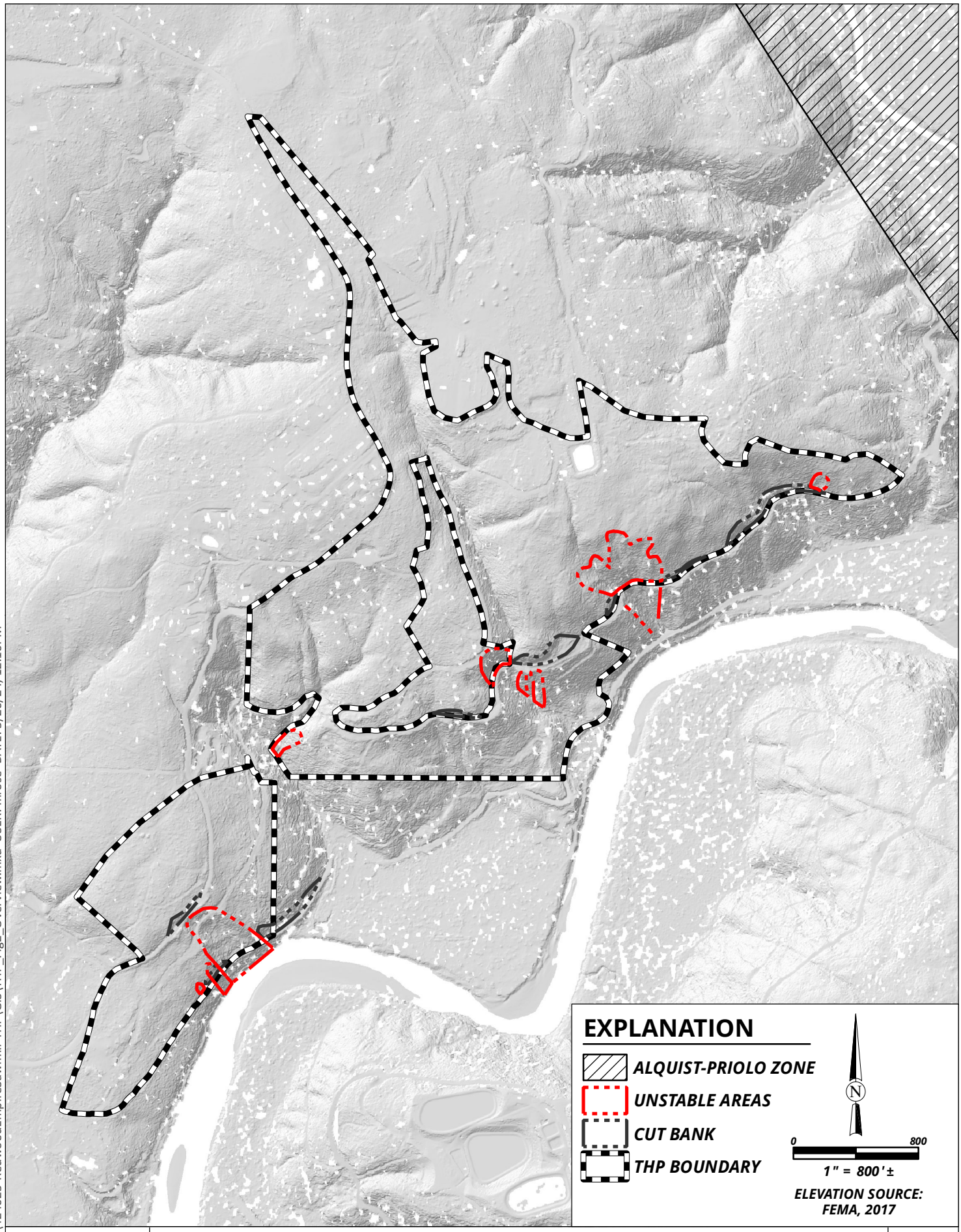
Copper Top Figures

1



P:\Willits\2024\424025-RedwoodEmpireSawmill-THP\GIS\THP_Fig1_ProjectLocationMap.mxd USER: mrose DATE: 5/20/24, 11:32AM

Redwood Empire Sawmill Copper Top THP Gualala, CA	**Project Location Map** May 2024 - 424025	**Figure** **1**



P:\Willits\2024\424025-RedwoodEmpireSawmill-THP\GIS\THP_Fig2_Overview.mxd USER: mrose DATE: 5/20/24, 12:10PM

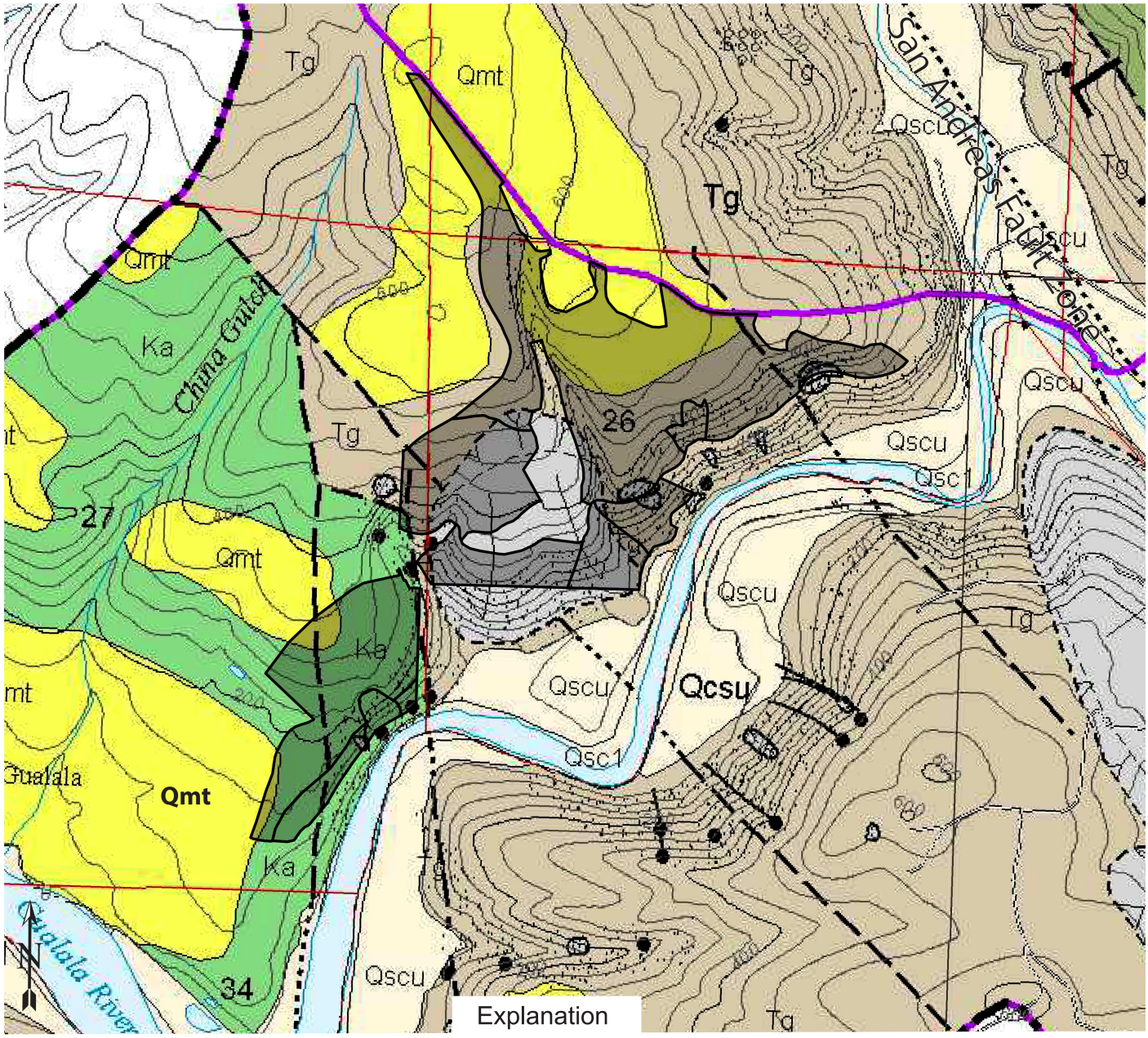
Redwood Empire Sawmill
Copper Top THP
Gualala, CA

404

THP Overview

May 2024 - 424025

Figure
2



Explanation

0 60' 1200'

Watershed sub-basin boundary

Geologic contact, dashed where approximately located

Rotational/Translational Landslide

Earthflow

Debris Slide

Debris Flow/Torrent Track

Debris Slide Amphitheater/ Slope

Inner gorge

Active Landslide (too small to show at map scale)

Disrupted ground

Slopes >70 percent

75 Strike and dip of bedding

Shaded area represents estimated limits of proposed harvest area.

Qmt	Marine terrace deposits
Qscu	Undifferentiated stream channel deposits
Qsc1	Stream channel deposits
Tg	German Rancho Formation
Ka	Gualala Formation, Anchor Bay member

Base Map Modified from: Fuller and others (2002)

MAP SOURCE FROM CGS
PRE-CONSULTATI9ON FOR THP

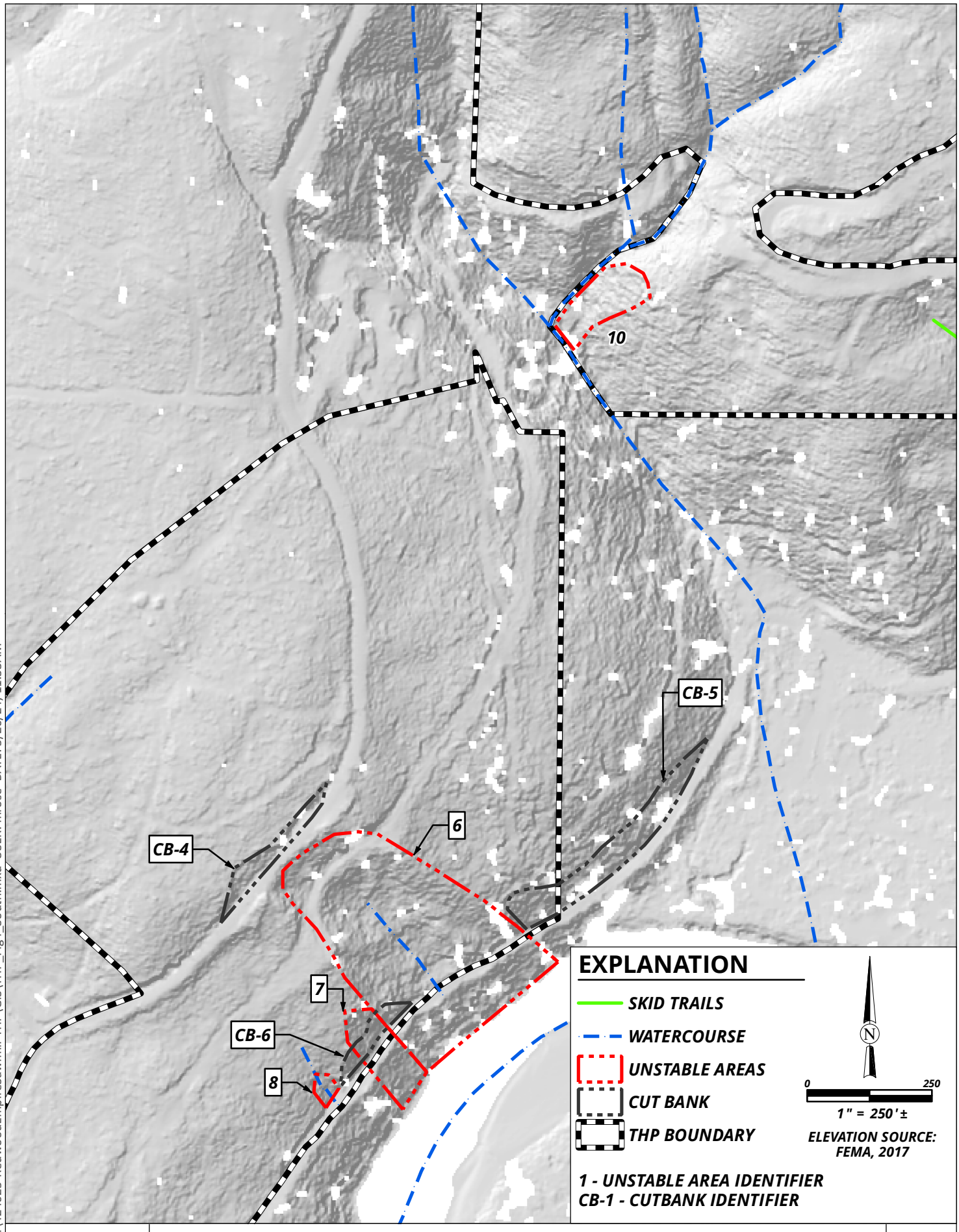
P:\Willits\2024\424025-RedwoodEmpireSawmill-THP\GIS\THP_Fig3_GeologicMap.ai USER: mrose DATE: 4/5/24, 1:21PM

Redwood Empire Sawmill
Copper Top THP
Gualala, CA

405

Geologic Map
Fuller et. al, 2002
May 2024 - 424025

Figure
3



P:\Willits\2024\424025-RedwoodEmpireSawmill-THP\GIS\THP_Fig4_South.mxd USER: mrose DATE: 5/20/24, 11:33AM

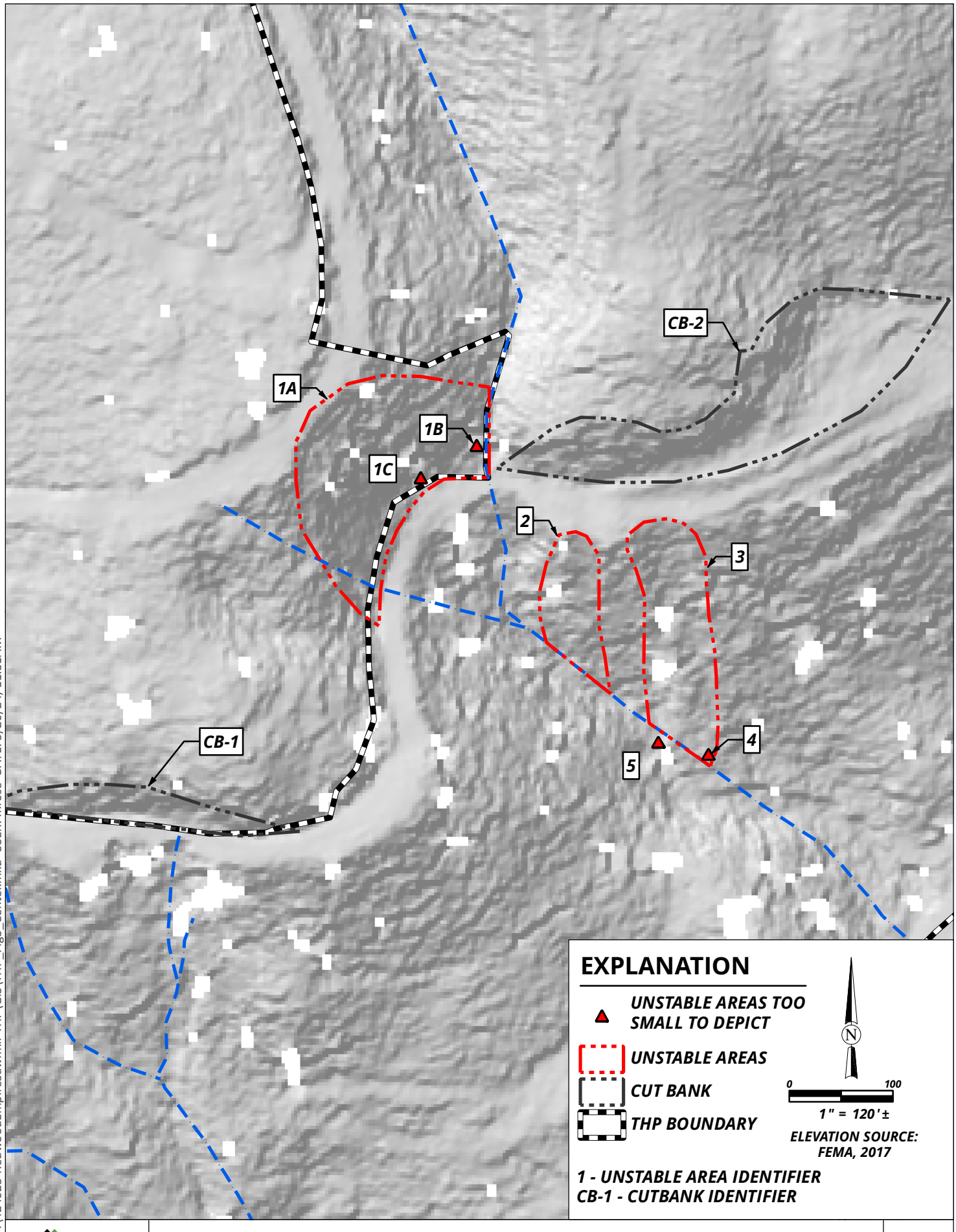
Redwood Empire Sawmill
Copper Top THP
Gualala, CA

406

Southern Landslides

May 2024 - 424025

Figure
4



EXPLANATION

- UNSTABLE AREAS TOO SMALL TO DEPICT
- UNSTABLE AREAS
- CUT BANK
- THP BOUNDARY

N

0 100

1" = 120'±

ELEVATION SOURCE: FEMA, 2017

1 - UNSTABLE AREA IDENTIFIER
CB-1 - CUTBANK IDENTIFIER

P:\Willits\2024\424025-RedwoodEmpireSawmill-THP\GIS\THP_Fig5_Center.mxd USER: mrose DATE: 5/20/24, 11:31AM

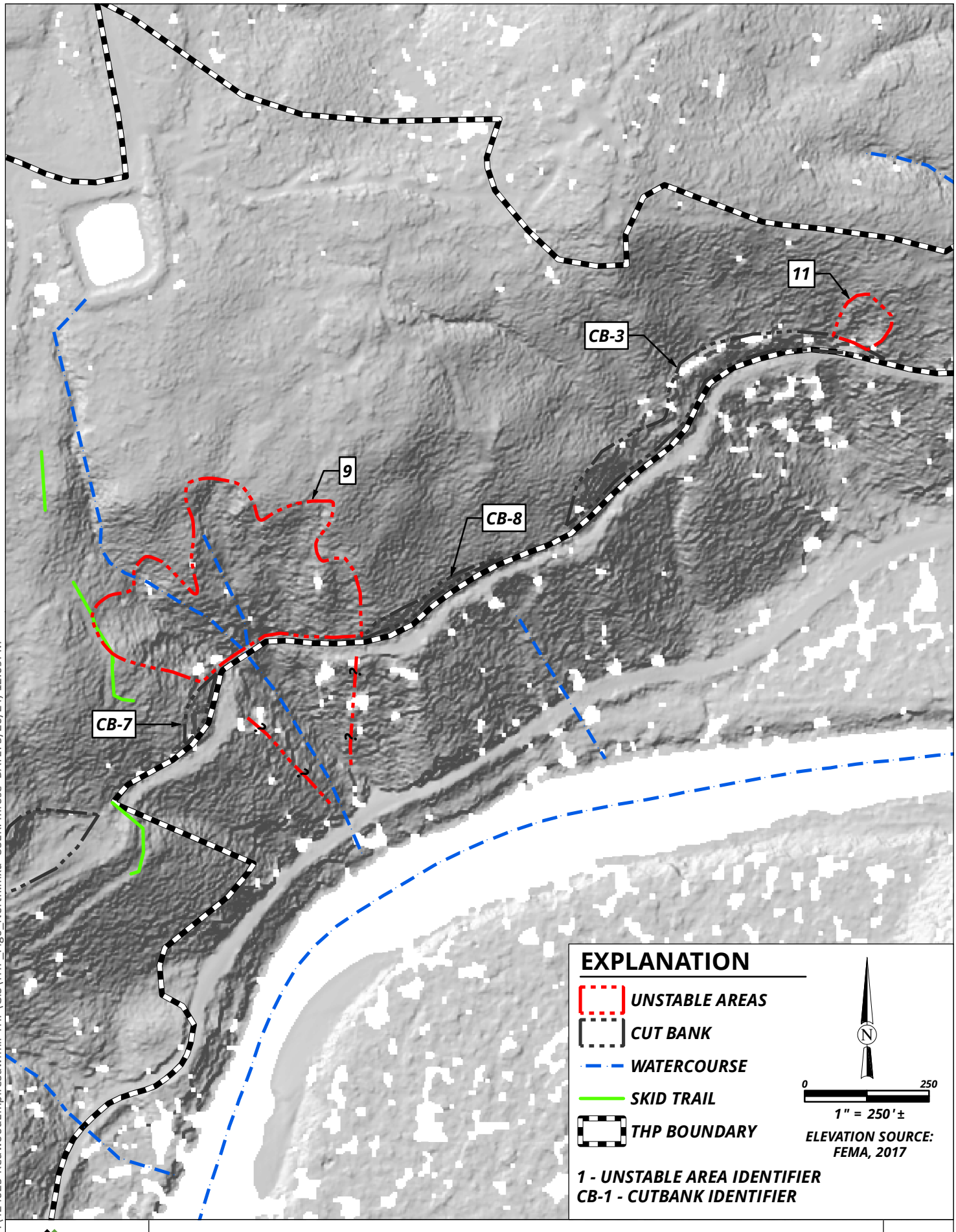
Redwood Empire Sawmill
Copper Top THP
Gualala, CA

407

Center Landslides

May 2024 - 424025

Figure **5**



EXPLANATION

- UNSTABLE AREAS
- CUT BANK
- WATERCOURSE
- SKID TRAIL
- THP BOUNDARY

N

0 250

1" = 250'±

ELEVATION SOURCE: FEMA, 2017

1 - UNSTABLE AREA IDENTIFIER
CB-1 - CUTBANK IDENTIFIER

P:\Willits\2024\424025-RedwoodEmpireSawmill-THP\GIS\THP_Fig6_North.mxd USER: mrose DATE: 5/20/24, 12:09PM

Redwood Empire Sawmill
Copper Top THP
Gualala, CA

408

Northern Landslides

May 2024 - 424025

Figure **6**

Copper Top THP Landslide and Cutbank Tables and Key

2

Landslide Table Key

For use with THP Landslide Inventory Table

Failure Mode

DS	Debris landslide	A debris landslide is characterized by unconsolidated rock, colluvium, and soil that has moved downslope along a relatively shallow translational failure plane. Debris slides may form steep, unvegetated scars in the head regions and irregular, hummocky deposits in the toe region.
DFTT	Debris flow/Torrent track	Debris flow/torrent tracks often begin as saturated debris slides and are characterized by long stretches of bare, generally unstable stream channel banks that have been scoured and eroded by the extremely rapid movement of water-laden debris. Generally shallow, rapid translational slides that commonly initiate on steep slopes.
TR	Translational/ Rotational slide	Characterized by somewhat cohesive slide mass and failure plane that is relatively deep when compared to that of a debris slide of similar area extent. The sense of motion is linear (translational) or arcuate (rotational). Can be relatively small (few square yards) to very large (hundreds of acres).
EF	Earthflow	Movement along failure surfaces that are short lived, generally closely spaced, and many times not preserved. The slide mass is not preserved as an intact, cohesive unit but instead falls apart and becomes a mix of soil and rock debris. The mass moves or flows as a semi-viscous, plastic-state, saturated material. Earthflows can vary in size from small shallow failures to very large, deep-seated slides that involve entire hillsides. Frequently exhibit a long lobe-like morphology.
LS	Landslide	Possess features or styles of movement suggestive of two or more types of sliding. The upper portion of the landslide appears to be behaving as a rotational or translational slide but then, as movement continues, the toe (or lower portions of the failure) disintegrates into a failure more appropriately characterized as an earthflow. Can be quite variable in size, up to hundreds of acres, and generally are deep seated. This designation should also include cutbank, cut slope and fill slope failures as well as rock fall and rock topple modes. See descriptions of different landslide types below. RF – Rock fall = slopes failures characterized by sudden catastrophic failure of relatively steep rock slopes. The failure mass descends mostly through the air and/or along a very steep surface with little or no shearing. They can be quite variable in size. Generally, rock debris accumulates at the toe of the slope, where it can be removed by other processes (i.e. stream erosion).

LS (continued)	Landslide	RT – Rock topple = forward rotation of blocks of earth, debris or rock. The debris accumulates at the base of the slope and can be removed by other processes. TS – Talus slope = rock fragments of any size or shape (usually coarse and angular) derived from and lying at the base of a cliff or very steep, rocky slope.
DSS	Debris Slide Slope	Slopes sculpted by numerous debris slide events.
IG	Inner Gorge	A geomorphic feature formed by coalescing scars originating from landsliding and erosional processes caused by active stream erosion.
DG	Disturbed Ground	An area heavily modified by ground-based logging. Usually low gradient slopes with evidence of steam powered cable yarding (long, linear furrows; saw-cut woody debris; old cables and tall-holds) or earthwork from bulldozers (mounds of debris, cut slopes, skid trails, layouts).

Landslide Activity Status Key

Activity State	Main Scarp	Lateral Flanks	Internal Morphology	Vegetation	Toe Relationships	Additional Notes
Active, Suspended, or dormant historic A, AS, DH A – Active AS - Suspended	Sharp; unvegetated	Sharp; unvegetated streams at edge	Undrained depressions; hummocky topography; angular blocks separated by scarps	Absent or sparse on lateral and internal scarps; trees tilted and/or bent; disrupted vegetation	Main valley stream pushed by landslide; floodplain covered by debris; lake may be present	Fresh cracks, water ponding in depressions of rotation features.
	Landslides that are currently moving, includes first time movements and reactions Landslides that are not currently moving but have moved within the last annual cycle of seasons Less than 100 years old					
Dormant – young DY	Sharp; partly vegetated.	Sharp; partly vegetated; small tributaries to lateral streams	Undrained and drained depressions; hummocky topography; internal cracks vegetated; cracks in mass are absent	Younger or different type or density than adjacent terrain; older tree trunks may be bent	Same as for active class but toe may be modified by modern stream	No record of historic movement, Movement 100-5,000 years old.
Dormant – mature DM	Smooth; rounded, vegetated	Tributaries extend onto body of slide	Smooth, rolling topography; disturbed internal drainage network	Different type or density than adjacent terrain but same age. Vegetation may obscure hummocks.	Terraces covered by slide debris; modern stream not constricted but wider upstream floodplain	Toe area experienced erosion: new drainages established within slide. Movement 5,000 to 10,000 years old.
Dormant – old or relict DO	Dissected; vegetated	Vague lateral margins; no lateral drainage	Smooth, undulating topography; normal stream pattern	Same age, type, and density as adjacent terrain	Terraces cut into slide debris; uniform modern floodplain	Gullies and canyons cut into mass; depressions filled. Movement older than 10,000 years.

Geomorphic Association at feature initiation point

SS	Streamside
SW	Swale Channel
ST	Stream Channel
PL	Planar
RRF	Road Fill
RLF	Landing Fill
RCB	Cutbank
IGS	Inner Gorge Slope
SK	Skid Trail Location

Road Type

PH	Primary Haul Road
SA	Secondary Access Road
AS	Abandoned Skid Trail

Stream Class

I	Fish bearing at some time of the year
II	Insect and/or amphibian habitat at some time of the year; fish present seasonally
III	Moves sediment but does not provide habitat for insects or amphibians

Table of Unstable Areas in Copper Top THP with Prescriptions

LANDSLIIDE LABEL	FAILURE MODE	ACTVITY STATUS	SEDIMENT DELIVERY	STREAM CLASS	GEO ASSOCIATION	ROAD TYPE & ADDITIONAL NOTES	RX RECOMMENDATION
1a	DS	DH	Y	II/III	PL	Straight and leaning trees, ~3' headscarp, subdued but hollowed, edge of road, 100% slope	Outside of THP, above skid trail
1b	DS	AS	Y	II	SS	Along creek, 20' high, 25' wide, rock exposed in headscarp, 1-2' thick	Outside of THP, along creek
1c	DS	AS	N	-	RCB	Above skid trail, ~150' high/wide, pampas grass, 1-2' thick, 100-140% slope	Outside of THP, above skid trail
2	DFTT	DH	Y	II	RLF/PL/SS	Below landing to creek, 1-2' thick, hollowed, young trees growing within slide	100 sq-ft basal retention and No Cut in WLPZs
3	DS	DH	Y	II	RLF/PL/SS	Below landing to creek, 8-10' thick, hollowed, subdued side scarps, straight trees growing	100 sq-ft basal retention and No Cut in WLPZs
4	IG	AS	Y	II	IGS	5' high, 20' wide, along creek, within feature 3	No Cut
5	DS	AS	Y	II	SS/IG	20-25' high, 30' wide, 2-3' thick, rock exposed in headscarp	Outside of THP
6	LS	AS/DH	Y	I	PL/ST/RRF	5' thick, DH at headscarp, no bare soils, feature extends above skid trail to fill along downslope edge of fill. AS/DH at Guala Road where leaning trees are abundant, some active erosion along road due to cut made for road and for maintenance. No recent movement below road (outside of THP).	100 sq-ft basal retention, No Cut in WLPZs, NO Cut within 100 ft of Gualala Road
7	DS	A/AS	Y	I	PL/RCB	60' wide, 40' tall above road, 5' thick, rock exposed in headscarp, pampas grass, cutbank along base.	No Cut
8	DS	DH	N	-	RCB	Extends above cutbank, 20' wide, 70' high, 3' deep, surrounds watercourse, pampas grass.	100 sq-ft basal retention, No Cut in WLPZs, NO Cut within 100 ft of Gualala Road

Table of Unstable Areas in Copper Top THP with Prescriptions

LANDSLIIDE LABEL	FAILURE MODE	ACTVITY STATUS	SEDIMENT DELIVERY	STREAM CLASS	GEO ASSOCIATION	ROAD TYPE & ADDITIONAL NOTES	RX RECOMMENDATION
9	LS/DS/Dss = IG	DH	Y	I/II	PL/ST	Converging, coalescing slope failures (debris slide slopes, translational and rotational landslides, and debris slides), lateral boundaries and headscarps generally subdued in field, no activity at headscarps. Features 5-8' thick, straight redwood trees present. Steep slope. Cutbank along base for road.	100-sq-ft basal retention in upper 125 feet of feature, No Cut below 125 feet, No Cut in WLPZs
10	DS	DH	Y	II	PL/ST	2-3' thick, crooked trees, minimal trees, subdued shape	100 sq-ft basal retention and No Cut in WLPZs
11	DS	DH	N	-	RCB	East edge of cutbank, extends upslope, straight trees, no bare soils	100 sq-ft basal retention and No Cut in WLPZs

Table of Cutbanks in Copper Top THP with Prescriptions

LANDSLIIDE LABEL	SEDIMENT DELIVERY	STREAM CLASS	GEO ASSOCIATION	ROAD TYPE & ADDITIONAL NOTES	RX RECOMMENDATION
CB-1	N	-	SK/RCB	Rock (sandstone and claystone) interbeds in cut, 35' high	Outside of THP
CB-2	N	-	PL/SK/RCB	Rock (sandstone) exposed, quarry pit, 30' high, no trees	100 sq-ft basal retention and No Cut in WLPZs
CB-3	N	-	PL/RCB	Along road, 5' up to 30-40' high, no recent movement	100 sq-ft basal retention and No Cut in WLPZs, 25 foot buffer
CB-4	N	-	RCB	Along road, 13' high, few trees, minimal trees	100 sq-ft basal retention and No Cut in WLPZs
CB-5	N	-	RCB	Along road, leaning trees, native soil exposed, few trees	100 sq-ft basal retention and No Cut in WLPZs
CB-6	N	-	RCB	Along road, leaning trees, native soil exposed, extends through unstable features, few trees	100 sq-ft basal retention and No Cut in WLPZs
CB-7	N	-	RCB	Few straight small trees, along road	100 sq-ft basal retention and No Cut in WLPZs
CB-8	N	-	RCB	Along road	100 sq-ft basal retention and No Cut in WLPZs

Eureka, CA | Redding, CA | Willits, CA | Fort Bragg, CA | Coos Bay, OR | Klamath Falls, OR

MEMORANDUM

DATE: February 22, 2024

TO: Mark Pugsley, RPF
Redwood Empire
PO Box 156
Cloverdale, CA 95425

FROM: Patrick Brand
Department of Conservation
California Geological Survey
135 Ridgway Avenue
Santa Rosa, California 95401

SUBJECT: Focused Engineering Geologic Pre-Consultation for Copper Top Timber Harvesting Plan, Gualala River watershed, Mendocino County, California

Background and Purpose:

Per your January 6, 2024 email request, CGS is please to have been invited to review the proposed Copper Top Timber Harvest Plan (THP) that you are preparing. We inspected portions of the proposed THP area on February 6, 2024.

The THP area is in the Big Pepperwood Creek Planning Watershed (1113.850201) within the Gualala River watershed in Mendocino County. The area reviewed is located in Sections 22, 23, 26, and 27 of T11N, R15W (MDBL&M) on the Gualala 7.5-minute quadrangle. Two public roads are located within or adjacent to the proposed THP area: Old Stage Road passes through a portion of the plan area and marks portions of the upslope boundary of the THP, while Gualala Road is located downslope of the entire THP area and marks portions of the downslope boundary of the THP. The Gualala Redwood Timber (timberland owner) office is located within the proposed THP area, and the Gualala Arts Center and numerous residential and non-residential structures are located adjacent to the proposed plan area.

The purpose of this review is to assist in identifying geologic issues that should be included and addressed in the THP. Specifically, we reviewed draft THP Operations Maps and a draft RPF discussion of unstable areas provided via email on January 22, 2024 to assess the mapping of unstable areas and the proposed operations at these unstable areas. Our inspection was limited in scope and did not include the entire THP area. It is not the intent of this letter to disclose or review proposed operations on all on-site unstable, landslide, and/or erosion areas.

Geologic Conditions:

The proposed THP is located in an area underlain by Tertiary German Rancho Formation and Cretaceous Gualala Formation Anchor Bay member bedrock that is locally mantled with Quaternary marine terrace deposits (Blake and others, 2002; Fuller and others, 2002; Figure 1). German Rancho Formation is described as massive marine sandstone, conglomerate, and interbeds of sandstone and mudstone; while the Gualala Formation Anchor Bay member is described as interbeds of marine sandstone and mudstone interspersed with massive sandstone and conglomerate. The marine terrace deposits are described as clast supported deposits of relatively uniform grain size overlying wave-cut benches (Fuller and others, 2002). Bedrock observed during our site visit area generally consisted of yellow brown sandstone that appeared to be consistent with descriptions of the German Rancho Formation. Outcrops of Gualala Formation Anchor Bay Member were not observed during our limited inspection. As well, outcrops of marine terrace deposits were not observed during the inspection, but we noted areas characterized by white to brownish yellow sandy loam soils exposed along existing road surfaces that we interpreted to be derived from marine terrace deposits.

The THP is located as close as about ¼-mile west of the San Andreas Fault Zone (SAFZ), which consists of a relatively wide, active fault zone that trends along the South Fork Gualala River and North Fork Gualala River valleys in the THP area, and several associated fault splays are mapped extending through the THP area (Fuller and others, 2002; Blake and others, 2002; Koehler and others, 2005; Figure 1). Regional tectonic activity has regionally deformed the bedrock within the plan area, and accordingly, Blake and others (2002) show varying bedding orientations across the THP site, ranging from 10- to 60-degree dips to the northeast to 25 degrees to the southwest.

Observations and Discussion:

1). Published Landslide mapping. Fuller and others (2002; Figure 1) identify one relatively large, dormant rockslide, several historically active debris slides, several small landslides (too small to delineate at 1:24,000 scale), and areas of debris slide slopes in the vicinity of the proposed THP area. This includes mapped landslides adjacent to the proposed THP boundaries and/or apparent appurtenant roads shown on the draft THP maps (Figures 2 and 3) that are potentially in a position where the proposed operations may adversely impact slope stability within the unstable features. The provided draft discussion describes that CGS landslide maps were reviewed, and that a supplemental figure will be included in the THP, though reference to the specific landslide maps reviewed and the supplemental figure were not included in the draft information.

2). Background Geologic Information. The provided draft discussion does not include, reference, or discuss unpublished (but publicly available) landslide mapping that may have been reviewed during THP preparation. This includes unstable areas disclosed in past overlapping/adjacent THP's, including THP's 1-08-086 MEN, 1-05-023 MEN, 1-99-560 MEN, and 1-90-652 MEN. As well, this includes maps and tables of unstable areas compiled by the former landowner, Gualala Redwoods Inc. (GRI), compiled from aerial photo analysis by Tim Best, CEG and field observation by foresters (GRI, 2004). Our review of these documents shows that there are identified unstable areas within and

adjacent to the proposed THP area that are potentially in a position where the proposed operations may adversely impact slope stability within the unstable features.

We discussed that this relevant geologic information should be included, referenced, and/or discussed in the proposed THP in order to provide complete and accurate information to the review team, and so that the review team can know that the RPF utilized this information during plan preparation and can assess the proposed operations at previously mapped unstable areas.

3). Mapped Unstable Areas: The provided draft THP maps and discussion identify three unstable areas within the proposed THP boundary (Figures 2 and 3) and describe that each unstable areas will have a 25-foot Equipment Exclusion Zone and no cut buffer around the feature. During the inspection, we reviewed Unstable Areas 1 and 2. We noted that the flagging of the mapped unstable area was not clear in some locations, and that the flagging was generally hung at the scarp rather than with a 25-foot buffer from the margin of the unstable area. We also noted that both Unstable Areas 1 and 2 are larger than shown on the THP maps. We did not observe Unstable Area 3 during our site visit.

The mapped unstable areas do not appear to correspond to landslides shown by Fuller and others (2002; Figure 1). The draft unstable areas discussion reports that "the RPF did not observe any obvious indicators of potential slope instability associated with the features that appear on the CGS maps" (Fuller and others, 2002; Figure 1) and that no protection measures are proposed for these features. During our inspection, we observed unstable areas consisting of dormant-historic shallow-seated debris slides at several of the locations shown by Fuller and others (2002) and our review of LiDAR derived hillshade imagery suggests the presence of landslides at other locations where Fuller and others (2002) show landslides (Figure 4). We also reviewed the GRI unstable area database and past THP's and noted that there are unstable areas depicted in the THP vicinity in these documents that are not identified in the provided draft documents. During the inspection, we confirmed the presence of several of these unstable areas depicted in the previous THP's and the GRI unstable areas database, generally consisting of shallow seated debris slides and/or road-related failures.

The THP proposes ground-based selection (single-tree selection or Coastal Commission Special Treatment Area) harvesting on or near these unmapped unstable areas. Based on our observation, these unmapped unstable areas are in a location where the proposed operations could result in adverse impacts to slope stability, including potential impacts to public safety (e.g. Gualala Road located downslope).

Due to the number of apparent unstable areas discussed above that are not identified in the proposed THP, evaluation of the proposed harvesting operations and the development of mitigation measures designed to minimize adverse impacts to slope stability within and upslope of unstable features by a California licensed Professional Geologist will minimize the potential for adverse impacts to slope stability that could result in impacts to public safety and sediment delivery to watercourses. We discussed that either a licensed Professional Geologist should be consulted to evaluate the

proposed operations at unstable areas, or that that the THP should be redesigned such that operations will be avoided at unstable areas.

4). Inner Gorge Geomorphology. During our review of unpublished geologic data described above (Observation #2), we noted several instances where the GRI landslide database (GRI, 2004) records landslides within and downslope of the THP boundary where the noted "slope type" is inner gorge. The database reports that these observations were entered into the GRI database by Tim Best, CEG.

Kelsey (1988) describes inner gorge as a physiographic feature where slopes that are adjacent to the stream channel are steeper (part of the inner gorge) than those further upslope, with a recognizable break in slope separating the steep inner gorge slopes from the upper, less steep valley slopes. Kelsey (1988) describes that inner gorge formation evolves in drainage basins with relatively competent, homogenous rock types that are undergoing persistent base level lowering (most likely through tectonic uplift), and that mass slope failures (debris slides) are the primary sculpting mechanism of the inner gorge. This process occurs over a time frame of tens to hundreds of thousands of years and can be temporally and physically intermittent depending on controlling factors.

California Geological Survey Note 50 (CGS, 2013) defines inner gorge as a geomorphic feature that consists of the area of the stream bank situated immediately adjacent to the stream channel, having a side slope of generally over 65 percent, and being situated below the first break in slope above the stream channel. They are formed by coalescing scars originating from landsliding and erosional processes caused by active stream erosion.

During our review, we observed that the Gualala River and tributaries in the THP vicinity are incised into the gently to moderately sloping landscape that Fuller and others (2002; Figure1) and Blake and others (2002) interpret as an uplifted marine terrace platform. During our review we noted steep to very steep slopes descending to the Gualala River and tributary watercourses below a relatively well-defined break in slope at several locations within the proposed THP vicinity, though past construction of roads at or near this break in slope has somewhat obscured the location in places. The published and unpublished geologic information discussed under Observations #1 and #2 show a number of unstable areas along these slopes, and Lidar derived hillshade imagery shows morphology consistent with past debris sliding, as well as the presence of several debris fan type deposits at the toe of the slope that appear to be related to past landsliding. Field observation generally confirmed the presence of many of these unmapped unstable areas, and outside of these unstable areas, we also frequently noted the presence of vegetated bowl-shaped head scarps at or near the break in slope and spoon-/teardrop-shaped depressions/hollows extending downslope that appear to be indicative of former debris slide activity. These observations are consistent with the conditions for inner gorge morphology described by Kelsey (1988) and the definition of inner gorge geomorphology from CGS Note 50 (CGS, 2013) and the Forest Practice Rules. Based on our observations, we conclude that portions of the THP area have morphology consistent with inner gorge geomorphology (Figure 4).

The THP proposes ground-based selection (single-tree selection or Coastal Commission Special Treatment Area) harvesting in these areas. We discussed our observations and

that the Forest Practice Rules require that "*All operations on slopes exceeding 65% within an inner gorge of a Class I or II Watercourse shall be reviewed by a Professional Geologist prior to plan approval, regardless of whether they are proposed within a WLPZ or outside of a WLPZ*". Evaluation of the proposed harvesting operations within the inner gorge areas and the development of mitigation measures designed to minimize adverse impacts to slope stability within and upslope of these areas by a California licensed Professional Geologist will minimize the potential for adverse impacts to slope stability that could result in impacts to public safety and sediment delivery to watercourses. We discussed that either a licensed Professional Geologist would be consulted to evaluate the proposed operations on inner gorge slopes, or that that the THP should be redesigned such that operations would be avoided in the inner gorge areas.

Recommendations:

The proposed THP proposes operations on unmapped unstable areas as well as inner gorge geomorphology. These operations have the potential to result in adverse impacts to slope stability, resulting in potential impacts to public safety (Gualala Road, Old Stage Road, plan adjacent structures) and/or sediment delivery to watercourses.

As discussed during the February 6, 2024 site visit, the proposed harvesting operations within and adjacent to the mapped and unmapped unstable areas, as well as the inner gorge geomorphology, should be evaluated by a California licensed Professional Geologist, with respect to slope stability, public safety, and sediment delivery. The geologist should provide a report detailing the evaluation consistent with CGS Note 45, including descriptions of the unstable areas, an evaluation of the proposed operations and a description of developed mitigation measures. Any mitigation measures developed by the geologist should be included in Section II of the THP, so that they are enforceable.

Alternatively, the THP can be redesigned to exclude and/or avoid operations on unstable areas and inner gorge slopes.

DocuSigned by:
Patrick Brand
88251E7D6C154B2...

Patrick K. Brand, CEG # 2542
Engineering Geologist

Concur
2/22/2024

DocuSigned by:
David Longstreth
54F8C8D3098D441...

Date, David Longstreth, CEG # 2068
Senior Engineering Geologist

Attachments: Figures 1 through 4

References:

Blake, M.C., Graymer, R.W., and Stamski, R.E., 2002, Geologic Map and Map Database of Western Sonoma, Northernmost Marin, and Southernmost Mendocino Counties, California, USGS Miscellaneous Field Studies Map MF-2402, web page: http://pubs.usgs.gov/mf/2002/2402/, scale: 1:100,000.

CAL FIRE, 2008, Preharvest Inspection Report, THP 1-08-086 MEN, Unpublished memo prepared by Ken Margiott, dated August 23.

California Geological Survey (CGS), 2005, Engineering Geologic Review of Timber Harvesting Plan 1-05-023 MEN; unpublished memo to William Snyder, Cal Fire; prepared by Dave Longstreth; dated April 19.

California Division of Mines and Geology (CGS), 1999, Engineering Geologic Review of Timber Harvesting Plan 1-99-560 MEN; unpublished memo to Ross Johnson, Cal Fire; prepared by Wayne Haydon; dated December 9.

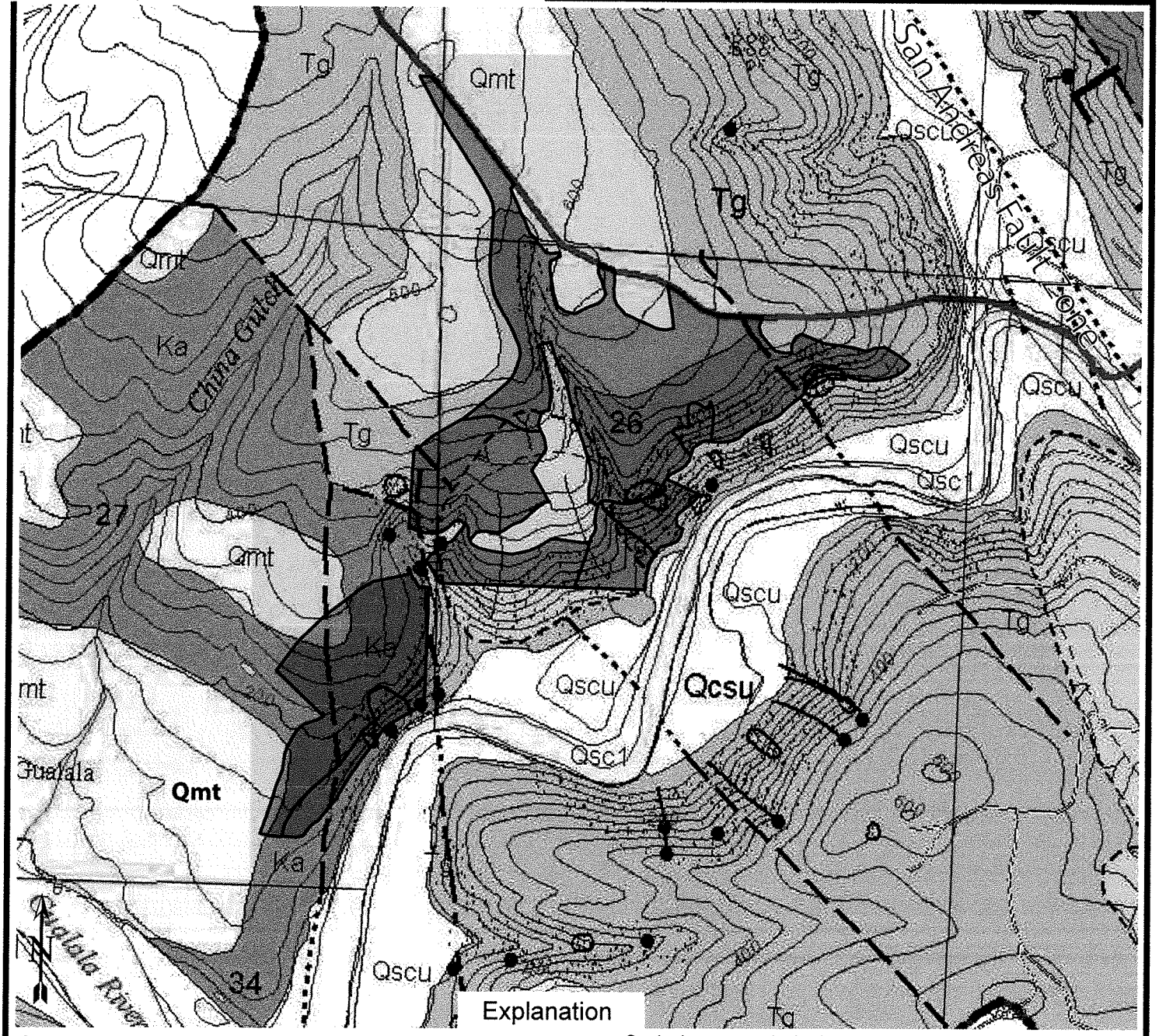
California Division of Mines and Geology (CGS), 1990, Engineering Geologic Review of Timber Harvesting Plan 1-90-652 MEN; unpublished memo to W.T. Imboden, Cal Fire; prepared by Tom Spittler; dated October 16.

Fuller and others, 2002, Geology and Geomorphology for Gualala Watershed Assessment: California Department of Conservation, California Geological Survey, CGS CD 2002-08, map scale 1:24000.

Gualala Redwoods Inc. (GRI), 2004/undated, Landslide database, Engineering Geologic report and database prepared for GRI timberlands; compiled from aerial photo analysis (1947, 1959, 1970, 1984, 1998, 2004) by Tim Best, CEG and field observation by foresters; most recent update date unknown.

NAIP Imagery: 2022

LiDAR Data: CA FEMA R9 Mendocino HF 2017 one meter dataset; tile x45y430; available at https://apps.nationalmap.gov/downloader/#/



Explanation

0 60' 1200'

Watershed sub-basin boundary

Geologic contact, dashed where approximately located

Rotational/Translational Landslide

Earthflow

Debris Slide

Debris Flow/Torrent Track

Debris Slide Amphitheater/ Slope

Inner gorge

Active Landslide (too small to show at map scale)

Disrupted ground

Slopes >70 percent

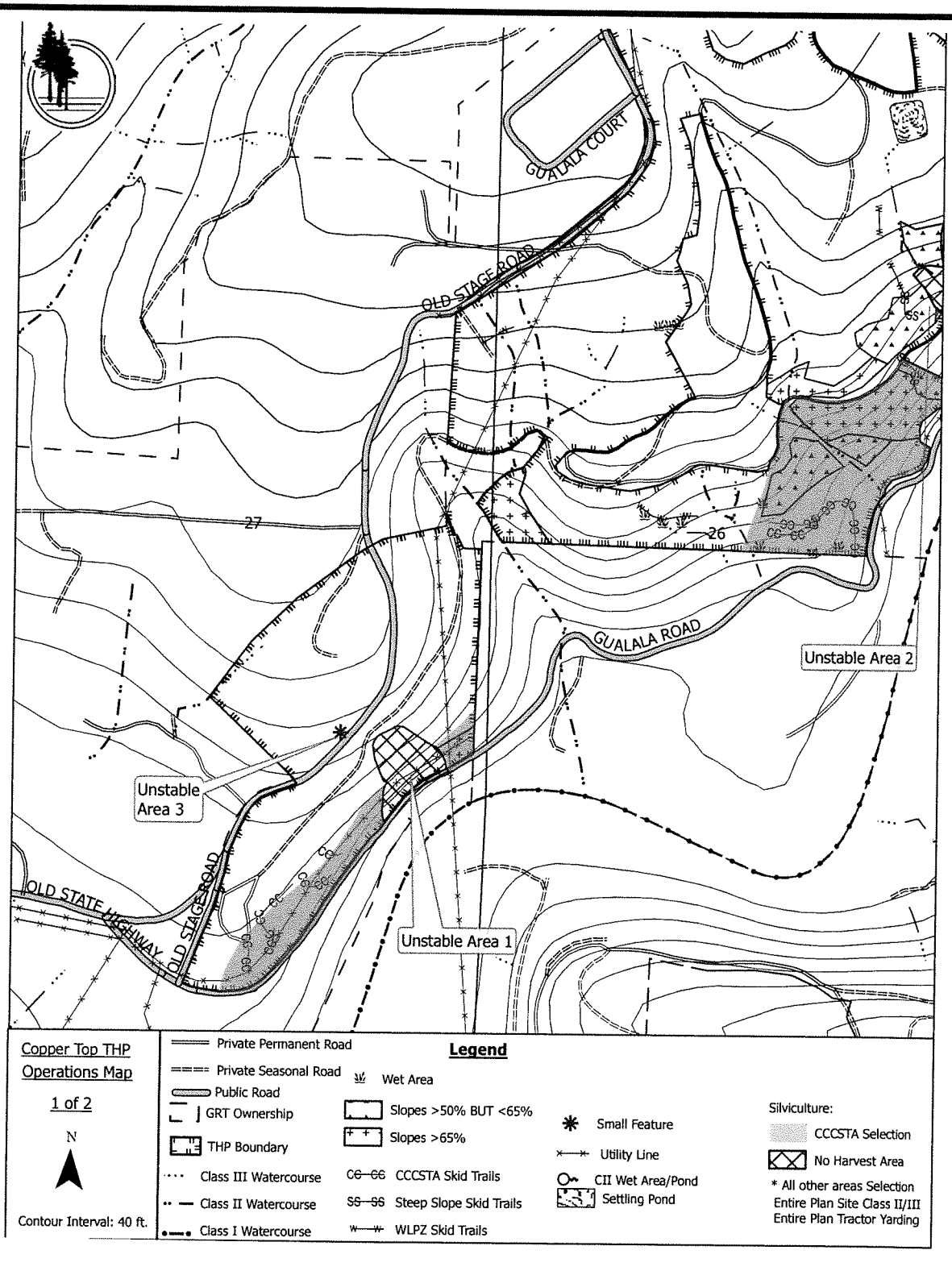
75 Strike and dip of bedding

Shaded area represents estimated limits of proposed harvest area.

Qmt	Marine terrace deposits
Qscu	Undifferentiated stream channel deposits
Qsc1	Stream channel deposits
Tg	German Rancho Formation
Ka	Gualala Formation, Anchor Bay member

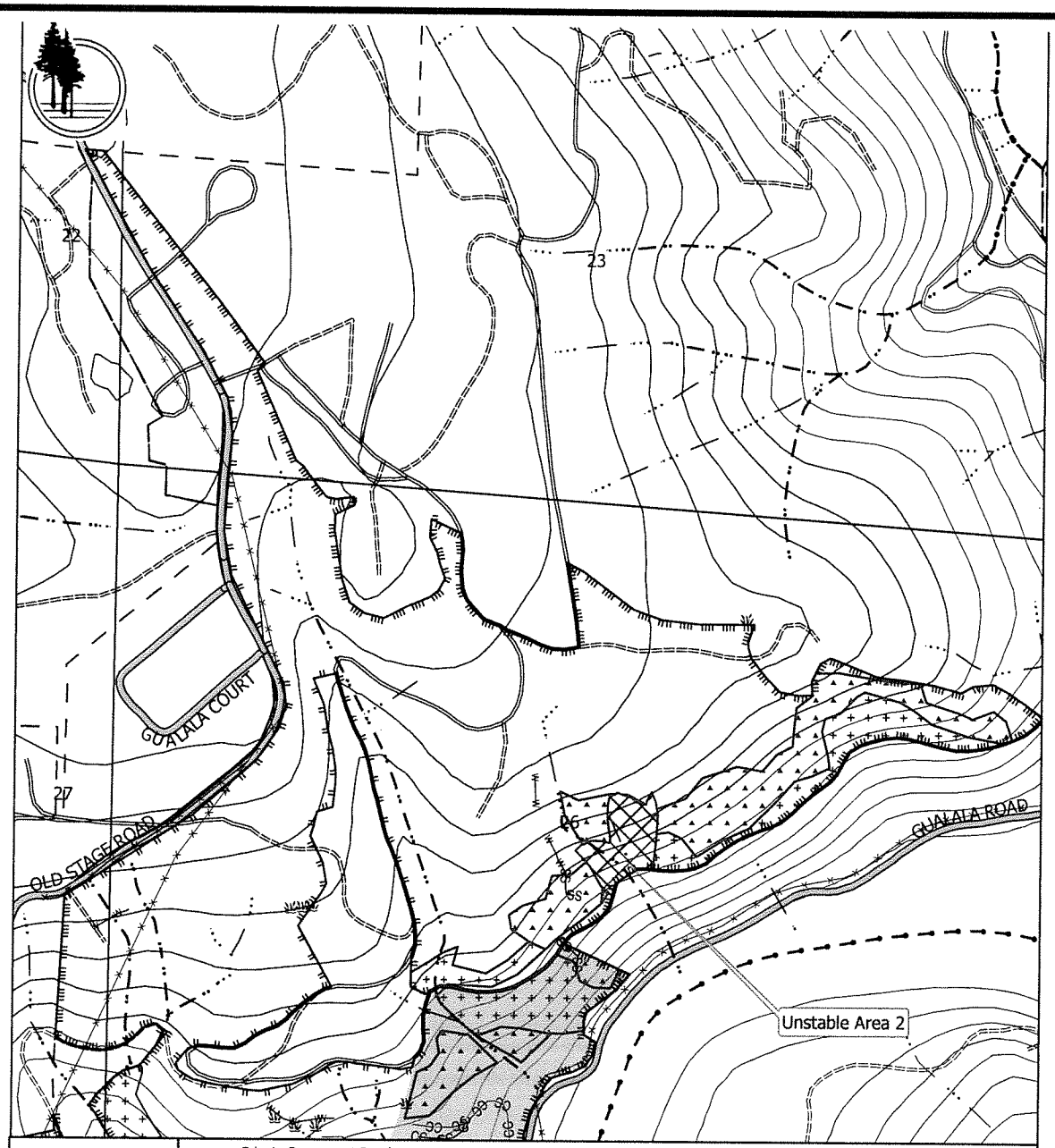
Base Map Modified from: Fuller and others (2002)

Date: 2/2024	Regional Geologic Map To Accompany Preconsultation for Copper Top THP	Figure: 1
Scale: 1" = 1200'		



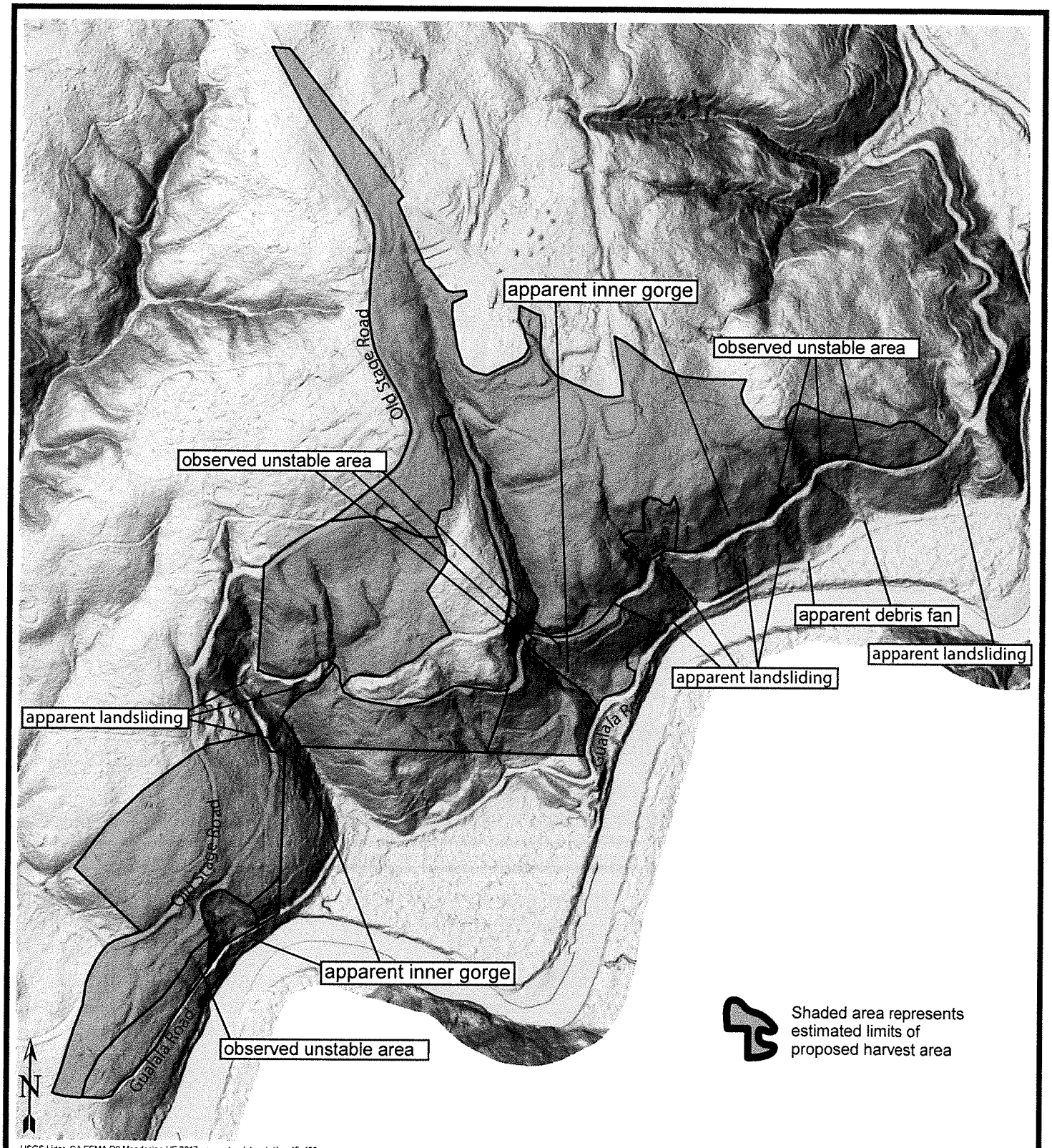
Base Map provided by RPF

Date: 2/2024	Site Map	Figure:
Scale: 1" = 700'	To Accompany	2
	Preconsultation for	
	Copper Top THP	



Base Map provided by RPF

Date: 2/2024	Site Map	Figure:
Scale: 1" = 700'	To Accompany	3
	Preconsultation for	
	Copper Top THP	



Date: 2/2024	Lidar Hillshade Map	Figure:
Scale: 1" = 800'	To Accompany	4
	Preconsultation for	
	Copper Top THP	

Unstable Areas in the Big Pepperwood Creek PWS
Map Sheet 1 of 3

January 23, 2024

N

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

SCALE 1:24000

INSTABILITY

Class I Watercourse

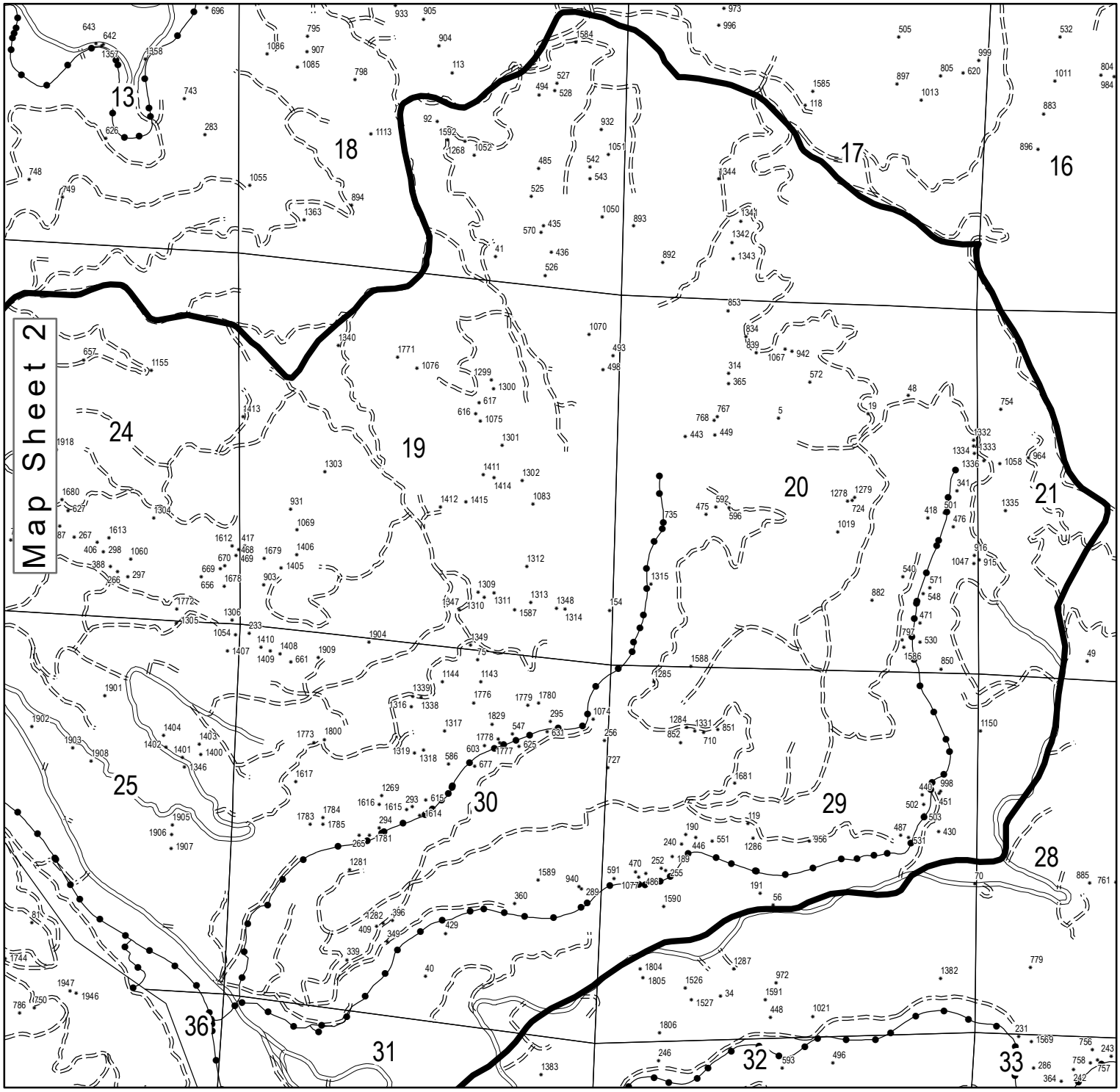
TRANSPORTATION

EXISTING PAVED PUBLIC

EXISTING PRIVATE PERMENANT

EXISTING PRIVATE SEASONAL

Big Pepperwood Creek PWS



Unstable Areas in the Big Pepperwood Creek PWS
Map Sheet 2 of 3

January 23, 2024

N

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

SCALE 1:24000

INSTABILITY

HYDROGRAPHY

Class I

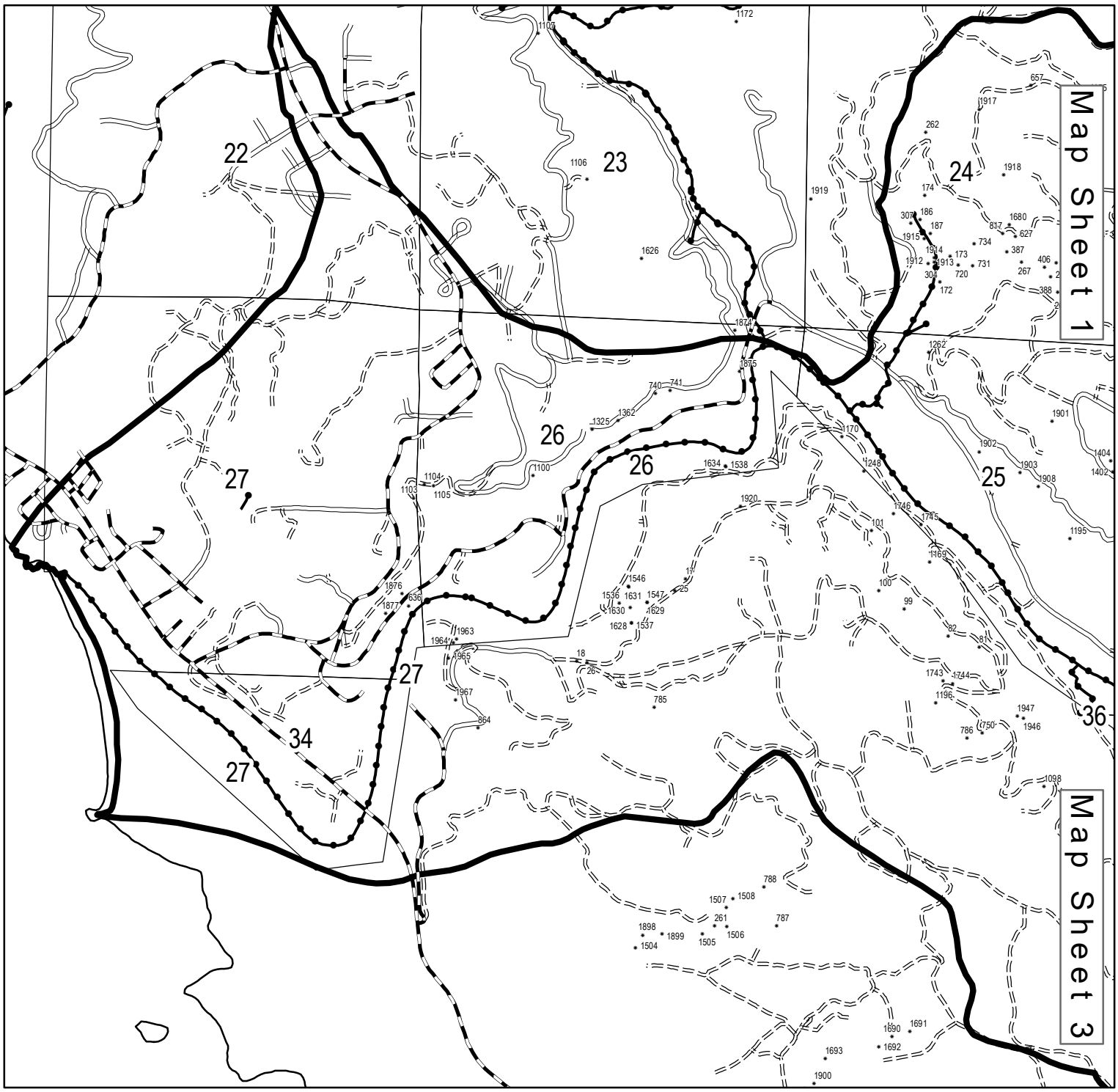
TRANSPORTATION

EXISTING PAVED PUBLIC

EXISTING PRIVATE PERMENANT

EXISTING PRIVATE SEASONAL

Big Pepperwood Creek PWS



Unstable Areas in the Big Pepperwood Creek PWS
Map Sheet 3 of 3

January 13, 2024

N

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

SCALE 1:24000

INSTABILITY

TRANSPORTATION

EXISTING PAVED PUBLIC

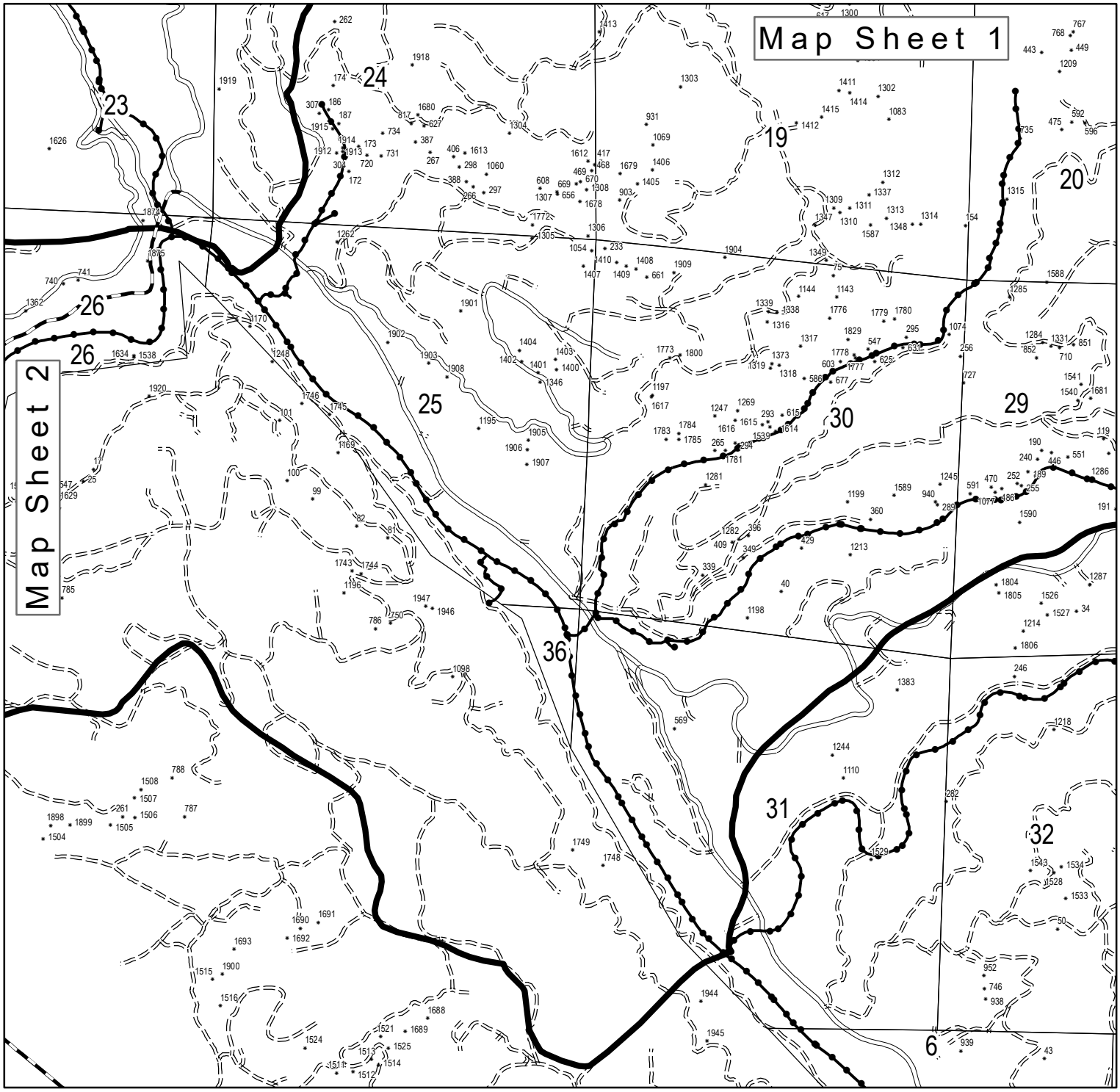
EXISTING PRIVATE PERMENANT

EXISTING PRIVATE SEASONAL

HYDROGRAPHY

Class I

Big Pepperwood Creek PWS



Landslides*

Planning Watershed *Big Pepperwood Creek*

Map#	ID #	Inspector	Year**	Source	Slide Type	Slope Type	Slope Form	Association	Slope	Stream	Total Yds	Delivered
5	5	Best CEG	1984	Photos	Skid Trail	Headwall Swale	Divergent	Mgt. Relate	85+	NA	389	97
17	17	Best CEG	1984	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	75-84	NA	889	222
18	18	Best CEG	1984	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	65-74	NA	889	222
19	19	Best CEG	1984	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	30-49	NA	389	194
25	25	Best CEG	1984	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	65-74	NA	889	222
26	26	Best CEG	1984	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	65-74	NA	889	222
40	40	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	389	97
41	41	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	30-49	NA	889	222
48	48	Best CEG	1959	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	65-74	NA	4,074	3,055
56	56	Best CEG	1998	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	0-29	NA	7,778	5,833
75	75	Best CEG	1984	Photos	Hill Slope	Headwall Swale	Convergent	Natural	50-64	NA	222	55
81	81	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	0-29	NA	1,481	1,110
82	82	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	0-29	NA	1,481	1,110
92	92	Best CEG	1947	Photos	Hill Slope	Headwall Swale	Convergent	Natural	0-29	NA	648	486
99	99	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	0-29	NA	6,519	4,888
100	100	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	0-29	NA	11,852	8,889
101	101	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	0-29	NA	11,852	8,889
119	119	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	30-49	NA	6,519	1,629
154	154	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	0-29	Ukn	1,481	1,110
172	172	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	30-49	NA	1,481	740
173	173	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	648	324
174	174	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	1,481	1,110
186	186	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	75-84	NA	11,852	8,889
187	187	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	18,519	13,888
189	189	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Convergent	Natural	65-74	NA	222	166
190	190	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Convergent	Natural	85+	NA	389	292
191	191	Best CEG	1998	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	65-74	NA	1,778	1,333
233	233	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Convergent	Natural	85+	NA	67	49
240	240	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Convergent	Natural	65-74	NA	222	111
252	252	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Divergent	Natural	85+	Ukn	4,074	3,055
255	255	Best CEG	1984	Photos	Hill Slope	Inner Gorge	Divergent	Natural	75-84	Ukn	222	166
256	256	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Divergent	Natural	65-74	NA	67	16
262	262	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	Ukn	648	486
265	265	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	50-64	Ukn	1,481	1,110
266	266	Best CEG	1959	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	0-29	Ukn	2,370	1,777
267	267	Best CEG	1959	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	65-74	Ukn	6,519	4,888
289	289	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural	30-49	NA	1,481	1,110
293	293	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge		Natural	65-74	Ukn	648	486
294	294	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge		Natural	50-64	Ukn	648	486
295	295	Best CEG	1959	Photos	Stream Bank Failure	Inner Gorge		Natural	85+	Ukn	648	486
297	297	Best CEG	1947	Photos	Hill Slope	Inner Gorge		Natural	0-29	Ukn	389	292
298	298	Best CEG	1947	Photos	Hill Slope	Inner Gorge		Natural	30-49	NA	389	97
304	304	Best CEG	1970	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	0-29	Ukn	4,074	3,055
307	307	Best CEG	1970	Photos	Hill Slope	Inner Gorge	Plannar	Natural	30-49	Ukn	1,481	1,110
314	314	Best CEG	1984	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	65-74	Ukn	370	277
339	339	Best CEG	1970	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	0-29	NA	1,481	370
341	341	Best CEG	1959	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	50-64	Ukn	648	486
349	349	Best CEG	1984	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	65-74	NA	1,037	777
360	360	Best CEG	1959	Photos	Road	Inner Gorge	Divergent	Mgt. Relate	50-64	NA	389	292

Map#	ID #	Inspector	Year**	Source	Slide Type	Slope Type	Slope Form	Association	Slope	Stream	Total Yds	Delivered
365	365	Best CEG	1998	Photos	Road	Inner Gorge	Divergent	Mgt. Relate	50-64	NA	389	194
387	387	Best CEG	1984	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	75-84	Ukn	14,444	10,833
388	388	Best CEG	1984	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	0-29	Ukn	12,963	9,722
396	396	Best CEG	1970	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	75-84	NA	389	97
406	406	Best CEG	1984	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	75-84	Ukn	1,481	1,110
409	409	Best CEG	1970	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	4,074	2,037
417	417	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	30-49	Ukn	389	292
418	418	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	NA	67	49
429	429	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	Ukn	370	277
430	430	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	NA	370	92
435	435	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	Ukn	1,037	777
436	436	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	65-74	Ukn	2,370	1,777
440	440	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	Ukn	222	166
443	443	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	85+	Ukn	222	166
446	446	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	Ukn	389	292
449	449	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	NA	389	292
451	451	Best CEG	1998	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	85+	NA	389	97
468	468	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	85+	Ukn	1,481	1,110
469	469	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	85+	Ukn	1,481	1,110
470	470	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	Ukn	370	185
471	471	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	85+	Ukn	370	277
475	475	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	Ukn	648	324
476	476	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	Ukn	4,074	3,055
485	485	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	30-49	Ukn	2,370	1,185
486	486	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	50-64	Ukn	67	49
487	487	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	50-64	NA	222	111
493	493	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	65-74	Ukn	1,481	1,110
494	494	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	50-64	Ukn	648	486
498	498	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	30-49	Ukn	389	292
501	501	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	0-29	Ukn	222	166
502	502	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	50-64	Ukn	222	166
503	503	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	0-29	Ukn	222	166
525	525	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	30-49	Ukn	648	486
526	526	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	65-74	Ukn	648	486
527	527	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	75-84	Ukn	1,481	1,110
528	528	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	30-49	Ukn	1,481	1,110
530	530	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	50-64	Ukn	370	277
531	531	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	30-49	Ukn	648	486
540	540	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	222	166
542	542	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	Ukn	648	486
543	543	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	Ukn	648	324
547	547	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	889	444
548	548	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	30-49	Ukn	222	166
551	551	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	75-84	Ukn	389	292
569	569	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	0-29	NA	1,481	370
570	570	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	30-49	Ukn	648	486
571	571	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	Ukn	648	486
572	572	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	Ukn	1,481	1,110
586	586	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Convergent	Natural	50-64	Ukn	4,074	3,055
591	591	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Convergent	Natural	50-64	Ukn	889	444
592	592	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Convergent	Natural	75-84	NA	2,444	611
596	596	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Convergent	Natural	50-64	NA	1,481	740
603	603	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Divergent	Natural	50-64	Ukn	1,481	1,110
608	608	Best CEG	1970	Photos	Hill Slope	Inner Gorge	Plannar	Natural		Ukn	16,898	8,448

Map#	ID #	Inspector	Year**	Source	Slide Type	Slope Type	Slope Form	Association	Slope	Stream	Total Yds	Delivered
615	615	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural	50-64	Ukn	1,481	1,110
616	616	Best CEG	1970	Photos	Hill Slope	Inner Gorge		Natural	0-29	Ukn	222	166
617	617	Best CEG	1970	Photos	Hill Slope	Inner Gorge		Natural	50-64	Ukn	222	166
625	625	Best CEG	1984	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	30-49	Ukn	389	292
627	627	Best CEG	1984	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	50-64	NA	648	486
631	631	Best CEG	1984	Photos	Road	Inner Gorge	Divergent	Mgt. Relate	0-29	Ukn	370	277
636	636	Best CEG	1984	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	0-29	Ukn	389	292
645	645	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate		Ukn	1,527	763
656	656	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	65-74	Ukn	1,481	1,110
657	657	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	NA	648	486
661	661	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	Ukn	2,370	1,185
669	669	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	30-49	Ukn	648	486
670	670	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	65-74	Ukn	648	486
677	677	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	Ukn	222	166
710	710	Best CEG	1998	Photos	Road		Divergent	Mgt. Relate	65-74	NA	67	16
720	720	Best CEG	1959	Photos	Skid Trail		Convergent	Mgt. Relate	65-74	NA	648	486
724	724	Best CEG	1998	Photos	Stream Bank Failure		Convergent	Natural	50-64	NA	67	16
727	727	Best CEG	1998	Photos	Stream Bank Failure		Divergent	Natural	85+	NA	67	16
731	731	Best CEG	1959	Photos	Stream Bank Failure		Plannar	Natural	65-74	NA	1,481	740
734	734	Best CEG	1959	Photos	Stream Bank Failure		Plannar	Natural	0-29	NA	2,370	1,185
735	735	Best CEG	1970	Photos	Stream Bank Failure			Natural	0-29	Ukn	6,519	4,888
740	740	Best CEG	1970	Photos	Road		Convergent	Mgt. Relate	50-64	NA	389	97
741	741	Best CEG	1970	Photos	Road		Convergent	Mgt. Relate	50-64	NA	222	55
750	750	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	50-64	NA	222	55
754	754	Best CEG	1947	Photos	Hill Slope		Convergent	Natural	50-64	Ukn	222	166
767	767	Best CEG	1998	Photos	Hill Slope		Convergent	Natural	50-64	NA	67	33
768	768	Best CEG	1998	Photos	Hill Slope		Convergent	Natural	30-49	NA	67	33
785	785	Best CEG	1984	Photos	Stream Bank Failure		Plannar	Natural	0-29	Ukn	648	486
786	786	Best CEG	1984	Photos	Stream Bank Failure		Plannar	Natural	30-49	Ukn	648	486
797	797	Best CEG	1998	Photos	Hill Slope		Plannar	Natural	85+	NA	67	16
817	817	Best CEG	1984	Photos	Road		Convergent	Mgt. Relate	85+	NA	389	97
834	834	Best CEG	1984	Photos	Road		Divergent	Mgt. Relate	50-64	NA	389	194
839	839	Best CEG	1984	Photos	Road		Divergent	Mgt. Relate	50-64	NA	889	222
850	850	Best CEG	1984	Photos	Road		Divergent	Mgt. Relate	50-64	NA	1,481	740
851	851	Best CEG	1984	Photos	Road		Divergent	Mgt. Relate	50-64	NA	1,481	370
852	852	Best CEG	1984	Photos	Road		Divergent	Mgt. Relate	50-64	NA	648	162
853	853	Best CEG	1984	Photos	Road		Divergent	Mgt. Relate	75-84	Ukn	648	324
864	864	Best CEG	1984	Photos	Road		Plannar	Mgt. Relate	30-49	NA	2,444	611
882	882	Best CEG	1959	Photos	Skid Trail		Convergent	Mgt. Relate	30-49	NA	67	49
892	892	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	30-49	NA	648	486
893	893	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	65-74	Ukn	648	486
903	903	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	Ukn	6,519	4,888
915	915	Best CEG	1998	Photos	Skid Trail		Convergent	Mgt. Relate	85+	NA	67	33
916	916	Best CEG	1998	Photos	Skid Trail		Convergent	Mgt. Relate	75-84	NA	67	49
931	931	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	65-74	NA	1,481	740
932	932	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	75-84	Ukn	648	486
940	940	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate	30-49	NA	648	324
942	942	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate	85+	NA	648	486
956	956	Best CEG	1970	Photos	Skid Trail		Divergent	Mgt. Relate	50-64	NA	389	97
964	964	Best CEG	1959	Photos	Skid Trail		Divergent	Mgt. Relate	30-49	NA	222	55
998	998	Best CEG	1984	Photos	Skid Trail		Divergent	Mgt. Relate	30-49	NA	648	324
1019	1019	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	65-74	NA	389	194
1047	1047	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	30-49	NA	648	324
1050	1050	Best CEG	1970	Photos	Skid Trail			Mgt. Relate	30-49	Ukn	2,444	1,833

Map#	ID #	Inspector	Year**	Source	Slide Type	Slope Type	Slope Form	Association	Slope	Stream	Total Yds	Delivered
1051	1051	Best CEG	1970	Photos	Skid Trail			Mgt. Relate	30-49	Ukn	2,444	1,833
1052	1052	Best CEG	1970	Photos	Skid Trail			Mgt. Relate	50-64	Ukn	2,444	1,833
1054	1054	Best CEG	1970	Photos	Skid Trail			Mgt. Relate	0-29	Ukn	1,481	1,110
1058	1058	Best CEG	1998	Photos	Hill Slope		Convergent	Natural	85+	NA	67	33
1060	1060	Best CEG	1970	Photos	Hill Slope		Convergent	Natural	30-49	Ukn	648	486
1067	1067	Best CEG	1970	Photos	Hill Slope		Plannar	Natural	65-74	NA	389	292
1088	1088	Best CEG	1970	Photos	Stream Bank Failure		N/A	Natural		Ukn	6,471	4,853
1098	1098	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	9,010,298	0
1100	1100	Best CEG	1959	Photos	Road		Convergent	Mgt. Relate	30-49	Ukn	67	33
1103	1103	Best CEG	1959	Photos	Road		Plannar	Mgt. Relate	50-64	Ukn	889	444
1104	1104	Best CEG	1959	Photos	Road		Plannar	Mgt. Relate	65-74	Ukn	67	16
1105	1105	Best CEG	1959	Photos	Road		Plannar	Mgt. Relate	50-64	Ukn	67	16
1143	1143	Best CEG	1970	Photos	Hill Slope		Convergent	Natural	50-64	NA	5,926	0
1144	1144	Best CEG	1970	Photos	Hill Slope		Convergent	Natural	30-49	NA	5,926	0
1150	1150	Best CEG	1970	Photos	Hill Slope		Plannar	Natural	65-74	NA	222	166
1169	1169	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	119,194	0
1170	1170	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	169,366	0
1195	1195	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	2,125,677	0
1196	1196	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	590,261	0
1197	1197	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	224,662	0
1198	1198	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	184,370	0
1199	1199	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	339,888	0
1209	1209	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	208,882	0
1210	1210	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	75,912	0
1211	1211	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	181,924	0
1212	1212	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	200,166	0
1213	1213	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	1,092,839	0
1245	1245	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	215,941	0
1247	1247	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	387,987	0
1248	1248	Best CEG	1900	Photos	Translational Slide		N/A	Natural	30-49	NA	29,630	0
1249	1249	Best CEG	1984	Photos	Stream Bank Failure		N/A	Natural		NA	4,399	3,299
1262	1262	Best CEG	1998	Photos	Road	Headwall Swale	Plannar	Mgt. Relate		NA	648	324
1268	1268	Best CEG	1998	Photos	Road	Inner Gorge	Plannar	Mgt. Relate		NA	389	97
1269	1269	Best CEG	1998	Photos	Hill Slope		Convergent	Natural		NA	2,370	1,777
1277	1277	Best CEG	1998	Photos	Stream Bank Failure		Convergent	Natural		NA	14,052	10,538
1278	1278	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		NA	222	111
1279	1279	Best CEG	1998	Photos	Road	Inner Gorge	Plannar	Mgt. Relate		NA	222	111
1280	1280	Best CEG	1998	Photos	Road	Headwall Swale	Convergent	Mgt. Relate		NA	19,641	14,731
1281	1281	Best CEG	1998	Photos	Landing		Convergent	Mgt. Relate		NA	867	433
1282	1282	Best CEG	1998	Photos	Landing		Convergent	Mgt. Relate		NA	119	0
1283	1283	Best CEG	1998	Photos	Stream Bank Failure	Headwall Swale	Convergent	Natural		NA	3,804	1,902
1284	1284	Best CEG	1998	Photos	Road	Headwall Swale	Convergent	Mgt. Relate		NA	648	324
1285	1285	Best CEG	1998	Photos	Road		Plannar	Mgt. Relate		NA	222	111
1286	1286	Best CEG	1998	Photos	Stream Bank Failure		Divergent	Natural		NA	33	8
1299	1299	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	222	111
1300	1300	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	222	111
1301	1301	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	648	324
1302	1302	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	648	324
1303	1303	Best CEG	1998	Photos	Stream Bank Failure	Headwall Swale	Convergent	Natural		NA	1,481	740
1304	1304	Best CEG	1998	Photos	Stream Bank Failure	Headwall Swale	Plannar	Natural		NA	33	0
1305	1305	Best CEG	1998	Photos	Road	Headwall Swale	Convergent	Mgt. Relate		NA	648	324
1306	1306	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	370	185
1307	1307	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	3,223	1,611
1308	1308	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	7,152	3,575

Map#	ID #	Inspector	Year**	Source	Slide Type	Slope Type	Slope Form	Association	Slope	Stream	Total Yds	Delivered
1309	1309	Best CEG	1998	Photos	Stream Bank Failure	Headwall Swale	Convergent	Natural		NA	222	66
1310	1310	Best CEG	1998	Photos	Stream Bank Failure	Headwall Swale	Convergent	Natural		NA	222	66
1311	1311	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Convergent	Natural		NA	389	292
1312	1312	Best CEG	1998	Photos	Stream Bank Failure		Plannar	Natural		NA	33	0
1313	1313	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		NA	370	185
1314	1314	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		NA	67	33
1315	1315	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	370	185
1316	1316	Best CEG	1998	Photos	Stream Bank Failure	Headwall Swale	Convergent	Natural		NA	222	55
1317	1317	Best CEG	1998	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate		NA	370	185
1318	1318	Best CEG	1998	Photos	Stream Bank Failure	Headwall Swale	Convergent	Natural		NA	648	162
1319	1319	Best CEG	1998	Photos	Stream Bank Failure		Plannar	Natural		NA	222	55
1320	1320	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		NA	11,740	2,935
1325	1325	Best CEG	1998	Photos	Road	Inner Gorge	Convergent	Mgt. Relate		NA	2,370	1,777
1331	1331	Best CEG	1998	Photos	Road			Mgt. Relate		NA	111	0
1332	1332	Best CEG	1984	Photos	Hill Slope			Natural		NA	22	11
1333	1333	Best CEG	1998	Photos	Hill Slope			Natural		NA	15	7
1334	1334	Best CEG	1998	Photos	Hill Slope			Natural		NA	15	7
1335	1335	Best CEG	1984	Photos	Hill Slope			Natural		NA	222	199
1336	1336	Best CEG	1984	Photos	Hill Slope			Natural		NA	44	0
1337	1337	Best CEG	1900	Photos	Translational Slide			Natural		NA	336,633	0
1338	1338	Best CEG	1998	Photos	Road		Convergent	Mgt. Relate		NA	104	0
1339	1339	Best CEG	1998	Photos	Road		Convergent	Mgt. Relate		NA	89	0
1340	1340	Best CEG	1998	Photos	Road		Convergent	Mgt. Relate		NA	370	296
1341	1341	Best CEG	1984	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		NA	4	4
1342	1342	Best CEG	1984	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		NA	4	4
1343	1343	Best CEG	1984	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		NA	267	53
1344	1344	Best CEG	1984	Photos	Road	Headwall Swale	Convergent	Mgt. Relate		NA	556	277
1346	1346	Best CEG	1984	Photos	Road		Convergent	Mgt. Relate		NA	67	33
1347	1347	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate		NA	67	33
1348	1348	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		NA	44	22
1349	1349	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	0	0
1362	1362	Best CEG	1998	Photos	Road	Inner Gorge	Convergent	Mgt. Relate		NA	4,074	1,018
1373	1373	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	4,519,913	0
1377	1377	Haschak	1984	Field	Road	Headwall Swale	Convergent	Mgt. Relate	75-84	NA	556	0
1378	1378	Haschak	1900	Field	Hill Slope	Headwall Swale	Convergent	Natural	65-74	III	2,222	555
1379	1379	Haschak	1984	Field	Hill Slope	Headwall Swale	Plannar	Natural	65-74	NA	417	0
1380	1380	Haschak	1984	Field	Hill Slope	Headwall Swale	Plannar	Natural	65-74	NA	417	0
1381	1381	Haschak	1984	Field	Road	Inner Gorge	Convergent	Mgt. Relate	75-84	I	778	0
1400	1400	Haschak	1970	Field	Hill Slope	Inner Gorge	Plannar	Natural	50-64	III	46	41
1401	1401	Haschak	1984	Field	Road		Plannar	Mgt. Relate	50-64	NA	1,736	173
1402	1402	Haschak	1984	Field	Road		Plannar	Mgt. Relate	50-64	NA	23	0
1403	1403	Haschak	1970	Field	Hill Slope		Plannar	Natural	30-49	NA	23	0
1404	1404	Haschak	1947	Field	Hill Slope		Plannar	Natural	30-49	NA	30	0
1405	1405	Haschak	1984	Field	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	III	625	437
1406	1406	Haschak	1984	Field	Hill Slope		Convergent	Natural	50-64	III	417	291
1407	1407	Haschak	1900	Field	Hill Slope		Plannar	Natural	50-64	II	417	208
1408	1408	Haschak	1984	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	65-74	II	119	119
1409	1409	Haschak	1998	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	65-74	II	93	93
1410	1410	Haschak	1984	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	65-74	II	119	119
1411	1411	Haschak	1998	Field	Hill Slope	Inner Gorge	Plannar	Natural	65-74	II	1,333	1,199
1412	1412	Haschak	1900	Field	Hill Slope		Divergent	Natural	50-64	III	1,481	296
1413	1413	Haschak	1998	Field	Road		Plannar	Mgt. Relate	50-64	III	278	278
1414	1414	Haschak	1970	Field	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	II	111	55
1415	1415	Haschak	1947	Field	Hill Slope		Plannar	Natural	50-64	NA	400	0

Map#	ID #	Inspector	Year**	Source	Slide Type	Slope Type	Slope Form	Association	Slope	Stream	Total Yds	Delivered
1441	1441	Fisher	1998	Field	Road	Inner Gorge		Mgt. Relate	30-49	II	200	200
1442	1442	Fisher	1998	Field	Road	Inner Gorge		Mgt. Relate	30-49	II	200	200
1496	1496	Best CEG	1998	Photos	Stream Bank Failure		Plannar	Natural			434	216
1538	1538		0		Unknown			Natural			0	0
1539	1539		0		Unknown			Natural			0	0
1540	1540		0		Unknown			Natural			0	0
1541	1541		0		Unknown			Natural			0	0
1542	1542	Best CEG	1998	Photos	Hill Slope		Convergent	Natural			14,052	10,538
1546	1546		0		Unknown			Natural			0	0
1547	1547		0		Unknown			Natural			0	0
1584	1584	Best CEG	1998	Photos	Road		Plannar	Mgt. Relate			426	212
1586	1586	Best CEG	2004	Photos	Road		Plannar	Mgt. Relate			256	63
1587	1587	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			50	0
1588	1588	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			50	0
1589	1589	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			1,185	592
1590	1590	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			144	0
1592	1592	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			50	0
1612	1612	Best CEG	1998	Photos	Hill Slope		Plannar	Natural			144	0
1613	1613	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			144	108
1614	1614	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			256	102
1615	1615	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			50	0
1616	1616	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			50	12
1617	1617	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			256	127
26	1627		0		THP Site, no data			No Info.			0	0
1628	1628		0		THP Site, no data			No Info.			0	0
1629	1629		0		THP Site, no data			No Info.			0	0
1630	1630		0		THP Site, no data			No Info.			0	0
1631	1631		0		THP Site, no data			No Info.			0	0
25	1632		0		THP Site, no data			No Info.			0	0
17	1633		0		THP Site, no data			No Info.			0	0
1634	1634		0		THP Site, no data			No Info.			0	0
1678	1678		0		THP Site, no data			No Info.			0	0
1679	1679		0		THP Site, no data			No Info.			0	0
1680	1680		0		THP Site, no data			No Info.			0	0
1681	1681		0		THP Site, no data			No Info.			0	0
1743	1743		0		THP Site, no data			No Info.			0	0
1744	1744		0		THP Site, no data			No Info.			0	0
1745	1745		0		THP Site, no data			No Info.			0	0
1746	1746		0		THP Site, no data			No Info.			0	0
1748	1748		0		THP Site, no data			No Info.			0	0
1749	1749		0		THP Site, no data			No Info.			0	0
1771	1771		0		THP Site, no data			No Info.			0	0
1772	1772		0		THP Site, no data			No Info.			0	0
1773	1773	Haschak	2010	Field	Road		Convergent	Mgt. Relate	50-64	III	444	444
75	1774	Haschak	1984	Field	Translational Slide		Convergent	Natural	50-64	III	5,556	4,444
1143	1775	Haschak	1901	Field	Hill Slope		Plannar	Natural	65-74	II	333	267
1776	1776	Haschak	1998	Field	Stream Bank Failure		Convergent	Natural	50-64	II	556	556
1777	1777	Haschak	1998	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	II	67	67
1778	1778	Haschak	1998	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	II	222	222
1779	1779	Haschak	1959	Field	Hill Slope		Plannar	Natural	75-84	NA	2,222	1,111
1780	1780	Haschak	1959	Field	Translational Slide		Plannar	Natural	75-84	NA	8,889	4,444
1781	1781	Haschak	1959	Field	Translational Slide	Inner Gorge	Plannar	Natural	65-74	I	2,500	2,500
1783	1783	Haschak	1984	Field	Translational Slide		Plannar	Natural	50-64	II	1,111	1,111
1784	1784	Haschak	1984	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	50-64	II	0	0

Map#	ID #	Inspector	Year**	Source	Slide Type	Slope Type	Slope Form	Association	Slope	Stream	Total Yds	Delivered
1785	1785	Haschak	1984	Field	Stream Bank Failure	Inner Gorge		Natural	50-64		0	0
1800	1800	Haschak	2010	Field	Road		Convergent	Mgt. Relate	50-64	III	625	0
1829	1829	Haschak	2010	Field	Stream Bank Failure	Inner Gorge	Planar	Natural	75-84	II	556	556
1875	1875	Pehl	1901	Field	THP Site, no data			No Info.			0	
1901	1901	Haschak	1984	Field	Unknown		Planar	Natural	65-74	NA	333	0
1902	1902	Haschak	1984	Field	Skid Trail		Planar	Mgt. Relate	50-64	NA	278	83
1903	1903	Haschak	1900	Field	Translational Slide		Planar	Natural	75-84	III	1,111	0
1904	1904	Haschak	1984	Field	Stream Bank Failure	Inner Gorge	Planar	Natural	50-64	II	333	167
1905	1905	Haschak	1984	Field	Hill Slope	Inner Gorge	Planar	Natural	65-74	II	185	185
1906	1906	Haschak	1959	Field	Hill Slope	Inner Gorge		Natural	65-74		625	438
1907	1907	Haschak	1930	Field	Hill Slope	Inner Gorge	Planar	Natural	65-74	II	1,250	1,125
1908	1908	Haschak	1998	Field	Hill Slope		Planar	Natural	50-64	NA	296	0
1909	1909	Haschak	1984	Field	Stream Bank Failure	Inner Gorge	Planar	Natural	85+	II	556	556
1910	1910	Haschak	1970	Field	Stream Bank Failure	Inner Gorge	Planar	Natural	75-84	I	417	417
1911	1911	Haschak	1998	Field	Stream Bank Failure	Inner Gorge	Planar	Natural	75-84	I	278	278
1912	1912	Haschak	1984	Field	Skid Trail	Inner Gorge	Planar	Mgt. Relate	65-74	I	556	444
1913	1913	Haschak	1984	Field	Skid Trail	Inner Gorge	Planar	Mgt. Relate	65-74	I	556	444
1914	1914	Haschak	1959	Field	Unknown	Inner Gorge	Convergent	Natural	75-84	I	556	556
1915	1915	Haschak	1998	Field	Unknown	Inner Gorge		Natural	65-74		222	222
1917	1917	Haschak	1984	Field	Unknown	Inner Gorge	Planar	Natural	75-84	II	1,875	1,500
1918	1918	Haschak	1998	Field	Unknown	Inner Gorge	Convergent	Natural	65-74	III	185	185
1920	1920	Haschak	2010	Field	Road	Headwall Swale	Convergent	Mgt. Relate	50-64	III	400	360
1946	1946	Haschak	1959	Field	Unknown	Inner Gorge	Planar	Natural	65-74	II	347	243
1947	1947	Haschak	2004	Field	Stream Bank Failure	Inner Gorge	Planar	Natural	75-84	II	278	278
1959	1959	Haschak	1900	Field	Translational Slide		Convergent	Natural	65-74	III	463	231
1960	1960	Haschak	1900	Field	Translational Slide		Convergent	Natural	65-74	III	463	231
1961	1961	Haschak	1984	Field	Hill Slope		Planar	Natural	50-64	II	44	11
1962	1962	Haschak	1984	Field	Hill Slope	Inner Gorge	Planar	Natural	50-64	II	556	278
1963	1963	Haschak	1984	Field	Hill Slope		Convergent	Natural	50-64	NA	278	0
1964	1964	Haschak	1984	Field	Hill Slope		Convergent	Natural	65-74	NA	417	
1965	1965	Haschak	1984	Field	Hill Slope		Convergent	Natural	50-64	NA	185	0
1967	1967	Haschak	2010	Field	Translational Slide		Convergent	Natural	50-64	III	6,250	3,125

Summary for 'PW Name' = Big Pepperwood Creek (351 detail records)

Delivery **Avg** *803* **Min** *0* **Max** *14,731* **Sum** *280,346*

*Landslide information for this report comes from two main sources, aerial photo analysis or field observations. Information about a landslide is entered into a database and the Slide ID number is entered into GIS and appears on the maps. Information about landslides entered by professionals other than a licensed geologist should be considered as informational until reviewed by a licensed geologist.

**Tim Best, CEG analyzed six sets of aerial photos to identify landslides (1947, 1959, 1970, 1984, 1998 and 2004). The year in this report is usually the year of the photos on which the slide was first observed. If the year is 1900 it means the slide is ancient. If the year is 1930 means the slide was old in the 1947 photos. If the year is 2010 it means the slide occurred after the most recent photos in 2004.

Aquatic Assessment

Copper Top Timber Harvest Plan

Chapter 5

Subbasin Profiles and Synthesis

5.1 Gualala River Estuary

5.1.1 INTRODUCTION

The Gualala River Estuary/lagoon is within the Big Pepperwood Creek Planning Watershed (10.2 square miles within the Lower South Fork Gualala River Super Planning Watershed), and is located approximately 0.5 miles south of the town of Gualala. During summer months, a sand bar typically forms across the mouth of the estuary which blocks the flow of tidewater, creating a coastal lagoon. Currently, the Gualala River Watershed Council has a grant for a two-year estuary study that includes the mainstem up to the confluence with the North Fork. The full extent of tidal influence on the mainstem will be further described by that study.

Estuaries and coastal lagoons are critical habitats for all anadromous salmonids by linking freshwater and marine environments. The mixing of sea and fresh waters creates conditions well suited for the anadromous life history strategies of coho salmon and steelhead trout. Coho salmon and steelhead trout pass through the estuary as juveniles during their seaward migrations and again as adults, swimming upstream to their freshwater spawning grounds. The brackish water of the estuary provides an important area where coho salmon and steelhead trout acclimate to changes in salinity as they move between the freshwater and marine environments.

Estuaries also are considered important nursery grounds due to high productivity and isolation from predators. Studies have revealed that juvenile salmonids utilizing estuaries for three months or more return to their natal stream at a higher rate than non-estuarine reared siblings (Riemers 1975). Juvenile salmonids may extend their estuarine residency to utilize the sheltered and food rich environments.

The Sotoyome Resource Conservation District, in partnership with the Gualala River Watershed Council, was awarded a $150,000 grant by the California Coastal Conservancy to perform an assessment and to develop an enhancement plan for the estuary. This project will assess the physical and biological conditions of the estuary and lower river from the confluence with the North Fork, ascertain the estuary's importance to the life history strategies of salmonids, and determine how existing conditions may be impairing aquatic productivity. Enhancement recommendations based on the findings will be a final product.

5.1.2 GEOLOGY

The estuary occupies the mainstem of the Gualala River. At times in during the Holocene, the estuary probably extended at least one mile up the North and South Forks. The mainstem cross cuts a series of Pleistocene marine terraces. The marine terraces record one stage of late-Pliocene to early Quaternary uplift with considerable local deformation and at least three stages of regional uplift during the Quaternary. Localized folding that occurred until the mid-Quaternary is evident in those terraces.

One well log comprises the subsurface sedimentological record adjacent to the estuary. Relatively extensive subsurface exploration was conducted one mile upstream at the confluence with the North Fork.

The marine terraces developed as follows:

- Late Pliocene-Early Quaternary (500,000- 5,000,000 years old)- uplift and topographic inversion of Pliocene basin in which Ohlson Ranch Formation accumulated. This formed flat-topped ridges throughout central basin.
- Older Quaternary (500,000 years old) - regional uplift along San Andreas Fault with local vertical deformation elevated marine terraces to over 600 feet above current sea level.
- Subsequently or concurrently, those strata were folded or faulted such that terraces north of the mainstem are 200 feet higher than presumably equivalent terraces on the south side. Folds may correlate across the San Andreas Fault with uplifted and subsided areas. An anticline, north of the mainstem, predates older Quaternary terrace that cut across both fold core (Anchor Bay Fm) and carapace (German Rancho Fm); however, continued folding may have occurred. The west face of the anticline north of the river is deeply incised with close-spaced gulches, while the east face is steeper and has fewer drainages that are not incised. This anomalous pattern probably indicates additional fold growth since emergence.
- Younger Quaternary (83,000-100,000 years old) – regional uplift elevated the lowest emerged marine terrace 130 feet above current sea level without additional local vertical deformation; fold growth had ceased. At Fort Ross, slip along the San Andreas Fault since the formation of this terrace has been estimated at 0.9 miles (Prentice and others 2000).
- Late Quaternary and early Holocene (about 20,000-10,000 years ago)-sea level dropped during the last global ice age and a marine terrace formed. That terrace lies offshore about 200 feet below current sea level. It is undetermined how much uplift has occurred since the formation of the terrace.
- Holocene- sea level rise and valley filling of the mainstem and estuary.

The valley of the mainstem is the only watergap across the otherwise continuous ridge that separates the watershed from the ocean. Flow through the mainstem was probably established during the Pleistocene marine low-stand when relative sea level was about 200 feet lower than today. One well located about 100 feet south of and 20 feet higher than the mainstem was drilled to 50 feet in depth and revealed brown, black, and blue clay throughout. Bedrock was not encountered. Subsurface information at Elk Prairie (about one mile upstream) at the mouth of the North Fork reveals that the paleo-valley there is nearly 200 feet deep. Thus, the paleo-valley underlying the estuary may also be 200 feet deep. This depth corresponds to the elevation of a submerged marine terrace just off shore, which probably defined base level at the time of paleo-valley development. The well logs at Elk Prairie and adjacent to the estuary both show considerable history of clay deposition indicative of low energy environments, probably estuarine, that extended from the ocean to at least Elk Prairie. Thus, the estuary migrated back and forth from at least Elk Prairie to somewhat off the modern shoreline depending on the interplay of sea level rise and tectonic uplift. Subsurface well logs are not available for the South Fork. However, the estuary may have extended upstream on the South Fork as well as the North Fork.

5.1.3 RIPARIAN VEGETATION

The riparian likely consisted of alders with a redwood over story along the upper estuary above the Highway 1 bridge. Most available photos of the lower estuary were taken after the redwood mill was built, which was located on the flat area on the northwest side of the bridge. It is undetermined if the area was cleared or was scrub naturally.

Wetlands are primarily located on the south side of the estuary towards the ocean, where saltgrass (*Distichlis spicata*) and salt rush (*Juncus lesueurii*) have been observed. Sea rocket (*Cakile spp*) and beach verbena (*Abronia spp*) grow on the dunes between the estuary and beach. Coyote bush (*Baccharis pilularis)* appears to be dominant on the drier, less saline soil located on the southwest landward side (Table 5.1-1).

Table 5.1-1
Riparian Vegetation Inventory of the Gualala River Estuary/Coastal Lagoon, February 2002

Common Name	Scientific Name
North Side of Estuary	
Lupine	*Lupines spp.*
Fennel	*Foeniculum vulgare*
Himalaya Berry	*Rebus thrysauthus*
California Blackberry	*Rubus vitifolius*
Thimble Berry	*Rubus parviflorus*
Coyote brush	*Baccharis pilularus*
Rush	*Juncus spp.*
Pennyroyal	*Mentha spp.*
Teasel	*Dipsacus fullonum*
Horsetail	*Equisetem spp.*
Swordfern	*Polystichum munitum*
Mugwort	*Artemisia douglasiana*
Bull Thistle	*Cirsium vulgare*
Cow Parsnips	*Heracleum lanatum*
Stinging Nettle	*Urtica gracilis*
Dead Nettle	*Lamium spp.*
Small Flowered Nightshade	*Solanum spp.*
Stachys	*Stachys spp.*
Wild Radish	*Raphanus sativus*
Yarrow	*Achillea millefolium*
Horseweed	*Conyza spp.*
Alder	*Alnus rubra*
Poison Hemlock	*Conium maculatum*
English Ivy	*Hedera helix*
Bay Laurel	*Umbellularia californica*
Dock	*Rumex spp.*
Nut Sedge	*Cyperus spp.*

Table 5.1-1
Riparian Vegetation Inventory of the Gualala River Estuary/Coastal Lagoon, February 2002

Common Name	Scientific Name
North Side of Estuary (con't)	
Grass perennial	
Reed (water)	
South Side of Estuary	
Lupine	*Lupines spp.*
Coyote brush	*Baccharis pilularus*
Teasel	*Dipsacus fullonum*
California Iris	*Iris douglasiana*
Pacific Madrone	*Arbutus edulis*
Grand Fir	*Abies grandis*
Swordfern	*Polystichum munitum*
Rush	*Juncus spp.*
Grass perennial	
Nut Sedge	*Cyperus spp.*
Dock	*Rumex spp.*
Stinging Nettle	*Urtica gracilis*
Thimble Berry	*Rubus parviflorus*
Alder	*Alnus rubra*
Poison Hemlock	*Conium maculatum*
Horsestail	*Equisetem spp.*
Dead Nettle	*Lamium spp.*
California Blackberry	*Rubus vitifolius*
Bull Thistle	*Cirsium vulgare*
Island	
Pampas Grass	*Cortaderia jubata*
Dunegrass	*Unsure*
Reed (water)	*Unsure*
Iceplant	*Carpobrotus edulis*
Lupine	*Lupines spp.*
Plantain	*Plantago lanceolata*
Coyote brush	*Baccharis pilularus*
Sand Verbena	*Abronia latifolia*
Yarrow	*Achillea millefolium*

5.1.4 LAND USE

A lumber mill operated at the mouth of the estuary in the 1860s to the early 1900s. Photos from 1936 show the abandoned mill site with minimal development around the estuary. The town of Gualala consisted of several buildings accessed by a dirt road. These photos showed an aggraded stream channel (Figure 5.1-1). Most of the central and upper reaches of the watershed still consisted of virgin

old growth at this time. During the late 1950s, a second mill complex was built near the confluence with the North Fork. Road development along the coastal plateau, a highway bridge and artificial breaching of the bar may have influenced the physical structure of the estuary through actual physical modifications. Commercial, recreational, and residential development characterizes current land use around the estuary (Figure 5.1-2).

1936

1961

Figure 5.1-1
Aerial Photos of the Gualala River Estuary in 1936 and 1961

1981

1999

Figure 5.1-2
Aerial Photos of the Gualala River Estuary in 1981 and 1999

5.1.5 FISH HABITAT RELATIONSHIP

Several fish species occupy the estuary, particularly for reproduction and early stages of their life cycle. Some species deposit eggs or give live birth directly in estuaries, while others have evolved mechanisms

which help the delivery of their young into estuaries by ocean tides or riverine currents which assist in the transition from a freshwater to marine water environment. Fish including salmonids that utilize estuaries for an important part of their life cycle are estuarine-dependant. The estuarine rearing is a strategy that adds diversity to juvenile salmonid life history patterns and likely increases the odds for survival of a species encountering a wide range of environmental conditions in both the freshwater and marine environments. An extended estuarine residency may be especially beneficial for salmonids from rivers where low summer flows or warm water temperatures limit summer rearing habitat.

Fish presence observations in the 1980s were summarized in *An Account of the Fishes Caught in the Lower Gualala River, California, 1984 through 1986* (Brown 1986): "Sampling occurred at seven stations, two upstream of the Highway 1 bridge."…"We caught seven species of fishes in the Gualala Estuary and lower river. Steelhead trout were caught at all stations. Roach, coastrange and prickly sculpin were caught at lower river and upper estuary stations. Starry flounder and Pacific staghorn sculpin were only caught in the lower estuary near the ocean. Threespine stickleback were caught in the lower river and upper to mid-estuary."…"Steelhead trout were larger in the fall than in the spring at mid-estuary stations, but larger in the spring at lower estuary stations."

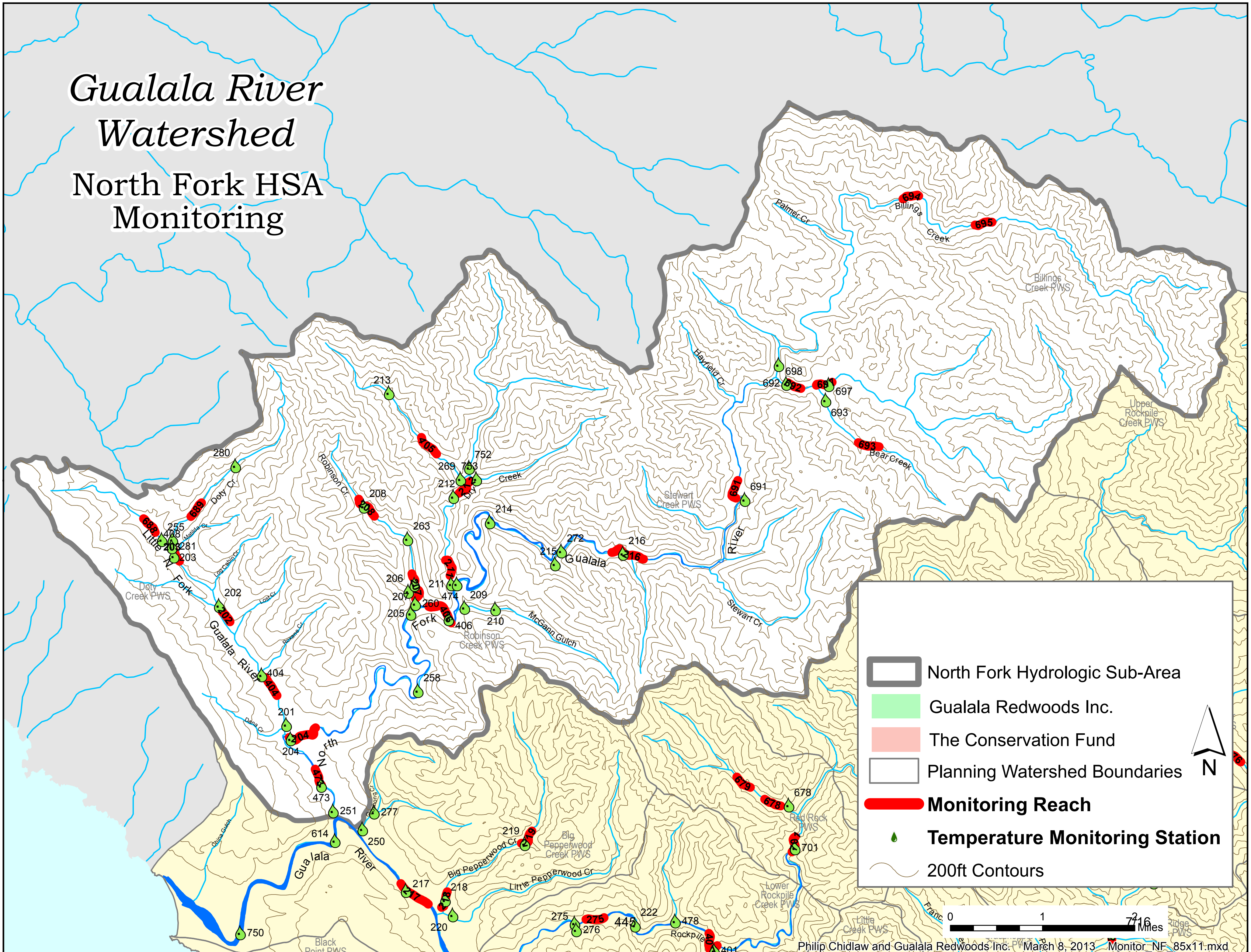
5.1.6 SUBBASIN ISSUE SYNTHESIS AND RECOMMENDATIONS

The term "issues" is used here in a generic sense to denote any topic of interest, concern, import, or relevance to the watershed assessment. As such, issues can be direct limitations on salmonid suitability, potential factors for consideration, concerns regarding potential practices, suggestions, or observations of the data that are particularly relevant to the development of hypotheses and recommendations.

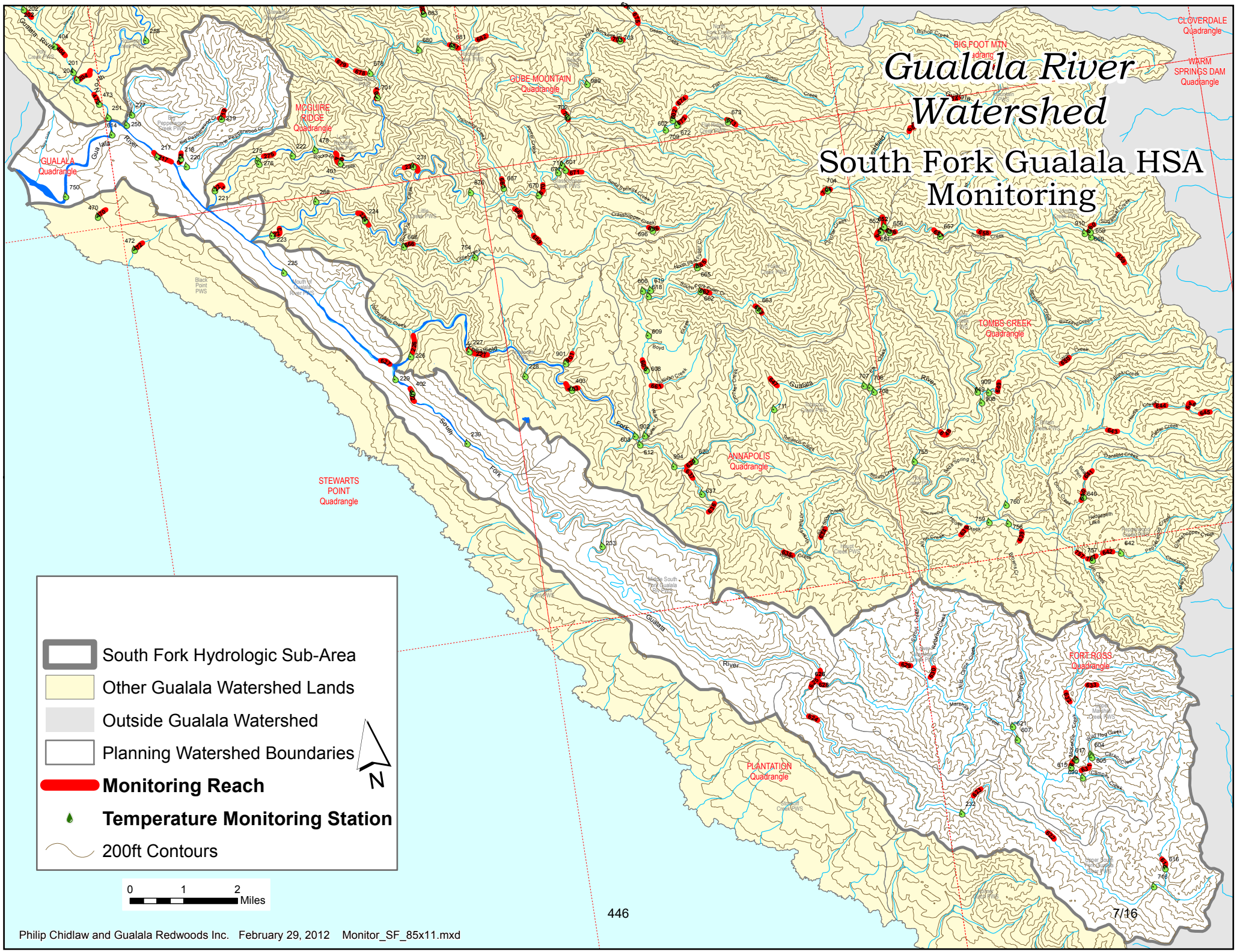
- Has the estuary filled in since the turn of the century due to sedimentation from logging?
- What is the role of the Gualala River Estuary with respect to salmonid abundance and distribution, especially regarding it use as habitat for steelhead trout and coho salmon?
- What factors may be limiting coho salmon and steelhead trout production in the estuary?

Working Hypotheses

No hypotheses have been developed. This section will be revised upon completion of the estuary study.



Gualala River Watershed
North Fork HSA Monitoring
North Fork Hydrologic Sub-Area
Gualala Redwoods Inc.
The Conservation Fund
Planning Watershed Boundaries
Monitoring Reach
Temperature Monitoring Station
200ft Contours
N
0 1 2 Miles
Philip Chidlaw and Gualala Redwoods Inc. March 8, 2013 Monitor_NF_85x11.mxd
Billings Creek
Palmer Cr
Billings Creek PWS
Hayfield Cr
Bear Creek
Upper Rockpile Creek PWS
Stewart Creek PWS
Stewart Cr
Gualala River
Dry Creek
Robinson Cr.
Robinson Creek PWS
McGann Gulch
Doty Cr.
Doty Creek PWS
Little N. Fork
Gualala River
North Fork
Big Pepperwood Cr
Little Pepperwood Cr
Big Pepperwood Creek PWS
Red Rock PWS
Lower Rockpile Creek PWS
Little Creek PWS
Black Point PWS
Rockpile


Gualala River Watershed
South Fork Gualala HSA Monitoring
South Fork Hydrologic Sub-Area
Other Gualala Watershed Lands
Outside Gualala Watershed
Planning Watershed Boundaries
Monitoring Reach
Temperature Monitoring Station
200ft Contours
N
0 1 2 Miles
GUALALA Quadrangle
MCGUIRE RIDGE Quadrangle
GUBE MOUNTAIN Quadrangle
BIG FOOT MTN Quadrangle
CLOVERDALE Quadrangle
WARM SPRINGS DAM Quadrangle
TOMBS CREEK Quadrangle
STEWARTS POINT Quadrangle
ANNAPOLIS Quadrangle
FORT ROSS Quadrangle
PLANTATION Quadrangle
Gualala River
South Fork
Philip Chidlaw and Gualala Redwoods Inc. February 29, 2012 Monitor_SF_85x11.mxd
446
7/16

Stream Monitoring Report

Ownerships: All
Visit Purpose: All
Planning Watersheds: Big Pepperwood Creek

Station Number	Name	Miles Up Stream	Year	Temperature		LWD Bank Full >6 In & >4 Ft or >10 CuFt		Substrate		Streambed (Thalweg)			Riparian Zone				Fish or Redds per Mile			Aquatic Macroinvertebrates				
				Seasonal Maximum	MWAT	CuFt/ 1000'	Pieces/ 1000'	>0.85 mm	D50	Slope	VI	A/D	Canopy % WLPZ	Canopy % Cr.	Basal Area	Tallest Tree	Coho	SH (1+)	Redds	Richness	Hilsenhoff Simpson	% Dominant Russian R Index		
Hydrologic Unit				**SF Gualala**																				
Stream				**Big Pepperwood**																				
218	Ppw3	0.15	1994	15.9	14.4																			
218	Ppw3	0.15	1995	16.5	15.0																			
218	Ppw3	0.15	1996	16.2	14.3																			
218	Ppw3	0.15	1997	17.3	15.6																			
218	Ppw3	0.15	1998	17.2	15.2	2,490	88		41	1.4%	14						0	153						
218	Ppw3	0.15	1999	15.9	14.4	2,324	84		30	1.5%	13	-0.31	90%	88%	323	105	0	132						
218	Ppw3	0.15	2000	16.2	14.5												0	21		32	0.79	4.7	15	39
218	Ppw3	0.15	2001														0	48						
218	Ppw3	0.15	2002	15.6	14.1	6,539	150		45	1.4%	13	-0.68	96%	87%	563	87	0	37						
218	Ppw3	0.15	2003	15.5	14.1	7,310	153		35	1.4%	16	-1.16												
218	Ppw3	0.15	2004	16.0	14.7	8,161	153		28	1.4%	15	-1.02					0	28						
218	Ppw3	0.15	2005	15.6	14.2	8,119	151		37	1.4%	17	-1.11												
218	Ppw3	0.15	2006			10,327	180		22	1.6%	16	-1.20												
218	Ppw3	0.15	2007			10,378	185		35	1.5%	15	-1.13												
218	Ppw3	0.15	2008	15.9	14.8	10,354	198		31	1.5%	17	-1.27	90%	87%			0	5						
218	Ppw3	0.15	2009	15.4	14.3	10,733	204		38	1.5%	16	-1.12					0	84						
218	Ppw3	0.15	2010	14.6	13.2	10,887	209		33	1.5%	15	-1.13												
218	Ppw3	0.15	2011	14.8	13.5	11,228	217		38	1.5%	16	-1.39	88%	87%			0	153						
218	Ppw3	0.15	2012	14.7	13.5	11,203	208		21	1.5%	17	-1.42					0	201						
218	Ppw3	0.15	2013	16.1	14.9	11,268	215		25	1.5%	15	-1.58					0	58						
218	Ppw3	0.15	2014	15.7	14.8	11,372	219		24	1.3%	15	-1.54					0	32						
218	Ppw3	0.15	2015	16.2	15.2	11,249	216		27	1.6%	13	-1.36	91%	91%	918	184	0	42						
218	Ppw3	0.15	2016	14.9	13.8	11,123	225		30	1.5%	13	-1.83	91%	91%										
218	Ppw3	0.15	2017	16.0	15.5	11,467	252		26	1.4%	13	-1.77	91%	91%			0	0						
218	Ppw3	0.15	2018	14.5	13.9	11,289	250		28	1.4%	14	-1.83					0	16						
218	Ppw3	0.15	2019	16.5	15.3	12,971	326		25	1.7%	12	-0.32	93%	93%										
218	Ppw3	0.15	2020	16.4	15.4	13,160	332		28	1.7%	10	-0.17	96%	95%										
218	Ppw3	0.15	2021	14.1	13.7	13,005	335		31	1.7%	9	-0.26	91%	91%										

Station Number	Name	Miles Up Stream	Year	Temperature		LWD Bank Full >6 In & >4 Ft or >10 CuFt		Substrate		Streambed (Thalweg)			Riparian Zone				Fish or Redds per Mile			Aquatic Macroinvertebrates				
				Seasonal Maximum	MWAT	CuFt/ 1000'	Pieces/ 1000'	>0.85 mm	D50	Slope	VI	A/D	Canopy % WLPZ	Canopy % Cr.	Basal Area	Tallest Tree	Coho	SH (1+)	Redds	Richness	Hilsenhoff Simpson	% Dominant Russian R	Index	
218	Ppw3	0.15	2022	14.9	14.4	13,535	335		26	1.7%	14	-0.32	92%	90%										
219	Ppw2	1.29	1994	17.2	14.6																			
219	Ppw2	1.29	1995	17.0	14.9																			
219	Ppw2	1.29	1996	16.7	14.7																			
219	Ppw2	1.29	1997	17.8	15.0																			
219	Ppw2	1.29	1998	17.3	14.9																			
219	Ppw2	1.29	2009	14.3	13.5																			
219	Ppw2	1.29	2011	14.1	13.1																			
219	Ppw2	1.29	2012	13.9	12.9																			
219	Ppw2	1.29	2017	16.0	15.1																			
Big Pepperwood			**Avg**	**15.8**	**14.4**	**10,021**	**212**		**31**	**1.5%**	**14**	**-1.1**	**92%**	**90%**	**601**	**125**	**0**	**67**		**32**	**0.79**	**4.7**	**15**	**39**
Stream			**Groshong Gulch**																					
250	Gros	0.05	1996	14.1	13.1																			
250	Gros	0.05	2002	16.2	13.3																			
250	Gros	0.05	2012	13.3	12.3																			
277	GrG	0.27	1998	13.9	13.4																			
277	GrG	0.27	2000	17.8	14.5																			
277	GrG	0.27	2011	13.4	12.9																			
Groshong Gulch			**Avg**	**14.8**	**13.3**																			
Stream			**Gualala River**																					
614	Gua8	0.00	2000	22.9	18.4																			
614	Gua8	0.00	2009	21.7	18.1																			
614	Gua8	0.00	2017	22.1	18.5																			
614	Gua8	0.00	2018	20.2	17.9																			
750	Gul	1.19	2009	22.5	19.2																			
750	Gul	1.19	2011	23.2	19.7																			
Gualala River			**Avg**	**22.1**	**18.6**																			
Stream			**Little Pepperwood**																					
220	Lpw	0.11	1994	15.8	14.3																			
220	Lpw	0.11	1995	19.4	16.0																			
220	Lpw	0.11	1996	17.8	15.0																			
220	Lpw	0.11	1997	16.7	16.0																			
220	Lpw	0.11	1998	17.8	15.6																			
220	Lpw	0.11	2002	15.1	13.8																			
220	Lpw	0.11	2003	15.9	14.8												0	121						

Station Number	Name	Miles Up Stream	Year	Temperature		LWD Bank Full >6 In & >4 Ft or >10 CuFt		Substrate		Streambed (Thalweg)			Riparian Zone				Fish or Redds per Mile			Aquatic Macroinvertebrates				
				Seasonal Maximum	MWAT	CuFt/ 1000'	Pieces/ 1000'	>0.85 mm	D50	Slope	VI	A/D	Canopy % WLPZ	Canopy % Cr.	Basal Area	Tallest Tree	Coho	SH (1+)	Redds	Richness	Hilsenhoff Simpson	% Dominant Russian R	Index	
220	Lpw	0.11	2004	14.8	14.3												0	8						
220	Lpw	0.11	2005	16.0	14.6																			
220	Lpw	0.11	2008	14.7	14.3																			
220	Lpw	0.11	2009	14.4	13.7																			
220	Lpw	0.11	2012	14.2	13.1																			
220	Lpw	0.11	2016	14.5	13.7																			
220	Lpw	0.11	2018	15.0	13.9																			
Little Pepperwood				**Avg 15.9**	**14.5**												**0**	**65**						
Stream			**South Fork Gualala River**																					
217	Gua1	0.98	1994	22.7	19.2																			
217	Gua1	0.98	1995	25.3	20.6																			
217	Gua1	0.98	1996	24.4	20.1																			
217	Gua1	0.98	1997	24.6	22.4																			
217	Gua1	0.98	1998			934	17		24	0.1%	23		93%	16%										
217	Gua1	0.98	1999														0	32						
217	Gua1	0.98	2000	23.2	19.2	804	15		25	0.0%	22	-0.10	96%	17%	226	199	0	21		28	0.87	4.4	16	28
217	Gua1	0.98	2001	23.3	19.1	1,649	34		20	0.1%	20	0.19					0	11						
217	Gua1	0.98	2002			1,488	28		22	0.1%	27	0.01					0	0						
217	Gua1	0.98	2003			1,094	25		12	0.1%	22	0.10					0	149						
217	Gua1	0.98	2004	23.2	20.0	1,264	28		19	0.1%	26	0.18					0	97						
217	Gua1	0.98	2006			1,025	21		20															
217	Gua1	0.98	2007			1,087	22		15	0.1%	21	-0.23												
217	Gua1	0.98	2008	24.5	19.8	1,110	29		19	0.1%	23	-0.24					0	26						
217	Gua1	0.98	2009	23.2	18.9	1,109	30		16	0.1%	22	-0.14					0	166						
217	Gua1	0.98	2010	22.4	18.3																			
217	Gua1	0.98	2011	22.5	18.8												0	465						
217	Gua1	0.98	2012	22.1	18.5												0	1,067						
217	Gua1	0.98	2013	23.2	19.8	1,064	27		18	0.1%	34	-0.70					0	127						
217	Gua1	0.98	2014	22.9	19.4												0	346						
217	Gua1	0.98	2015	21.7	19.7	1,128	29		24	0.1%	30	-0.53					0	153						
217	Gua1	0.98	2016	22.5	19.2																			
217	Gua1	0.98	2017	22.9	19.3												0	269						
217	Gua1	0.98	2018	22.3	19.5	1,849	32		19	0.0%	38	-0.71					0	148						
217	Gua1	0.98	2019	22.5	19.6																			
217	Gua1	0.98	2020	22.5	19.6																			

Station Number	Name	Miles Up Stream	Year	Temperature		LWD Bank Full >6 In & >4 Ft or >10 CuFt		Substrate		Streambed (Thalweg)			Riparian Zone				Fish or Redds per Mile			Aquatic Macroinvertebrates				
				Seasonal Maximum	MWAT	CuFt/ 1000'	Pieces/ 1000'	>0.85 mm	D50	Slope	VI	A/D	Canopy % WLPZ	Canopy % Cr.	Basal Area	Tallest Tree	Coho	SH (1+)	Redds	Richness	Hilsenhoff Simpson	% Dominant Russian R Index		
217	Gua1	0.98	2021	21.7	19.3																			
217	Gua1	0.98	2022	21.7	19.5	1,758	37		22	0.1%	31	-1.20	93%	27%										
South Fork Gualala River			**Avg**	**23.0**	**19.5**	**1,240**	**26**		**20**	**0.1%**	**26**	**-0.3**	**94%**	**20%**	**226**	**199**	**0**	**205**		**28**	**0.87**	**4.4**	**16**	**28**
Hydrologic Uni	**SF Gualala**		**Avg**	**18.1**	**16.0**	**6,699**	**142**		**26**	**1.0%**	**19**	**-0.8**	**92%**	**75%**	**507**	**144**	**0**	**132**		**30**	**0.83**	**4.6**	**16**	**33**
			Avg	**18.1**	**16.0**	**6,699**	**142**		**26**	**1.0%**	**19**	**-0.8**	**92%**	**75%**	**507**	**144**	**0**	**132**		**30**	**0.83**	**4.6**	**16**	**33**
			Min	**13.3**	**12.3**	**804**	**15**		**12**	**0.0%**	**9**	**-1.8**	**88%**	**16%**	**226**	**87**	**0**	**0**		**28**	**0.79**	**4.4**	**15**	**28**
			Max	**25.3**	**22.4**	**13,535**	**335**		**45**	**1.7%**	**38**	**0.19**	**96%**	**95%**	**918**	**199**	**0**	**1,067**		**32**	**0.87**	**4.7**	**16**	**39**
Old Growth Watersheds (HRSP)				18.5	16.6			21.6%	62											26.2	0.89			
Poor-Normal-Good											>20									26-35	.8-.89	4.6-3.1	12-17	39-15
NCWQCB Target				18.3	16.8			<14%																

Temperature

- Seasonal Maximum – The highest water temperature recorded during the summer.
- Maximum weekly average temperature (MWAT) - The highest average temperature for any seven day rolling average

Large Woody Debris (LWD)

- LWD must be at least 6 inches on the small end and longer than 4 feet.
- Cubic Feet per 1,000 feet – The cubic volume of LWD located between the bankfull lines.
- Pieces per 1,000' – The number of LWD pieces per 1000'

Stream Substrate

- <0.85mm – The percent fines less than 0.85 millimeters in a McNeal sample.
- D50- The pebble size of the median pebble of a 100 pebble sample. Three sample sites on each reach are averaged.

Fish Surveys

- Presence/absence snorkel surveys also estimate fish numbers per mile.
  - Coho – Coho salmon any age.
  - SH (1+) – Steelhead one year old or older.
- Redds - Number of salmon spawning nests found per mile during the season.

Streambed (Thalweg) Survey

- Slope – the slope of the channel
- VI – The variation index is the [(SD of residual depth/bank full depth) *100]. This is a way of quantifying roughness and hence suitability for fish. Greater than 20 is a good indication of recovery.
- A/D – The change in elevation of the channel (aggradation or degradation) relative to the first year of measurement.

Riparian Condition

- Canopy Cover percent as measured with a spherical densiometer. Every 200', canopy percent is measured in the center of the channel. And at bank full and 50' into the riparian zone from bankfull on both sides of the channel. Four measurements are averaged at each point.
- WLPZ (Watercourse and Lake Protection Zone) – The average of all the measurements taken on either side of the channel 50' into the riparial zone.
- Cr. – The average of all the measurements taken in the center of the channel.
- Riparian inventory plots were locate both sides of the channel every 200'
- Basal Area – Is the average basal area in square feet of all the riparian plots
- Tallest Tree – Is the tallest tree measured on the riparian plots.

Macroinvertebrates

- Richness – Total number of Genuses represented.
- Simpson Diversity Index – Measures the evenness of species diversity
- Hilsenhoff – This is a locally modified Hilsenhoff index. It indicates levels of organic pollution
- Russian River Index – A localized index that combines several standard metrics
- Percent Dominant Taxon – this is a species distribution index

Completed Road Work

Hydrologic Unit All **Repair type** All
Planning Watershed Big Pepperwood Creek **Priority** All
Road # All **From Mi** All **To Mi** All **Road Class** All
THP All **From Date** 1/1/1980 **To Date** 11/9/2023

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
0	2104	0.000	Haschak	Pehl	03-089	Primrose	Surface Drainage	THP Mitigation	III		0	0	0	0	0	0	$0	0
Existing Skid	2104	0.000	AL	8/15/2004		ECP Not	Waterbar	Medium	-	-	0		0	0	0	0	$0	0
	waterbars on this skid trail should empty to the west away from the unstable area (not to the east as they currently do).																	
0	2550	0.000	Haschak	Pehl	05-146	Moss	Temp. Crossing	Maintenance	III		0	0	0	0	0	0	$0	0
Existing Skid	2550	0.000	AL	10/13/2005		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Skid trail crossing wet area. Install 6" by 20' pipe if wet at time of operations. Pull pipe at close.																	
0	2103	0.000	Haschak	Pehl	03-089	Primrose	Surface Drainage	THP Mitigation	III		0	0	0	0	0	0	$0	0
Existing Skid	2103	0.000	AL	10/15/2005		ECP Not	Waterbar	Medium	-	-	0		0	0	0	0	$0	0
	construct waterbar by hand on this old skid trail so that water goes into adjacent swale. Put first waterbar at painted tree (M.P. #10) and go uphill from this point and place at least one or two more waterbars.																	
0	2549	0.000	Haschak	Pehl	05-146	Moss	Temp. Crossing	Maintenance	N/A		0	0	0	0	0	0	$0	0
Existing Skid	2549	0.000	AL	10/13/2006		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Skid trail crossing class III. Install 6" by 20' pipe if wet at time of operations. Pull pipe at close. Crossing not used in THP.																	
0	4312	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4312	0.000	Unk	10/14/2006		1B105023MEN	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	2990	0.000	Pehl	Pehl	00-391	Terrapin Station	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2990	0.000	Unk	12/29/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems. Several trees across road limited access.																	
0	3001	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	3001	0.000	Unk	1/3/2007		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	3004	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	3004	0.000	Unk	1/5/2007		1B105023MEN	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	3006	0.000	Pehl	Pehl	99-460	Sugaree	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	3006	0.000	Unk	1/5/2007		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	4296	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4296	0.000	Unk	5/15/2007		1B105023MEN	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossing. No problems.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
0	4231	0.000	Pehl	Pehl	00-391	Terrapin Station	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4231	0.000	Unk	5/25/2007		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems. Trees cleared from road.																	
0	4237	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4237	0.000	Unk	6/4/2007		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	2551	0.000	Haschak	Pehl	05-146	Moss	Temp. Crossing	Maintenance	III		0	0	0	0	0	0	$0	0
Existing Skid	2551	0.000	AL	9/17/2007		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Temporary crossing of class III. If wet at time of operations install temporary pipe 6" by 20'. Remove pipe and dip out at close of operations.																	
0	4417	0.000	Pehl	Pehl	00-391	Terrapin Station	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4417	0.000	Unk	11/8/2007		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	4395	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4395	0.000	Unk	11/9/2007		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings north of Rockpile Creek.																	
0	4396	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4396	0.000	Unk	11/12/2007		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings south of Buckeye Creek.																	
0	4414	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4414	0.000	Unk	11/14/2007		1B105023MEN	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. Trespassing by motorcycles, mountain bikes, and horses may become an issued, but erosion control is currently functioning.																	
0	4421	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4421	0.000	Unk	11/15/2007		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	4424	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4424	0.000	Unk	11/26/2007		1B105023MEN	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Met with John Bower and looked at roads around Units I and J. Trespassing is an issue, but erosion control is currently functioning.																	
0	4425	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4425	0.000	Unk	11/28/2007		1B105023MEN	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Inspected road from Old Stage Road to Unit D. Dips are functioning, but there is a lot of motorcycle traffic. Scaped dip axis or waterbarred where necessary to ensure drainage.																	
0	4463	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4463	0.000	Unk	1/9/2008		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings south of Buckeye Creek.																	
0	4461	0.000	Pehl	Pehl	00-391	Terrapin Station	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4461	0.000	Unk	1/10/2008		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	4467	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4467	0.000	Unk	1/14/2008		1B105023MEN	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings associated with Units A, B, and D. No problems.																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
0	4470	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4470	0.000	Unk	1/15/2008		1B105023MEN	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings associated with Units E, F, G, H, I, and J. No problems, other than minor waterbar maintenance (shovel work).																		
0	4618	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4618	0.000	Unk	1/24/2008		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings north of Rockpile Creek. No problems.																		
0	4617	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4617	0.000	Unk	6/6/2008		1B105023MEN	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings associated with all units. No problems.																		
0	4619	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4619	0.000	Unk	6/12/2008		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	4892	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4892	0.000	Unk	9/9/2008		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings for final completion. No problems.																		
0	4885	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4885	0.000	Unk	11/5/2008		1B105023MEN	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings associated with all units. No problems.																		
0	4889	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4889	0.000	Unk	11/10/2008		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	4901	0.000		Pehl	00-391	Terrapin Station	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4901	0.000	Unk	11/17/2008		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	4930	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4930	0.000	Unk	12/3/2008		1B105023MEN	No Action	Medium	-	-	0		0	0	0	0	$0	0
Notice of Termination sent to NCRWQCB.																		
0	4931	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Non-Road	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4931	0.000	Unk	12/3/2008		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
Final Certification Notice sent to NCRWQCB to end waiver coverage.																		
0	5298	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5298	0.000	Unk	2/13/2009		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	5335	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5335	0.000	Unk	5/15/2009		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	5333	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5333	0.000	Unk	6/12/2009		1B105023MEN	No Action	Medium	-	-	0		0	0	0	0	$0	0
Notice of Termination for WDID 1B105023MEN accepted by NCRWQCB.																		

Road # / Road Class	GIS# / ID#	Mile End	Plan Crew	Final Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
0	5380	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5380	0.000	Unk	10/14/2009		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	5385	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5385	0.000	Unk	10/21/2009		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	5389	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5389	0.000	Unk	10/23/2009		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	5390	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5390	0.000	Unk	10/23/2009		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings in the south and central portions of the THP. No problems.																		
0	5400	0.000	Pehl	Pehl	05-023	Clover	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5400	0.000	Unk	10/23/2009		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings in the portion of the plan west of Old Stage Road. On goin trespass issues. Erosion control still in place.																		
0	5511	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5511	0.000	Unk	5/3/2010		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	5542	0.000	Pehl	Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5542	0.000	Unk	11/11/2010		Waiver	No Action	No Action	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	5540	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5540	0.000	Unk	11/12/2010		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	5544	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5544	0.000	Unk	11/15/2010		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	5545	0.000		Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5545	0.000	Unk	11/16/2010		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	5572	0.000	Pehl	Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5572	0.000	Unk	1/4/2011		Waiver	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings. No problems.																		
0	5584	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5584	0.000	Unk	1/6/2011		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
Inspected roads and watercourse crossings north of Rockpile Creek. No problems.																		
0	5579	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5579	0.000	Unk	1/10/2011		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
0	5585	0.000	Pehl	Pehl	06-009	Ivy	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5585	0.000	Unk	1/12/2011		1B106009SON	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings south of Buckeye Creek. No problems.																	
0	5773	0.000	Pehl	Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5773	0.000	Unk	11/16/2011		Waiver	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	5774	0.000		Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5774	0.000	Unk	1/27/2012		Waiver	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	5801	0.000	Pehl	Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5801	0.000	Unk	6/7/2012		Waiver	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	5864	0.000	Pehl	Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5864	0.000	Unk	10/12/2012		Waiver	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Road work in progress. Erosion control for 2012 logging completed. Inspected roads and watercourse crossings. No problems.																	
0	5865	0.000	Pehl	Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5865	0.000	Unk	10/22/2012		Waiver	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings after first fall rains. No problems.																	
0	5869	0.000	Pehl	Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5869	0.000	Unk	11/5/2012		Waiver	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	5872	0.000	Pehl	Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5872	0.000	Unk	12/3/2012		Waiver	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	5875	0.000	Pehl	Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5875	0.000	Unk	1/8/2013		Waiver	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	5946	0.000	Pehl	Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5946	0.000	Unk	5/8/2013		Waiver	No Action	Medium	-	-	0		0	0	0	0	$0	0
	No 2013 operations to date. Roads and watercourses have held up fine. Very dry spring weather.																	
0	6036	0.000	Pehl	Pehl	08-086	Belladonna	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6036	0.000	Unk	10/22/2013		Waiver	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected Roads and Watercourse Crossings. No problems.																	
0	6039	0.000	Pehl	Pehl	10-081	Juniper	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6039	0.000	Unk	11/14/2013		GWDR 1-10-081	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. No problems.																	
0	6092	0.000	Pehl	Pehl	10-081	Juniper	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6092	0.000	Unk	9/5/2014		GWDR 1-10-081	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected THP area and notified LTO of work necessary to complete the THP.																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
0	5413	0.000	Haschak Pehl		10-081	Juniper	Surface Drainage	THP Non-Road	Spr.		0	0	0	0	0	0	$140	0
Existing Skid	5413	0.000	Unk	10/15/2014		GWDR 1-10-081	Excavate Soil	Medium	-	-	0		0	0	1	10	$0	0
	There is a spring at skid trail intersection. Reroute skid trail around spring to avoid spring as much as is feasible. Spring is running down the skid trail system to the north and has created downslope erosion and a class III. Dip out edge of spring on the south west side so that it drains downhill towards existing springy area about 50 feet to the south west and this will cause it to end up in existing draws. It may be necessary to also drain the skid trail that is about 100 feet to the southwest if this action causes that skid trail to become moist where spring water crosses it on its way downslope.																	
0	5461	0.000	Haschak Pehl		10-081	Juniper	Temp. Crossing	THP Non-Road	II		0	0	0	0	0	0	$0	0
Existing Skid	5461	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Install pipe adequate to handle flow if wet at time of operations. Remove and dip out at close of operations.																	
0	5411	0.000	Haschak Pehl		10-081	Juniper	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5411	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Class III temporary skid xing. If wet at time of operations install 4" by 20' pipe or larger if necessary. Dip out crossing at close.																	
0	5416	0.000	Haschak Pehl		10-081	Juniper	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5416	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	CIII skid xing. If wet at time of operations install 4" by 20' pipe or larger if necessary. Dip out at close of operations to stream grade. Create mound on downhill side of watercourse so that watercourse does not flow down skid trail.																	
0	5431	0.000	Haschak Pehl		10-081	Juniper	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5431	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	CIII skid trail crossing. If wet at time of operations install 4" by 20' pipe or larger if necessary. Dip out crossing at end of operations but it is not necessary to dip out all the way to existing grade on the downhill side..																	
0	5432	0.000	Haschak Pehl		10-081	Juniper	Temp. Crossing	THP New Con.	Swale		0	0	0	0	0	0	$0	0
Private Seasonal	5432	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Dip out crossing of minor swale on proposed seasonal road at end of operations.																	
0	5434	0.000	Haschak Pehl		10-081	Juniper	Temp. Crossing	THP Non-Road	Swale		0	0	0	0	0	0	$0	0
Existing Skid	5434	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Cross abandoned class III channel now just a swale. Dip out at close of operations.																	
0	5454	0.000	Haschak Pehl		10-081	Juniper	Temp. Crossing	THP Non-Road	Swale		0	0	0	0	0	0	$0	0
Existing Skid	5454	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	What appears to be a classs III has had its water supply cutoff probably by moving a culvert on the road above it. No connectivity below. If flagged skid trail is used to cross this swale then dip out and maintain existing mound that keeps any flow from running down the lower skid trail.																	
0	5456	0.000	Haschak Pehl		10-081	Juniper	Temp. Crossing	THP Non-Road	Swale		0	0	0	0	0	0	$0	0
Existing Skid	5456	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Dip out swale on skid trail but not down to grade.																	
0	5458	0.000	Haschak Pehl		10-081	Juniper	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5458	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Class III temporary skid xing. If wet at time of operations install 4" by 20' pipe or larger if necessary. Dip out crossing at close.																	
0	5457	0.000	Haschak Pehl		10-081	Juniper	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5457	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Class III temporary skid xing. If wet at time of operations install 4" by 20' pipe or larger if necessary. Dip out crossing at close.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
0	5409	0.000	Haschak	Pehl	10-081	Juniper	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5409	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Class III temporary skid xing. If wet at time of operations install 4" by 20' pipe or larger if necessary. Dip out crossing at close.																	
0	5407	0.000	Haschak	Pehl	10-081	Juniper	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5407	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Class III temporary skid xing. If wet at time of operations install 4" by 20' pipe or larger if necessary. Dip out crossing at close.																	
0	5415	0.000	Haschak	Pehl	10-081	Juniper	Temp. Crossing	THP Non-Road	Spr.		0	0	0	0	0	0	$0	0
Existing Skid	5415	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	install spring drain 4" x 20' pipe if wet at time of operations. Dip out at close of operations.																	
0	5405	0.000	Haschak	Pehl	10-081	Juniper	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5405	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Class III temporary skid xing. If wet at time of operations install 4" by 20' pipe or larger if necessary. Dip out crossing at close.																	
0	5410	0.000	Haschak	Pehl	10-081	Juniper	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5410	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Class III temporary skid xing. If wet at time of operations install 4" by 20' pipe or larger if necessary. Dip out crossing at close.																	
0	5599	0.000	Haschak	Pehl	11-043	Rose	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5599	0.000	Unk	10/17/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Barely a class III. Hard to define at this point. Lightly scrap off any loose earth from this area at close of operations.																	
0	5589	0.000	Haschak	Pehl	11-043	Rose	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5589	0.000	Unk	10/17/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Existing skid crossing on class III. Install 4" or larger pipe if wet at time of operations. Dip out at close.																	
0	5593	0.000	Haschak	Pehl	11-043	Rose	Gully	THP Non-Road	III		0	0	0	2	0	0	$450	200
Existing Skid	5593	0.000	Unk	10/17/2014		GWDR 1-11-043 Me	Excavate Soil	Medium	-	-	0		0	2	0	0	$2	200
	An old skid trail has diverted a class III causing erosion. Recontour the draw so that class III returns to natural channel. This will require that a piece of equipment go down the thru cut from the upper road but will save a lot of sediment in the long run.This road point will be fixed irregardless of yarding method used on this unit.																	
0	5594	0.000	Haschak	Pehl	11-043	Rose	Temp. Crossing	THP Non-Road	Swale		0	0	0	0	0	0	$0	0
Existing Skid	5594	0.000	Unk	10/17/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	skid xing on class III. Go straight across. Stay out out of channel except to repair point #6 below. Dip out any loose material at close.																	
0	5598	0.000	Haschak	Pehl	11-043	Rose	Temp. Crossing	THP Non-Road	Spr.		0	0	0	0	0	0	$0	0
Existing Skid	5598	0.000	Unk	10/17/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	install 4" or larger spring drain if wet at time of operations. Can be left in if functioning or pulled and dipped out at close.																	
0	5602	0.000	Haschak	Pehl	11-043	Rose	No Problem	THP Non-Road	N/A		0	0	0	0	0	0	$0	0
Existing Skid	5602	0.000	Unk	10/17/2014		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	An existing skid trail approaches the road system near a class II. Skid trail shall be sloped so that no significant sidecasting of soil shall occur.																	
0	6093	0.000	Pehl	Pehl	10-081	Juniper	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6093	0.000	Unk	10/22/2014		GWDR 1-10-081	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected progress of THP Clean Up. Access limited by soft roads. No problems.																	
0	6116	0.000	Bennett	Bennett	11-087	Kestrel	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6116	0.000	Unk	11/12/2014		GWDR 1-11-087 SO	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourses. No problems.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
0	6382	0.000	Bennett	Bennett	11-087	Kestrel	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6382	0.000	Unk	1/21/2015		GWDR 1-11-087 SO	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourses. No problems.																	
0	5535	0.000	Haschak	Bennett	11-087	Kestrel	Temp. Crossing	THP Non-Road	N/A		0	0	0	0	0	0	$0	0
Existing Skid	5535	0.000	R&S	2/3/2015		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Skid trail crossing of low area; may be moist until mid summer . Do not use until operator has inspected for dryness.																	
0	6383	0.000	Bennett	Bennett	11-087	Kestrel	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6383	0.000	Unk	7/9/2015		GWDR 1-11-087 SO	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourses. No problems.																	
0	6381	0.000	Alden	Alden	10-081	Juniper	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6381	0.000	Unk	9/21/2015		GWDR 1-10-081	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Inspected roads and watercourse crossings. **No problems.**																	
0	5787	0.000	Haschak	Bennett	12-087	Alder	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5787	0.000	Unk	11/14/2015		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Install 4" or larger pipe if water is present at time of operations. Dip out at close of operations																	
0	5959	0.000	Haschak	Borcich	13-061	Buttercup	Temp. Crossing	THP Non-Road	Spr.		0	0	0	0	0	0	$0	0
Existing Skid	5959	0.000	Unk	10/15/2018		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Skid trail crossing. Install spring drain pipe (4" or larger) if wet at time of operations.																	
0	5958	0.000	Haschak	Borcich	13-061	Buttercup	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5958	0.000	Unk	10/15/2018		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Skid trail crossing. Dip out to grade at close of operations.																	
0	5973	0.000	Haschak	Borcich	13-061	Buttercup	Temp. Crossing	THP Non-Road	Spr.		0	0	0	0	0	0	$0	0
Existing Skid	5973	0.000	Unk	10/15/2018		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Skid trail crossing. Install spring drain pipe 4 inches or larger if wet at time of operations																	
0	5974	0.000	Haschak	Borcich	13-061	Buttercup	Temp. Crossing	THP Non-Road	Spr.		0	0	0	0	0	0	$0	0
Existing Skid	5974	0.000	Unk	10/15/2018		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Skid trail crossing. Install spring drain pipe 4 inches or larger if wet at time of operations																	
0	5957	0.000	Haschak	Borcich	13-061	Buttercup	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	5957	0.000	Unk	10/15/2018		GWDR 1-13-061 M	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Skid trail crossing. Dip out at close of operations. Install rock or large woody debris as grade control on the outside edge of this crossing since there is a drop at the outside edge of the crossing and it probably will not be possible to pull it down to grade.																	
0	6541	0.000		Ghirann	17-104	Elm	Temp. Crossing	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6743	0.000	Unk	6/10/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
0	6539	0.000		Ghirann	17-104	Elm	Temp. Crossing	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6737	0.000	Unk	6/11/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
0	5666	0.000		Ghirann	17-104	Elm	Humboldt	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6742	0.000	Unk	6/11/2019		ECP Not	Armored Ford	Medium	-	-	0		0	0	0	0	$0	0

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
0	6576	0.000		Ghirann	17-104	Elm	Temp. Crossing	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6726	0.000	Unk	6/11/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
0	1002	0.000		Ghirann	17-104	Elm	Culv.	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6741	0.000	Unk	6/11/2019		ECP Not	Culv. Replace	Medium	-	-	0		0	0	0	0	$0	0
0	1003	0.000		Ghirann	17-104	Elm	Temp. Crossing	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6740	0.000	Unk	6/11/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
0	1884	0.000		Ghirann	17-104	Elm	Temp. Crossing	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6738	0.000	Unk	6/11/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
0	6571	0.000		Ghirann	17-104	Elm	Surface Drainage	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6735	0.000	Unk	6/11/2019		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
0	1262	0.000		Ghirann	17-104	Elm	Temp. Crossing	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6730	0.000	Unk	6/11/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
0	6546	0.000		Ghirann	17-104	Elm	Surface Drainage	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6729	0.000	Unk	6/11/2019		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
0	6580	0.000		Ghirann	17-104	Elm	Surface Drainage	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6728	0.000	Unk	6/11/2019		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
0	6547	0.000		Ghirann	17-104	Elm	Surface Drainage	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6727	0.000	Unk	6/11/2019		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
0	6054	0.000		Ghirann	17-104	Elm	Surface Drainage	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6722	0.000	Unk	6/11/2019		ECP Not	Waterbar	Medium	-	-	0		0	0	0	0	$0	0
0	6053	0.000		Ghirann	17-104	Elm	Surface Drainage	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6720	0.000	Unk	6/11/2019		ECP Not	Waterbar	Medium	-	-	0		0	0	0	0	$0	0
0	6544	0.000		Ghirann	17-104	Elm	Temp. Crossing	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6717	0.000	Unk	6/11/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
0	6543	0.000		Ghirann	17-104	Elm	Temp. Crossing	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6716	0.000	Unk	6/11/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
0	6542	0.000		Ghirann	17-104	Elm	Temp. Crossing	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6715	0.000	Unk	6/11/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
0	6540	0.000		Ghirann	17-104	Elm	Gully	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6714	0.000	Unk	6/11/2019		ECP Not	Waterbar	Medium	-	-	0		0	0	0	0	$0	0
0	6548	0.000		Ghirann	17-104	Elm	Slide - Deep	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6712	0.000	Unk	6/11/2019		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Slide onto road, still possible to pass.																	
0	6545	0.000		Ghirann	17-104	Elm	Temp. Crossing	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6718	0.000	Unk	6/11/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
0	6052	0.000		Ghirann	17-104	Elm	Surface Drainage	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6721	0.000	Unk	6/11/2019		ECP Not	Waterbar	Medium	-	-	0		0	0	0	0	$0	0
	road closed																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
0	6545	0.000	Haschak	Borcich	17-104	Elm	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6545	0.000	Unk	10/15/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
Dip out at close of operations.																		
0	6540	0.000	Haschak	Borcich	17-104	Elm	Gully	THP Non-Road	N/A		0	0	0	0	0	0	$100	100
Existing Skid	6540	0.000	Unk	10/15/2019		GWDR-1-17-104 SO	Waterbar	Medium	-	-	0		0	1	0	0	$1	100
An old skid trail a couple of hundred feet long is a thru cut and is channeling a small amount of water. Reuse of this trail will allow for corrective action. Place large waterbar at the top and breach the berm half way down at the minimum.																		
0	6542	0.000	Haschak	Borcich	17-104	Elm	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6542	0.000	Unk	10/15/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
Very poorly defined class III. Dip out or mound up on either side so as to not divert it.																		
0	6543	0.000	Haschak	Borcich	17-104	Elm	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6543	0.000	Unk	10/15/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
Dip out at close of operations.																		
0	6544	0.000	Haschak	Borcich	17-104	Elm	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6544	0.000	Unk	10/15/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
Dip out at close of operations.																		
0	803	0.200		Ghirann	Maintena	Maintenance	Worn Out Culvert	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6765	0.000	Unk	6/11/2019		ECP Not	Culv. Replace	Medium	-	-	0		0	0	0	0	$0	0
rusted at outlet																		
0	822	0.250		Ghirann	Maintena	Maintenance	Worn Out Culvert	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6760	0.000	Unk	6/11/2019		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
down spout rusting																		
0	2264	0.280		Ghirann	Maintena	Maintenance	Worn Out Culvert	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6766	0.000	Unk	6/11/2019		ECP Not	Culv. Replace	High	-	-	0		0	0	0	0	$0	0
inlet bottom completely rusted out. Outlet partially filled with sediment, appears water is not flowing through pipe.																		
0	934	0.675		Ghirann	Maintena	Maintenance	Worn Out Culvert	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6759	0.000	Unk	6/11/2019		ECP Not	Culv. Replace	Medium	-	-	0		0	0	0	0	$0	0
inlet very rusted and partailly crushed.																		
0	818	0.710		Ghirann	Maintena	Maintenance	Culv.	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6761	0.000	Unk	6/11/2019		ECP Not	Culv. Maintenance	Medium	-	-	0		0	0	0	0	$0	0
outlet partially crushed. Down cutting																		
0	933	0.770		Ghirann	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6758	0.000	Unk	6/11/2019		ECP Not	Rock Surface	Medium	-	-	0		0	0	0	0	$0	0
pooling on road																		
0	118	1.000		Ghirann	Maintena	Maintenance	Culv.-HDP-Plug	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6767	0.000	Unk	6/11/2019		ECP Not	Culv. Maintenance	Medium	-	-	0		0	0	0	0	$0	0
pipe outlet 2/3 filled with sediment.																		
0	811	1.270		Ghirann	Maintena	Maintenance	Worn Out Culvert	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6763	0.000	Unk	6/11/2019		ECP Not	Culv. Replace	Medium	-	-	0		0	0	0	0	$0	0
projected outlet, downcutting. Inlet bottom completely rusted out.																		

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
0	806	1.660		Ghirann	Maintena	Maintenance	Worn Out Culvert	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6768	0.000	Unk	6/11/2019		ECP Not	Culv. Replace	Medium	-	-	0		0	0	0	0	$0	0
	outlet projected, downcutting, bottom rusted out.																	
0	796	2.110		Ghirann	Maintena	Maintenance	Culv.	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6769	0.000	Unk	6/11/2019		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	down cutting at bottom of down spout																	
0	788	2.620		Ghirann	Maintena	Maintenance	Culv.-Plug	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6770	0.000	Unk	6/11/2019		ECP Not	Culv. Replace	Medium	-	-	0		0	0	0	0	$0	0
	culvert 3/4 filled with sediment, partially crushed at inlet.																	
1.03	1127	0.130	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1127	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
1.03	2509	0.420	Fisher	Pehl	05-023	Clover	Surface Drainage	THP Mitigation	N/A		0	0	0	0	0	0	$0	295
Storm Proofed	2509	1.020	R&S	10/2/2007		1B105023MEN	Tip and Dip	THP Low	-	-	0		0	0	0	0	$0	293
	Trespassers have damaged road drainage strucutres. Re-install after operations.																	
1.03	3114	1.500	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	3114	0.000	Unk	1/23/2007		ECP Not	Gate	No Action	-	-	0		0	0	0	0	$0	0
	Moonrise gate at Old Stage Road																	
1.0335	5965	0.100	Haschak	Borcich	13-061	Buttercup	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	5965	0.000	Unk	10/15/2018		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Dip out.																	
1.0335	5964	0.110	Haschak	Borcich	13-061	Buttercup	Temp. Crossing	THP App. Rd.	Swale		0	0	0	0	0	0	$0	0
Private Seasonal	5964	0.000	Unk	10/15/2018		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Dip out.																	
1.033507	5911	0.000	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	5911	0.090	Unk	2/26/2013		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
1.0364	2510	0.000	Fisher	Pehl	05-023	Clover	Surface Drainage	THP Mitigation	N/A		0	0	0	0	0	0	$0	198
Upgraded	2510	0.400	R&S	10/2/2007		1B105023MEN	Tip and Dip	THP Low	-	-	0		0	0	0	0	$0	196
1.14	3142	0.030	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$1,269	0
Private Seasonal	3142	0.000	R&S	2/26/2007		ECP Not	Gate	Medium	-	-	0		0	0	0	0	$0	0
	Install blocks and gate																	
1.25	934	0.675	Tordoff	Borcich	SB-271-0	SB-271-00	Culv.-HDP-Plug	THP... Not	II		0	0	0	6	0	0	$7,150	134
Private Seasonal	934	0.000	Unk	11/8/2023		ECP Not	Culv. Replace	High	36"	60"	80		0	6	4	124	$53	134
	Two 36" CMP's on 10' x 1.5' class 2 stream. Spoil pile to left of inlet indicates past inlet cleaning. There is a DP to right. Both pipes have crushed inlet. Pipe on right is receiving flow. Road receives year round traffic Treatment: Replace culverts with a 60" CMP, rebuild crossing with critical dip on left hinge line. Note: This turn is too tight for a low-bed, use an extra long pipe (60-80') to correct turn alignment																	
1.25	2661	1.100	Pehl	Pehl	00-391	Terrapin Station	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2661	2.400	Unk	12/20/2005		ECP Not	No Action	See Comments	-	-	0		0	0	0	0	$0	0
	Wet weather road inspection. / Completion Inspection.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
1.25	2680	1.100	Pehl	Pehl	00-391	Terrapin Station	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2680	2.000	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																	
1.25	2681	1.100	Pehl	Pehl	01-392	Box of Rain	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2681	2.000	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																	
1.25	1106	1.300	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1106	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
1.25	5728	1.300	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$687	0
Private Seasonal	5728	3.100		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	18	0	$0	0
1.25	557	1.400	William	Kelly	Storm Pro	Storm Proofing	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	557	4.200	Su	10/10/1999		ECP Not	Dip Rolling	Medium	-	-	0		0	13	0	0	$0	0
1.25	557	1.400	William	Alden	Maintena	Maintenance	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$750	0
Private Seasonal	988	4.200	ME	7/15/2000		ECP Not	Dip Rolling	Medium	-	-	0		0	10	0	0	$0	0
1.25	2937	1.500	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$0	1,628
Upgraded	2937	4.830	R&S	7/25/2006		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	1,628
1.25	1066	1.810	Haschak	Pehl	00-391	Terrapin Station	Other	THP App. Rd.	II		0	0	0	0	0	0	$0	0
Private Seasonal	1066	0.000	AL	10/15/2004		ECP Not	Other	Low	-	-	0		0	0	0	0	$0	0
	An existing haul road enters the WLPZ of a class II watercourse for a very short distance. No sidecasting while grading through this area.																	
1.25	2132	1.900	Haschak	Pehl	03-020	Madrone	Surface Drainage	THP App. Rd.	Spr.		0	0	0	1	0	0	$90	0
Private Seasonal	2132	1.900	AL	11/15/2004		ECP Not	Dip Rolling	Medium	-	-	0		0	1	0	0	$0	0
	install an additional rolling dip to the east of the road intersection point (where another rolling dip already exists) but close enough to the intersection so that it intercepts some of the spring drainage that is flowing down the inside ditch. Be careful to avoid the rare plant area that exists to the east and on the south side of the road and that is marked with a fence post.																	
1.25	1864	3.100	Haschak	Pehl	01-392	Box of Rain	Surface Drainage	THP App. Rd.	N/A		0	0	0	5	0	0	$575	0
Private Seasonal	1864	3.500	R&S	5/30/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	5	0	0	$0	0
	This road segment and segment 1001 have thru cut areas. Breach the berm in these areas and dig trenches out to where the water will drain (at least every 200 feet). Waterbars/rolling dips and the associated drainage ditches will be created by pushing material toward the road and road can be used for spoils, from here and from other locations on the property, in order to raise the road grade. Areas that are not thru cut should have standard waterbars/rolling dips at standard intervals																	
1.25	1763	3.500	Haschak	Pehl	01-392	Box of Rain	Stream Bank	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1763	0.000	AL	10/15/2004		ECP Not	Culv. Install	Medium	-	-	0		0	1	0	0	$0	0
	install spring drain with critical dip or install rocked rolling dip																	
1.25	1870	3.650	Haschak	Pehl	01-392	Box of Rain	Fill - Road	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1870	0.000	AL	10/15/2004		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
	The road at this point will be out sloped, the perched fill pulled back and incorporated into the road surface.																	
1.25	777	3.700	Haschak	Pehl	01-392	Box of Rain	Surface Drainage	THP App. Rd.	II		0	0	0	0	0	0	$0	87
Private Seasonal	1796	0.000	AL	10/15/2004		ECP Not	Other	Medium	24"	36"	0		0	1	0	0	$0	87
	inslope road over culvert																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
1.25	777	3.700	McCanl	Borcich	SB-271-0	SB-271-00	Culv.	Storm Proofing	II		0	0	0	8	8	0	$4,933	87
Private Seasonal	777	0.000	Unk	11/8/2023		ECP Not	Culv. Replace	Medium	24"	36"	50		0	9	5	289	$57	87
	a 24" cmp on a class 2 . Low gradient and high in fill cmp functioning OK but appears undersized outlet is shot gunned and DS is not working treat: excavate top to bot replace with 36" cmp at grade endhaul spoils to spoil site rock armour both inlet and outlet of cmp.																	
1.25	1797	3.750	Haschak	Pehl	01-392	Box of Rain	Cut Bank Failure	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1797	0.000	AL	10/15/2004		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
	Also excavate any outboard fill that is feasible adjacent to this road point while still maintaining the road width																	
1.25	1862	3.790	Haschak	Pehl	01-392	Box of Rain	Fill - Road	THP App. Rd.	N/A		0	0	0	3	0	0	$345	0
Private Seasonal	1862	0.000	R&S	5/30/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
	Remove perched fills and widen road by excavating bank. Install an inverse dip (build road grade up) in order to drain the road at this point. In order to widen road arch the road over the top of the slide scar (Spittler recommendation) while excavating into bank. Up to five feet of fill can be placed on the existing road surface and the face of the fill shall be no steeper than 1.5:1 Mulch and grass seed bare ground.																	
1.25	775	3.890	Haschak	Pehl	01-392	Box of Rain	Culv.	THP App. Rd.	III		0	0	0	0	1	0	$75	80
Private Seasonal	1789	0.000	R&S	5/30/2006		ECP Not	Culv. Replace	High	18"	24"	0		0	1	0	0	$1	80
	install rocked rolling dip at nearest low spot to this point																	
1.25	775	3.890	McCanl		SB-271-0	SB-271-00	Culv.	Storm Proofing	III		0	0	0	5	3	0	$2,616	80
Private Seasonal	775	0.000	Unk	11/8/2023		ECP Not	Culv. Replace	High	18"	24"	50		0	6	4	189	$33	80
	a 18" cmp on a class 3 low gradient and high in fill . A 15 yrd. Failure at outlet. Treat: excavate top to bot. Replace with 24" cmp at grade endhaul spoil to left. Inslope road over crossing add C.D																	
1.25	774	3.900	McCanl		Maintena	Maintenance	Culv.	THP App. Rd.	III		0	0	0	1	0	0	$425	0
Private Seasonal	774	0.000	Unk	5/30/2006		ECP Not	Culv. Maintenance	Medium	24"	-	0		0	1	4	0	$0	0
	clear inlet and outlet add 20' of D.S add critical dip																	
1.25	774	3.900	Haschak	Pehl	01-392	Box of Rain	Culv.	THP App. Rd.	III		0	0	0	1	0	0	$205	0
Private Seasonal	1776	0.000	R&S	5/30/2006		ECP Not	Culv. Maintenance	Medium	24"	-	0		0	1	4	0	$0	0
	clear inlet and outlet add 20' of downspout add critical dip																	
1.25	771	4.020	Haschak	Pehl	01-392	Box of Rain	Surface Drainage	THP App. Rd.	III		0	0	0	0	0	0	$90	0
Private Seasonal	1798	0.000	R&S	6/12/2006		ECP Not	Dip Critical	Medium	-	24"	0		0	1	0	0	$0	0
	add critical dip over culvert																	
1.25	771	4.020	McCanl	Borcich	SB-271-0	SB-271-00	Culv.	Storm Proofing	III		0	0	0	11	14	0	$4,771	115
Private Seasonal	771	0.000	Unk	11/8/2023		ECP Not	Culv. Replace	Medium	18"	24"	40		0	12	4	482	$41	115
	a 18" on a class 3 flow going sub-surface 40' above inlet of cmp and emerges 30' below outlet during peak event cmp carries flow. Treat: excavate top to bot install 24" cmp to grade endhaul spoil to spoil site. Grade up from top 20' to establish channel add critical dip .																	
1.25	2688	4.100	Pehl	Pehl	01-392	Box of Rain	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2688	4.800	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																	
1.25	5719	4.100	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$276	0
Private Seasonal	5719	4.800		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	7	0	$0	0
1.25	765	4.120	Haschak	Pehl	01-392	Box of Rain	Culv.	THP App. Rd.	III		0	0	0	0	0	0	$90	0
Private Seasonal	1775	0.000	R&S	5/30/2006		ECP Not	Dip Critical	Medium	-	-	0		0	1	0	0	$0	0
	add critical dip																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia / New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
1.25	765	4.120	McCanl	Borcich	Maintena	Maintenance	Culv.	THP App. Rd.	III	0	0	0	0	0	0	$100	0
Private Seasonal	765	0.000	Unk	11/8/2023		ECP Not	Dip Critical	Medium	- -	0		0	1	0	0	$0	0
	add critical dip																
1.25	764	4.150	McCanl		Maintena	Maintenance	Dip Critical	THP App. Rd.	N/A	0	0	0	0	1	0	$190	5
Private Seasonal	764	0.000	Unk	5/30/2006		ECP Not	Rock Surface	Medium	- -	0		0	1	0	0	$38	5
	a rolling dip on a class 3 a small amount of outlet erosion approx. 2 yrds. Treat: inhance rolling dip and rock surface and outlet area																
1.25	764	4.150	Haschak	Pehl	01-392	Box of Rain	Dip Critical	THP App. Rd.	N/A	0	0	0	0	1	0	$165	5
Private Seasonal	1774	0.000	R&S	5/30/2006		ECP Not	Rock Surface	Medium	- -	0		0	1	0	0	$33	5
	a rolling dip on a class 3 a small amount of outlet erosion approx. 2 yrds. Treat: enhance rolling dip and rock outlet area																
1.2502	2312	0.000	Pehl	Pehl	00-443	Shell	No Problem	THP Maint Insp	N/A	0	0	0	0	0	0	$0	0
Private Seasonal	2312	0.000	Unk	12/9/2003		ECP Not	No Action	Medium	- -	0		0	0	0	0	$0	0
	Examimed erosion control on roads used in summer of 2003.																
1.2502	1108	0.500	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A	0	0	0	0	0	0	$0	0
Private Seasonal	1108	0.000	Unk	12/5/2000		ECP Not	Gate	Low	- -	0		0	0	0	0	$0	0
1.250245	2535	0.100	Haschak	Pehl	00-443	Shell	Surface Drainage	THP Mitigation	N/A	0	0	0	0	0	0	$90	0
Private Seasonal	1059	0.000	Unk	10/15/2004		ECP Not	Excavate Soil	THP Med	- -	0		0	0	0	0	$0	0
	at this location a culvert is dumping the overflow from the Sea Ranch water system storage tanks and it is running haphazardly down the hill and onto a skid trail that is being upgraded to a road. The solution is to extend the existing trench that exists at the outflow of the culvert further so that the water runs more directly towards the class II draw. Dig the trench and line it with rock all the way down to the class II. Road/skid trail not upgraded or used.																
1.25024515	2706	0.000	Pehl	Pehl	00-443	Shell	No Problem	THP Maint Insp	N/A	0	0	0	0	0	0	$0	0
Private Seasonal	2706	0.650	Unk	12/28/2005		ECP Not	No Action	No Action	- -	0		0	0	0	0	$0	0
	Wet weather road inspection. No problems.																
1.2518	1212	0.300	Haschak	Pehl	00-443	Shell	Fill - Road	THP Mitigation	II	0	0	0	4	0	0	$360	50
Private Seasonal	1212	0.000	AL	9/15/2004		ECP Not	Excavate Soil	THP Low	- -	0		0	0	0	50	$7	50
	On outside edge of road between point A and class II water course there are several areas of failing fill. Remove this material only were larger trees do not exist and spread on inside edge of road. Maintain road passability. The LTO will install additional water bars along this road between point A and class II water course. Waterbars should not empty onto slide areas.																
1.2518	1061	0.500	Haschak	Pehl	00-443	Shell	Temp. Crossing	THP Mitigation	Spr.	0	0	0	0	0	0	$50	0
Private Seasonal	1061	0.000	Unk	10/15/2004		ECP Not	Culv. Install	THP Med	- -	0		0	1	0	0	$0	0
	Install a spring drain pipe at this location. Pipe can be left in at close of operations or the pipe can be removed and the road dipped out so that spring doesn't run down the road. If pipe is left in then a large waterbar should be placed downslope on the road so that spring leaves the road surface if pipe ever plugs. Crossing not used.																
1.2518	1062	0.520	Haschak	Pehl	00-443	Shell	Temp. Crossing	THP Mitigation	N/A	0	0	0	0	0	0	$0	0
Private Seasonal	1062	0.000	Unk	10/15/2004		ECP Not	Dip Rolling	THP Med	- -	0		0	0	0	0	$0	0
	A swale uphill of the road needs a rolling dip or large waterbar at this location at close of operations.																

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
1.2518	1058	0.800	Haschak	Pehl	00-443	Shell	Temp. Crossing	THP New Con.	II		0	0	0	0	0	0	$572	0
Private Seasonal	1058	0.000	Unk	10/15/2004		ECP Not	Culv. Install	THP Med	-	18"	40		0	1	0	0	$0	0
	Temporary crossing of a class II watercourse. Install temporary 18" culvert. Place geo-textile fabric in creek bottom and up both banks for twenty feet, followed by a layer of straw, then the culvert, then fill shall be place to act as a running surface for truck traffic. Prior to October 15th of the year following operations the fill shall be removed and the straw shall be place on the road for erosion control and the fabric shall be removed.																	
	Crossing not used.																	
1.2526	2470	0.000	Alden	Pehl	00-391	Terrapin Station	Surface Drainage	THP... Not	N/A		0	0	0	0	0	0	$0	929
Upgraded	2470	1.900	AL	9/5/2004		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	929
1.2526	2660	0.000	Pehl	Pehl	00-391	Terrapin Station	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2660	1.800	Unk	12/20/2005		ECP Not	No Action	See Comments	-	-	0		0	0	0	0	$0	0
	Wet weather road inspection. / Completion Inspection.																	
1.2526	2936	0.000	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$0	1,616
Upgraded	2936	3.306	R&S	7/25/2006		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	1,616
1.2526	5718	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$1,162	0
Private Seasonal	5718	3.400		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	30	0	$0	0
1.2526	1105	0.110	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1105	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
1.2526	823	0.160	McCanl	Pehl	SB-271-0	SB-271-00	Culv.-Ditch Relief	Maintenance	N/A		0	0	0	1	0	0	$125	0
Private Seasonal	823	0.000	Unk	6/6/2006		ECP Not	Culv. Maintenance	Medium	18"	-	0		0	0	0	0	$0	0
	a 18' DRC , outlet covered with slash. Treat: clear outlet area.																	
1.2526	822	0.240	Haschak	Pehl	00-391	Terrapin Station	Culv.	THP Mitigation	Spr.		0	0	0	0	0	0	$537	0
Private Seasonal	1063	0.000	ME	11/15/2004		ECP Not	Culv. Install	THP High	-	18"	40		0	0	0	0	$0	0
	install spring drain or rocked rolling dip (Installed 18" CMP)																	
1.2526	822	0.250	McCanl	Pehl	SB-271-0	SB-271-00	Culv.	Storm Proofing	III		0	0	0	2	0	0	$350	20
Private Seasonal	822	0.000	Unk	6/6/2006		ECP Not	Culv. Maintenance	Medium	18"	-	0		0	1	0	20	$175	2
	18"cmp on a class 3 a 4' vertical drop 6' above inlet , a skid from right pushed small amount of fill up channel . Outlet slash covered with 10" DS. Treat: clear up channel 45" to stump , clear outlet area , add an additional 10' of DS , add CD.																	
1.2526	821	0.320	McCanl	Pehl	00-391	Terrapin Station	Other	Storm Proofing	N/A		0	0	0	0	1	0	$165	0
Private Seasonal	821	0.000	R&S	6/13/2006		ECP Not	Dip Critical	Medium	-	-	0		0	1	0	0	$0	0
	small channel coming down cutbank , no flow present time. Flows during peak rains. Treat: install rocked rolling dip , direct outlet towards small redwood clump.																	
1.2526	820	0.610	McCanl		SB-271-0	SB-271-00	Fill - Road	Storm Proofing	N/A		0	0	0	2	4	0	$910	200
Private Seasonal	820	0.000	Unk	6/6/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	2	2	200	$8	120
	potential roadfill failure extending through crossing #76. Treat: excavate and endhaul potential failure.																	
1.2526	819	0.650	McCanl	Pehl	00-391	Terrapin Station	Culv.	Maintenance	III		0	0	0	0	0	0	$200	0
Private Seasonal	819	0.000	Unk	6/13/2006		ECP Not	Culv. Maintenance	Medium	18"	-	0		0	1	2	0	$0	0
	a 18" cmp on a seasonal class 3 , cmp OK but has shotgunned outlet and has Dip to left. Treat: add Critical Dip left hinge , add Downspout. Place energy dissipator below downspout. Remove perched fill adjacent to this culvert and place in stable location.																	
1.2526	818	0.700	Haschak	Pehl	00-391	Terrapin Station	Cut Bank Failure	THP Mitigation	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1064	0.000	AL	10/15/2004		ECP Not	Excavate Soil	THP High	-	-	0		0	0	0	0	$0	0
	a cut bank failure is blocking an inside ditch and diverting water onto the road. Open up inside ditch so that water goes to the next culvert.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
1.2526	818	0.710	McCanl	Borcich	SB-271-0	SB-271-00	Culv.	Maintenance	III		0	0	0	1	0	0	$375	0
Private Seasonal	818	0.000	Unk	11/8/2023		ECP Not	Culv. Maintenance	Medium	18"	-	0		0	2	1	30	$0	0
a 18" cmp on a class 3 , outlet is damaged and a small headcut has developedbelow outlet. A small cutbank failure 50' to left of cmp , plugging inside ditch. Treat: clear inlet of cmp add trash rack , cut of damaged outlet , add 10' DS. Remove cutbank failure , push spoils to left to landing . Add CD to crossing and rolling dip 90' to left.																		
1.2526	1065	0.730	Haschak	Pehl	00-391	Terrapin Station	Surface Drainage	THP Mitigation	Spr.		0	0	0	0	0	0	$0	0
Private Seasonal	1065	0.000	AL	10/15/2004		ECP Not	Waterbar	THP High	-	-	0		0	0	0	0	$0	0
Relocate the existing waterbar 20 feet west of the present location..																		
1.2526	816	0.750	Haschak	Pehl	00-391	Terrapin Station	Fill - Road	THP App. Rd.	III		0	0	0	2	4	0	$440	0
Private Seasonal	1083	0.760	AL	10/15/2004		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
fill failing along outside edge of road for 75 to 100 feet. Pull fill and place in stable location.																		
1.2526	817	0.750	Alden	Alden	Maintena	Maintenance	Culv.	Maintenance	III		0	0	0	0	0	0	$0	0
Private Seasonal	5582	0.000	Unk	1/11/2011		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
Landslide from road edge to river. Probably occurred during big storm 12-29-10. 20,000 CFS at the Hot Spot																		
1.2526	816	0.810	McCanl		SB-271-0	SB-271-00	Fill - Road	Storm Proofing	N/A		0	0	0	3	0	0	$775	267
Private Seasonal	816	0.000	Unk	10/15/2004		ECP Not	Excavate Soil	Medium	-	-	0		0	3	2	267	$3	240
potential roadfill failure on slopes of 90% 30' to 60' to class 3 treat: excavate start to end , push spoils to left 75' .																		
1.2526	1067	0.870	Haschak	Pehl	00-391	Terrapin Station	Culv.	THP Mitigation	III		0	0	0	3	4	0	$645	0
Private Seasonal	1067	0.000	R&S	6/13/2006		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
The outflow of a culvert is emptying onto an old skid trail that looks like a class III and causing erosion. The LTO will place a rocked rolling dip 40 feet east of the existing waterbar and rock armor the culvert outlet at this crossing. Fill shall be removed for the outside edge of the road and a rocked outfall shall be installed for 6 feet down the slope to native ground.																		
1.2526	812	1.120	McCanl	Pehl	01-392	Box of Rain	Dip Rolling	THP App. Rd.	III		0	0	0	0	1	0	$65	0
Private Seasonal	812	0.000	AL	9/15/2004		ECP Not	Rock Surface	Medium	-	-	0		0	1	0	0	$0	0
a swale draining seasonal class 3 across road in mild dip , minor surface erosion less than 2 yrds. Treat: construct a rocked rolling dip at this location																		
1.2526	811	1.270	McCanl	Borcich	Storm Pro	Storm Proofing	Culv.	Storm Proofing	III		0	0	0	2	0	0	$1,286	46
Private Seasonal	811	0.000	Unk	10/15/2000		ECP Not	Culv. Replace	Medium	18"	24"	40		0	2	2	93	$28	46
a 18" cmp on a class 3 , cmp is rusted through. Treat: replace with 24" cmp to grade , grade up channel 20' above inlet add DS if needed.																		
1.2526	810	1.310	Haschak	Pehl	01-392	Box of Rain	Culv.	THP App. Rd.	III		0	0	0	1	0	0	$90	0
Private Seasonal	1787	0.000	AL	9/15/2004		ECP Not	Culv. Maintenance	Medium	-	-	0		0	1	0	0	$0	0
a 24" on a class 3 , well installed to grade. Slash and debris cover outlet treat: clear inlet and outlet , inslope road over crossing , add rolling dip 65' to left. Clean ditch to right																		
1.2526	810	1.310	McCanl		Maintena	Maintenance	Culv.	THP App. Rd.	III		0	0	0	1	0	0	$225	0
Private Seasonal	810	0.000	Unk	9/15/2004		ECP Not	Culv. Maintenance	Medium	-	-	0		0	1	0	0	$0	0
a 24" on a class 3 , well installed to grade. Slash and debris cover outlet treat: clear inlet and outlet , inslope road over crossing , add rolling dip 65' to left. Clean ditch to right																		
1.2526	809	1.330	Haschak	Pehl	01-392	Box of Rain	Other	THP App. Rd.	Spr.		0	0	0	3	0	0	$742	0
Private Seasonal	1786	0.000	AL	9/15/2004		ECP Not	Dip Rolling	Medium	-	18"	40		0	3	2	0	$0	0
flow emerging from cutbank from swale , appears to sub-surface class 3 flow visible in sink above cutbank. Flow currently collects in inside ditch then flowing right where it is absorbed into ditch. Treat: add rolling dip																		
1.2526	1761	1.550	Haschak	Pehl	01-392	Box of Rain	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1761	0.000	R&S	6/13/2006		ECP Not	Dip Rolling	THP Low	-	-	0		0	0	0	0	$0	0
install rocked rolling dip																		

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
1.2526	806	1.660	McCanl	Borcich	Storm Pro	Storm Proofing	Culv.	Storm Proofing	III		0	0	0	1	0	0	$225	0
Private Seasonal	806	0.000	Unk	10/15/2000		ECP Not	Dip Rolling	Medium	-	-	0		0	1	0	0	$0	0
a 18" cmp on a seasonal class 3 flow only during storm events. Cmp OK . Treat. Clear inlet and outlet install rolling dip 75' to left and one 75' to right.																		
1.2526	2687	1.800	Pehl	Pehl	01-392	Box of Rain	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2687	3.300	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																		
1.2526	799	1.890	McCanl		SB-271-0	SB-271-00	Fill - Road	Storm Proofing	N/A		0	0	0	5	10	0	$2,175	433
Private Seasonal	799	0.000	Unk	9/15/2004		ECP Not	Excavate Soil	High	-	-	0		0	5	3	433	$6	346
potential roadfill failure on slopes of 90% 40' to 90' to class 2 below. Trees present along OBR which will slow prod. Rate. Treat : excavate start to end leave all trees, endhaul to left to spoil site.																		
1.2526	799	1.900	Haschak	Pehl	01-392	Box of Rain	Fill - Road	THP App. Rd.	N/A		0	0	0	2	0	0	$180	0
Private Seasonal	1867	0.000	AL	9/15/2004		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
The fill on the outside edge of the road shall be pulled back and stabilized. Slash or mulch shall be placed on the earthern material below the fill failure to minimize any potential delivery. The area will be planted with conifers.																		
1.2526	798	1.970	Haschak	Pehl	01-392	Box of Rain	Culv.	THP App. Rd.	II		0	0	0	4	8	0	$880	296
Private Seasonal	798	0.000	AL	9/15/2004		ECP Not	Other	Medium	-	-	0		0	0	0	0	$3	296
a 36" cmp on a class 2 . Cmp OK but stream is headcutting 30' above cmp. Stream appears to have ponded sediment for approx. 250' above crossing , but well vegitated . Treat: rock armour headcut with rip-rap and plant conifer trees in the area adjacent to the channel above the road up to the existing tree line.																		
1.2526	798	1.980	Haschak	Pehl	01-392	Box of Rain	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1861	0.000	R&S	6/13/2006		ECP Not	Dip Rolling	High	-	-	0		0	1	0	0	$0	0
Install a rocked rolling dip 50 feet south of road point 798 at low spot where outside edge of the road is eroding.																		
1.2526	797	2.020	Haschak	Pehl	01-392	Box of Rain	Culv.	THP App. Rd.	III		0	0	0	0	0	0	$0	56
Private Seasonal	1799	0.000	R&S	5/30/2006		ECP Not	Other	High	18"	-	0		0	0	2	0	$0	56
add an energy dissipator below the downspout of the existing culvet. Rock shall be of sufficient size so as to not be washed away by high flows and shall cover sufficient area to stabilize the channel																		
1.2526	797	2.020	McCanl	Borcich	Maintena	Maintenance	Culv.	THP App. Rd.	III		0	0	0	3	0	0	$1,561	56
Private Seasonal	797	0.000	Unk	11/8/2023		ECP Not	Culv. Replace	Medium	18"	24"	40		0	3	3	100	$28	56
a 18" cmp on a class 3 cmp fucntioning OK but appears undersized. Cmp low gradient with 10' DS. A 8' plunge below DS. Treat: replace 18" with 24" at grade , or close to grade due to equip. restriction below cmp. Add DS if needed.																		
1.2526	796	2.110	McCanl	Borcich	SB-271-0	SB-271-00	Culv.	Storm Proofing	II		0	0	0	25	30	0	$11,050	249
Private Seasonal	796	0.000	Unk	11/8/2023		ECP Not	Culv. Replace	High	24"	36"	60		0	25	5	1,088	$44	249
a 24" on a class 2 , low gradient and high in fill . Channel has been filled below outlet with road sidecast from both sides lots of fill and LWD below outlet. Treat: excavate top to bot endhaul spoils to right to spoil area, install 36" cmp to grade , rock inlet and outlet. Install C D . Inslope road over crossing.																		
1.2526	794	2.250	Haschak	Pehl	01-392	Box of Rain	Dip Critical	THP App. Rd.	III		0	0	0	0	1	0	$65	0
Private Seasonal	1784	0.000	AL	9/15/2004		ECP Not	Rock Surface	Medium	-	-	0		0	1	0	0	$0	0
a rolling dip draining a seasonal class 3 swale minimal erosion , maintain rolling dip																		
1.2526	794	2.250	McCanl		Maintena	Maintenance	Dip Critical	THP App. Rd.	III		0	0	0	0	1	0	$190	0
Private Seasonal	794	0.000	Unk	9/15/2004		ECP Not	Rock Surface	Medium	-	-	0		0	1	0	0	$0	0
a rolling dip draining a seasonal class 3 swale minimal erosion , treat: rock rolling dip																		

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
1.2526	793	2.310	McCanl		Maintena	Maintenance	Culv.	THP App. Rd.	N/A		0	0	0	1	0	0	$425	40
Private Seasonal	793	0.000	Unk	9/15/2004		ECP Not	Culv. Maintenance	Medium	-	-	0		0	2	2	40	$11	40
a 18" cmp on seasonal class 3 no flow at present time , but flows during storm events. Cmp has D P to left , cmp also has 10' DS , but below DS a 5' plunge and a gully an old skid. Treat: excavate fill on left and right banks below outlet , add 20' DS and C D, also inslope road over crossing.																		
1.2526	793	2.310	Haschak	Pehl	01-392	Box of Rain	Culv.	THP App. Rd.	N/A		0	0	0	1	0	0	$90	40
Private Seasonal	1783	0.000	AL	9/15/2004		ECP Not	Culv. Maintenance	Medium	18"	-	0		0	2	2	40	$2	40
a 18" cmp on seasonal class 3 no flow at present time , but flows during storm events. cmp also has 10' DS , add an energy dissipator below the downspout of the existing culvet and critical dip, also inslope road over crossing.																		
1.2526	792	2.350	Haschak	Pehl	01-392	Box of Rain	Other	THP App. Rd.	III		0	0	0	2	0	0	$916	10
Private Seasonal	1782	0.000	AL	9/15/2004		ECP Not	Culv. Install	High	-	24"	40		0	0	4	0	$92	10
a well defined class 3 swale above and below road , no draining structure present. Shows evidence erosion of during major storm event. Flow goes down inside ditch 50' to waterbar , across road leaving a gulling over outboard fill . Treat: install 24 " cmp at this location with critical dip and downspout if necessary.																		
1.2526	792	2.350	McCanl		Maintena	Maintenance	Other	THP App. Rd.	III		0	0	0	4	0	0	$1,836	10
Private Seasonal	792	0.000	Unk	9/15/2004		ECP Not	Culv. Install	High	-	24"	40		0	4	4	50	$184	10
a well defined class 3 swale above and below road , no draining structure present. Shows evidence of during major storm event. Flow goes down inside ditch 50' to waterbar , across road leaving a gulling over OBF , then drains to site #52 class 3 . Treat: install 24 " cmp at this location with CD.																		
1.2526	789	2.510	Haschak	Pehl	01-392	Box of Rain	Dip Critical	THP App. Rd.	N/A		0	0	0	0	1	0	$65	3
Private Seasonal	1781	0.000	AL	9/15/2004		ECP Not	Rock Surface	Medium	-	-	0		0	2	0	0	$22	3
a rolling dip draining spring and swale minor outlet erosion at outlet less than 5 yrds. Treat : enhance dip and rock																		
1.2526	789	2.510	McCanl		Maintena	Maintenance	Dip Critical	THP App. Rd.	N/A		0	0	0	0	1	0	$290	3
Private Seasonal	789	0.000	Unk	9/15/2004		ECP Not	Rock Surface	Medium	-	-	0		0	2	0	0	$97	3
a rolling dip draining spring and swale minor outlet erosion at outlet less than 5 yrds. Treat : inhance dip and rock																		
1.2526	788	2.620	McCanl		Maintena	Maintenance	Cut Bank Failure	THP App. Rd.	N/A		0	0	0	2	2	0	$630	0
Private Seasonal	788	0.000	Unk	7/4/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	2	0	133	$0	0
cutbank failure plugging inside ditch and 18" DRC. That drains springs from either side. DRC is still fuctioning at this time though inlet can't be found. Treat: excavate failure endhaul to right to landing clear DRC.																		
1.2526	788	2.620	Haschak	Pehl	01-392	Box of Rain	Cut Bank Failure	THP App. Rd.	N/A		0	0	0	2	2	0	$560	0
Private Seasonal	1780	0.000	R&S	7/4/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	2	0	133	$0	0
cutbank failure plugging inside ditch and 18" ditch relief culvert that drains springs from either side. Ditch relief culvert is still fuctioning at this time though inlet can't be found. Treat: excavate failure and clear inlet and ditch																		
1.2526	787	2.720	Haschak	Pehl	01-392	Box of Rain	Dip Critical	THP App. Rd.	III		0	0	0	2	0	0	$1,880	65
Private Seasonal	1779	0.000	R&S	5/30/2006		ECP Not	Culv. Install	Medium	-	36"	40		0	0	0	0	$29	65
rolling dip over hinge line. Excavate road fill below crossing at this site, lay back at 2:1 ratio																		
1.2526	787	2.720	McCanl	Borcich	Maintena	Maintenance	Dip Critical	THP App. Rd.	III		0	0	0	6	0	0	$3,713	65
Private Seasonal	787	0.000	Unk	11/8/2023		ECP Not	Culv. Install	High	-	36"	50		0	7	4	250	$57	65
a dipped out crossing on a class 3 , there is a pond above dip , and pushed spoil down channel from OBF. Minor erosion through rolling dip , though not to grade. Class 3 from right is diverted down inside ditch to this site. Treat: excavate top to bot lay sides back 2 to 1 above and below crossing , OK to drain pond at inlet. Install 36" cmp to grade add DS if needed or rock energy dissipator.																		
1.2526	785	2.780	Haschak	Pehl	01-392	Box of Rain	Dip Critical	THP App. Rd.	III		0	0	0	0	1	0	$165	0
Private Seasonal	1778	0.000	R&S	5/30/2006		ECP Not	Rock Surface	Medium	-	-	0		0	1	0	0	$0	0
a rolling dip located at seasonal class 3 very little surface erosion occuring maitain rolling dip.																		

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
1.2526	785	2.780	McCanl		Maintena	Maintenance	Dip Critical	THP App. Rd.	III		0	0	0	0	1	0	$190	0
Private Seasonal	785	0.000	Unk	5/30/2006		ECP Not	Rock Surface	Medium	-	-	0		0	1	0	0	$0	0
a rolling dip located at seasonal class 3 very little surface erosion occuring treat: rock rolling dip.																		
1.2526	779	3.300	Haschak	Pehl	01-392	Box of Rain	Other	THP App. Rd.	II		0	0	0	1	2	0	$220	89
Private Seasonal	1792	0.000	AL	10/15/2004		ECP Not	Culv. Install	High	24"	48"	0		0	2	0	20	$2	89
rock inlet and outlet add critical dip and rolling dip to right up road 45' where shallow dip is present. Above inlet on left bank 20 yrds of spoil from skid is perched over inlet. Remove this 20 yrds add critical dip. Remove eroded perch fill that is north and south of culvert on outside edge of road and regrade surface of road where it is gullying.																		
1.2526	779	3.300	McCanl	Borcich	SB-271-0	SB-271-00	Culv.	Storm Proofing	II		0	0	0	5	2	0	$4,436	89
Private Seasonal	779	0.000	Unk	11/8/2023		ECP Not	Culv. Replace	High	24"	48"	50		0	7	4	187	$50	89
a 24" cmp on a class 2 , a pond exsist at inlet extending up stream approx. 200' . Outlet of cmp is shotgunned causing 17 yrds. Of past erosion treat: excavate top to bot replace with 48" cmp at grade , top is at inlet of old cmp (do not drain pond) rock inlet and outlet add critical dip and rolling dip to right up road 45' where shallow dip is present. Above inlet on left bank 20 yrds of spoil from skid is perched over inlet. Remove this 20 yrds add critical dip																		
1.252654	2684	0.000	Pehl	Pehl	00-391	Terrapin Station	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2684	0.400	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																		
1.252654	2685	0.000	Pehl	Pehl	01-392	Box of Rain	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2685	0.400	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																		
1.2541	2683	0.000	Pehl	Pehl	01-392	Box of Rain	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2683	0.400	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																		
1.2541	2682	0.000	Pehl	Pehl	00-391	Terrapin Station	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2682	0.400	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																		
1.2541	2942	0.000	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$0	259
Upgraded	2942	0.529	R&S	7/25/2006		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	259
1.2541	2524	0.000	Haschak	Pehl	05-146	Moss	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2524	0.300	AL	10/13/2006		ECP Not	Dip Rolling	THP Low	-	-	0		0	0	0	0	$0	0
Weepy inside ditch. Maintain and enhance rolling dips and waterbars along this section of road.																		
1.2541	2525	0.460	Haschak	Pehl	05-146	Moss	Temp. Crossing	Maintenance	III		0	0	0	3	0	0	$285	0
Private Seasonal	2525	0.460	AL	10/13/2005		ECP Not	Temp. Crossing	THP Low	-	-	0		0	0	0	0	$0	0
Install temporary pipe 6" by 30' if wet at time of operations. Pull all material down to grade, slope back banks, seed and mulch.																		
1.2582	1865	0.000	Haschak	Pehl	01-392	Box of Rain	Surface Drainage	THP App. Rd.	N/A		0	0	0	5	0	0	$575	0
Private Seasonal	1865	0.600	R&S	6/13/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	5	0	0	$0	0
This road segment and segment 1000 have thru cut areas. Breach the berm in these areas and dig trenches out to where the water will drain (at least every 200 feet). Waterbars/rolling dips and the associated drainage ditches will be created by pushing material toward the road and road can be used for spoils from here and other locations on the property in order to raise the road grade.																		
1.2582	2941	0.000	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$0	196
Upgraded	2941	0.400	R&S	7/25/2006		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	196

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
1.2582	2526	0.000	Haschak	Pehl	05-146	Moss	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2526	0.400	R&S	9/17/2007		ECP Not	Waterbar	THP Low	-	-	0		0	0	0	0	$0	0
Maintain and enhance rolling dips and waterbars along this section of road.																		
1.2582	5727	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$163	0
Private Seasonal	5727	0.430		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	4	0	$0	0
1.63	5726	1.750	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$200	0
Private Seasonal	5726	2.270		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	5	0	$0	0
1.637	5725	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$57	0
Private Seasonal	5725	0.150		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	2	0	$0	0
1.91	5724	1.350	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$64	0
Private Seasonal	5724	1.520		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	2	0	$0	0
26	6054	0.000	Haschak	Borcich	17-104	Elm	Surface Drainage	THP Non-Road	III		0	0	0	0	0	0	$0	10
Existing Skid	6558	0.000	Unk	10/15/2019		GWDR 1-15-042 SO	Waterbar	THP Med	-	-	0		0	0	0	0	$0	0
An existing skid trail has channeled surface flow down it. At 120, 121 and 122 extra large waterbars will be placed across the skid trail draining toward the class III watercourse that is approximately 50 feet to the north. A backhoe may be required Same points as used in Dogwood.																		
26	6053	0.000	Haschak	Borcich	17-104	Elm	Surface Drainage	THP Non-Road	III		0	0	0	0	0	0	$0	10
Existing Skid	6555	0.000	Unk	10/15/2019		ECP Not	Waterbar	THP Med	-	-	0		0	0	0	0	$0	0
An existing skid trail has channeled surface flow down it. At 120, 121 and 122 extra large waterbars will be placed across the skid trail draining toward the class III watercourse that is approximately 50 feet to the north. A backhoe may be required. Same points as used in Dogwood.																		
26	6052	0.000	Haschak	Borcich	17-104	Elm	Surface Drainage	THP Non-Road	III		0	0	0	0	0	0	$0	10
Existing Skid	6554	0.000	Unk	10/15/2019		GWDR 1-15-042 SO	Waterbar	Medium	-	-	0		0	0	0	0	$0	0
An existing skid trail has channeled surface flow down it. At 120, 121 and 122 extra large waterbars will be placed across the skid trail draining toward the class III watercourse that is approximately 50 feet to the north. A backhoe may be required Same points as used in Dogwood.																		
26	6047	0.000	Haschak	Borcich	15-042	Dogwood	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6047	0.000	Unk	10/15/2021		ECP Not	Temp. Crossing	THP Med	-	-	0		0	0	0	0	$0	0
Install pipe adequate to handle flow if wet at time of operations. Dip out to existing grade at close of operations.																		
26	6045	0.000	Haschak	Borcich	15-042	Dogwood	Temp. Crossing	THP Non-Road	II		0	0	0	0	0	0	$0	0
Existing Skid	6045	0.000	Unk	10/15/2021		ECP Not	Temp. Crossing	THP Med	-	-	0		0	0	0	0	$0	0
Install temporary pipe 6" or larger. Pull at close of operations. .																		
26	6044	0.000	Haschak	Borcich	15-042	Dogwood	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6044	0.000	Unk	10/15/2021		ECP Not	Temp. Crossing	THP Med	-	-	0		0	0	0	0	$0	0
Dip out down to existing grade at close.																		
26	6032	0.000	Haschak	Borcich	15-042	Dogwood	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6032	0.000	Unk	10/15/2021		ECP Not	Temp. Crossing	THP Med	-	-	0		0	0	0	0	$0	0
Dip out to grade at close of operations.																		
26	6030	0.000	Haschak	Borcich	15-042	Dogwood	Temp. Crossing	THP Non-Road	II		0	0	0	0	0	0	$0	0
Existing Skid	6030	0.000	Unk	10/15/2021		ECP Not	Temp. Crossing	THP Med	-	-	0		0	0	0	0	$0	0
Install temporary pipe if water is present. Pull banks back and remove all soil down to existing grade,																		

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
26	6050	0.000	Haschak	Borcich	15-042	Dogwood	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6050	0.000	Unk	10/15/2021		ECP Not	Temp. Crossing	THP Med	-	-	0		0	0	0	0	$0	0
Install pipe adequate to handle flow if wet at time of operations. Dip out to existing grade at close of operations.																		
26	6015	0.000	Haschak	Borcich	15-042	Dogwood	Temp. Crossing	THP Non-Road	II		0	0	0	0	0	0	$0	0
Existing Skid	6015	0.000	Unk	10/15/2021		ECP Not	Temp. Crossing	THP Med	-	-	0		0	0	0	0	$0	0
Install temporary pipe adequate to handle flow and pull down to grade at close of operations.																		
26	6031	0.000	Haschak	Borcich	15-042	Dogwood	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6031	0.000	Unk	10/15/2021		ECP Not	Temp. Crossing	THP Med	-	-	0		0	0	0	0	$0	0
Dip out to grade at close of operations.																		
26	6016	0.000	Haschak	Borcich	15-042	Dogwood	Temp. Crossing	THP Non-Road	Swale		0	0	0	0	0	0	$0	0
Existing Skid	6016	0.000	Unk	10/15/2021		ECP Not	Temp. Crossing	THP Med	-	-	0		0	0	0	0	$0	0
Two skid trails converge on west side of swale. Only use when dry or install small culvert and pull down to grade at close of operations																		
26	6052	0.000	Haschak	Borcich	15-042	Dogwood	Surface Drainage	THP Non-Road	III		0	0	0	0	0	0	$0	10
Existing Skid	6052	0.000	Unk	10/15/2021		GWDR 1-15-042 SO	Waterbar	THP Med	-	-	0		0	0	0	0	$0	0
An existing skid trail has channeled surface flow down it. At 120, 121 and 122 extra large waterbars will be placed across the skid trail draining toward the class III watercourse that is approximately 50 feet to the north. A backhoe may be required																		
26	6053	0.000	Haschak	Borcich	15-042	Dogwood	Surface Drainage	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6053	0.000	Unk	10/15/2021		ECP Not	Waterbar	THP Med	-	-	0		0	0	0	0	$0	0
An existing skid trail has channeled surface flow down it. At 120, 121 and 122 extra large waterbars will be placed across the skid trail draining toward the class III watercourse that is approximately 50 feet to the north. A backhoe may be required																		
26	6054	0.000	Haschak	Borcich	15-042	Dogwood	Surface Drainage	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6054	0.000	Unk	10/15/2021		ECP Not	Waterbar	THP Med	-	-	0		0	0	0	0	$0	0
An existing skid trail has channeled surface flow down it. At 120, 121 and 122 extra large waterbars will be placed across the skid trail draining toward the class III watercourse that is approximately 50 feet to the north. A backhoe may be required																		
26	6017	0.000	Haschak	Borcich	15-042	Dogwood	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	0
Existing Skid	6017	0.000	Unk	10/15/2021		ECP Not	Temp. Crossing	THP Med	-	-	0		0	0	0	0	$0	0
Dip out class III crossing at close of operations.																		
40.19	2674	0.000	Pehl	Pehl	99-445	Flats South	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2674	3.750	Unk	12/23/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
Winter Inspection. No problems.																		
40.1961	2691	0.000	Pehl	Pehl	01-392	Box of Rain	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2691	3.200	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																		
40.196104	5722	0.750	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$230	0
Private Seasonal	5722	1.350		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	6	0	$0	0
40.19610421	2690	0.000	Pehl	Pehl	01-392	Box of Rain	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2690	0.250	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																		
40.19610421	5721	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$95	0
Private Seasonal	5721	0.250		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	3	0	$0	0

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
40.19610436	2689	0.000	Pehl	Pehl	01-392	Box of Rain	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2689	1.000	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																	
40.19610436	5720	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$406	0
Private Seasonal	5720	1.040		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	11	0	$0	0
40.19610483	5723	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$102	0
Private Seasonal	5723	0.270		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	3	0	$0	0
40.196933	29	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Cut Bank Failure	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	29	0.000	TT	10/20/1998		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Opened road for spray crew																	
40.196933	16	2.000	Kelly	Kelly	95-485	North Stanley	No Problem	THP New Con.	N/A		0	0	0	0	0	0	$1,440	0
Private Seasonal	16	0.000	TT	9/14/1998		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
40.196933	28	2.500	Chidlaw	Chidlaw	Maintena	Maintenance	Cut Bank Failure	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	28	0.000	TT	10/20/1998		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Opened road for spray crew																	
40.196963	27	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Cut Bank Failure	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	27	0.000	TT	10/20/1998		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Opened road for spray crew																	
60.02	5523	0.000	Alden	Alden	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	8	8	$2,380	122
Storm Proofed	5523	0.250	Unk	8/18/2010		ECP Not	Rock Surface	Medium	-	-	0		0	0	0	0	$19	122
	Spread, graded and compacted road shavings.																	
60.02	1126	0.400	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1126	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
60.025	5524	0.000	Alden	Alden	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	2	0	$156	0
Private Seasonal	5524	0.030	R&S	8/18/2010		ECP Not	Rock Surface	Medium	-	-	0		0	0	0	0	$0	0
	Spread, graded and compacted road shavings.																	
60.0904	5794	0.000	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	16	0	0	$3,918	230
Storm Proofed	5794	0.470	R&S	6/15/2012		ECP Not	Tip and Dip	Medium	-	-	0		0	18	0	0	$17	230
	Brushed road, pulled berms, tipped and dipped.																	
60.0904	1125	0.010	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1125	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
60.0904	2854	0.160	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2854	0.000	R&S	6/18/2012		ECP Not	Dip Rolling	THP Low	-	-	0		0	0	0	0	$0	0
	Install rolling dip.																	
60.0904	2853	0.200	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2853	0.000	R&S	6/18/2012		ECP Not	Dip Rolling	THP Low	-	-	0		0	0	0	0	$0	0
	Install rolling dip.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.0904	2852	0.250	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2852	0.000	R&S	6/18/2012		ECP Not	Dip Rolling	THP Low	-	-	0		0	0	0	0	$0	0
	Install rolling dip.																	
60.0904	2851	0.300	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2851	0.000	R&S	6/18/2012		ECP Not	Dip Rolling	THP Low	-	-	0		0	0	0	0	$0	0
	Install rolling dip.																	
60.0904	5527	0.530	Pehl	Pehl	08-086	Belladonna	Surface Drainage	Storm Proofing	N/A		0	0	0	0	0	0	$0	49
Abandoned Fixed	5527	0.630	R&S	8/25/2010		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	49
60.0904	2850	0.620	Pehl	Pehl	08-086	Belladonna	Fill - Road	THP App. Rd.	N/A		0	0	0	4	0	0	$865	100
Private Seasonal	2850	0.000	R&S	9/9/2010		Waiver	Excavate Soil	THP Low	-	-	0		0	4	0	100	$9	100
	Pull unstable portion of road edge. Use material to outslope road.																	
60.0904	5528	0.630	Pehl	Pehl	08-086	Belladonna	Surface Drainage	Storm Proofing	N/A		0	0	0	0	0	0	$0	264
Storm Proofed	5528	1.170	R&S	8/25/2010		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	264
60.0904	2849	0.670	Pehl	Pehl	08-086	Belladonna	Other	THP App. Rd.	II		0	0	0	15	7	0	$3,072	370
Private Seasonal	2849	0.000	R&S	8/25/2010		Waiver	Remove Crossing	THP Low	-	-	0		0	8	1	200	$8	370
	Water flowing across road. No evidence of a prepared crossing. Excavate road fill to natural grade, lay banks back at a stable angle.																	
60.0904	2848	0.671	Pehl	Pehl	08-086	Belladonna	Other	THP App. Rd.	II		0	0	0	30	26	0	$6,451	1,000
Private Seasonal	2848	0.000	R&S	8/31/2010		Waiver	Remove Crossing	THP Low	-	-	0		0	9	1	600	$6	1,000
	Road crosses watercourse with no evidence of a prepared crossing. Stream has down cut through road surface, leaving steep banks that are continuing to adjust. Remove fill material from crossing, lay banks back to a stable angle, and block crossing to access to cars and trucks with log or large rocks.																	
60.0904	2847	0.700	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2847	0.000	R&S	9/9/2010		ECP Not	Dip Rolling	THP Low	-	-	0		0	0	0	0	$0	0
	Road receives drainage from road above. Install rolling dip.																	
60.0904	2846	0.720	Pehl	Pehl	08-086	Belladonna	Fill - Road	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2846	0.000	R&S	9/9/2010		ECP Not	Excavate Soil	THP Low	-	-	0		0	0	0	0	$0	0
	Perched fill has broken loose from road edge. Excavate road edge. Use material to outslope road.																	
60.0904	2845	0.750	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2845	0.000	R&S	9/9/2010		ECP Not	Dip Rolling	THP Low	-	-	0		0	0	0	0	$0	0
	Install rolling dip.																	
60.0904	2834	0.760	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2834	0.000	R&S	9/9/2010		ECP Not	Dip Rolling	THP Low	-	-	0		0	0	0	0	$0	0
	Remove outside berm and pile of earth, and widen relief of existing dip.																	
60.0904	2833	0.810	Pehl	Pehl	08-086	Belladonna	Culv.-Ditch Relief	THP App. Rd.	N/A		0	0	0	2	0	0	$337	0
Private Seasonal	2833	0.000	R&S	8/20/2010		ECP Not	Culv. Maintenance	THP Low	18"	-	0		0	1	0	0	$0	0
	Existing 18" culvert. Clean inlet. Remove outside berms and outslope road in vicinity.																	
60.0904	2304	0.850	Hagans	Hagans	271 LNF	LNF P01030405A	Culv.	Storm Proofing	III		0	0	0	7	0	0	$3,786	0
Private Seasonal	2304	0.000	GE	10/2/2003		ECP Not	Culv. Replace	Medium	18"	42"	60		0	2	2	0	$0	0
	Replace culvert																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.0904	2304	0.850	Pehl	Pehl	Maintena	Maintenance	Culv.	THP App. Rd.	II		0	0	0	0	0	0	$1,105	0
Private Seasonal	2832	0.000	R&S	7/4/2007		ECP Not	Culv. Install	Medium	-	24"	60		0	0	0	0	$0	0
Watercourse diverted into ditch. Install 24" culvert at natural grade with a non-diversion dip. Excavate above inlet to remove stored sediment.																		
60.0904	2831	0.870	Pehl	Pehl	08-086	Belladonna	Culv.-Ditch Relief	THP App. Rd.	N/A		0	0	0	2	0	0	$433	0
Private Seasonal	2831	0.000	R&S	8/20/2010		ECP Not	Culv. Maintenance	THP Low	-	-	0		0	2	0	0	$0	0
Existing 18" culvert. Plugged inlet. Clean inlet. Maintain outslope in this area.																		
60.0904	1829	0.920	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1829	0.000	Unk	10/15/2001		ECP Not	Rock Pit	Low	-	-	0		0	0	0	0	$0	0
Old return road pit																		
60.0904	2830	0.920	Pehl	Pehl	08-086	Belladonna	Culv.-Ditch Relief	THP App. Rd.	N/A		0	0	0	2	0	0	$433	0
Private Seasonal	2830	0.000	R&S	8/20/2010		ECP Not	Culv. Maintenance	THP Low	18"	-	0		0	2	0	0	$0	0
Existing 18" culvert. Clean inlet.																		
60.0904	2829	0.940	Pehl	Pehl	08-086	Belladonna	Culv.-Ditch Relief	THP App. Rd.	N/A		0	0	0	2	0	0	$468	0
Private Seasonal	2829	0.000	R&S	8/20/2010		ECP Not	Culv. Maintenance	THP Low	18"	-	0		0	2	1	0	$0	0
Existing 18" culvert. Clean inlet. Maintain outslope in this area.																		
60.0904	2828	0.950	Pehl	Pehl	08-086	Belladonna	Cut Bank Failure	THP App. Rd.	N/A		0	0	0	8	0	0	$1,580	0
Private Seasonal	2828	0.000	R&S	8/23/2010		ECP Not	Excavate Soil	THP Low	-	-	0		0	6	3	0	$0	0
Install rocked rolling dip to cross drain road at this location.																		
60.090402	5912	0.000	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	5912	0.110	Unk	2/26/2013		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.0916	5913	0.000	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	5913	0.070	Unk	2/26/2013		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.0921	1129	0.010	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1129	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
60.0924	1096	0.020	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1096	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
60.0924	5846	0.200	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$51	0
Private Seasonal	5846	0.300		8/1/2012		ECP Not	Herbicides	Medium	-	-	0		0	0	0	0	$0	0
60.0924	2947	0.360	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$0	313
Storm Proofed	2947	1.000	ME	7/25/2006		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	313
60.0924	687	0.500	Kelly	Kelly	Maintena	Maintenance	Culv.-Ditch Relief	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	687	0.000	Unk	2/15/2000		ECP Not	No Action	Medium	18"	-	0		0	0	0	0	$0	0
60.0924	1097	0.500	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1097	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
60.0924	2844	0.520	Pehl	Pehl	08-086	Belladonna	Culv.	THP App. Rd.	III		0	30	0	10	4	1	$4,632	100
Private Seasonal	2844	0.000	PW	10/11/2012		Waiver	Culv. Replace	THP Low	18"	24"	60		0	8	0	100	$46	100
Existing 18" culvert. Bottom is rusted out. Replace with 24" culvert. Install at natural grade with rock dissapater at outlet.																		

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.0924	2843	0.570	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	2	1	0	$511	0
Private Seasonal	2843	0.000	R&S	9/9/2010		ECP Not	Dip Rolling	THP Low	-	-	0		0	2	0	0	$0	0
Existing dip with rock outfall. Enhance dip function by outsloping road surface from dip to gate. This will require removing or reducing pile on the outside edge of road , intent is to make sure the traveled center section of road is higher than the outside edge and does not collect water.																		
60.0924	662	0.600	Heath	Pehl	99-460	Sugaree	Gully	THP App. Rd.	II		0	0	0	0	0	0	$250	0
Private Seasonal	662	0.000	BB	1/20/2003		ECP Not	Other	THP Low	-	-	0		0	0	0	0	$0	0
Road surface drainage has caused a small gully 2 feet wide x 4 feet long x 1 foot deep above culvert outlet and into class II watercourse. Corrective action is to place rip-rap rock into gully and around top of culvert outlet to road edge. Construct berm around top of fill and road edge. For the culvert inlet, place rip-rap around culvert to top of fill at road edge. Construct rolling dip uphill to collect drainage that has cause the problem. Repair existing trash rack.																		
60.0924	662	0.600	Hagans	Hagans	271 LNF	LNF P01030405A	Culv.	Storm Proofing	II		0	0	0	5	0	0	$2,405	0
Storm Proofed	2305	0.000	GE	10/31/2003		ECP Not	Culv. Replace	Medium	18"	36"	40		0	3	0	0	$0	0
60.0924	2842	0.600	Pehl	Pehl	08-086	Belladonna	Dip Critical	THP App. Rd.	II		0	0	0	2	0	0	$646	0
Private Seasonal	2842	0.000	PW	10/11/2012		ECP Not	Dip Critical	THP Low	36"	-	0		0	2	0	0	$0	0
Existing 36" culvert. Leave pipe "as is". Move critical dip down grade (south) 20 feet to old dip location. Excavate road edge approximately 40 feet upgrade (east) to allow outsloped road surface to drain off road before reaching crossing and fill slope.																		
60.0924	2841	0.630	Pehl	Pehl	08-086	Belladonna	Culv.-Ditch Relief	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2841	0.000	R&S	9/9/2010		Waiver	Culv. Replace	THP Low	18"	18"	0		0	0	0	0	$0	0
Existing 18" culvert cross drains bank seep and ditch. Pipe is shotgunned. Install new 18" pipe. Pipe should be installed at a 45 degree angle to road centerline. Armor pipe outlet with rip rap or install downspout.																		
60.0924	2840	0.650	Pehl	Pehl	08-086	Belladonna	Fill - Road	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2840	0.000	R&S	9/9/2010		ECP Not	Excavate Soil	THP Low	-	-	0		0	0	0	0	$0	0
Excavate road edge to improve drainage/outslope. BRP34 to BRP35.																		
60.0924	2839	0.680	Pehl	Pehl	08-086	Belladonna	Fill - Road	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2839	0.000	R&S	9/9/2010		ECP Not	Excavate Soil	THP Low	-	-	0		0	0	0	0	$0	0
Excavate road edge to improve drainage/outslope. BRP34 to BRP35.																		
60.0924	2838	0.700	Pehl	Pehl	08-086	Belladonna	Fill - Road	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2838	0.000	R&S	9/9/2010		ECP Not	Excavate Soil	THP Low	-	-	0		0	0	0	0	$0	0
Excavate road edge to improve drainage/outslope. BRP32 to BRP33.																		
60.0924	2837	0.760	Pehl	Pehl	08-086	Belladonna	Fill - Road	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2837	0.000	R&S	9/9/2010		ECP Not	Excavate Soil	THP Low	-	-	0		0	0	0	0	$0	0
Excavate road edge to improve drainage/outslope. BRP32 to BRP33.																		
60.0924	688	0.780	Kelly	Kelly	Maintena	Maintenance	Culv.-Ditch Relief	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	688	0.000	Unk	2/15/2000		ECP Not	No Action	Medium	18"	-	0		0	0	0	0	$0	0
60.0924	689	0.880	Kelly	Kelly	Maintena	Maintenance	Culv.-Ditch Relief	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	689	0.000	Unk	2/15/2000		ECP Not	No Action	Medium	24"	-	0		0	0	0	0	$0	0
60.0924	2836	0.900	Pehl	Pehl	08-086	Belladonna	Culv.-Ditch Relief	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2836	0.000	R&S	9/9/2010		ECP Not	Culv. Maintenance	THP Low	-	-	0		0	0	0	0	$0	0
Existing 18" culvert. Clean inlet, otherwise leave "as is".																		

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.0924	2835	0.940	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2835	0.000	R&S	9/9/2010		ECP Not	Dip Rolling	THP Low	-	-	0		0	0	0	0	$0	0
	Improve existing dip by removing berms to widen relief and by filling inside ditch above and below dip.																	
60.0924	5529	1.000	Pehl	Pehl	08-086	Belladonna	Surface Drainage	Storm Proofing	N/A		0	0	0	0	0	0	$0	55
Storm Proofed	5529	1.113	R&S	8/25/2010		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	55
	Outsloped with spoils from crossing removal																	
60.0924	690	1.050	Kelly	Kelly	Maintena	Maintenance	Culv.-Ditch Relief	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	690	0.000	Unk	2/15/2000		ECP Not	No Action	Medium	18"	-	0		0	0	0	0	$0	0
60.0924	691	1.090	Kelly	Kelly	Maintena	Maintenance	Culv.-Ditch Relief	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	691	0.000	Unk	2/15/2000		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.0924	692	1.110	Kelly	Kelly	Maintena	Maintenance	Culv.-Ditch Relief	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	692	0.000	Unk	2/15/2000		ECP Not	No Action	Medium	18"	-	0		0	0	0	0	$0	0
60.0924	693	1.150	Kelly	Kelly	Maintena	Maintenance	Culv.	Maintenance	II		0	0	0	0	0	0	$0	0
Private Seasonal	693	0.000	Unk	2/15/2000		ECP Not	No Action	Medium	30"	-	0		0	0	0	0	$0	0
60.09243906	5827	0.000	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	Assessment	N/A		0	0	0	6	0	0	$1,360	88
Storm Proofed	5829	0.180	R&S	10/2/2012		ECP Not	Tip and Dip	Medium	-	-	0		0	4	5	0	$15	88
	T&D and block reservoir road																	
60.092472	5827	0.000	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	Assessment	N/A		0	0	0	4	3	0	$1,423	73
Storm Proofed	5827	0.150	R&S	10/2/2012		ECP Not	Tip and Dip	Medium	-	-	0		0	4	6	0	$19	73
	Open and drain road to office																	
60.092495	5526	0.000	Pehl	Pehl	08-086	Belladonna	Surface Drainage	Storm Proofing	N/A		0	0	0	0	0	0	$0	47
Abandoned Fixed	5526	0.096	R&S	8/25/2010		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	47
	Outsloped with spoils from crossing removal																	
60.0926	1095	0.020	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1095	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
60.0929	2506	0.000	Fisher	Pehl	05-023	Clover	Surface Drainage	THP Mitigation	N/A		0	0	0	0	0	0	$0	5
Private Seasonal	2506	0.250	R&S	10/2/2007		1B105023MEN	Tip and Dip	THP Low	-	-	0		0	0	0	0	$0	0
	Tip and dip road to reduce erosion risk from trespassers.																	
60.0929	1094	0.020	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1094	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
60.0929	2622	0.150	Fisher	Pehl	05-023	Clover	Dip Critical	THP Mitigation	III		0	0	0	0	0	0	$0	0
Private Seasonal	2622	0.150	R&S	10/2/2007		ECP Not	Dip Critical	Medium	-	-	0		0	0	0	0	$0	0
	Install critical dip.																	
60.0929	2623	0.200	Fisher	Pehl	05-023	Clover	Dip Rolling	THP Mitigation	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2623	0.200	R&S	10/2/2007		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
	install rolling dip.																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.0929	6037	0.220	Haschak Borcich		13-061	Buttercup	Culv.	THP App. Rd.	III		0	0	0	0	0	0	$1,650	433
Private Seasonal	6037	0.000	Unk	10/15/2018		GWDR 1-13-061 M	Culv. Replace	Medium	36"	36"	40		0	0	0	0	$4	433
Replace culvert with 36" pipe or pull crossing down to grade and stable repose. In either case the adjacent approaches will be slash packed and rolling dips or large waterbars will be placed so that water is diverted off the road and doesn't flow toward the crossing. This area gets trespass traffic so if waterbars are used they need to be large.																		
60.0929	5960	0.250	Haschak Borcich		13-061	Buttercup	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5960	0.350	Unk	10/15/2018		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
Outslope and install rolling dips as needed to better drain this section of road.																		
60.0929	5953	0.350	Haschak Borcich		13-061	Buttercup	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	10
Private Seasonal	5953	0.000	Unk	10/15/2018		GWDR 1-13-061 M	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	10
Pull all fill down to grade upon completion or prior to winter period. Drain adjacent road either by outsloping or draining toward crossing. LTO shall slash pack the approaches to the watercourse.																		
60.0929	5954	0.410	Haschak Borcich		13-061	Buttercup	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	10
Private Seasonal	5954	0.000	Unk	10/15/2018		GWDR 1-13-061 M	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	10
Pull all fill down to grade upon completion or prior to winter period. Keep road grading and road widening to the minimum necessary thru this area because of the rare plants that are at the edge of the road especially on the northwest side of the crossing. LTO shall slash pack the approaches to the watercourse.																		
60.0929	5955	0.430	Haschak Borcich		13-061	Buttercup	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	10
Private Seasonal	5955	0.000	Unk	10/15/2018		GWDR 1-13-061 M	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	10
Pull all fill down to grade upon completion or prior to winter period. LTO shall slash pack the approaches to the watercourse.																		
60.0929	5956	0.500	Haschak Borcich		13-061	Buttercup	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	10
Private Seasonal	5956	0.000	Unk	10/15/2018		GWDR 1-13-061 M	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	10
Pull all fill down to grade upon completion or prior to winter period. Place fill on southwest side of crossing because of the rare plants that are north of the crossing. Keep road grading and road widening to the minimum necessary thru this area because of the rare plants that are at the edge of the road especially on the northwest side of the road. There are also some on the northeast side and southeast side (marked with equipment exclusion zone flagging). LTO shall slash pack the approaches to the watercourse.																		
60.092971	5961	0.010	Haschak Borcich		13-061	Buttercup	Temp. Crossing	THP App. Rd.	Spr.		0	0	0	0	0	0	$0	0
Private Seasonal	5961	0.000	Unk	10/15/2018		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
Install spring drain (4" or larger) if wet at time of operations.																		
60.092971	2507	0.100	Fisher Pehl		05-023	Clover	Other	THP Mitigation	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2507	0.310	Unk	10/2/2007		1B105023MEN	No Action	THP Low	-	-	0		0	0	0	0	$0	0
Abandon road by not re-opening the road. Road fill prisms and crossings are failing. Road covered in 20-30 year old reproduction. To re-open road would cause more distubance than allowing to fail over time.																		
60.092971	2507	0.100	Haschak Borcich		13-061	Buttercup	Surface Drainage	THP App. Rd.	III		0	0	0	0	0	0	$0	100
Private Seasonal	5963	0.150	Unk	10/15/2018		GWDR 1-13-061 M	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	80
This section of road is draining toward a class III crossing that had an instream landing that was never pulled. The road itself will be waterbarred or tipped and dipped to stop the surface drainage toward the class III crossing. Excavate the class III crossing from a stable bottom location to a stable top location. Slope the banks back to a stable repose (approx. 2:1 ratio). Either end haul fill materials or place in a stable location so that the material cannot be transported to a watercourse. All large wood shall be used on site, to the• extent feasible, for stabilizing stream and bank. Areas of bare soil (except the channel bottom) will be seeded and mulched or slash packed.																		
60.28	1099	0.010	Alden Alden		Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1099	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.28	670	0.025	Kelly	Kelly	Maintena	Maintenance	Temp. Crossing	Maintenance	I		0	0	0	4	4	0	$501	0
Private Seasonal	670	0.000	Su	6/22/2000		ECP Not	Bridge - Temp	Important 1600	-	1RRBr	0		0	5	1	0	$0	0
	Flatcar bridge on North Fork Gualala River (downstream from the Green County Bridge). Existing road xing last used in 1999. The river gavel bar is approximately200' wide and the stream is down the middle and unbraided. Installation involves placing brow logs on both banks to support the bridge and minor grading to make the surface suitable for log truck traffic. The bridge will be removed no later than 11/15 of each year and stored in the forest off of the gravel bar, the brow logs are saved and reused as necessary. The near bank vegetation is redwood forest with some willows. No repairian vegetation will be disturbed during bridge installation. The active stream channel will not be disturbed. There will be no impact on fish or wildlife. (Flat car is 53'8" by 9'4", wood decked, deck is usable, KP 1/31/01.)																	
60.28	670	0.050	Haschak	Borcich	15-042	Dogwood	Bridge	THP App. Rd.	I		0	0	0	0	0	0	$0	0
Private Perm.	6253	0.000	Unk	10/15/2021		ECP Not	Bridge - Temp	THP Med	RRBr	1RRBr	0		0	0	0	0	$0	0
	see 1600 agreement (1600 2011 0423-R3) for details of installation. Instillation of this bridge is optional.																	
60.3	2673	0.000	Pehl	Pehl	99-445	Flats South	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2673	3.300	Unk	12/23/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. No problems.																	
60.3	2709	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2709	0.500	Unk	12/29/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Cleared Groshong Creek culvert inlet.																	
60.3	2734	0.000	Pehl	Pehl	03-075	Franklins Tower	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Perm.	2734	3.300	Unk	1/6/2006		SPP	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Wet weather inspection.																	
60.3	2735	0.000	Pehl	Pehl	99-445	Flats South	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Perm.	2735	3.300	Unk	1/6/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Wet weather inspection. Needs some maintenance.																	
60.3	2739	0.000	Pehl	Pehl	99-445	Flats South	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Perm.	2739	3.300	Unk	1/9/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Scapped mud off bridge. Many puddles, but road passable.																	
60.3	5499	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5499	0.500	Unk	8/25/2009		ECP Not	Herbicides	Medium	-	-	0		0	0	0	0	$0	0
60.3	5465	0.000	Haschak	Pehl	10-081	Juniper	Other	THP App. Rd.	II		0	0	0	0	0	0	$0	0
Private Perm.	5465	0.000	Unk	10/22/2014		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	WLPZ landing. If landing is used place brow logs or straw bales between landing and watercourse. Remove at close of operations and seed and mulch landing to standards of item 18.																	
60.3	2322	0.000	Susan	Borcich	19-197	Hoodoo	No Problem	THP App. Rd.	I		0	0	0	0	0	0	$0	0
Private Seasonal	6903	0.000	Unk	10/15/2023		ECP Not	No Action	THP Low	-	-	0		0	0	0	0	$0	0
	A class I watercourse crossing consisting of a steel bridge spans Groshong Gulch at this location. The crossing is properly functioning and does not impede fish passage at any life stage. No treatment required.																	
60.3	1386	0.100	Alden	Alden	Maintena	Maintenance	Surface Drainage	Storm Proofing	N/A		0	0	0	30	14	0	$5,738	147
Storm Proofed	1386	0.400	ME	3/15/2001		ECP Not	Rock Surface	Medium	-	-	0		0	21	0	0	$39	147
	Clear and rock river road. Clean rock pit.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.3	1813	0.400	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	Hole		0	0	0	0	0	0	$0	0
Water Rights	1813	0.000	Unk	10/15/2001		ECP Not	Water Hole	No Action	-	-	0		0	0	0	0	$0	0
	S018675																	
	Groshog Hole- 1813 S018675 (739347) Flood plain hole near Groshong. The water is used for logging dust abatement. There is no electricity at the site. Usage is infrequent. Estimates are base on water truck loads per day converted into gallons.																	
60.3	2322	0.470	Pehl		Maintena	Maintenance	Culv.-Plug	Maintenance	I		0	0	0	0	0	0	$380	0
Private Perm.	2729	0.000	JHB	1/2/2006		SPP	Culv. Maintenance	High	48"	-	0		0	0	0	0	$0	0
	Culvert plugged and eroded fill																	
	Replace fill and armor inlet.																	
60.3	2322	0.470	Hovland Pehl		03-075	Franklins Tower	Culv.	THP Mitigation	I		0	0	0	18	11	0	$2,800	0
Private Perm.	2322	0.000	R&S	10/13/2006		SPP	Bridge - Perm	Medium	48"	1RRBr	0		0	16	15	0	$0	0
	This is where the existing permanent road crosses Groshong Gulch, a Class I watercourse. Obtain 1600 permit. Replace with a bridge.																	
60.3	1897	0.500	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$1,088	0
Private Seasonal	1897	2.500	BB	2/15/2002		ECP Not	Other	High	-	-	0		0	0	0	0	$0	0
	Improve road surface drainage. Clean ditches and culvert inlets.																	
60.3	229	0.510	Heath	Kelly	99-282	Bailey	Surface Drainage	THP... Not	N/A		0	0	0	0	0	0	$0	0
Private Perm.	229	0.000	Unk	7/1/2000		ECP Not	Other	Medium	24"	-	0		0	0	0	0	$0	0
	At high water, Groshong Creek overflows onto road and puddles at low spot at intersection with road 60.301501. Solution: Build-up berm to contain overflow at edge of mdw from .301501 gate 100 feet to culvert. Fill-in low spot and outslope road intersection to allow surface drainage. (To be addressed by Bridge)																	
60.3	231	0.550	Heath	Kelly	99-282	Bailey	Inside ditch	THP... Not	N/A		0	0	0	0	0	0	$780	0
Private Perm.	231	0.000	JHB	2/3/2000		ECP Not	Ditch - Clean	Medium	-	-	0		0	0	9	0	$0	0
	Spring at side of road is causing overflow because the inside ditch is full of sediments. Clean inside ditch 175' to next culvert.																	
60.3	1104	0.600	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1104	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
60.3	236	0.970	Heath	Kelly	99-282	Bailey	Inside ditch	THP... Not	N/A		0	0	0	0	0	0	$0	0
Private Perm.	236	0.000	Unk	7/1/2000		ECP Not	Ditch - Clean	Medium	-	-	0		0	0	0	0	$0	0
	Clean inside ditch 100' to culvert.																	
60.3	238	1.070	Heath	Kelly	99-282	Bailey	Inside ditch	THP... Not	N/A		0	0	0	0	0	0	$0	0
Private Perm.	238	0.000	Unk	7/1/2000		ECP Not	Ditch - Clean	Medium	-	-	0		0	0	0	0	$0	0
	Clean-out ditch 150' to culvert.																	
60.3	239	1.110	Heath	Kelly	99-282	Bailey	Culv.	THP... Not	III		0	0	0	0	0	0	$0	0
Private Perm.	239	0.000	Unk	7/1/2000		ECP Not	Culv. Maintenance	Medium	-	-	0		0	0	0	0	$0	0
	Repair inlet to existing pipe. Clean ditch 50																	
60.3	243	1.420	Haschak Borcich		15-042	Dogwood	Other	THP App. Rd.	II		0	0	0	0	0	0	$0	0
Private Perm.	6055	0.000	Unk	10/15/2021		ECP Not	No Action	THP Low	-	-	0		0	0	0	0	$0	0
	Existing rocked ford on a class II watercourse. Dip out channel 6" to 1' and mound material on both sides of road at close of operations to make sure water stays in channel.																	
60.3	243	1.420	Weaver Borcich		20-00003	Vista	No Problem	THP App. Rd.	II		0	0	0	0	0	0	$0	0
Private Seasonal	6899	0.000	Unk	10/15/2023		ECP Not	Other	THP Low	-	-	0		0	0	0	0	$0	0
	Existing rocked ford on a class II watercourse. **Dip out channel 6" to 1' and mound material on both sides of road at close of operations to make sure water stays in channel.**																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.3	243	1.450	Heath	Borcich	Maintena	Maintenance	Surface Drainage	THP... Not	N/A		0	0	0	0	0	0	$0	0
Private Perm.	243	0.000	Unk	11/8/2023		ECP Not	Rock Surface	Medium	-	-	0		0	0	0	0	$0	0
	Same as road point 113 above only a shorter distance of 30 feet.																	
60.3	2058	1.700	Pehl	Alden	Maintena	Maintenance	Surface Drainage	Maintenance	I		0	0	0	3	0	0	$600	0
Private Seasonal	2058	0.000	ME	8/30/2002		ECP Not	Rock Surface	Medium	RRBr	-	0		0	3	0	0	$0	0
	Rocked and dipped through cut leading into the Pepperwood bridge to reduce sediment delivery.																	
60.3	2058	1.700	Alden	Alden	271 Pep	Pep P0530407	Bridge	Storm Proofing	I		0	70	0	49	38	0	$35,788	0
Private Seasonal	2337	0.000	R&S	8/1/2008		ECP Not	Bridge - Perm	Medium	RRBr	EngBr	40		0	45	35	0	$0	0
	Replace bridge with new bridge on concrete Munchke block abutments. Henry Alden gave Vic Spurgeon permission to place a nomument to his wife Jan's late father Warren Storts. Warren logged most of his life in the area. There is no body below.																	
60.3011	2723	0.000	Pehl	Pehl	99-087	Groshong Ridge	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2723	0.800	Unk	1/4/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Culverts okay.																	
60.3011	2722	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2722	0.800	Unk	1/4/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Culverts okay.																	
60.3011	1102	0.040	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1102	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
60.3011	5488	0.420	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	II		0	0	0	0	0	0	$0	0
Water Rights	5488	0.000	Unk	6/1/1980		ECP Not	Water Hole	Annual Water Use	-	-	0		0	0	0	0	$0	0
	S019006 146447																	
	Red Dog 2-5488 S019006 Illegal upper water souce for neighbor, Stillman. The water is for domestic use. There is no electricity at the site.																	
60.3011	5486	0.500	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	II		0	0	0	0	0	0	$0	0
Water Rights	5486	0.000	Unk	6/1/1980		ECP Not	Water Hole	Annual Water Use	-	-	0		0	0	0	0	$0	0
	S019012 210388																	
	Red Dog 1-5486 S019012 Illegal lower water souce for neighbor Rich Fesler. The water is for domestic use. There is no electricity at the site.																	
60.3011	2725	1.000	Pehl	Pehl	99-087	Groshong Ridge	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2725	2.900	Unk	1/4/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Culverts okay.																	
60.301107	2726	0.000	Pehl	Pehl	99-087	Groshong Ridge	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2726	0.200	Unk	1/4/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Culverts okay.																	
60.301107	5487	0.100	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	II		0	0	0	0	0	0	$0	0
Water Rights	5487	0.000	Unk	6/1/1980		ECP Not	Water Hole	Annual Water Use	-	-	0		0	0	0	0	$0	0
	S019009 297927																	
	Illegal water souce for neighbor, Stillman. The water is for domestic use. There is no electricity at the site.																	
60.30111	2418	0.000	Pehl	Pehl	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	0	0	0	$0	758
Storm Proofed	2418	1.550	AL	8/3/2004		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	758
	Road outsloped and dipped where feasible to disconnect road drainage from watercourses and to reduce necessity for future road maintenance.																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.30111	2721	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2721	0.500	Unk	1/4/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Culverts okay. Several bank slumps around 0.5 mile.																	
60.30111	2968	0.000	Pehl	Pehl	Maintena	Maintenance	Cut Bank Failure	Maintenance	N/A		0	0	0	7	0	0	$850	0
Private Seasonal	2968	1.000	R&S	6/3/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	8	1	0	$0	0
	Cleared slumps and windthrows.																	
60.30111	2206	0.250	Haschak	Pehl	03-089	Primrose	Culv.	THP App. Rd.	II		0	40	0	60	40	0	$12,800	1,600
Private Seasonal	2206	0.000	AL	7/27/2004		ECP Not	Culv. Replace	Medium	48"	72"	60		0	60	20	1,600	$10	1,280
	water flowing subsurface below culvert on Class II watercourse. Replace culvert with 72" pipe after excavating channel from "top" to "bottom" and pulling back instream landing to stable repose. All materials excavated will be removed to a stable location. Grass seed and mulch to item 18 standards. See sketch on THP page 32.4																	
60.30111	2206	0.250	Pehl	Pehl	Maintena	Maintenance	Culv.	Storm Proofing	II		0	20	0	5	10	0	$6,375	20
Private Seasonal	4693	0.000	R&S	8/11/2008		ECP Not	Culv. Maintenance	Medium	72"	72"	60		0	0	2	0	$319	20
	water flowing subsurface below culvert on Class II watercourse. Replace culvert with 72" pipe after excavating channel from "top" to "bottom" and pulling back instream landing to stable repose. All materials excavated will be removed to a stable location. Grass seed and mulch to item 18 standards. See sketch on THP page 32.4																	
60.30111	2207	0.320	Haschak	Pehl	03-089	Primrose	Culv.	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	2207	0.000	AL	7/27/2004		ECP Not	Culv. Replace	Medium	18"	36"	0		0	0	0	0	$0	0
	18 inch shotgunned culvert on class III watercourse. Remove existing culvert and install 36 culvert at grade of creek bottom. Install critical dip downslope from culvert.																	
60.30111	2208	0.350	Haschak	Pehl	03-089	Primrose	Slide - Shallow	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2208	0.000	AL	7/27/2004		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	upslope bank failure onto road. Arch over road bank failure. Keep high point at center line of failure so as to ensure drainage away from slide face. The cutbank failure debris shall be ramped over to minimize excavation into the cutbank toe.																	
60.30111	2096	0.550	Haschak	Pehl	03-089	Primrose	No Problem	THP Mitigation	III		0	0	0	0	0	0	$0	0
Private Seasonal	2096	0.000	AL	8/15/2004		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
	maintain rolling dip																	
60.30111	2097	0.630	Haschak	Pehl	03-089	Primrose	Cut Bank Failure	THP Mitigation	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2097	0.000	AL	8/15/2004		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
	Arch over road bank failure. Keep high point at center line of failure so as to ensure drainage away from slide face. The cutbank failure debris shall be ramped over to minimize excavation into the cutbank toe.																	
60.30111	5914	0.740	Haschak	Pehl	03-089	Primrose	Temp. Crossing	THP Mitigation	III		0	0	0	0	0	0	$552	0
Private Seasonal	5914	0.000	AL	8/15/2004		ECP Not	Armored Ford	THP Low	-	24"	30		0	0	0	0	$0	0
	Install a rocked dip with predominately 12"+ rock and rock outfall prior to completion of operations.																	
60.30111	5915	0.770	Haschak	Pehl	03-089	Primrose	Temp. Crossing	THP Mitigation	III		0	0	0	0	0	0	$0	0
Private Seasonal	5915	0.000	AL	8/15/2004		ECP Not	Armored Ford	THP Low	-	-	30		0	0	0	0	$0	0
	Install a rocked dip with predominately 12"+ rock and rock outfall prior to completion of operations.																	
60.30111	2098	0.770	Haschak	Pehl	03-089	Primrose	Temp. Crossing	THP Mitigation	III		0	0	0	0	0	0	$0	0
Private Seasonal	2098	0.000	AL	8/15/2004		ECP Not	Armored Ford	THP Low	-	-	30		0	0	0	0	$0	0
	Install a rocked dip with predominately 12"+ rock and rock outfall prior to completion of operations.																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.30111	2095	0.850	Haschak Pehl		03-089	Primrose	Temp. Crossing	THP Mitigation	III		0	0	0	0	0	0	$184	0
Private Seasonal	2095	0.000	AL	8/15/2004		ECP Not	Dip Critical	Low	18"	24"	10		0	0	0	0	$0	0
	Temporarily block existing culvert inlet with a straw bale. Install temporary watercourse crossing above the inlet (a layer of straw shall mark the existing channel prior to placing fill, so that all fill may be removed upon completion of use). Remove temporary crossing and straw at completion of use and maintain a rocked critical dip 30 feet west of the culvert on the main road.																	
60.30111	2095	0.850	Haschak Pehl		11-043	Rose	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	5595	0.000	Unk	10/17/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Temporarily block existing culvert inlet with a straw bale. Install temporary watercourse crossing above the inlet (a layer of straw shall mark the existing channel prior to placing fill, so that all fill may be removed upon completion of use). Remove temporary crossing and straw at completion of use and maintain a rocked critical dip 30 feet west of the culvert on the main road. As an alternative a pipe extension can be placed on the upper end of the existing pipe and left in place after operations.																	
60.30111	2102	1.000	Haschak Pehl		03-089	Primrose	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2102	1.850	AL	8/15/2004		ECP Not	Waterbar	THP Low	-	-	0		0	0	0	0	$0	0
	This segment of road for 0.8 miles has failing waterbars. Pull the berm and outslope wherever possible. Install rolling dips or waterbars to suitably cross drain road along the entire length prior to the first winter after the year of its use. In addition, at the western end of this road segment (approximately 45 feet uproad (east) from where log is painted with "end of road point #9" a large waterbar will be installed (bush is painted blue at this location). Ensure that water drained at this location does not drain to landing at point #6 .																	
60.30111	2099	1.100	Haschak Pehl		03-089	Primrose	Surface Drainage	THP Mitigation	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2099	1.090	AL	8/15/2004		ECP Not	Rock Surface	Medium	-	-	0		0	0	0	0	$0	0
	Drain upper landing/road intersecttion such that ditch intercepts water coming down road to the east and so that water doesn't flow down the through cut to the south.																	
60.30111	5989	1.550	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5989	0.000	Unk	6/1/1991		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Low Band Radio Repeater site and weather station.																	
60.30111015	4400	0.000	Alden	Alden	50 Gro	Groshong Prop 50	Surface Drainage	Assessment	N/A		0	0	0	14	0	0	$4,165	196
Storm Proofed	4400	0.400	R&S	8/17/2009		ECP Not	Tip and Dip	Medium	-	-	0		0	14	0	0	$21	196
	Tip and Dip																	
60.30111015	4410	0.100	Alden	Alden	50 Gro	Groshong Prop 50	Humboldt	Storm Proofing	III		0	10	0	5	6	0	$2,606	50
Storm Proofed	4410	0.000	R&S	8/14/2009		ECP Not	Armored Ford	Medium	-	-	0		0	5	8	100	$52	50
	Low gradient Class III runs down the road.																	
	Establish rock armored dips at the old crossing and the new crossing.																	
60.30111015	4410	0.100	Haschak Pehl		11-043	Rose	No Problem	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	5611	0.000	Unk	10/17/2014		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Existing armored ford. Do not grade road across this crossing.																	
60.30111015	4408	0.280	Alden	Alden	50 Gro	Groshong Prop 50	Slide - Shallow	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Storm Proofed	4408	0.000	R&S	8/14/2009		ECP Not	Other	Low	-	-	0		0	0	0	200	$0	0
	A small landslide started above the cut bank and crossed the road. It does not appear to have delivered.																	
	Ramp over and inslope to keep water off the slide.																	
60.30111015	5351	0.340	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5351	0.000	R&S	8/17/2009		ECP Not	Rock Pit	No Action	-	-	0		0	0	0	0	$0	0
	This could be a very good source of rip rap and road base.																	
60.30111015	4407	0.400	Alden	Alden	50 Gro	Groshong Prop 50	Humboldt	Storm Proofing	III		0	0	0	1	0	0	$298	100
Deactivated	4407	0.000	R&S	8/13/2009		ECP Not	Remove Crossing	Medium	-	-	0		0	1	0	100	$3	100
	Very samll class III																	
	Dig out crossing spoil locally																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.30111015	4401	0.400	Alden	Alden	50 Gro	Groshong Prop 50	Surface Drainage	Assessment	N/A		0	0	0	14	0	0	$4,165	122
Deactivated	4401	0.650	R&S	8/17/2009		ECP Not	Tip and Dip	Medium	-	-	0		0	14	0	0	$34	122
	Tip and Dip																	
60.30111015	4406	0.430	Alden	Alden	50 Gro	Groshong Prop 50	Humboldt	Storm Proofing	III		0	0	0	2	1	0	$927	350
Deactivated	4406	0.000	R&S	8/13/2009		ECP Not	Remove Crossing	Medium	-	Pull	0		0	2	4	400	$3	350
	Class III																	
	Dig out crossing spoil locally																	
60.30111015	4405	0.540	Alden	Alden	50 Gro	Groshong Prop 50	Humboldt	Storm Proofing	III		0	0	0	3	0	0	$1,436	300
Deactivated	4405	0.000	R&S	8/14/2009		ECP Not	Remove Crossing	Medium	-	Pull	0		0	5	7	300	$5	300
	Class III																	
	Dig out crossing spoil locally																	
60.30111015	4404	0.580	Alden	Alden	50 Gro	Groshong Prop 50	Humboldt	Storm Proofing	III		0	0	0	5	0	0	$1,786	150
Deactivated	4404	0.000	R&S	8/13/2009		ECP Not	Remove Crossing	Medium	-	-	0		0	6	3	150	$12	150
	Skid trail Class III																	
	Dig out crossing.																	
60.30111015	5338	0.650	Alden	Alden	50 Gro	Groshong Prop 50	Humboldt	Storm Proofing	II		0	0	0	17	0	0	$5,384	450
Deactivated	5338	0.000	R&S	8/10/2009		ECP Not	Remove Crossing	Medium	-	-	0		0	17	6	1,000	$12	450
	This is a filled in class II from logging and an old road. This is about 400 feet upstream from site 4403.																	
	Reestablish channel by removing and stabalizing sediment. Lover end is at base of first head cut. Upper end it solid log blocking the channel. It is about 200' long.																	
60.30111015	4403	0.650	Alden	Alden	50 Gro	Groshong Prop 50	Humboldt	Storm Proofing	II		0	0	0	8	0	0	$2,707	4,000
Deactivated	4403	0.000	R&S	8/10/2009		ECP Not	Remove Crossing	Medium	-	-	0		0	8	6	5,000	$1	4,000
	This is an old landing in a low gradient Class II. It is 300' long and 100' wide at the bottom, but only about 6' deep at the bottom.																	
	Establish channel on the left bank to pick up Class III coming in and to provide area to spoil locally outside of the channel on the right bank.																	
60.30111049	2094	0.080	Haschak	Pehl	03-089	Primrose	Humboldt	THP Recon.	III		0	0	0	0	0	0	$0	0
Private Seasonal	2094	0.000	AL	8/15/2004		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
	old humboldt on minor class III. Remove humboldt down to grade at close of operations and the crossing will be completely pulled and mulched to item 18 standards.																	
60.30111049	2094	0.100	Haschak	Pehl	11-043	Rose	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	5596	0.000	Unk	10/17/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Install temporary spittler crossing . Define bottom of channel with hay flakes.Remove crossing down to grade at close of operations and the crossing will be completely pulled and mulched to item 18 standards.																	
60.3011106	5348	0.090	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	III		0	0	0	0	0	0	$0	0
Storm Proofed	5348	0.000	Unk	8/10/2009		ECP Not	No Action	Low	-	-	0		0	0	0	0	$0	0
	Small Class III. Make sure it is dipped.																	
60.3011106	5349	0.100	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	III		0	0	0	0	0	0	$472	0
Private Seasonal	5349	0.000	Unk	8/10/2003		ECP Not	No Action	No Action	18"	18"	40		0	0	0	0	$0	0
	Old culvert with down spout																	
60.301139	2727	0.000	Pehl	Pehl	99-087	Groshong Ridge	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2727	0.500	Unk	1/4/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Culverts okay.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.301142	2724	0.000	Pehl	Pehl	99-087	Groshong Ridge	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2724	0.300	Unk	1/4/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Culverts okay.																	
60.301142	4398	0.000	Alden	Alden	50 Gro	Groshong Prop 50	Surface Drainage	Assessment	N/A		0	0	0	4	0	0	$1,434	137
Storm Proofed	4398	0.280	R&S	8/10/2009		ECP Not	Tip and Dip	Medium	-	-	0		0	5	2	0	$10	137
	Tip and Dip																	
60.301142	4399	0.280	Alden	Alden	50 Gro	Groshong Prop 50	Surface Drainage	Assessment	N/A		0	0	0	4	0	0	$1,461	93
Deactivated	4399	0.470	R&S	8/10/2009		ECP Not	Tip and Dip	Medium	-	-	0		0	6	0	0	$16	93
	Tip and Dip																	
60.301142	4397	0.280	Alden	Alden	50 Gro	Groshong Prop 50	Humboldt	Storm Proofing	II		0	40	0	7	0	0	$2,030	2,000
Deactivated	4397	0.000	R&S	8/11/2009		ECP Not	Remove Crossing	Medium	-	Pull	0		0	5	4	2,500	$1	2,000
	Excavate top to bottom. End haul what can't be stored locally out to intersection with the ridge road. Rock the top.																	
60.301142	4402	0.390	Alden	Alden	50 Gro	Groshong Prop 50	Humboldt	Storm Proofing	III		0	0	0	4	0	0	$1,408	200
Deactivated	4402	0.000	R&S	8/12/2009		ECP Not	Remove Crossing	Medium	-	Pull	0		0	4	4	300	$7	200
	Small class III. Remove top to bottom spoil locally.																	
60.301146	5352	0.250	Alden	Pehl	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	14	2	0	$3,184	171
Storm Proofed	5352	0.600	R&S	8/18/2009		ECP Not	Tip and Dip	Medium	-	-	0		0	14	0	0	$19	171
60.301146	2720	0.600	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2720	1.000	Unk	1/4/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Culverts okay.																	
60.30115656	4472	0.000	Alden	Alden	99-087	Groshong Ridge	No Problem	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Not Connected	4472	0.130	Unk	10/15/2003		ECP Not	No Action	Low	-	-	0		0	0	0	0	$0	0
	This is a short spur that is not connected.																	
60.3015	899	0.000	McCanl	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	104	101	0	$23,538	538
Storm Proofed	899	1.100	ME	5/1/2000		ECP Not	Rock Surface	Medium	-	-	0		0	77	11	0	$44	538
60.3015	1080	0.000	Pehl	Pehl	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	8	$600	0
Private Perm.	1080	1.100	RF	10/9/2000		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Grade road.																	
60.3015	1706	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$275	0
Private Seasonal	1706	1.600	TE	7/20/2001		ECP Not	R/W Treatment	Medium	-	-	0		0	0	10	0	$0	0
	Sprayed pampas grass with 3 percent Roundup + R11 (trace).																	
60.3015	2114	0.000	Bennett	Bennett	96-404	Lowery Openings	Culv.-Plug	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2114	0.000	Unk	2/10/2002		ECP Not	Culv. Maintenance	Medium	-	-	0		0	0	0	0	$0	0
60.3015	2707	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Perm.	2707	1.100	Unk	12/29/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Cleared culvert inlets.																	
60.3015	2717	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Perm.	2717	1.100	Unk	1/4/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Culverts okay. One bank slump.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
60.3015	5500	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5500	6.520	Unk	8/25/2009		ECP Not	Herbicides	Medium	-	-	0		0	0	0	0	$0	0
60.3015	244	0.010	Heath	McCanl	99-282	Bailey	Surface Drainage	THP... Not	N/A		0	0	0	0	1	0	$130	0
Private Perm.	244	0.000	ME	5/2/2000		ECP Not	Dip Rolling	Medium	-	-	0		0	1	0	0	$0	0
	Install rolling dip to drain water from road. This would be in front of gate and drain to right side of road looking west.																	
60.3015	1103	0.010	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1103	0.000	Unk	12/5/2000		ECP Not	Gate	Low	-	-	0		0	0	0	0	$0	0
60.3015	834	0.050	McCanl	McCanl	Storm Pro	Storm Proofing	Fill - Road	Storm Proofing	N/A		0	0	0	1	0	0	$240	83
Private Perm.	834	0.000	ME	5/2/2000		ECP Not	Excavate Soil	Medium	-	-	0		0	1	2	83	$3	83
	potential roadfill failure above class 3 scarps and cracks showing along OBR treat : excavate and store on landing directly across road from site.																	
60.3015	246	0.080	Heath	Kelly	99-282	Bailey	Culv.	THP... Not	III		0	0	0	0	0	0	$0	0
Private Perm.	246	0.000	Unk	7/1/2000		ECP Not	Culv. Maintenance	Medium	24"	-	0		0	0	0	0	$0	0
	Clean-out cmp and 150 feet of inside ditch.																	
60.3015	247	0.150	McCanl	Kelly	Storm Pro	Storm Proofing	Culv.-HDP	Storm Proofing	III		0	0	0	2	0	0	$380	30
Private Perm.	835	0.000	ME	5/2/2000		ECP Not	Dip Critical	Medium	24"	-	0		0	2	0	30	$13	30
	A 24" cmp on a class 3 , cmp has DP to left. This is a new installation, a channel was constructed above to inlet , stream is currently headcutting up from inlet. Treat: re-grade channel above inlet , laying sides back 2 to 1 , install CD left hinge																	
60.3015	247	0.150	Heath	Kelly	99-282	Bailey	Culv.	THP... Not	III		0	0	0	0	0	0	$0	0
Private Perm.	247	0.000	ME	5/2/2000		ECP Not	Culv. Maintenance	Medium	24"	-	0		0	0	0	0	$0	0
	Also clean out 200 feet of inside ditch																	
60.3015	248	0.250	Heath	Kelly	99-282	Bailey	Culv.	THP... Not	III		0	0	0	4	4	0	$649	0
Private Perm.	248	0.000	RB	10/17/1999		ECP Not	Culv. Replace	Medium	24"	24"	0		0	0	3	0	$0	0
	Also clean-out 300 feet of inside ditch.																	
60.3015	248	0.250	McCanl	Kelly	Storm Pro	Storm Proofing	Culv.	Storm Proofing	III		0	0	0	3	1	0	$1,536	75
Private Perm.	836	0.000	ME	5/3/2000		ECP Not	Culv. Replace	Medium	18"	24"	40		0	4	4	174	$20	75
	A 18" cmp on a class 3 . No flow at present time , flow during peak events. Appears to receive majority of flow coming down inside ditch , cmp low gradient and shotgunned, road surface draining over OBF. Treat: replace with 24" to grade inslope road over crossing , add CD																	
60.3015	838	0.370	McCanl	Alden	Storm Pro	Storm Proofing	Fill - Road	Storm Proofing	N/A		0	0	0	6	10	0	$1,600	441
Private Perm.	838	0.000	ME	6/5/2000		ECP Not	Excavate Soil	High	-	-	0		0	3	8	441	$12	132
	Pot. Roadfill failure , with several small past failure treat: excavate and endhaul to spoil site																	
60.3015	839	0.380	McCanl	Kelly	Storm Pro	Storm Proofing	Other	Storm Proofing	III		0	0	0	3	2	0	$1,701	75
Private Perm.	839	0.000	ME	5/3/2000		ECP Not	Culv. Install	High	-	24"	50		0	3	4	167	$23	75
	A class with no cmp , flows down IBD 220' to site #4. A well defined channel above and below road . Treat: install 24" cmp to grade , remove root ball and small redwood at inlet , grade up channel 20' , add CD right hinge , add DS if needed.																	
60.3015	1825	0.400	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1825	0.000	Unk	10/15/2001		ECP Not	Rock Pit	Low	-	-	0		0	0	0	0	$0	0
	Ranch Road Pit																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
60.3015	249	0.460	McCanl	Kelly	Storm Pro	Storm Proofing	Other	Storm Proofing	III		0	0	0	10	2	0	$3,928	90
Private Perm.	840	0.000	ME	5/5/2000		ECP Not	Culv. Replace	High	24"	36"	50		0	8	4	215	$44	90
	Rock pit located in class 3 flow going subsurface 110' above road and emerges 250' below road . During peak events large amount flow down rock pit to IBD then right 45' to cmp , a berm was constructed to keep flow in ditch. Cmp is low gradient. Road surface draining over OBF causing fill erosion. Treat: remove 24" cmp , install 36" 30' to left at old fill failure, install to grade. Construct a more direct channel to inlet from above , having a large berm on the left , add CD right hinge, rock armour fill slope below, add trash rack 10' above inlet																	
60.3015	249	0.460	Heath	Kelly	99-282	Bailey	Inside ditch	THP Recon.	N/A		0	0	0	0	0	0	$0	0
Private Perm.	249	0.000	ME	5/5/2000		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Rock Pit location. Water is moving over berm designed to prevent out flow onto road. Inside ditch is full and should be clean-out to direct water to culvert. Also, fill failure on the otherside of the road is increasing and will continue. Repair fill failure with rock pit material and construct outside berm to prevent flow onto new fill.																	
60.3015	841	0.500	McCanl	Alden	Storm Pro	Storm Proofing	Fill - Road	Storm Proofing	N/A		0	0	0	12	9	0	$2,188	1,167
Private Perm.	841	0.000	ME	6/5/2000		ECP Not	Excavate Soil	High	-	-	0		0	3	5	1,167	$0	0
	A past roadfill failure resting 20' below OBF. Below this a large landslide developing , a head scarp showing through lower part of fill failure. Trees on slide are tilted , indicating movement. Treat: excavate fill failure above landslide and endhaul to spoil site. This may unload landslide below , but fill failure does'nt appear to have triggered landslide.																	
60.3015	842	0.530	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-Plug	Storm Proofing	III		0	0	0	10	4	0	$4,258	111
Private Perm.	842	0.000	ME	5/17/2000		ECP Not	Culv. Replace	Medium	24"	36"	50		0	9	6	220	$38	111
	A 24' on class 3 , cmp low gradient and undersized. Road surface draining over OBF causing small gully down fill slope. Treat: replace with 36" cmp to grade add CD right hinge.																	
60.3015	843	0.560	McCanl	Alden	Storm Pro	Storm Proofing	Fill - Road	Storm Proofing	N/A		0	0	0	1	0	0	$115	44
Private Perm.	843	0.000	ME	6/6/2000		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	44	$7	18
	Pot. Fill failure above class 3 , small crack and scarps visible. Treat: excavate and endhaul 200' to left.																	
60.3015	844	0.610	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-HDP	Storm Proofing	III		0	0	0	1	0	0	$190	0
Private Perm.	844	0.000	ME	5/26/2000		ECP Not	Dip Critical	Medium	24"	-	0		0	1	0	0	$0	0
	A 24" on a class 3 , cmp shallow installed but has DS. Cmp also receives flow from IBD. Cmp has DP to right. Treat: install CD right hinge , grade up channel 20' above inlet.																	
60.3015	845	0.620	McCanl	Alden	Storm Pro	Storm Proofing	Fill - Landing	Storm Proofing	III		0	0	0	2	0	0	$280	44
Private Perm.	845	0.000	ME	6/6/2000		ECP Not	Excavate Soil	Medium	-	-	0		0	0	2	44	$6	44
	Pot. Landing fill failure above class 3 . Treat: excavate , push spoils against cutbank.																	
60.3015	846	0.730	McCanl		Storm Pro	Storm Proofing	Culv.-HDP	Storm Proofing	III		0	0	0	0	0	0	$75	0
Private Perm.	846	0.000	ME	5/26/2000		ECP Not	Dip Critical	Medium	30"	-	0		0	1	0	0	$0	0
	A 30" cmp on class 3 with DP to right , shows evidence of past diversion causing past failure 40' to right. Treat: install CD right hinge.																	
60.3015	250	0.830	Heath	Alden	99-282	Bailey	Culv.	THP... Not	III		0	0	0	0	0	0	$0	0
Private Perm.	250	0.000	ME	5/18/2000		ECP Not	Culv. Maintenance	High	24"	-	0		0	0	0	0	$0	0
	Culvert almost plugged.																	
60.3015	250	0.830	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-HDP-Plug	Storm Proofing	III		0	0	0	10	0	0	$3,268	116
Private Perm.	848	0.000	ME	5/18/2000		ECP Not	Culv. Replace	High	18"	36"	40		0	5	6	305	$28	116
	A 18" on a class 3 , undersized and has diverted to right to 18" DRC this winter. Treat: excavate top to bot establish channel up from bot flag thru old skid. Install 36" to grade add CD right hinge. Endhaul spoils.																	
60.3015	849	0.870	McCanl	Alden	Storm Pro	Storm Proofing	Culv.	Storm Proofing	III		0	0	0	12	0	0	$2,884	50
Private Perm.	849	0.000	ME	5/18/2000		ECP Not	Culv. Replace	Medium	24"	24"	40		0	10	3	111	$58	50
	A rusted 24" on class 3 . Treat : replace with 24" at grade.																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.3015	850	0.980	McCanl	McCanl	Storm Pro	Storm Proofing	Culv.-Ditch Relief	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Perm.	850	0.000	Unk	3/8/2000		ECP Not	No Action	Medium	18"	-	0		0	0	0	0	$0	0
	18" DRC no treat.																	
60.3015	5470	1.060	Alden		Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5470	0.000	Unk	6/1/2009		ECP Not	Water Hole	Medium	-	-	0		0	0	0	0	$0	0
	Log Cabin Ranch 5,000 gallon tank takes water from spring below																	
60.3015	851	1.100	McCanl	Alden	Storm Pro	Storm Proofing	Culv.	Storm Proofing	III		0	0	0	3	0	0	$570	50
Private Perm.	851	0.000	ME	6/13/2000		ECP Not	Excavate Soil	Medium	24"	-	0		0	3	0	111	$11	50
	A 24" cmp on a class 3 , cmp has 10' DS that is shotgunned. Crossing large amount of fill that's perched around outlet area. Treat: excavate fill at OBF , push spoils to right to landing , add 40' of DS																	
60.3015	1057	1.100	Pehl	Pehl	Maintena	Maintenance	Cut Bank Failure	Maintenance	N/A		0	0	0	8	0	0	$760	0
Private Seasonal	1057	2.540	RB	9/12/2000		ECP Not	Excavate Soil	High	-	-	0		0	0	0	0	$0	0
	Ramp over cutbank failures to allow access by 4X4 pickup. Do not sidecast. Repair waterbars. If middle can't be cleared access from both ends okay.																	
60.3015	1384	1.100	Alden	Alden	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$188	0
Private Seasonal	1384	2.500	ME	3/15/2001		ECP Not	Waterbar	Medium	-	-	0		0	3	0	0	$0	0
60.3015	2338	1.100	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	61	9	0	$14,818	636
Storm Proofed	2338	2.400	R&S	12/5/2006		ECP Not	Tip and Dip	Medium	-	-	0		0	60	41	0	$23	636
	Tip and Dip																	
60.3015	1288	1.300	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	III		0	0	0	2	0	0	$410	163
Storm Proofed	2800	0.000	R&S	10/26/2006		ECP Not	Armored Ford	High	36"	RkFd	0		0	2	0	163	$3	163
	crossing has diversion potential to right also past fill failure with potential for more TREAT excavate remaining unstable fill, use spoil to inslope road and construct critical dip																	
60.3015	1288	1.300	McCanl	Alden	06-163	Sage	Fill - Road	Storm Proofing	III		0	0	0	0	0	0	$0	163
Private Seasonal	1288	0.000	R&S	10/26/2006		ECP Not	Dip Critical	High	36"	-	0		0	0	0	163	$0	163
	crossing has diversion potential to right also past fill failure with potential for more TREAT excavate remaining unstable fill, use spoil to inslope road and construct critical dip																	
60.3015	1287	1.320	McCanl	Alden	06-163	Sage	Inside ditch	Storm Proofing	N/A		0	0	0	0	0	0	$472	0
Private Seasonal	1287	0.000	R&S	10/26/2006		ECP Not	Culv. Ditch Relief	Medium	-	18"	40		0	0	0	0	$0	0
	several small springs entering ditch TREAT install DRC clean ditch 150' to left up road out slope road below DRC re align road to eliminate thru cut																	
60.3015	1287	1.320	McCanl	Alden	271 Pep	Pep P0530407	Inside ditch	Storm Proofing	N/A		0	0	0	4	1	0	$1,007	0
Storm Proofed	2799	0.000	R&S	11/6/2006		ECP Not	Culv. Ditch Relief	Medium	-	18"	40		0	0	0	0	$0	0
	several small springs entering ditch TREAT install DRC clean ditch 150' to left up road out slope road below DRC re align road to eliminate thru cut																	
60.3015	1286	1.350	McCanl	Alden	06-163	Sage	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1286	0.000	PW	11/6/2006		ECP Not	Excavate Soil	High	-	-	0		0	0	0	0	$0	0
	potential road fill failure with lots of organics also cut bank failure same location TREAT excavate road fill remove organics same with cutbank failure incorporate into road surface Complete under Pepperwood SB271																	
60.3015	1286	1.350	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	4	0	0	$820	230
Private Seasonal	2798	0.000	R&S	11/6/2006		ECP Not	Excavate Soil	High	-	-	0		0	4	0	360	$6	138
	potential road fill failure with lots of organics also cut bank failure same location TREAT excavate road fill remove organics same with cutbank failure incorporate into road surface																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
60.3015	1285	1.380	McCanl	Alden	06-163	Sage	Culv.-Ditch Relief	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1285	0.000	PW	10/27/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	67	$0	0
	18" DRC with cracking fill around outlet TREAT excavate fill incorporate into road Complete under Pepperwood SB271																	
60.3015	1285	1.380	McCanl	Alden	271 Pep	Pep P0530407	Culv.-Ditch Relief	Storm Proofing	N/A		0	0	0	1	0	0	$250	67
Storm Proofed	2797	0.000	R&S	10/27/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	2	0	67	$37	7
	18" DRC with cracking fill around outlet TREAT excavate fill incorporate into road																	
60.3015	1284	1.390	McCanl		Maintena	Maintenance	Cut Bank Failure	Storm Proofing	N/A		0	0	0	2	0	0	$460	0
Private Seasonal	1284	0.000	R&S	11/15/2006		ECP Not	Excavate Soil	Low	-	-	0		0	2	0	167	$0	0
	remove cutbank failure to widen road use to inslope road to cmp																	
60.3015	1283	1.400	McCanl	Alden	06-163	Sage	Culv.-HDP	Storm Proofing	III		0	0	0	0	0	0	$0	100
Private Seasonal	1283	0.000	R&S	10/27/2006		ECP Not	Armored Ford	High	-	RkFd	0		0	0	0	50	$0	25
	crossing has diversion potential to right also past fill failure TREAT excavate remaining perched fill use to construct critical dip right hinge																	
60.3015	1283	1.400	McCanl	Alden	271 Pep	Pep P0530407	Culv.-HDP	Storm Proofing	III		0	0	0	2	0	0	$365	0
Storm Proofed	2796	0.000	R&S	10/27/2006		ECP Not	Armored Ford	High	-	RkFd	0		0	2	0	50	$0	0
	crossing has diversion potential to right also past fill failure TREAT excavate remaining perched fill use to construct critical dip right hinge																	
60.3015	1282	1.440	McCanl	Alden	06-163	Sage	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0	$0	122
Private Seasonal	1282	0.000	R&S	10/26/2006		ECP Not	Excavate Soil	High	-	-	0		0	0	0	122	$0	49
	perched road fill between 2 class 3 cracks and scarps showing TREAT excavate fil remove all organics use spoil to inslope road over crossing																	
60.3015	1282	1.440	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	3	0	0	$593	122
Storm Proofed	2795	0.000	R&S	10/26/2006		ECP Not	Excavate Soil	High	-	-	0		0	2	2	122	$12	49
	perched road fill between 2 class 3 cracks and scarps showing TREAT excavate fil remove all organics use spoil to inslope road over crossing																	
60.3015	1281	1.450	McCanl	Alden	06-163	Sage	Culv.-HDP	Storm Proofing	III		0	0	0	0	0	0	$736	177
Private Seasonal	1281	0.000	R&S	10/26/2006		ECP Not	Dip Critical	High	24"	24"	40		0	0	0	0	$4	177
	Plugged culvert has caused fill failure. Clean or install new pipe with debris guard. Pull failing fill and install critical dip right hinge. Reinstall in 1 foot compacted lifts on excavated bench.																	
60.3015	1281	1.450	McCanl	Alden	271 Pep	Pep P0530407	Culv.-HDP	Storm Proofing	III		0	0	0	9	0	0	$2,839	177
Storm Proofed	2794	0.000	R&S	11/9/2006		ECP Not	Dip Critical	High	24"	24"	40		0	8	10	0	$16	177
	Plugged culvert has caused fill failure. Clean or install new pipe with debris guard. Pull failing fill and install critical dip right hinge. Reinstall in 1 foot compacted lifts on excavated bench.																	
60.3015	1280	1.470	McCanl	Alden	06-163	Sage	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0	$0	289
Private Seasonal	1280	0.000	R&S	10/26/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	289	$0	58
	Excavate road fill and bank failures. Remove all organics use spoil to inslope road between this point and inlet of cmp. Install rolling dip upslope of bank failure in case it fails again so as to keep water off of xing fill.																	
60.3015	1280	1.470	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	2	0	0	$230	289
Storm Proofed	2791	0.000	R&S	10/26/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	289	$4	58
	Excvate road fill and bank failure. Remove all organics use spoil to inslope road between this point and inlet of cmp. Install rolling dip upslope of bank failure in case it fails again so as to keep water off of xing fill.																	
60.3015	1279	1.580	McCanl	Alden	06-163	Sage	Humboldt	Storm Proofing	III		0	0	0	17	0	0	$5,195	353
Private Seasonal	1279	0.000	R&S	10/23/2007		ECP Not	Dip Rolling	High	-	24"	60		0	17	4	556	$15	353
	Install rocked rolling dip across road at location where flow emerges from bank. Do not put outlet in same location where it is presently going because it is causing erosion problems far down hill. Rock armor outside edge. As an alternative excavate top to bottom and install 24" culvert at grade in location were flow emerges from bank. Rock armor area above road where flow emerges.																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.3015	1279	1.580	Alden	Alden	271 Pep	Pep P0530407	Culv.-Plug	Storm Proofing	II		0	0	0	3	0	0	$690	2
Storm Proofed	4524	0.000	R&S	10/23/2007		ECP Not	Culv. Maintenance	Current	-	-	0		0	3	0	0	$3	200
	Open culvert inlet																	
60.3015	1279	1.580	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	20	4	0	$6,542	20
Private Seasonal	2790	0.000	R&S	10/23/2007		ECP Not	Culv. Install	High	-	24"	60		0	21	13	556	$327	20
	road crosses swale , flow emerging 20' above during peak event when flowing goes down inside to waterbar no flow present time TREAT excvate top to bot install 24"cmp to grade at location where flow is emerging from bank, rock armour area were flow is emerging to prevent head cutting. As an alternative install rolling dip across road at location where flow emerges from bank. Do not put outlet in same location where it is presently going because it is causing erosion problems far down hill.																	
60.3015	1675	1.600	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$437	0
Private Seasonal	1675	2.700	TE	6/1/2001		ECP Not	R/W Treatment	Medium	-	-	0		0	0	15	0	$0	0
	Sprayed pampas grass with 3 percent Roundup + R11 (trace). Also treated near-road portions of West Pepperwood THP units 1, 2, and 3, recorded under Intensive Silviculture for those units.																	
60.3015	1278	1.700	McCanl	Alden	06-163	Sage	Other	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1278	0.000	R&S	10/28/2006		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
	small swale from above road no swal e visible below spur road leaves road at this point construct rolling dip across main road , one across spur into redwood clump , and another below clump across spur road																	
60.3015	1278	1.700	McCanl	Alden	271 Pep	Pep P0530407	Other	Storm Proofing	N/A		0	0	0	0	0	0	$270	0
Storm Proofed	2789	0.000	R&S	10/28/2006		ECP Not	Dip Rolling	Medium	-	-	0		0	3	0	0	$0	0
	small swale from above road no swal e visible below spur road leaves road at this point construct rolling dip across main road , one across spur into redwood clump , and another below clump across spur road																	
60.3015	2777	1.720	Haschak	Pehl	06-163	Sage	Surface Drainage	Maintenance	N/A		0	0	0	1	0	0	$205	0
Private Seasonal	2777	0.000	R&S	11/7/2006		ECP Not	Dip Rolling	Medium Low	-	-	0		0	1	0	0	$0	0
	Install rolling dip above through cut.																	
60.3015	1277	1.770	McCanl	Alden	06-163	Sage	Fill - Road	Storm Proofing	III		0	0	0	0	0	0	$0	120
Private Seasonal	1277	0.000	R&S	10/25/2006		ECP Not	Excavate Soil	High	24"	-	0		0	0	0	120	$0	120
	road fill perched above outlet of class 3 with 24" cmp with down spout detached and no C.D ecavate fill use to inslope road to inlet of cmp , re-attatch cmp DS install critical dip right.																	
60.3015	1274	1.770	McCanl	Alden	06-163	Sage	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0	$0	444
Private Seasonal	1274	1.820	R&S	10/25/2006		ECP Not	Excavate Soil	High	-	-	0		0	0	0	444	$0	355
	This area extends from 1277 almost to 1273. Excavate any unstable fill and use to outslope road or endhaul to right to spoil site.																	
60.3015	1277	1.770	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	III		0	0	0	3	0	0	$615	120
Storm Proofed	2788	0.000	R&S	10/25/2006		ECP Not	Excavate Soil	High	24"	24"	0		0	3	0	120	$5	120
	road fill perched above outlet of class 3 with 24" cmp with down spout detached and no C.D ecavate fill use to inslope road to inlet of cmp , re-attatch cmp DS install critical dip right.																	
60.3015	1274	1.770	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	8	0	0	$1,789	444
Private Seasonal	2785	1.820	R&S	12/7/2006		ECP Not	Excavate Soil	High	-	-	0		0	8	3	444	$5	355
	This area extends from 1277 almost to 1273. Excavate any unstable fill and use to outslope road or endhaul to right to spoil site.																	
60.3015	1276	1.790	McCanl	Alden	06-163	Sage	Culv.-HDP	Storm Proofing	III		0	0	0	0	0	0	$0	0
Private Seasonal	1276	0.000	R&S	10/25/2006		ECP Not	Dip Critical	High	24"	-	0		0	0	0	0	$0	0
	add critical dip right hinge , clean inlet																	
60.3015	1276	1.790	McCanl	Alden	271 Pep	Pep P0530407	Culv.-HDP	Storm Proofing	III		0	0	0	1	0	0	$205	0
Storm Proofed	2787	0.000	R&S	10/25/2006		ECP Not	Dip Critical	High	24"	24"	0		0	1	0	0	$0	0
	add critical dip right hinge , clean inlet																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.3015	1275	1.800	McCanl	Alden	06-163	Sage	Culv.-HDP	Storm Proofing	III		0	0	0	0	0	0	$0	0
Private Seasonal	1275	0.000	R&S	10/25/2006		ECP Not	Dip Critical	High	18"	-	0		0	0	0	0	$0	0
	add critical dip right hinge																	
60.3015	1275	1.800	McCanl	Alden	271 Pep	Pep P0530407	Culv.-HDP	Storm Proofing	III		0	0	0	0	0	0	$90	0
Storm Proofed	2786	0.000	R&S	10/25/2006		ECP Not	Dip Critical	High	18"	18"	0		0	1	0	0	$0	0
	add critical dip right hinge																	
60.3015	1273	1.830	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	6	18	0	$2,274	583
Private Seasonal	2784	1.850	R&S	10/25/2006		ECP Not	Excavate Soil	High	-	-	0		0	3	0	583	$5	437
	road fill failure extending thru swale on 90% slopes, excavate endhaul to right to spur down ridge and use to outslope road. Add rolling dip at swale.																	
60.3015	1273	1.830	McCanl	Alden	06-163	Sage	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1273	1.850	R&S	10/25/2008		ECP Not	Excavate Soil	High	-	-	0		0	0	0	583	$0	0
	road fill failure extending thru swale on 90% slopes, excavate endhaul to right to spur down ridge and use to outslope road. Add rolling dip at swale. Complete under Pepperwood SB271																	
60.3015	1272	1.930	McCanl	Alden	271 Pep	Pep P0530407	Dip Rolling	Storm Proofing	N/A		0	0	0	5	1	0	$943	160
Storm Proofed	2783	0.000	R&S	11/6/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	3	1	0	$12	80
	perched fill around outlet of rolling dip small gully thru fill . Excavate fill around outlet and 50' to left and right , rock rolling dip and armour outlet area																	
60.3015	1271	1.950	McCanl	Alden	271 Pep	Pep P0530407	Cut Bank Failure	Storm Proofing	N/A		0	0	0	4	4	0	$895	260
Storm Proofed	2782	0.000	R&S	10/23/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	2	0	260	$0	0
	large cutbank failure moving into road , excavate endhaul to left down spur																	
60.3015	1272	1.960	McCanl	Alden	06-163	Sage	Dip Rolling	Storm Proofing	N/A		0	0	0	0	0	0	$0	160
Private Seasonal	1272	0.000	R&S	10/24/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	80
	perched fill around outlet of rolling dip small gully thru fill . Excavate fill around outlet and 50' to left and right , rock rolling dip and armour outlet area																	
60.3015	1270	1.970	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	13	11	0	$2,815	625
Storm Proofed	2781	0.000	R&S	10/19/2006		ECP Not	Excavate Soil	High	18"	-	0		0	6	0	625	$5	563
	excavate road fill endhaul to left to spur down ridge road , inslope road thru swale , clean cmp inlet																	
60.3015	1271	2.020	McCanl	Alden	06-163	Sage	Cut Bank Failure	Storm Proofing	N/A		0	0	0	0	0	0	$0	260
Private Seasonal	1271	0.000	R&S	10/23/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	260	$0	0
	large cutbank failure moving into road , excavate endhaul to left down spur																	
60.3015	1270	2.030	McCanl	Alden	06-163	Sage	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0	$0	625
Private Seasonal	1270	0.000	R&S	10/19/2006		ECP Not	Excavate Soil	High	18"	-	0		0	0	0	625	$0	563
	excavate road fill endhaul to left to spur down ridge road , inslope road thru swale , clean cmp inlet																	
60.3015	4225	2.050	Alden	Alden	271 Pep	Pep P0530407	Culv.	Storm Proofing	III		0	0	0	13	3	0	$4,580	100
Storm Proofed	4225	0.000	R&S	5/31/2007		ECP Not	Culv. Install	Medium	-	24"	60		0	15	10	100	$46	100
	Class III now caught in ditch gets its own culvert.																	
60.3015	4225	2.050	Alden	Alden	271 Pep	Pep P0530407	Culv.-Plug	Storm Proofing	III		0	0	0	1	0	0	$115	1
Storm Proofed	4526	0.000	R&S	7/13/2008		ECP Not	Culv. Maintenance	Current	-	-	0		0	0	0	0	$115	1
	Clean out culvert inlet. Make sure if it plugs again water runs down to next culvert.																	
60.3015	4225	2.050	Alden	Pehl	Maintena	Maintenance	Culv.-Plug	Storm Proofing	III		0	0	0	1	0	0	$121	1
Storm Proofed	5284	0.000	R&S	8/28/2009		ECP Not	Culv. Maintenance	Current	-	-	0		0	0	0	0	$121	1
	Clean out culvert inlet. The water has stayed in the inside ditch and gone to the next culvert. No delivery																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
60.3015	1269	2.210	McCanl	Alden	06-163	Sage	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0	$0	304
Private Seasonal	1269	0.000	R&S	10/19/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	304	$0	91
	excavate fill remove all woody debris use clean fill to outslope road																	
60.3015	1269	2.210	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	4	0	0	$628	304
Storm Proofed	2780	0.000	R&S	10/19/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	3	0	304	$7	91
	excavate fill remove all woody debris use clean fill to outslope road.																	
60.3015	900	2.400	McCanl	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	0	0	0	$0	1,137
Storm Proofed	900	4.725	ME	5/1/2000		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	1,137
60.3015	2718	2.400	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2718	3.250	Unk	1/4/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Culverts okay.																	
60.3015	1226	2.550	McCanl	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	35	8	0	$6,220	0
Private Seasonal	1226	2.900	ME	1/19/2001		ECP Not	Dip Rolling	Medium	-	-	0		0	23	5	0	$0	0
60.3015	256	2.750	Heath	Alden	99-282	Bailey	Surface Drainage	THP Recon.	N/A		0	0	0	0	0	0	$0	0
Private Perm.	256	3.220	ME	6/6/2000		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
	Start at intersection and outslope road to next intersection mile post 4.0. Out slope road with rolling dips to improve overall drainage of this road segment.																	
60.3015	257	2.850	Heath	Alden	99-282	Bailey	Surface Drainage	THP... Not	III		0	0	0	0	0	0	$736	0
Private Perm.	257	0.000	ME	6/6/2000		ECP Not	Culv. Install	Medium	24"	24"	40		0	0	0	0	$0	0
	Spring at draw overflows onto road causing wet spot and rutting in soft clay road surface. Install 24"cmp 40' to drain.																	
60.3015	257	2.850	McCanl	Alden	Storm Pro	Storm Proofing	Inside ditch	Weather Damage	N/A		0	0	0	0	1	0	$225	0
Private Seasonal	861	0.000	ME	6/6/2000		ECP Not	Dip Critical	Medium	-	-	0		0	2	0	0	$0	0
	spring flow from cutbank collecting in IBD , flowing right 250' then exiting over OBR. Treat : install rocked rolling dip																	
60.3015	862	2.880	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-HDP-Plug	Storm Proofing	III		0	0	0	1	0	0	$200	0
Private Seasonal	862	0.000	ME	6/6/2000		ECP Not	Dip Critical	Medium	18"	-	0		0	1	0	0	$0	0
	A 18" cmp on a dry class 3 , outlet is buried with slash . Treat: clean inlet and outlet may need to replace , install CD right hinge .																	
60.3015	863	2.890	McCanl	Alden	Storm Pro	Storm Proofing	Fill - Road	Storm Proofing	N/A		0	0	0	2	4	0	$710	215
Private Seasonal	863	0.000	ME	6/6/2000		ECP Not	Excavate Soil	Medium	-	-	0		0	2	2	215	$7	108
	perched roadfill on steep slopes over class 3 swale. Treat: excavate and endhaul .																	
60.3015	258	2.950	McCanl	Alden	Storm Pro	Storm Proofing	Culv.	Weather Damage	III		0	0	0	1	0	0	$195	0
Private Seasonal	864	0.000	ME	6/6/2000		ECP Not	Ditch - Clean	Medium	24"	-	0		0	0	3	0	$0	0
	A 24" cmp on a class 3 , flow emerging 12' up from cutbank from hole , cmp shallow and low gradient , has 60' of DS. Some surface flow draining over OBF causing 1 yrd of erosion. Treat : clean inside ditch inslope road over crossing , seed and mulch all bare soil. Entire fill slope is bare																	
60.3015	258	2.950	Heath	Alden	99-282	Bailey	Fill - Road	THP Recon.	N/A		0	0	0	0	0	0	$0	0
Private Perm.	258	0.000	ME	6/6/2000		ECP Not	Other	High	24"	-	0		0	0	0	0	$0	0
	Bare fill leading into culvert outlet is causing minor sedimentation to class III draw. Seed and mulch bare fill and road over culvert intersection for 50 feet either side.																	
60.3015	865	2.990	McCanl	Alden	Storm Pro	Storm Proofing	Other	Storm Proofing	III		0	0	0	0	1	0	$225	0
Private Seasonal	865	0.000	ME	6/6/2000		ECP Not	Dip Critical	Medium	-	-	0		0	2	0	0	$0	0
	evidence of channel coming down hillslope , no flow , just during peak events , also spring location , class 3 swale below road . Treat: install rocked rolling dip ,																	
60.3015	132	3.000	Kelly	Kelly	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$1,020	0
Private Seasonal	132	0.000	Unk	2/3/1999		ECP Not	Other	Medium	-	-	0		0	6	0	0	$0	0

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.3015	1374	3.000	McCanl	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	8	0	0	$1,275	0
Private Seasonal	1374	3.800	ME	1/22/2001		ECP Not	Dip Rolling	Medium	-	-	0		0	6	0	0	$0	0
60.3015	259	3.050	Heath		Maintena	Maintenance	Culv.	THP Recon.	III		0	0	0	0	0	0	$0	0
Private Perm.	259	0.000	Unk	6/15/2000		ECP Not	Culv. Replace	Medium	-	-	0		0	0	0	0	$0	0
	Section of fill failure has caused loss of cmp down drain. Loss of fill has caused sedimentation in class III. Install 50 feet of 24" cmp to replace broken section. Replace new fill in 2 foot lifts and compact to bring grade-up to repair fill slope. Stablize surface with seed and mulch. Consider over lay of jutt netting to help stabilize. Use excess material from outslope reconstruction in this road segement for new fill.																	
60.3015	259	3.050	McCanl	Alden	Storm Pro	Storm Proofing	Fill - Road	Weather Damage	III		0	0	0	21	28	0	$6,054	106
Private Seasonal	867	0.000	ME	6/15/2000		ECP Not	Excavate Soil	High	24"	24"	40		0	15	10	622	$57	106
	A OBF failure on a class 3 stream . Appears log were used to construct a , close to vertical wall , being keyed into both banks and fill being placed and compacted behind logs.a 24" cmp was placed above log and having DS. Appears logs failed , along with fill torrenting down class 3 for 400'. Remaining road prism showing cracks 6' back froom OBF. Cmp outlet was smash from failure. But no flow present time . Flow emerging 100' below crossing. Treat: lower road 15' replace cmp with 24" cmp with down spout , inslope road over crossing. Seed and mulch entire area . Endhaul to left to spoil site.																	
60.3015	868	3.250	McCanl	Alden	Storm Pro	Storm Proofing	Fill - Landing	Storm Proofing	N/A		0	0	0	4	0	0	$710	444
Private Seasonal	868	0.000	ME	6/16/2000		ECP Not	Excavate Soil	Medium	-	-	0		0	3	1	444	$5	133
	Pot. Landing fill failure around headwall of class 3 swale. Landing slash piled up live trees 15' . Channel below 75'. Treat : excavate fill and push spoils to right up skid between roads.																	
60.3015	869	3.520	McCanl	Alden	Storm Pro	Storm Proofing	Fill - Road	Storm Proofing	N/A		0	0	0	2	0	0	$173	125
Private Seasonal	869	0.000	ME	6/14/2000		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	125	$0	0
	Pot. Roadfill failure on75% to 85% slopes , slopes are well covered wth oaks and conifirs, no delivery from site. Treat : excavate and store spoils at wide area above cutbank.																	
60.3015	4390	3.780	Alden	Alden	RobRds	Robinson SB271	No Problem	Maintenance	N/A		0	0	0	36	0	0	$6,288	0
Private Seasonal	4390	0.000	R&S	11/5/2011		ECP Not	Rock Pit	Medium	-	-	0		0	24	1	0	$0	0
	This is a ridge top pit. I do not know how big it is. We worked this pit for several days in 2011 and it did not produce much rock. Do not dig here again it is a waste of time. The pit up the road (road point 5690) is much better.																	
60.3015	870	4.060	McCanl	Alden	Storm Pro	Storm Proofing	Fill - Road	Storm Proofing	III		0	0	0	1	0	0	$115	44
Private Seasonal	870	0.000	ME	6/14/2000		ECP Not	Excavate Soil	High	-	-	0		0	0	0	44	$26	4
	waterbar directed into class swale , slash and spoil pushed 40' down swale , well defined channel below spoil, no flow in class 3 . Treat : excavate fill and slash from outlet , use clean slash to armour exsposed soil .																	
60.3015	1383	4.725	Alden	Alden	Storm Pro	Storm Proofing	Surface Drainage	Maintenance	N/A		0	0	0	36	2	0	$6,855	232
Storm Proofed	1383	5.200	ME	3/1/2001		ECP Not	Dip Rolling	Medium	-	-	0		0	36	0	0	$30	232
60.301501	902	0.000	McCanl	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	1	0	0	$265	98
Upgraded	902	0.200	ME	5/1/2000		ECP Not	Dip Rolling	Medium	-	-	0		0	2	0	0	$3	98
60.301501	269	0.000	Heath	Pehl	99-282	Bailey	Surface Drainage	THP Recon.	N/A		0	0	0	0	0	0	$0	0
Private Perm.	269	0.200	Unk	7/1/2000		ECP Not	Other	High	-	-	0		0	0	0	0	$0	0
	Road segmemt to intersection with 60.30150120 has drainage failure which has caused gullying. Install rolling dips where feasible or water bars to control surface drainage.																	
60.301501	5412	0.000	Haschak	Pehl	10-081	Juniper	Dip Rolling	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	5412	0.000	Unk	10/15/2014		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
	Enhance rolling dip so that it drains into class III below road. Class III barely extends above road and this is not a critical issue as outsloped road seems to be working well but some water may come down from upslope in large storm event.																	
60.301501	5339	0.210	Alden	Alden	50 Gro	Groshong Prop 50	Surface Drainage	Assessment	N/A		0	0	0	29	0	0	$8,926	288
Storm Proofed	5339	0.800	R&S	9/15/2009		ECP Not	Tip and Dip	Medium	-	-	0		0	31	2	0	$31	288

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
60.301501	5340	0.500	Alden	Alden	50 Gro	Groshong Prop 50	Cut Bank Failure	Assessment	N/A		0	0	0	0	0	0	$135	0
Storm Proofed	5340	0.000	R&S	9/16/2009		ECP Not	Ramp over	Low	-	-	0		0	1	0	0	$0	0
	Ramp over.																	
60.301501	5341	0.670	Alden	Alden	50 Gro	Groshong Prop 50	Temp. Crossing	Assessment	III		0	10	0	3	3	0	$1,260	20
Storm Proofed	5341	0.000	R&S	9/16/2009		ECP Not	Armored Ford	Medium	-	RkFd	0		0	2	4	0	$63	20
	Small class III. Rock armor outlet.																	
60.301501	5358	0.710	Alden	Alden	50 Gro	Groshong Prop 50	Temp. Crossing	Assessment	III		0	10	0	2	2	0	$835	20
Storm Proofed	5358	0.000	R&S	9/16/2009		ECP Not	Armored Ford	Medium	-	RkFd	0		0	2	4	0	$42	20
	Small class III. Rock armor outlet.																	
60.301501	5342	0.800	Alden	Alden	50 Gro	Groshong Prop 50	Temp. Crossing	Assessment	II		0	0	0	5	5	0	$2,275	400
Storm Proofed	5342	0.000	R&S	9/16/2009		ECP Not	Remove Crossing	Medium	-	Pull	0		0	5	4	600	$6	400
	Small class II dig out top to bottom. Spoil material locally																	
60.3015012	903	0.000	McCanl	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	2	0	0	$380	196
Upgraded	903	0.400	ME	5/1/2000		ECP Not	Dip Rolling	Medium	-	-	0		0	2	0	0	$2	196
60.3015012	264	0.000	Heath	Kelly	99-282	Bailey	Surface Drainage	THP Recon.	N/A		0	0	0	0	0	0	$0	0
Private Perm.	264	0.100	Unk	7/1/2000		ECP Not	Other	High	-	-	0		0	0	0	0	$0	0
	Road drainage has failed causing gullying in road bed. Close this segement of road following THP hauling and prior to first winter period. Construct water bar spacing to extreme EHR intervals to adequately capture surface runoff from eroding road. Place berms at either end of road segment o block vehicle traffic.																	
60.3015012	5356	0.000	Alden	Alden	50 Gro	Groshong Prop 50	Surface Drainage	Assessment	N/A		0	0	0	10	0	0	$3,516	196
Storm Proofed	5356	0.400	R&S	9/11/2009		ECP Not	Tip and Dip	Medium	-	-	0		0	14	0	0	$18	196
60.3015012	265	0.180	Heath	Kelly	99-282	Bailey	Stream Bank	THP Recon.	III		0	0	0	0	0	0	$0	0
Private Perm.	265	0.000	Unk	7/1/2000		ECP Not	Remove Crossing	High	24"	Pull	0		0	0	0	0	$0	0
	Class III watercourse crosses road outside of its nautural drainage channel. At the completion of THP hauling, pull culvert and re-establish channel where it belongs. Remove excess fill from road prism/watercourse crossing and seed and mulch bare soil.																	
60.3015012	5459	0.200	Haschak	Pehl	10-081	Juniper	Dip Rolling	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	5459	0.000	Unk	10/15/2014		ECP Not	Dip Rolling	Low	-	-	0		0	0	0	0	$0	0
	At this point there is an exisitng rolling dip on a minor class III but it should be maintained and deepened some.																	
60.301501205	267	0.070	Heath	Pehl	99-282	Bailey	Surface Drainage	THP Recon.	III		0	0	0	0	0	0	$0	0
Private Perm.	267	0.000	Unk	10/15/2000		ECP Not	Culv. Install	High	24"	-	0		0	0	0	0	$0	0
60.301501205	266	0.210	Heath	Pehl	99-282	Bailey	Surface Drainage	THP Recon.	Spr.		0	0	0	0	0	0	$0	0
Private Perm.	266	0.000	RB	10/15/2000		ECP Not	Culv. Install	High	18"	-	0		0	0	0	0	$0	0
	Spring in road. Construct French drainage or inside ditch to pick-up spring water and direct to new cmp. 40 feet to drain.																	
60.301501205	5406	0.240	Haschak	Pehl	10-081	Juniper	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	5406	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Class III temporary xing. If wet at time of operations install 4" by 20' pipe or larger if necessary. Dip out crossing at close.																	
60.3015017	1205	0.000	Pehl	Pehl	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	17	0	0	$3,113	538
Upgraded	1205	1.100	ME	12/29/2001		ECP Not	Dip Rolling	Medium	-	-	0		0	15	1	0	$6	538
	Road drainage upgrade on State 40 Loop. Outslope and dip.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.3015017	263	0.080	Heath	Pehl	99-282	Bailey	Surface Drainage	THP Recon.	N/A		0	0	0	0	0	0	$0	0
Private Perm.	263	0.000	Unk	12/14/2000		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
	At intersection of new road constrution, install a rolling dip to prevent water coming from road 60.3015017 from eroding new road surface. (Not an issue)																	
60.301511	1081	0.000	Pehl	Pehl	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	8	$563	0
Private Seasonal	1081	0.830	RF	10/11/2000		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Grade road.																	
60.301511	11	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$187	0
Private Seasonal	1707	0.850	TE	7/20/2001		ECP Not	R/W Treatment	Medium	-	-	0		0	0	7	0	$0	0
	Sprayed pampas grass with 3 percent Roundup + R11 (trace).																	
60.301511	2708	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Perm.	2708	0.800	Unk	12/29/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Cleared culvert inlets.																	
60.301511	2719	0.000	Pehl	Pehl	03-089	Primrose	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Perm.	2719	1.700	Unk	1/4/2006		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Culverts okay.																	
60.301511	852	0.120	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-HDP	Storm Proofing	III		0	0	0	1	0	0	$240	0
Private Perm.	852	0.000	ME	5/23/2000		ECP Not	Dip Critical	Medium	24"	-	0		0	1	2	0	$0	0
	A 24" cmp on a class 3 , low gradient but functioning well. Road surface draining over OBF causing 1 yrd. Outlet erosion , crossing has DP to left. Treat: clean inlet and outlet , inslope road over crossing or berm around OBF , add CD left hinge.																	
60.301511	853	0.180	McCanl	Alden	Storm Pro	Storm Proofing	Other	Storm Proofing	III		0	0	0	2	0	0	$248	0
Private Perm.	853	0.000	ME	5/23/2000		ECP Not	Dip Critical	Medium	-	-	0		0	1	0	0	$0	0
	A minor class 3 entering IBD , then flowing down ditch. Treat: install rocked rolling dip																	
60.301511	854	0.250	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-HDP	Storm Proofing	III		0	0	0	2	0	0	$305	0
Private Perm.	854	0.000	ME	5/23/2000		ECP Not	Dip Critical	Medium	24"	-	0		0	1	0	0	$0	0
	A 24" cmp on a class 3 , cmp is shotgunned but has DS, a past fill failure left bank at outlet of cmp approx. 20 yrds. Crossing has DP to left. Treat: add CD left hinge.																	
60.301511	855	0.300	McCanl	Kelly	Storm Pro	Storm Proofing	Slide - Deep	Weather Damage	N/A		0	0	0	15	30	0	$6,325	0
Private Perm.	855	0.000	Unk	4/3/2000		ECP Not	Excavate Soil	Medium	-	-	0		0	15	5	0	$0	0
	A large cutbank slide est. 3000 yrds.+ . Failure crossed road flowing down gentle hillslope for 200' . Road was cleared by sidecasting spoil that blocked road . Above road a large amount remains, slowly flow down onto road surface. Inside ditch has flow from above this site flowing by slide , this is carring fine sediment to class 3 down road. Treat: this site will continue to move down into ditch and onto road, could excavate up slope to remove as much as possible to unload. Est. 2000 yrds. Could be removed and endhauled 700' to right using 2 to 3 dumps.																	
60.301511	855	0.400	Kelly	Kelly	Maintena	Maintenance	Cut Bank Failure	Maintenance	N/A		0	0	0	0	0	0	$2,260	0
Private Seasonal	888	0.000	JHB	3/16/2000		ECP Not	Excavate Soil	Medium	-	-	0		0	0	4	0	$0	0
60.301511	855	0.400	Kelly	Kelly	Maintena	Maintenance	Cut Bank Failure	Maintenance	N/A		0	0	0	26	59	0	$7,183	0
Private Seasonal	889	0.000	ME	3/31/2000		ECP Not	Excavate Soil	Medium	-	-	0		0	13	0	0	$0	0
60.301511	857	0.410	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-HDP	Storm Proofing	III		0	0	0	1	0	0	$190	0
Private Perm.	857	0.000	ME	5/23/2000		ECP Not	Dip Critical	Medium	18"	-	0		0	1	0	0	$0	0
	A 18" cmp on a class 3 , possible spring , crossing has DP to right . Treat : installCD left hinge and clean onlet and outlet, add 10' of DS.																	
60.301511	857	0.410	Pehl	Pehl	Maintena	Maintenance	Culv.	Maintenance	III		0	0	0	9	7	0	$3,474	50
Private Perm.	2962	0.000	R&S	11/15/2006		ECP Not	Culv. Replace	Medium	18"	24"	40		0	9	9	0	$69	50
	Replace rusted out culvert																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.301511	858	0.470	McCanl	Alden	Storm Pro	Storm Proofing	Dip Rolling	Storm Proofing	III		0	0	0	5	0	0	$1,736	71
Private Perm.	858	0.000	ME	5/23/2000		ECP Not	Culv. Replace	Medium	18"	24"	40		0	5	2	128	$24	71
A 18" cmp on a class 3 , low gradient and shallow , outlet is buried , spoil has been pushed below outlet causing flow to divert to left of channel for 40' before flowing back into channel. Treat: excavate top to bot , try to reach below bot 35' to clear channel , install 24' cmp to grade with CD left hinge.																		
60.301511	5455	0.550	Haschak	Pehl	10-081	Juniper	Culv.-Ditch Relief	THP App. Rd.	N/A		0	10	0	7	6	0	$2,702	0
Private Perm.	5455	0.000	R&S	11/5/2013		ECP Not	Culv. Replace	Medium	18"	18"	40		0	0	7	0	$0	0
Rusting ditch relief culvert. Replace with 18" by 30' or longer.																		
60.301511	1385	0.800	Alden	Alden	Maintena	Maintenance	Surface Drainage	Storm Proofing	N/A		0	0	0	3	4	0	$808	0
Private Seasonal	1385	1.850	ME	3/15/2001		ECP Not	Rock Surface	Medium	-	-	0		0	4	0	0	$0	0
60.301511	860	0.830	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-Ditch Relief	Storm Proofing	N/A		0	0	0	3	0	0	$974	0
Private Perm.	860	0.000	ME	5/24/2000		ECP Not	Culv. Replace	Medium	18"	18"	30		0	3	2	0	$0	0
A 18" DRC draining spring down ditch from ranch house under 60.301511 rd. Cmp is short and traffic has smashed outlet. Treat : remove cmp and install 18" directing outlet across road to garden area.																		
60.301511	1674	0.850	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$421	0
Private Seasonal	1674	1.850	TE	6/1/2001		ECP Not	R/W Treatment	Medium	-	-	0		0	0	14	0	$0	0
Sprayed pampas grass with 3 percent Roundup + R11 (trace). Also treated near-road portions of West Pepperwood THP units 1, 2, and 3.																		
60.301511	1213	0.900	McCanl	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	35	8	0	$5,875	0
Private Seasonal	1213	1.850	ME	1/19/2001		ECP Not	Dip Rolling	Medium	-	-	0		0	23	5	0	$0	0
60.3015113	904	0.000	McCanl	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	3	0	0	$663	83
Upgraded	904	0.170	ME	5/1/2000		ECP Not	Dip Rolling	Medium	-	-	0		0	5	0	0	$8	83
60.3015113	5414	0.000	Haschak	Pehl	10-081	Juniper	Temp. Crossing	THP Non-Road	Swale		0	0	0	0	0	0	$0	0
Private Seasonal	5414	0.000	Unk	10/15/2014		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
Dip out swale at close of operations.																		
60.3015113	5346	0.170	Alden	Alden	Maintena	Maintenance	Surface Drainage	Assessment	N/A		0	0	0	0	0	0	$0	196
Upgraded	5346	0.570	Unk	7/10/2000		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	196
This road is in pretty good shape and is a low priority for storm proofing.																		
60.3015113	260	0.350	Heath	Kelly	99-282	Bailey	Surface Drainage	THP Recon.	N/A		0	0	0	0	0	0	$0	0
Private Perm.	260	0.000	Unk	7/1/2000		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
This is a low spot that fills with water from a spring. Upon completetion of the THP, LTO will construct a rolling dip to allow drainage. Apply seed and mulch to bare soil.																		
60.3015113	5344	0.440	Alden	Kelly	Maintena	Maintenance	Temp. Crossing	Assessment	III		0	0	0	8	0	0	$2,380	100
Upgraded	5344	0.000	Unk	7/1/2000		ECP Not	Remove Crossing	Medium	-	Pull	0		0	8	0	0	$24	100
This crossing was pulled but not deep enough.																		
60.3015113	5344	0.440	Heath	Kelly	99-282	Bailey	Culv.-Plug	THP New Con.	III		0	0	0	0	0	0	$0	0
Private Perm.	261	0.000	Unk	7/1/2000		ECP Not	Remove Crossing	High	-	Pull	0		0	0	0	0	$0	0
This is a class III watercourse. After removing culvert, remove excess fill to botttom of draw to prevent soil from moving down stream. This will close this segment of road. Seed and mulch bare soil.																		
60.3015113	261	0.470	Alden	Kelly	99-282	Bailey	No Problem	Assessment	III		0	0	0	0	0	0	$0	0
Upgraded	5345	0.000	Unk	7/10/2000		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
This was pulled at time of thp																		

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.3015113	262	0.520	Heath	Kelly	99-282	Bailey	Fill - Road	THP Recon.	N/A		0	0	0	20	0	0	$2,540	0
Private Perm.	262	0.000	RB	7/10/2000		ECP Not	Other	High	-	-	0		0	0	20	0	$0	0
	Fill failure has reached the class III watercourse. Stablilze fill bare soil with seed and mulch. If soil is to hard and will not take seed, plant conifers. To prevent further failure and water drainage onto fill failure, construct a berm on road on the uphill side. Be sure berm does not drain onto the unstable area. Cut an inside ditch around failure area to prevent upslope surface flow from entering the fill failure. Seed and mulch all bare soil.																	
60.3015113	5464	0.650	Haschak	Haschak	10-081	Juniper	Temp. Crossing	THP App. Rd.	III		0	0	0	2	2	0	$430	30
Private Seasonal	5464	0.000	Unk	6/7/2010		GWDR 1-10-081	No Action	Medium	-	-	0		0	0	0	0	$14	30
	This is an old road that crosses a minor class III and the crossing wasn't pulled properly last time so there has been some erosion of the crossing. However it is not possible to reach this point without putting in a major crossing further up the road so this ECP will have no action. I am documenting this so that some day it might be taken care of if the road is opened up to this point.																	
60.3015113	5343	5.600	Alden	Kelly	Maintena	Maintenance	Temp. Crossing	Assessment	III		0	0	0	6	0	0	$1,350	150
Upgraded	5343	0.000	Unk	7/10/2000		ECP Not	Remove Crossing	Medium	-	-	0		0	6	0	200	$9	150
	This is poorly pulled and could be imporved but too much road would need to be opened to get here..																	
60.3015115118	5462	0.000	Haschak	Pehl	10-081	Juniper	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5462	0.000	Unk	10/15/2014		GWDR 1-10-081	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	0
	Remove outside berm on this road and outslope.																	
60.3015115118	5463	0.000	Haschak	Pehl	10-081	Juniper	Other	THP App. Rd.	II		0	0	0	0	0	0	$0	0
Private Seasonal	5463	0.000	Unk	10/17/2014		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Landing not used during logging in 2014.																	
	Location of a landing that intrudes 10 to 15 feet into 100 foot WLPZ. Place log along edge of landing during operations. No sidecasting. Seed and mulch at close of operations																	
60.30152	2339	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	1	0	0	$160	147
Storm Proofed	2339	0.300	R&S	10/23/2006		ECP Not	Tip and Dip	Medium	-	-	0		0	1	0	0	$1	147
	Tip and Dip																	
60.30152	1250	0.300	McCanl	Alden	271 Pep	Pep P0530407	Fill - Landing	Storm Proofing	N/A		0	0	0	3	0	0	$705	292
Storm Proofed	1250	0.000	R&S	10/23/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	4	0	292	$16	44
	excavate store locally																	
60.301535	5443	0.000	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	5443	0.600	Unk	4/27/2010		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
60.301535	2205	0.500	Haschak	Pehl	03-089	Primrose	Temp. Crossing	THP New Con.	Spr.		0	0	0	0	0	0	$0	0
Private Seasonal	2205	0.000	AL	8/15/2004		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Install spring drain pipe, remove and dip out at close of operations.																	
60.301535	2176	0.600	Haschak	Pehl	03-089	Primrose	Surface Drainage	THP New Con.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2176	0.000	AL	8/15/2004		ECP Not	Waterbar	Medium	-	-	0		0	0	0	0	$0	0
	At close of operations this road shall have a waterbar placed at the end of it so that water does not drain down the trail toward the slide in the class III																	
60.30153552	5444	0.000	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	5444	0.070	Unk	4/27/2010		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
60.30154	2364	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	56	0	0	$11,975	606
Storm Proofed	2364	1.240	R&S	1/25/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	60	4	0	$20	606
	Tip and Dip																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
60.30154	2382	0.390	Pehl	Alden	271 Pep	Pep P0530407	Temp. Crossing	Storm Proofing	III		0	150	0	4	3	0	$1,130	150
Storm Proofed	2382	0.000	R&S	10/25/2007		ECP Not	Armored Ford	Medium	-	RkFd	0		0	2	8	150	$30	38
	Temporary class III crossing, not pulled to grade. Eroding severely.																	
	Excavate and rebuild approaches with proper compaction. Install a rock armored crossing.																	
60.30154	2381	0.420	Pehl	Alden	271 Pep	Pep P0530407	Temp. Crossing	Storm Proofing	III		0	40	0	3	3	0	$983	50
Storm Proofed	2381	0.000	R&S	10/25/2007		ECP Not	Armored Ford	Medium	-	RkFd	0		0	2	6	50	$98	10
	Temp class III crossing, not pulled, just dipped. Road surface is eroding.																	
	Install rock armored crossing																	
60.30154	2380	0.450	Pehl	Alden	271 Pep	Pep P0530407	Temp. Crossing	Storm Proofing	III		0	80	0	5	3	0	$1,168	150
Storm Proofed	2380	0.000	R&S	10/25/2007		ECP Not	Armored Ford	Medium	-	RkFd	0		0	3	4	150	$26	45
	Minor class III temp crossing. Not pulled, just dipped. Road surface is eroding.																	
	Install rock armored crossing.																	
60.30154	133	0.500	Kelly	Kelly	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$510	0
Private Seasonal	133	0.000	Unk	2/3/1999		ECP Not	Other	Medium	-	-	0		0	3	0	0	$0	0
60.30154	2379	0.500	Pehl	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	Swale		0	40	0	3	3	0	$938	25
Storm Proofed	2379	0.000	R&S	10/26/2007		ECP Not	Armored Ford	Medium	-	RkFd	0		0	3	4	25	$75	13
	Swale concentrates upslope drainage on road.																	
	Install rock armor crossing.																	
60.30154	2378	0.570	Pehl	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	Swale		0	40	0	5	3	0	$1,168	25
Storm Proofed	2378	0.000	R&S	10/26/2007		ECP Not	Armored Ford	Medium	-	RkFd	0		0	3	4	25	$93	13
	Swale concentrates upslope drainage on road.																	
	Install rock armor crossing.																	
60.30154	2377	0.590	Pehl	Alden	271 Pep	Pep P0530407	Spring	Storm Proofing	Spr.		0	0	0	22	17	0	$5,088	275
Storm Proofed	2377	0.000	R&S	10/29/2007		ECP Not	Culv. Install	Medium	-	RkFd	0		0	12	6	275	$74	69
	Spring drains across road. Debris plume and two channels incised in road.																	
	Install 30"X60' CMP. Change to Frenchy drain and rock armored ford. Alden.																	
60.30154	2376	0.640	Pehl	Alden	271 Pep	Pep P0530407	Temp. Crossing	Storm Proofing	III		0	80	0	1	3	0	$655	100
Storm Proofed	2376	0.000	R&S	11/1/2007		ECP Not	Armored Ford	Medium	-	RkFd	0		0	2	4	100	$22	30
	Minor class III crossing. Not pulled to stream grade. Downcutting through road surface.																	
	Install rock armored crossing.																	
60.30154	2375	0.660	Pehl	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	Swale		0	40	0	7	3	0	$1,430	25
Storm Proofed	2375	0.000	R&S	11/1/2007		ECP Not	Armored Ford	Medium	-	RkFd	0		0	4	4	25	$114	13
	Swale focuses drainage on road. Minor incision in road bed.																	
	Install rock armored crossing.																	
60.30154	2374	0.720	Pehl	Alden	271 Pep	Pep P0530407	Temp. Crossing	Storm Proofing	III		0	80	0	7	6	0	$1,660	100
Storm Proofed	2374	0.000	R&S	11/2/2007		ECP Not	Armored Ford	Medium	-	RkFd	0		0	4	1	100	$33	50
	Minor class III crossing. Incising into road bed.																	
	Excavate crossing and road edge. Armor with rock.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.30154	2373	0.750	Pehl	Alden	271 Pep	Pep P0530407	Cut Bank Failure	Storm Proofing	N/A		0	0	0	1	0	0	$205	125
Storm Proofed	2373	0.000	R&S	11/2/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	1	0	125	$2	125
	Cut bank failure. Slump material on road may overload road prism.																	
	Excavate slump material. End haul or use locally to outslope road.																	
60.30154	2372	0.770	Pehl	Alden	271 Pep	Pep P0530407	Temp. Crossing	Storm Proofing	II		0	0	0	15	6	0	$2,400	400
Deactivated	2372	0.000	R&S	11/5/2007		ECP Not	Remove Crossing	Medium	-	Pull	0		0	1	3	400	$8	320
	Abandoned class III crossing not pulled to grade is down cutting.																	
	Excavate crossing to stream grade.																	
60.30154	2370	0.780	Pehl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	1	0	0	$385	939
Storm Proofed	2370	0.860	R&S	11/5/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	1	4	900	$1	696
	Fill failure/Inner Gorge slide below road/Cut bank failures.																	
	Abandon road by excavating outside edge, end haul or place material against cutbank, and outslope.																	
60.30154	2368	0.860	Pehl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	III		0	0	0	2	3	0	$905	90
Abandoned Fixed	2368	0.000	R&S	11/6/2007		ECP Not	Remove Crossing	Medium	-	Pull	0		0	4	2	90	$34	27
	Road Crosses Head of Class III watercourse. Flow is eroding road.																	
	Excavate stream channel to natural grade and abandon road crossing.																	
60.3015402	2367	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	3	0	0	$615	293
Storm Proofed	2367	0.600	R&S	11/4/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	3	0	0	$2	293
	Tip and Dip																	
60.3015402	2383	0.180	Pehl	Alden	271 Pep	Pep P0530407	Temp. Crossing	Storm Proofing	III		0	0	0	6	0	0	$1,995	180
Storm Proofed	2383	0.000	R&S	7/14/2008		ECP Not	Armored Ford	Medium	-	Pull	0		0	7	16	180	$18	108
	Class III temporary crossing not pulled to grade. Road fill is eroding.																	
	Install armored crossing. Pulled instead.																	
60.3015402	2384	0.210	Pehl	Alden	271 Pep	Pep P0530407	Spring	Storm Proofing	Spr.		0	0	0	7	0	0	$1,558	600
Private Seasonal	2384	0.000	R&S	7/14/2008		ECP Not	Dip Critical	Medium	-	-	0		0	7	5	600	$5	300
	Water from bank seep runs down insloped road.																	
	Outslope road. Install large dip to cross drain seep.																	
60.3015402	2385	0.270	Pehl	Alden	271 Pep	Pep P0530407	Temp. Crossing	Storm Proofing	III		0	0	0	13	8	0	$3,310	800
Private Seasonal	2385	0.000	R&S	7/14/2008		ECP Not	Remove Crossing	Medium	-	Pull	0		0	11	5	800	$5	720
	Class III temp crossing, not pulled to stream grade. Road fill is deeply incised.																	
	Excavate to natural stream grade.																	
60.3015402	2386	0.300	Pehl	Alden	271 Pep	Pep P0530407	Spring	Storm Proofing	Spr.		0	0	0	1	0	0	$205	180
Private Seasonal	2386	0.000	R&S	7/14/2008		ECP Not	Excavate Soil	Medium	-	-	0		0	1	0	180	$4	54
	Water from bank seep runs down insloped road. Road fill edge is over steepened.																	
	Excavate road edge and use to outslope road. Install large dips at seeps, if present.																	
60.3015402	2387	0.420	Pehl	Alden	271 Pep	Pep P0530407	Temp. Crossing	Storm Proofing	III		0	0	0	25	11	0	$5,365	500
Private Seasonal	2387	0.000	R&S	7/11/2008		ECP Not	Remove Crossing	Medium	-	Pull	0		0	15	7	500	$36	150
	Temp crossing not pulled to grade. Road fill is eroding.																	
	Excavate crossing down to natural stream grade.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.3015402	4694	0.600	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Abandoned Lega	4694	1.500	Unk	8/9/2008		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
60.3015402005	5514	0.000	Alden	Alden	Maintena	Maintenance	Surface Drainage	Assessment	N/A		0	0	0	8	0	0	$1,640	196
Storm Proofed	5514	0.400	R&S	6/1/2008		ECP Not	Tip and Dip	Medium	-	-	0		0	8	0	0	$8	196
60.3015402007	5515	0.000	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	5515	0.250	Unk	6/1/1997		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.301552	2369	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	5	0	0	$1,115	122
Storm Proofed	2369	0.250	R&S	1/26/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	5	2	0	$9	122
	Tip and Dip																	
60.301552	5437	0.240	Pehl	Alden	271 Pep	Pep P0530407	No Problem	Maintenance	III		0	0	0	0	0	0	$135	10
Storm Proofed	5437	0.000	R&S	1/26/2007		ECP Not	Dip Critical	Medium	-	-	0		0	1	0	0	$14	10
	Slide below road has undermined the fill. Excavate road edge. Outslope and abandon road segment. Leave passable for ATV.																	
60.301552	5436	0.250	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Assessment	N/A		0	0	0	11	1	0	$3,347	247
Deactivated	5436	0.755	R&S	1/26/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	11	2	0	$14	247
	Tip and Dip																	
60.301552	1417	0.320	Pehl	Alden	271 Pep	Pep P0530407	Fill - Road	Maintenance	II		0	0	0	3	0	0	$615	70
Storm Proofed	1417	0.000	R&S	1/26/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	3	0	0	$13	49
	Slide below road has undermined the fill. Excavate road edge. Outslope and abandon road segment. Leave passable for ATV.																	
60.30155247	2371	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	2	0	0	$410	49
Deactivated	2371	0.100	R&S	1/25/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	2	0	0	$8	49
	Tip and Dip																	
60.30155247	5439	0.100	Alden	Alden	271 Pep	Pep P0530407	No Problem	Assessment	II		0	0	0	0	0	0	$0	0
Deactivated	5439	0.000	R&S	1/25/1996		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
	This crossing was dug out after logging in the late 90s																	
60.30155247	5438	0.100	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Assessment	N/A		0	0	0	0	0	0	$0	153
Deactivated	5438	0.412	R&S	1/25/1996		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	153
	This road is barely connected and is not delivering.																	
60.30157	1382	0.000	Pehl	Kelly	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	0	0	0	$0	538
Upgraded	1382	1.100	ME	12/29/2001		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	538
60.30157	5503	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5503	1.140	Unk	8/25/2009		ECP Not	Herbicides	Medium	-	-	0		0	0	0	0	$0	0
60.30157	995	5.400	Pehl	Pehl	96-404	Lowery Openings	Surface Drainage	THP Clean Up	N/A		0	0	0	0	0	0	$75	0
Private Seasonal	995	0.000	RB	12/5/2000		ECP Not	Waterbar	THP Low	-	-	0		0	1	0	0	$0	0
	Cut bank seep. Drain across road with waterbar or dip.																	
60.30157048	1207	0.000	Pehl	Pehl	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	5	0	0	$828	147
Upgraded	1207	0.300	ME	12/29/2001		ECP Not	Dip Rolling	Medium	-	-	0		0	4	0	0	$6	147
	Road drainage upgrade on State 40 Loop. Outslope and dip.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.301574	1208	0.000	Pehl	Pehl	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	6	0	0	$1,153	196
Upgraded	1208	0.400	ME	12/29/2001		ECP Not	Dip Rolling	Medium	-	-	0		0	6	1	0	$6	196
	Road drainage upgrade on State 40 Loop. Outslope and dip.																	
60.301582	5703	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$459	0
Private Seasonal	5703	0.740		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	12	0	$0	0
60.301589	5502	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5502	1.100	Unk	8/25/2009		ECP Not	Herbicides	Medium	-	-	0		0	0	0	0	$0	0
60.3038	555	0.000	Kelly	Kelly	Maintena	Maintenance	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	555	1.900	Su	10/10/1999		ECP Not	Dip Rolling	Medium	-	-	0		0	9	0	0	$0	0
60.3038	111	0.010	Woolsey	Alden	99-242	Westside Flat	Temp. Crossing	THP App. Rd.	I		0	0	0	0	0	0	$0	0
Private Seasonal	111	0.000	Unk	1/27/1999		ECP Not	Temp. Crossing	Medium	24"	24"	0		0	0	0	0	$0	0
	At least three 24 inch CMP's shall be installed into the river course, and ramped over with local gravel.																	
60.3038	5513	0.010	Alden	Pehl	Maintena	Maintenance	No Problem	Maintenance	I		0	38	0	13	10	0	$2,730	0
Private Seasonal	5513	0.000	R&S	6/22/2001		ECP Not	Rock Surface	Medium	-	-	0		0	5	0	0	$0	0
	Improved the east approach to the crossing.																	
60.3038	111	0.010	Haschak	Bennett	11-087	Kestrel	Temp. Crossing	THP App. Rd.	I		0	0	0	0	0	0	$0	0
Private Seasonal	5534	0.000	Unk	8/26/2015		ECP Not	Temp. Crossing	Medium	-	1RRBr	0		0	0	0	0	$0	0
	See 1600 agreement for conditions.																	
60.3038	111	0.010	Haschak	Borcich	15-042	Dogwood	Temp. Crossing	THP App. Rd.	I		0	0	0	0	0	0	$0	0
Private Seasonal	6062	0.000	Unk	10/15/2021		ECP Not	Bridge - Temp	THP Med	-	1RRBr	0		0	0	0	0	$0	0
	See 1600 agreement (1600 2014 0012-R3) for conditions of installations. **River run needs to be placed on the approaches to the bridge where it ramps down to the active channel. Angular rock needs to be placed in the inside ditch on the east approach to the bridge.**																	
60.3038	113	0.200	Woolsey		99-242	Westside Flat	No Problem	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	113	0.000	Unk	7/1/2000		ECP Not	No Action	Medium	24"	-	0		0	0	0	0	$0	0
60.3038	113	0.200	Haschak	Bennett	11-087	Kestrel	Culv.	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	4497	0.000	Unk	8/31/2015		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
	Dig out upper end of culvert.																	
60.3038	2264	0.280	Haschak	Bennett	11-087	Kestrel	Other	THP Non-Road	III		0	0	0	0	0	0	$0	0
Private Seasonal	2264	0.000	Unk	8/31/2015		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Landing near minor class III This landing can be expanded to both sides of the culvert if berms or logs are placed on the road near both ends of the culvert so that dirt is not pushed into the channel . Otherwise just use the area north of the culvert and place a log berm on the southeast edge between the landing and the channel. Seed and mulch landing.																	
60.3038	114	0.300	Woolsey	Borcich	99-242	Westside Flat	Surface Drainage	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	114	0.000	Unk	11/8/2023		ECP Not	Culv. Install	Medium	-	24"	0		0	0	0	0	$0	0
	water flowing through a natural soil pipe below the road.																	
60.3038	663	0.400	Kelly	Kelly	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	663	0.600	RR	12/22/1999		ECP Not	Waterbar	Medium	-	-	0		0	0	26	0	$0	0
60.3038	115	0.400	Woolsey		99-242	Westside Flat	No Problem	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	115	0.000	Unk	7/1/2000		ECP Not	No Action	Medium	24"	-	0		0	0	0	0	$0	0

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.3038	114	0.410	Haschak	Bennett	11-087	Kestrel	Surface Drainage	Storm Proofing	Spr.		0	0	0	0	0	0	$0	0
Private Seasonal	2209	0.000	Unk	8/31/2015		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
Create rolling dip , keep outlet in same location as present water bar (flags are in this location) so as to not create new class III erosion downhill																		
60.3038	2179	0.420	Haschak	Bennett	11-087	Kestrel	Surface Drainage	Storm Proofing	Spr.		0	0	0	0	0	0	$0	0
Private Seasonal	2179	0.000	Unk	8/31/2015		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
create rolling dip , keep outlet in same location as present water bar (flags are in this location) so as to not create new class III erosion downhill																		
60.3038	116	0.600	Woolsey		99-242	Westside Flat	No Problem	THP App. Rd.	II		0	0	0	0	0	0	$0	0
Private Seasonal	116	0.000	Unk	7/1/2000		ECP Not	No Action	Medium	48"	-	0		0	0	0	0	$0	0
60.3038	116	0.600	Haschak	Bennett	11-087	Kestrel	Culv.	THP App. Rd.	II		0	0	0	9	7	0	$3,525	200
Private Seasonal	4498	0.000	Unk	8/31/2015		GWDR 1-11-087 SO	Remove Crossing	Medium	-	-	0		0	9	12	0	$18	200
Fill over culvert has eroded half way thru road probably because of reduced capacity from partial plugging but possibly because of culvert sections becoming disconnected in center. Downstream end of culvert also is rusted thru. Old 48" culvert will be replaced with 72" culvert or crossing will be pulled at close of operations. As an option, crossing can be turned into a rocked ford at close of operations. If water is present dam and pump water around site while working (see 1600 permit for details).																		
60.3038	2180	0.690	Haschak	Bennett	11-087	Kestrel	Surface Drainage	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2180	0.000	Unk	8/26/2015		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
create rolling dip in order to intercept surface flow which is rilling road to the north, exact location is not critical																		
60.3038	2181	0.750	Haschak	Bennett	11-087	Kestrel	Surface Drainage	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2181	0.000	Unk	8/26/2015		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
enhance rolling dip and drain inside ditch, keep existing outlet point (flagged)																		
60.3038	117	0.830	Haschak	Bennett	11-087	Kestrel	Surface Drainage	Storm Proofing	III		0	0	0	0	0	0	$0	0
Private Seasonal	2182	0.000	Unk	8/26/2015		ECP Not	Ditch - Clean	Medium	-	-	0		0	0	0	0	$0	0
Enhance inside ditch or tilt road from this point to point #8 so that discharge from underground water pipe stays off the road																		
60.3038	2183	0.850	Haschak	Bennett	11-087	Kestrel	Surface Drainage	Storm Proofing	III		0	0	0	0	0	0	$0	0
Private Seasonal	2183	0.000	Unk	8/26/2015		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
Enhance rolling dip, Rock armor outlet.																		
60.3038	118	1.000	Woolsey		99-242	Westside Flat	No Problem	THP App. Rd.	II		0	0	0	0	0	0	$0	0
Private Seasonal	118	0.000	Unk	7/1/2000		ECP Not	No Action	Medium	36"	-	0		0	0	0	0	$0	0
60.3038	118	1.000	Haschak	Bennett	11-087	Kestrel	Culv.-Plug	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	4499	0.000	Unk	8/26/2015		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
Dig out head of culvert . Spoils can be placed above road and north of watercourse to create berm so that watercourse goes into culvert.																		
60.3038	2184	1.260	Haschak	Bennett	11-087	Kestrel	Surface Drainage	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2184	0.000	Unk	8/26/2015		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
Enhance rolling dip, use existing outlet. There are places along this road between point #8 and #9 where operator can install additional rolling dips at his discretion.																		
60.3038	119	1.350	Haschak	Bennett	11-087	Kestrel	Temp. Crossing	Storm Proofing	II		0	0	0	0	0	0	$0	0
Private Seasonal	2185	0.000	Unk	8/26/2015		ECP Not	Vented Ford	Medium	-	-	0		0	0	0	0	$0	0
If wet install temporary 4" or larger pipe. Sandbags filled with clean gravel shall be used to construct a coffer dam. The pipe within the crossing prism shall be covered with a layer of straw and then dirt to create a running surface. If no water is present then place dirt on top of a straw layer to create a running surface without a culvert. If no water is present then no coffer dam or sandbags will be required. Remove all crossing material and spread on road prior to winter period. Seed and mulch approaches at close of operations or before winter period.																		

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.3038	120	1.460	Haschak	Bennett	11-087	Kestrel	Temp. Crossing	Storm Proofing	II		0	0	0	0	0	0	$0	0
Private Seasonal	2186	0.000	Unk	8/26/2015		ECP Not	Vented Ford	Medium	-	-	0		0	0	0	0	$0	0
	If wet install temporary 4" or larger pipe. Sandbags filled with clean gravel shall be used to construct a coffer dam. The pipe within the crossing prism shall be covered with a layer of straw and then dirt to create a running surface. If no water is present then place dirt on top of a straw layer to create a running surface without a culvert. If no water is present then no coffer dam or sandbags will be required. Remove all crossing material and spread on road prior to winter period. Seed and mulch approaches at close of operations or before winter period.																	
60.3038	121	1.600	Woolsey	Borcich	99-242	Westside Flat	Dip Critical	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	121	0.000	Unk	11/8/2023		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
	The stream course has deposited a small alluvial fan of sand sized sediment to cobble sized debris. The excess material in the stream channel shall be removed down to the original stream bed level. The removed material shall either be incorporated into the road, or end hauled away.																	
60.3038	121	1.660	Haschak	Bennett	11-087	Kestrel	Temp. Crossing	Storm Proofing	II		0	0	0	0	0	0	$0	0
Private Seasonal	2187	0.000	Unk	8/26/2015		ECP Not	Vented Ford	Medium	-	-	0		0	0	0	0	$0	0
	If wet install temporary 4" or larger pipe. Sandbags filled with clean gravel shall be used to construct a coffer dam. The pipe within the crossing prism shall be covered with a layer of straw and then dirt to create a running surface. If no water is present then place dirt on top of a straw layer to create a running surface without a culvert. If no water is present then no coffer dam or sandbags will be required. Remove all crossing material and spread on road prior to winter period. Seed and mulch approaches at close of operations or before winter period.																	
60.3038	122	1.700	Woolsey	Borcich	99-242	Westside Flat	Dip Critical	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	122	0.000	Unk	11/8/2023		ECP Not	Dip Critical	Medium	-	-	0		0	0	0	0	$0	0
60.3038	122	1.770	Haschak	Bennett	11-087	Kestrel	Temp. Crossing	Storm Proofing	II		0	0	0	0	0	0	$0	0
Private Seasonal	2188	0.000	Unk	8/26/2015		ECP Not	Vented Ford	Medium	-	-	0		0	0	0	0	$0	0
	If wet install temporary 4" or larger pipe. Sandbags filled with clean gravel shall be used to construct a coffer dam. The pipe within the crossing prism shall be covered with a layer of straw and then dirt to create a running surface. If no water is present then place dirt on top of a straw layer to create a running surface without a culvert. If no water is present then no coffer dam or sandbags will be required. Remove all crossing material and spread on road prior to winter period. Seed and mulch approaches at close of operations or before winter period.																	
60.3038	123	1.800	Woolsey	Borcich	99-242	Westside Flat	Culv.	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	123	0.000	Unk	11/8/2023		ECP Not	Culv. Ditch Relief	Medium	24"	-	0		0	0	0	0	$0	0
	Failed trash racks. Dig out inlet area and fix trash racks.																	
60.3038	123	1.830	Haschak	Bennett	11-087	Kestrel	Culv.-Plug	Storm Proofing	II		0	0	0	0	0	0	$0	0
Private Seasonal	2189	0.000	Unk	8/26/2015		ECP Not	Culv. Maintenance	Medium	-	-	0		0	0	0	0	$0	0
	Install large woody debris energy dissipater below culvert outlet. Clean head of culvert if necessary.																	
60.3038	2190	1.850	Haschak	Bennett	11-087	Kestrel	Surface Drainage	Storm Proofing	Spr.		0	0	0	0	0	0	$0	0
Private Seasonal	2190	0.000	Unk	8/26/2015		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
	Enhance rolling dip in order to drain inside spring area and outslope the road from just north of this point and southward to point #16 so that the whole area drains or as an alternative install 4" pipe to drain springy area. Road can be widened towards the inside edge but log should be placed on outside edge at slide for safety. No sidecasting during work on this site.																	
60.3038	2191	1.880	Haschak	Bennett	11-087	Kestrel	Culv.-Plug	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2191	0.000	Unk	8/26/2015		ECP Not	Culv. Maintenance	Medium	-	-	0		0	0	0	0	$0	0
	Install rock armor or large woody debris energy dissipater below culvert outlet. Outslope road north of this point. See road point #15.																	
60.303806	5848	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$62	0
Private Seasonal	5848	0.200		8/1/2012		ECP Not	Herbicides	Medium	-	-	0		0	0	0	0	$0	0
60.303806	2245	0.010	Haschak	Bennett	11-087	Kestrel	Other	THP Non-Road	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2245	0.000	Unk	8/31/2015		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Seed and mulch landing at close of operations. Waterbar top of haul road that leads down to the Gualala.																	
	Bennett spoke to Kim Sone on 8/28/15. Waterbar is being left out due to throughcut.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.303806	2244	0.160	Haschak	Bennett	11-087	Kestrel	Other	THP Non-Road	II		0	0	0	0	0	0	$0	0
Private Seasonal	2244	0.000	Unk	8/31/2015		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	WLPZ landing. Place log or earth berm approximately 25 feet from class II watercourse. Leave in place at close of operations. Seed and mulch landing.																	
60.303806	2177	0.180	Haschak	Bennett	11-087	Kestrel	Temp. Crossing	Storm Proofing	Swale		0	0	0	0	0	0	$0	0
Private Seasonal	2177	0.000	Unk	8/31/2015		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Move existing rolling dip 20 feet north so that runoff is intercepted and directed across road.																	
60.303806	2157	0.180	Haschak	Bennett	11-087	Kestrel	Temp. Crossing	Storm Proofing	III		0	0	0	0	0	0	$0	0
Private Seasonal	2157	0.000	Unk	8/31/2015		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Enhance and maintain existing rolling dip																	
60.30380605	2469	0.000	Alden	Pehl	00-391	Terrapin Station	Surface Drainage	THP... Not	N/A		0	0	0	0	0	0	$0	244
Storm Proofed	2469	0.500	AL	9/5/2004		ECP Not	Tip and Dip	Medium	-	-	0		0	0	0	0	$0	244
60.30380605	2686	0.000	Pehl	Pehl	00-391	Terrapin Station	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2686	0.450	Unk	12/28/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Wet weather inspection. Pipes okay. Everything very wet after 5" of rain in previous 24 hours.																	
60.30380605	5849	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$157	0
Private Seasonal	5849	0.500		8/1/2012		ECP Not	Herbicides	Medium	-	-	0		0	0	0	0	$0	0
60.30380605	800	0.020	McCanl	Pehl	00-391	Terrapin Station	Culv.-HDP	THP New Con.	II		0	0	0	1	0	0	$90	0
Private Seasonal	800	0.000	AL	10/15/2004		ECP Not	Dip Critical	Medium	30"	-	0		0	1	0	0	$0	0
	a 30" cmp on a class 2 a new install OK but not to grade. Cmp has DP to left . Treat : add CD left hinge and clear inlet area.																	
60.30380605	800	0.020	Woolsey	Pehl	00-391	Terrapin Station	Dip Critical	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	126	0.000	Unk	12/31/2004		ECP Not	Dip Critical	Medium	-	-	0		0	0	0	0	$0	0
60.30380605	800	0.020	Woolsey	Pehl	00-391	Terrapin Station	Dip Critical	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	125	0.000	Unk	12/31/2004		ECP Not	Dip Critical	Medium	-	-	0		0	0	0	0	$0	0
60.30380605	801	0.150	McCanl	Pehl	00-391	Terrapin Station	Culv.	THP New Con.	III		0	0	0	3	0	0	$1,006	20
Private Seasonal	801	0.000	AL	10/15/2004		ECP Not	Culv. Replace	Medium	18"	24"	40		0	3	3	120	$50	20
	a 18" cmp on a class 3 flow goes sub-surface 10' above inlet and emerges 35' below outlet treat: replace with 24" cmp to grade install CD add DS if needed																	
60.30380605	802	0.160	McCanl	Pehl	00-391	Terrapin Station	Inside ditch	THP New Con.	N/A		0	0	0	2	0	0	$652	0
Private Seasonal	802	0.000	AL	10/15/2004		ECP Not	Culv. Ditch Relief	Medium	-	18"	40		0	2	2	0	$0	0
	install 18" DRC to disconnect ditch from site #59																	
60.30380605	803	0.200	McCanl	Pehl	00-391	Terrapin Station	Culv.-HDP-Plug	THP New Con.	III		0	0	0	4	0	0	$1,096	50
Private Seasonal	803	0.000	AL	10/15/2004		ECP Not	Culv. Replace	Medium	18"	24"	40		0	4	2	150	$22	50
	a 18" cmp on a class 3 inlet overgrown with willows and outlet covered with logging slash cmp shallow installed and has DP to left. Treat : replace with 24" to grade add CD left hinge , add DS if needed.																	
60.30380605	804	0.250	McCanl	Pehl	00-391	Terrapin Station	Other	THP New Con.	III		0	0	0	4	0	0	$1,096	0
Private Seasonal	804	0.000	AL	10/15/2004		ECP Not	Culv. Install	Medium	-	24"	40		0	4	2	80	$0	0
	a well defined swale above and below road 20' above inlet sub-surface flow visible in sink 1' deep . Flow emerges 20' below OBR. Treat: install 24" cmp to grade , grade up channel 30' to small redwood clump to establish channel to inlet add CD left hinge.																	
60.30380605	805	0.350	McCanl	Pehl	00-391	Terrapin Station	Culv.-HDP	THP New Con.	III		0	0	0	3	0	0	$1,006	0
Private Seasonal	805	0.000	AL	10/15/2004		ECP Not	Culv. Replace	Medium	18"	24"	40		0	3	3	0	$0	0
	a 18" cmp on a seasonal class 3 cmp shallow installed with 4yrds. Outlet erosion treat: replace with 24" cmp to grade add CD, add DS if needed.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.304701	1683	0.000	Pehl	Pehl	99-282	Bailey	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$240	0
Private Seasonal	1683	0.280	Su	7/10/2001		ECP Not	Waterbar	Medium	-	-	0		0	3	0	0	$0	0
	Big waterbars to replace the little ones that failed.																	
60.3051	2117	0.000	Bennett	Bennett	96-063	Little Pepper	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2117	0.000	Unk	2/10/2002		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.3051	2116	0.000	Bennett	Bennett	96-028	Upper Big Pepperwo	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2116	0.000	Unk	2/10/2002		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.3051	2115	0.000	Bennett	Pehl	98-318	Pepperwood_98	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2115	0.000	Unk	2/10/2002		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.3051	2675	0.000	Pehl	Pehl	98-318	Pepperwood_98	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2675	3.200	Unk	12/23/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. Road Blocked by root wad at 0.68 and numerous trees elsewhere.																	
60.3051	2343	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	45	7	0	$9,300	1,467
Storm Proofed	3984	3.000	R&S	4/23/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	40	0	0	$6	1,467
	Tip and Dip																	
60.3051	5698	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$1,457	0
Private Seasonal	5698	2.960		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	39	0	$0	0
60.3051	2336	0.040	Alden	Pehl	271 Pep	Pep P0530407	Bridge	Storm Proofing	I		0	0	0	31	26	0	$21,825	0
Private Seasonal	2336	0.000	R&S	8/7/2008		ECP Not	Bridge - Perm	Medium	ЯRBr	1RRBr	53		0	31	16	0	$0	0
	Instal munchke block abutments and a new steel decked bridge.																	
60.3051	2059	0.120	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	3	0	0	$600	64
Upgraded	2059	0.250	ME	8/29/2002		ECP Not	Dip Rolling	Medium	-	-	0		0	3	0	0	$9	64
60.3051	4607	0.130	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	16	5	0	$7,625	89
Storm Proofed	4607	0.210	R&S	5/14/2008		ECP Not	Tip and Dip	Medium	-	-	0		0	48	8	600	$134	57
	Remove berm fill in through cut.																	
60.3051	6576	0.160	Haschak	Borcich	17-104	Elm	Temp. Crossing	THP App. Rd.	Spr.		0	0	0	0	0	0	$0	0
Private Seasonal	6576	0.000	Unk	10/15/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Spring drains into inside ditch that needs to be crossed for road/skid trail. Install 6" spring drain culvert and pull at close of operations.																	
60.3051	4615	0.240	Alden	Alden	271 Pep	Pep P0530407	Culv.-Ditch Relief	Storm Proofing	N/A		0	0	0	7	0	0	$2,907	0
Private Seasonal	4615	0.000	R&S	5/22/2008		ECP Not	Culv. Install	Medium	-	18"	80		0	11	2	0	$0	0
60.3051	2967	0.250	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	9	0	0	$1,035	1,320
Upgraded	2967	2.950	R&S	6/6/2006		ECP Not	Tip and Dip	Medium	-	-	0		0	9	0	0	$1	1,320
60.3051	49	0.350	Lewicki	Pehl	98-318	Pepperwood_98	Surface Drainage	THP New Con.	N/A		0	0	0	3	0	0	$360	0
Private Seasonal	49	0.000	ME	11/15/2002		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Rock lined dry ford																	
60.3051	6548	0.470	Haschak	Borcich	17-104	Elm	Slide - Deep	THP App. Rd.	N/A		0	0	0	8	8	0	$2,520	1,000
Private Seasonal	6559	0.000	Unk	10/15/2019		GWDR-1-17-104 SO	Other	High	-	-	0		0	8	0	0	$10	250
	Outside edge of road has failed onto lower road. Cracks further up road could cause more to fail next year. Fill shall not be placed on the down dropped outer road fill prism. Road width shall be gained by cutting into the existing road cut bank apporimately 3-5 feet. Perched and cracked fill along the outer road edge shall be pulled back and road runoff shall be controlled from concentrating onto the failed outer road edge.. Place a rolling dip or outslope road above this point so that road runoff is diverted before reaching this spot.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.3051	1315	0.560	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	13	3	0	$4,192	15
Private Seasonal	1315	0.000	R&S	8/12/2008		ECP Not	Excavate Soil	High	-	24"	60		0	8	10	593	$279	15
	fill crossing on class 3 12' to 16" redwoods at outlet indicating buried logsflow crosses road in waterbar TREAT excavate top to bot install cmp to grade add critical dip																	
60.3051	6547	0.800	Haschak	Borcich	17-104	Elm	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6547	1.000	Unk	10/15/2019		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
	This section of road is very steep but the existing large rolling dips are working quite well except at the very top. Enhance drainage at the top with a rolling dip and maintain and/or enhance the existing dips so that they continue to work.																	
60.3051	6580	1.320	Haschak	Borcich	17-104	Elm	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6580	0.000	Unk	10/15/2019		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
	Rolling dip to drain road better.																	
60.3051	50	1.700	Lewicki	Pehl	98-318	Pepperwood_98	Slide - Deep	THP New Con.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	50	0.000	Unk	7/1/2001		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	Outslope road																	
60.3051	51	1.800	Lewicki	Pehl	98-318	Pepperwood_98	No Problem	THP New Con.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	51	0.000	Unk	7/1/2000		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
	New road is 60.305145 ???																	
60.3051	1206	1.900	Pehl	Pehl	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	31	0	0	$5,668	978
Upgraded	1206	3.900	ME	12/29/2001		ECP Not	Dip Rolling	Medium	-	-	0		0	28	2	0	$6	978
	Road drainage upgrade on State 40 Loop. Outslope and dip.																	
60.3051	1316	1.970	McCanl		Storm Pro	Storm Proofing	Dip Critical	Storm Proofing	III		0	0	0	0	0	0	$0	0
Private Seasonal	1316	0.000	Unk	7/1/2000		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	rolling dip on class 3 OK no action																	
60.3051	52	2.400	Lewicki	Pehl	98-318	Pepperwood_98	No Problem	THP New Con.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	52	0.000	Unk	7/1/2000		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
	New road is 60.305160 ???																	
60.3051	5504	2.980	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5504	3.900	Unk	8/25/2009		ECP Not	Herbicides	Medium	-	-	0		0	0	0	0	$0	0
60.3051	996	3.580	Pehl	Pehl	96-404	Lowery Openings	Culv.	THP Clean Up	III		0	0	0	0	0	0	$100	0
Private Seasonal	996	0.000	Unk	12/5/2000		ECP Not	Culv. Maintenance	THP Low	-	-	0		0	0	2	0	$0	0
	Culvert inlet bent and damaged. Ditch which is gathering water from seep is to deep for proper drainage. Fix pipe and ditch or install new pipe with inlet set deep enough to fully drain ditch.																	
60.305115	4156	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	8	0	0	$2,033	156
Storm Proofed	4156	0.320	R&S	4/10/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	13	0	0	$13	156
	Tip and Dip																	
60.305118	2340	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	11	4	0	$3,208	244
Abandoned Fixed	2340	0.500	R&S	7/6/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	12	14	0	$13	244
	Tip and Dip																	
60.305118	1242	0.090	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	III		0	0	0	3	0	0	$2,813	207
Abandoned Fixed	1242	0.000	R&S	7/1/2008		ECP Not	Remove Crossing	High	-	Pull	0		0	25	0	207	$23	124
	potential road fill failure on 90% slopes failure located in small swale scarps and cracks present TREAT excavate fill and and store left and right of swale , construct rolling dip at swale location																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.305118	1241	0.190	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	3	6	0	$1,285	20
Abandoned Fixed	1241	0.000	R&S	7/1/2008		ECP Not	Remove Crossing	High	-	Pull	0		0	4	0	200	$64	20
	class 3 fill crossing with OBF failure present , spring located to right of crossing TREAT excavate crossing top to bot 1 , lay sides back 2 to 1 endhaul spoils to right																	
60.305118	1240	0.200	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	2	0	0	$450	145
Abandoned Fixed	1240	0.000	R&S	7/1/2008		ECP Not	Excavate Soil	Medium	-	-	0		0	2	0	145	$4	109
	potential road fill failure with spring located at cutbank TREAT excavate road fill store spoil left and right of spring construct rolling dip at spring																	
60.305118	1239	0.280	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	1	0	0	$325	326
Abandoned Fixed	1239	0.000	R&S	6/30/2008		ECP Not	Excavate Soil	Medium	-	-	0		0	2	0	326	$2	163
	potential road fill failure on 90% slopes 250' above class 1 stream , small crack and scarps showing fill carries thru small swale showing minor surface erosion TREAT excavate road fill leaving rolling dip at swale location, endhaul spoil to right																	
60.305118	1238	0.300	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	2	0	0	$550	281
Abandoned Fixed	1238	0.000	R&S	6/30/2008		ECP Not	Excavate Soil	Medium	-	-	0		0	3	0	281	$2	253
	potential road fill failure 150' above class 1 stream several small cracks and scarps showing , no present movement. Fill is well vegitated with small conifirs. Spring located mid-point of site TREAT excavate fill endhaul 50% to right to spoil site																	
60.305118	1237	0.350	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	3	0	0	$875	95
Abandoned Fixed	1237	0.000	R&S	6/30/2008		ECP Not	Remove Crossing	High	-	Pull	0		0	2	6	563	$9	95
	class 3 stream crossing , with no flow present time OBF of crossing having past failures TREAT excavtate top to bot lay sides back 2 to 1 endhaul 275 yrds. To right to spoil site																	
60.305118	1236	0.400	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	1	0	0	$275	222
Abandoned Fixed	1236	0.000	R&S	6/30/2008		ECP Not	Excavate Soil	Medium	-	-	0		0	1	1	222	$4	67
	potential road fill failure showing 1' to 2 vertical scarps well mossed over TREAT excavate fill store locally																	
60.305118	1235	0.470	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	Swale		0	0	0	6	0	0	$1,650	556
Abandoned Fixed	1235	0.000	R&S	6/27/2008		ECP Not	Remove Crossing	High	-	Pull	0		0	6	6	556	$7	222
	road crosses small swale , spring emerging from cutbank causing road fill failure TREAT excavate road thru swale endhauling to right to spoil site																	
60.305118	1234	0.500	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	1	0	0	$525	30
Abandoned Fixed	1234	0.000	R&S	6/26/2008		ECP Not	Remove Crossing	High	-	Pull	0		0	1	6	45	$18	30
	Fill crossing on a class 3 stream with minor erosion present TREAT excavate remaining fill store locally , lay sides back 2 to 1																	
60.305125	2341	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	15	0	0	$3,388	249
Storm Proofed	2341	0.510	R&S	4/2/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	14	5	0	$14	249
	Tip and Dip																	
60.305125	6546	0.280	Haschak	Borcich	17-104	Elm	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	6546	0.000	Unk	10/15/2019		ECP Not	Dip Rolling	Medium	-	-	0		0	0	0	0	$0	0
	Install rolling dip or tip road to drain surface runoff before it goes down road where it is causing some rilling																	
60.305125	1163	0.410	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	35	58	0	$11,728	3,370
Private Seasonal	1163	0.000	R&S	6/15/2007		ECP Not	Excavate Soil	High	-	-	0		0	36	3	3,370	$4	2,696
	large potential road fill failure with cracks and scarps shaowing upto 14' back from OBF , failure is located in headwall swale with 2 small springs at cutbank TREAT: excavate and endhaul spoils to left to ridge , dip road at small swale																	
60.305125	1162	0.470	McCanl	Alden	271 Pep	Pep P0530407	Cut Bank Failure	Storm Proofing	N/A		0	0	0	1	0	0	$385	0
Private Seasonal	1162	0.000	R&S	4/2/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	3	0	65	$0	0
	cutbank failure blocking road which is above past landslide with spring emerging at left TREAT: excavate and endhaul to left 100'																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.305125	1161	0.510	McCanl	Alden	271 Pep	Pep P0530407	Fill - Landing	Storm Proofing	N/A		0	0	0	4	0	0	$820	340
Private Seasonal	1161	0.000	R&S	4/2/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	4	0	340	$16	51
excavate fill connect with landslide to left , store spoils locally, no storeage at spring location																		
60.305127	4387	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	10	0	0	$2,593	171
Storm Proofed	4387	0.350	R&S	10/8/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	10	7	0	$15	171
Tip and Dip																		
60.305127	1160	0.050	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	14	8	0	$3,875	889
Abandoned Fixed	1160	0.000	R&S	6/4/2007		ECP Not	Excavate Soil	High	-	-	0		0	16	5	889	$22	178
excavate fill and push spoils to left to landing																		
60.305127	1159	0.090	McCanl	Alden	271 Pep	Pep P0530407	Fill - Landing	Storm Proofing	N/A		0	0	0	7	0	0	$1,435	648
Abandoned Fixed	1159	0.000	R&S	10/8/2007		ECP Not	Excavate Soil	High	-	-	0		0	7	0	648	$22	65
exc fill and store against cutbank																		
60.305127	1158	0.140	McCanl	Alden	271 Pep	Pep P0530407	Fill - Landing	Storm Proofing	N/A		0	0	0	4	1	0	$928	296
Abandoned Fixed	1158	0.000	R&S	8/15/2008		ECP Not	Excavate Soil	Medium	-	-	0		0	5	0	296	$31	30
exc fill and store against cutbank to right of spring																		
60.305127	1157	0.210	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	4	0	0	$820	370
Abandoned Fixed	1157	0.000	R&S	10/8/2007		ECP Not	Excavate Soil	High	-	-	0		0	4	0	370	$15	56
potential road fill failure on 90% slopes 650' to class 1 stream TREAT: exc. Fill and store against cutbank and on road																		
60.305127	1156	0.250	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	0	0	0	$0	119
Abandoned Fixed	1156	0.000	R&S	10/9/2007		ECP Not	Remove Crossing	High	-	RkFd	0		0	0	0	296	$0	119
class 3 fill crossing TREAT: exc. Top to bot endhaul to left to spoil site																		
60.305127	4377	0.270	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	4377	0.000	R&S	9/24/2007		ECP Not	Rock Pit	No Action	-	-	0		0	0	0	0	$0	0
Rock Pit																		
60.305127	1155	0.300	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	8	0	0	$1,583	124
Abandoned Fixed	1155	0.000	R&S	10/9/2007		ECP Not	Armored Ford	High	-	RkFd	0		0	8	0	556	$13	124
class 3 fill crossing , currently flowing, minor erosion TREAT: exc. Top to bot. Lay sides back 2 to 1 endhaul 50% of spoils to spoil site																		
60.305127	2342	0.350	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	11	0	0	$3,380	171
Abandoned Fixed	2342	0.700	R&S	10/6/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	24	0	0	$20	171
Tip and Dip																		
60.305127	1154	0.450	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	8	5	0	$1,880	148
Abandoned Fixed	1154	0.000	R&S	10/7/2007		ECP Not	Remove Crossing	High	-	Pull	0		0	7	0	1,000	$13	148
fill crossing on a class 3 stream 30% washed out TREAT: exc. Top to bot. Lay sides back 2 to 1 endhaul to left to spoil site at ridge top																		
60.305127	1153	0.640	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	2	0	0	$410	267
Abandoned Fixed	1153	0.000	R&S	10/8/2007		ECP Not	Remove Crossing	High	-	Pull	0		0	2	0	333	$2	267
A class 3 fill crossing with emerging spring flow at cutbank flow as eroded thru fill at OBF TREAT: exc. And endhaul to left 2200' to ridge top																		
60.305127	1152	0.660	McCanl	Alden	271 Pep	Pep P0530407	Cut Bank Failure	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Abandoned Fixed	1152	0.000	R&S	10/8/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	370	$0	0
cut bank failure no future delivery TREAT: push thru to gain acess to lower site , then pull side cast store against cutbank																		

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.305127	1151	0.700	McCanl	Alden	271 Pep	Pep P0530407	Fill - Landing	Storm Proofing	II		0	0	0	50	10	0	$9,983	1,630
Abandoned Fixed	1151	0.000	R&S	10/5/2007		ECP Not	Excavate Soil	High	-	-	0		0	33	15	4,074	$6	1,630
	landing located in class 2 stream, flow currently flowing down right side of landing following old skid. TREAT: exc. Old channel thru middle of landing , store spoil in eroded channel where currently flowing.																	
60.305139	2349	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	54	0	0	$12,668	944
Deactivated	2349	1.930	R&S	8/24/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	66	13	0	$13	944
	Tip and Dip																	
60.305139	1314	0.050	McCanl	Alden	271 Pep	Pep P0530407	Cut Bank Failure	Weather Damage	N/A		0	0	0	0	0	0	$0	0
Deactivated	1314	0.000	R&S	9/22/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	210	$0	0
	cutbank failure blocking road TREAT excavate and endhaul to left																	
60.305139	1313	0.080	McCanl	Alden	271 Pep	Pep P0530407	Slide - Deep	Weather Damage	III		0	0	0	5	0	0	$1,103	20
Deactivated	1313	0.120	R&S	6/29/2007		ECP Not	Full Bench	High	-	-	0		0	6	1	667	$56	20
	landslide torrenting from above taking out 300' of road continuing down slope to class 3 a class 3 has developed in slide scar TREAT full bench new road across slide install cmp at class 3 location endhaul spoil to left to dump site																	
60.305139	1312	0.280	Hagans	Alden	271 Pep	Pep P0530407	Culv.-HDP	Storm Proofing	III		0	0	0	9	0	0	$2,385	350
Deactivated	1312	0.000	R&S	9/20/2007		ECP Not	Excavate Soil	Medium	24"	Pull	0		0	14	2	350	$14	175
	a 24' cmp OK but has DP to right and minor outlet erosion TREAT Excavate crossing top to Bottom (base of root wad) with 4' channel bottom and 2:1 sideslopes. Spoil locally on road.																	
60.305139	1311	0.350	Hagans	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	II		0	0	0	60	100	0	$20,408	890
Deactivated	1311	0.000	R&S	9/13/2007		ECP Not	Remove Crossing	High	-	Pull	0		0	41	20	888	$46	445
	class 3 flowing across road and landing in waterbar no cmp present small head cut has developed lots of LWD at outlet , perched fill at right bank. TREAT excavate top to bot with 5' channel bottom and 2:1 sideslopes. Spoil locally.																	
60.305139	1310	0.400	Hagans	Alden	271 Pep	Pep P0530407	Culv.-HDP	Storm Proofing	II		0	0	0	47	86	0	$15,918	1,300
Deactivated	1310	0.000	R&S	9/8/2007		ECP Not	Excavate Soil	High	24"	Pull	0		0	33	0	1,300	$27	598
	cmp high in fill flow going subsurface 20' above inlet lots of organics in fill , logs exsposed at outlet TREAT excavate crossing top to bot with 5' channel bottom. Remove all logs and capture live flow. Spoil locally.																	
60.305139	1309	0.500	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	2	0	0	$505	194
Deactivated	1309	0.510	R&S	9/6/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	3	0	189	$12	44
	excavate and endhaul to left to spoil dump																	
60.305139	1308	0.520	Hagans	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	2	12	0	$1,380	310
Deactivated	1308	0.540	R&S	9/6/2007		ECP Not	Excavate Soil	High	-	-	0		0	3	0	300	$25	56
	excavate and OBF for 240' and work around bigger trees. Use spoil to raise road to ourslope with 3:1 slope.																	
60.305139	1307	0.610	McCanl	Alden	271 Pep	Pep P0530407	Cut Bank Failure	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Deactivated	1307	0.000	R&S	9/6/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
	remove organics from cutbank blocking road , ramp over incorperate into road prizm.																	
60.305139	1306	0.620	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	2	0	0	$460	175
Deactivated	1306	0.630	R&S	9/6/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	2	0	170	$21	22
	excavate fill and endhaul to left to spoil dump																	
60.305139	1305	0.780	Hagans	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	1	0	0	$320	107
Deactivated	1305	0.790	R&S	9/5/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	2	0	104	$21	16
	excavate OBF along 110' of road. Raise road and spoil lically with 3:1 outslope.																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.305139	1303	0.830	Hagans	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	3	0	0	$890	346
Deactivated	1303	0.870	R&S	9/5/2007		ECP Not	Excavate Soil	High	-	-	0		0	4	4	326	$5	192
Fill failures, excavate 120' or road and endhaul to left to spoil dump with 2 trucks and raise road with 3:1 outslope.																		
60.305139	1304	0.850	Hagans	Alden	271 Pep	Pep P0530407	Cut Bank Failure	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Deactivated	1304	0.000	R&S	9/5/2007		ECP Not	No Action	Low	-	-	0		0	0	0	0	$0	0
small cutbank blocking road headwall class 3 No treatment																		
60.305139	1302	0.900	Hagans	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	8	3	0	$1,830	632
Deactivated	1302	0.920	R&S	9/4/2007		ECP Not	Excavate Soil	High	-	-	0		0	7	4	622	$9	199
excavate road fill for 150' with visible 2' scarps. Endhaul to left to spoil with 2 trucks while still raising road with 3:1 outslope.																		
60.305139	1301	0.960	Hagans	Alden	271 Pep	Pep P0530407	Other	Storm Proofing	N/A		0	20	0	28	41	0	$8,095	0
Deactivated	1301	0.000	R&S	8/29/2007		ECP Not	Dip Rolling	Medium	-	-	0		0	13	0	0	$0	0
At steep tiny stream with pat debris torrent. Excavae from top to bot with 1 1/2:1 sideslopes. Armor 3' wide bottom and up 2' on both sideslopes for length fo excavation. 20 yards rock. Retrieve all new sidecast.																		
60.305139	1300	1.020	Hagans	Alden	271 Pep	Pep P0530407	Other	Storm Proofing	N/A		0	0	0	1	0	0	$230	0
Deactivated	1300	0.000	R&S	8/28/2007		ECP Not	Dip Rolling	High	-	-	0		0	1	0	0	$0	0
swale crossing with gulling at OBF. Fill at OBF will be removed during excavation of site #1298TREAT install rocked rolling dip. Rock outlet of dip with 0.5' to 1.5' rock for 20' downslope.																		
60.305139	1299	1.030	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	7	21	0	$3,320	548
Deactivated	1299	1.090	R&S	8/29/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	7	3	519	$13	249
excavate fill for 420' through very steep broad swale and endhaul to left to spoil site. Have 2 trucks end hauling and also raise road with 3:1 outslope.																		
60.305139	1298	1.110	Hagans	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0	$0	322
Deactivated	1298	0.000	R&S	9/25/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	322	$0	161
excavate road fill for 250' through broad swale. Spoil on road by raising road with a 3:1 outslope.																		
60.305139	1297	1.180	Hagans	Alden	271 Pep	Pep P0530407	Other	Storm Proofing	III		0	0	0	1	0	0	$230	0
Deactivated	1297	0.000	R&S	8/27/2007		ECP Not	Dip Rolling	Medium	-	-	0		0	1	0	0	$0	0
emerging flow from cutbank flowing across road TREAT install rolling dip.																		
60.305139	1296	1.210	Hagans	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	5	0	0	$1,150	405
Deactivated	1296	1.220	R&S	8/27/2007		ECP Not	Excavate Soil	High	-	-	0		0	5	0	236	$25	45
excavate fill for 210'. Spoil on road with outslope																		
60.305139	1295	1.460	Hagans	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	II		0	0	0	71	218	0	$30,028	2,000
Deactivated	1295	0.000	R&S	8/20/2007		ECP Not	Remove Crossing	High	-	Pull	0		0	46	31	1,778	$38	800
fill crossing on class 3 heavily skidded above and below TREAT excavate top to bot may need to go above top to make good transission , dig 5' wide channel bottom lay sides back 2 to 1 all through crossing. At top of flag, create an 8' vertical step in channel @ 2:1 slope and armor with 20 yards of 0.5' to 1.5' rip rap. Spoil locally.																		
60.305139	1294	1.480	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	5	0	0	$923	522
Deactivated	1294	1.570	R&S	7/11/2007		ECP Not	Excavate Soil	High	-	-	0		0	5	0	478	$5	201
excavate road fill store on road to outslope and rollig dip																		
60.305139	1293	1.600	Hagans	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	8	0	0	$2,333	300
Deactivated	1293	0.000	R&S	8/15/2008		ECP Not	Remove Crossing	High	-	Pull	0		0	13	3	70	$26	90
fill crossing on class 3 skids enter from right bank continuing down channel TREAT excavate crossing from top to bottom flags with 4' wide channel bottom and 2:1 sideslopes. Spoil locally.																		

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.305139	1292	1.670	Hagans	Alden	271 Pep	Pep P0530407	Slide - Shallow	Storm Proofing	II		0	0	0	44	157	0	$22,343	3,000
Deactivated	1292	0.000	R&S	8/13/2007		ECP Not	Remove Crossing	High	-	Pull	0		0	29	43	0	$7	3,000
	left channel of site #3 hours for excavation are in that site TREAT install cmp to grade																	
60.305139	1291	1.671	Hagans	Alden	271 Pep	Pep P0530407	Slide - Shallow	Storm Proofing	II		0	0	0	220	623	0	$93,523	10,000
Deactivated	1291	0.000	R&S	8/5/2007		ECP Not	Remove Crossing	High	-	Pull	0		0	164	28	12,077	$9	10,000
	landslide coming down right bank entering channel of class 3 flowing 400' to where 2 class 3 streams join lots of organics thru out spoil no cmp could be found in crossings TREAT excavate slide spoil from channel going 200' up right channel endhaul to left 1200' , excavate left channel top to bot with 6' wide channel bottom and 2:1 sideslopes.																	
60.305139	1290	1.700	Hagans	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	3	0	0	$690	300
Deactivated	1290	0.000	R&S	7/25/2007		ECP Not	Remove Crossing	High	-	Pull	0		0	3	0	750	$5	126
	fill crossing on class 3 LWD in fill TREAT excavate crossing of all fill and spoil on both approaches with 3:1 outslope.																	
60.305139	1289	1.750	Hagans	Alden	271 Pep	Pep P0530407	Culv.-HDP	Storm Proofing	III		0	0	0	10	0	0	$2,298	400
Deactivated	1289	0.000	R&S	7/25/2007		ECP Not	Remove Crossing	Medium	-	Pull	0		0	9	8	0	$82	28
	excavate top to bottom flags of all fill in swale crossing and endhaul 1/2 to terminal landing. Spoil 1/2 on approaches.																	
60.30514	2343	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	26	2	0	$6,278	318
Deactivated	2343	0.650	R&S	9/28/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	28	16	0	$20	318
	Tip and Dip																	
60.30514	1175	0.190	McCanl	Alden	271 Pep	Pep P0530407	Cut Bank Failure	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1175	0.000	R&S	9/25/2007		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	small cutbank failure depositing on road , ramp over to gain access, opon exiting install x-road drain to drain road above deposit																	
60.30514	1174	0.210	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	3	0	0	$615	18
Private Seasonal	1174	0.000	R&S	9/25/2007		ECP Not	Armored Ford	Medium	-	RkFd	0		0	3	0	167	$34	18
	a fill crossing on a class 3 swale very little evidence of flow TREAT excavate fill store spoil left and right																	
60.30514	1173	0.280	McCanl	Alden	271 Pep	Pep P0530407	Fill - Landing	Storm Proofing	N/A		0	0	0	2	0	0	$410	0
Private Seasonal	1173	0.000	R&S	3/19/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	2	0	563	$0	0
	potential landingfill failure on 70% slopes no delivery from site. TREAT excavate fill store against cutbank																	
60.30514	1172	0.400	McCanl	Alden	271 Pep	Pep P0530407	Slide - Shallow	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1172	0.000	R&S	9/28/2007		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	0
	shallow landslide from upslope depositing on road prizm spring flow is currently flow from slide scar TREAT ramp over deposit to gain access to site below install rolling dip to drain spring across road																	
60.30514	1171	0.450	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	0	0	0	$0	55
Private Seasonal	1171	0.000	R&S	9/27/2007		ECP Not	Armored Ford	High	-	Pull	0		0	0	0	556	$0	55
	fill crossing on a class 3 TREAT excavate and endhaul to right to spoil site using 2 trucks																	
60.30514	1170	0.460	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	Spr.		0	0	0	2	2	0	$323	145
Private Seasonal	1170	0.000	R&S	9/27/2007		ECP Not	Dip Critical	High	-	-	0		0	0	0	145	$2	131
	swale crossing showing cracks and scarps showing at OBF , spring flow at IBR flowing left downroad 35' TREAT: excavate and endhaul road fill , construct rolling dip at spring location																	
60.30514	1169	0.500	McCanl	Alden	271 Pep	Pep P0530407	Culv.-Plug	Storm Proofing	II		0	0	0	49	43	0	$11,503	222
Private Seasonal	1169	0.000	R&S	9/24/2007		ECP Not	Culv. Maintenance	High	24"	Pull	0		0	30	0	1,200	$52	222
	A plugged 24" cmp on a class 3 stream crossing TREAT: excavate and endhaul 50% to left and the rest to the right.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	Cr. Class New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
60.30514	1168	0.520	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0	$0	207
Private Seasonal	1168	0.000	R&S	9/24/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	207	$0	166
excavate and store against cutbank																		
60.30514	1167	0.550	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	6	0	0	$1,038	144
Private Seasonal	1167	0.000	R&S	9/24/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	4	1	144	$36	29
Potential road fill failure on 80% slopes 250' above class 2 TREAT; excavate and store against cutbank, rip and install x-road drains on landing and road to left																		
60.30515	2344	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	25	0	0	$5,719	215
Abandoned Fixed	2344	0.440	R&S	6/22/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	29	6	0	$27	215
Tip and Dip																		
60.30515	1264	0.040	McCanl	Alden	271 Pep	Pep P0530407	Fill - Landing	Storm Proofing	N/A		0	0	0	1	0	0	$205	111
Private Seasonal	1264	0.000	R&S	6/29/2007		ECP Not	Excavate Soil	High	-	-	0		0	1	0	111	$9	22
landing fill perched above class 3 swale TREAt excavate push spoil against cutbank																		
****NOTE** ARCHAEOLOGICAL SITE IN AREA. NO OPERATIONS IN RECORDED SITE. REFER TO ARCHAEOLOGICAL REPORT.**																		
60.30515	1263	0.080	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1263	0.000	R&S	8/7/2008		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
remove logging slash from fill. No work done Arc site.																		
****NOTE** ARCHAEOLOGICAL SITE IN AREA. NO OPERATIONS IN RECORDED SITE. REFER TO ARCHAEOLOGICAL REPORT.**																		
60.30515	1262	0.090	McCanl	Alden	271 Pep	Pep P0530407	Other	Storm Proofing	Swale		0	0	0	0	0	0	$0	0
Private Seasonal	1262	0.000	R&S	8/7/2008		ECP Not	Dip Rolling	High	-	-	0		0	0	0	0	$0	0
road crosses swale water placed at location TREAT remove woody debris from fill install rolling dip																		
****NOTE** ARCHAEOLOGICAL SITE IN AREA. NO OPERATIONS IN RECORDED SITE. REFER TO ARCHAEOLOGICAL REPORT.**																		
60.30515	1262	0.090	Haschak	Borcich	17-104	Elm	Temp. Crossing	THP App. Rd.	Swale		0	0	0	0	0	0	$0	0
Private Seasonal	6575	0.000	Unk	10/15/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
Maintain existing rolling dip across swale at close of operations.																		
60.30515	1261	0.100	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1261	0.000	R&S	8/7/2008		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
lots of organics in fill TREAT remove slash from fill No work done Arc site.																		
****NOTE** ARCHAEOLOGICAL SITE IN AREA. NO OPERATIONS IN RECORDED SITE. REFER TO ARCHAEOLOGICAL REPORT.**																		
60.30515	1260	0.220	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	2	0	0	$450	189
Abandoned Fixed	1260	0.000	R&S	6/28/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	2	0	189	$8	57
excavate road fill store against cutbank																		
60.30515	1259	0.230	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	4	7	0	$1,308	20
Abandoned Fixed	1259	0.000	R&S	6/28/2007		ECP Not	Remove Crossing	High	-	Pull	0		0	4	0	250	$65	20
road crosses headwall swale no channel visible skid road down left back TREAT excavate endhaul to right																		
60.30515	1258	0.260	McCanl	Alden	271 Pep	Pep P0530407	Cut Bank Failure	Storm Proofing	N/A		0	0	0	1	1	0	$280	0
Abandoned Fixed	1258	0.000	R&S	6/27/2007		ECP Not	Excavate Soil	Medium	-	-	0		0	1	0	97	$0	0
cutbank failure blocking road excavate endhaul to right to spoil site																		

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
60.30515	1257	0.270	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	3	6	0	$1,065	1,437
Abandoned Fixed	1257	0.000	R&S	6/27/2007		ECP Not	Excavate Soil	High	-	-	0		0	3	0	1,437	$2	575
	endhaul to ridge top to right																	
60.30515	1256	0.300	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	41	82	0	$14,735	222
Abandoned Fixed	1256	0.000	R&S	6/25/2007		ECP Not	Remove Crossing	High	-	Pull	0		0	43	0	2,223	$66	222
	excavate from top to bot endhaul to right to ridge 1800'																	
60.30515	1244	0.390	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	9	7	0	$1,908	685
Abandoned Fixed	1244	0.000	R&S	6/22/2007		ECP Not	Excavate Soil	High	-	-	0		0	5	0	685	$3	617
	excavate and endhaul 400 yrds to right to ridge																	
60.30515	1243	0.440	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	12	0	0	$2,538	148
Abandoned Fixed	1243	0.000	R&S	6/21/2007		ECP Not	Remove Crossing	High	-	Pull	0		0	13	2	593	$17	148
	top of 5' stump located at top flag , skid crossing 50' below access from road 100 ' to right local storage																	
60.30515	4311	0.440	Alden	Hagans	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Abandoned Lega	4311	0.755	R&S	6/30/2007		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Danny inspected this road and determined that no work was necessary																	
60.305161	4380	0.000	Alden	Alden	Maintena	Maintenance	No Problem	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Not Connected	4380	0.530	Unk	9/25/2007		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.30516128	4381	0.000	Alden	Alden	Maintena	Maintenance	No Problem	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Not Connected	4381	0.160	Unk	9/25/2007		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.30518	1209	0.000	Pehl	Pehl	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	5	0	0	$960	166
Upgraded	1209	0.340	ME	12/29/2001		ECP Not	Dip Rolling	Medium	-	-	0		0	5	0	0	$6	166
	Road drainage upgrade on State 40 Loop. Outslope and dip.																	
60.30518	5505	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5505	0.336	Unk	8/25/2009		ECP Not	Herbicides	Medium	-	-	0		0	0	0	0	$0	0
60.30518	2060	0.350	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	Maintenance	N/A		0	0	0	6	10	0	$1,880	49
Upgraded	2060	0.450	ME	8/29/2002		ECP Not	Rock Surface	Medium	-	-	0		0	7	0	0	$38	49
60.3061	2672	0.000	Pehl	Pehl	03-075	Franklins Tower	No Problem	THP Maint Insp	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2672	4.600	Unk	12/23/2005		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Winter Inspection. No problems.																	
60.3061	2751	0.000	Pehl	Pehl	03-075	Franklins Tower	No Problem	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2751	3.900	Unk	1/12/2006		SPP	No Action	No Action	-	-	0		0	0	0	0	$0	0
60.3061	6883	0.000	Weaver	Borcich	20-00003	Vista	Culv.-Plug	THP App. Rd.	N/A		0	0	0	0	0	0	$708	0
Private Perm.	6883	0.000	Unk	10/15/2023		ECP Not	Culv. Replace	THP Low	18"	18"	60		0	0	0	0	$0	0
	Existing 18" DRC with plugged outlet along existing permanent appurtenant road. Culvert showing excessive rusting at inlet. Remove DRC and replace with new 18" DRC. Rerock the road surface as need. May be same as GIS Map # 881.																	
60.3061	6890	0.000	Weaver	Borcich	20-00003	Vista	Culv.-Ditch Relief	THP App. Rd.	N/A		0	0	0	0	0	0	$708	0
Private Perm.	6890	0.000	Unk	10/15/2023		ECP Not	Culv. Install	THP Low	-	18"	60		0	0	0	0	$0	0
	Wet area associated with existing permanent appurtenant road. Wet area captured by existing ditch has very little relief and spills across road (back towards MP12) during storm events. Install 18" DRC at flagged location. Reestablish ditch from culvert to double hung orange flags. Rerock road as needed.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
60.3061	872	0.070	McCanl	Alden	Storm Pro	Storm Proofing	No Problem	Weather Damage	N/A		0	0	0	1	0	0	$185	0
Private Perm.	872	0.000	ME	4/10/2000		ECP Not	Other	Low	15"	-	0		0	1	0	0	$0	0
A 15" DRC draining 35' of inside ditch , no flow . Remove and install rolling dip at flagged location.																		
60.3061	873	0.100	McCanl	Alden	Storm Pro	Storm Proofing	Other	Maintenance	N/A		0	0	0	0	10	0	$925	0
Private Seasonal	873	0.150	ME	4/10/2000		ECP Not	Rock Surface	Medium	-	-	0		0	5	0	0	$0	0
250' section of road ,rutted and soft , re- rock and crown road.																		
60.3061	1214	0.300	McCanl	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	18	24	0	$3,773	0
Private Seasonal	1214	0.400	ME	1/19/2001		ECP Not	Rock Surface	Medium	-	-	0		0	8	0	0	$0	0
60.3061	874	0.410	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-HDP	Storm Proofing	III		0	0	0	2	0	0	$1,066	20
Private Perm.	874	0.000	ME	4/5/2000		ECP Not	Culv. Replace	Medium	24"	24"	40		0	0	4	65	$53	20
A 24" cmp on class 3 , has DP to right , channel was constructed from inlet up for 50' with 2' vertical sides , outlet is buried. Treat: replace with 24" cmp to grade , add CD , lay sides back 2 to 1 on channel above																		
60.3061	874	0.430	Haschak	Pehl	06-009	Ivy	Culv.	Maintenance	III		0	0	0	3	0	0	$1,077	20
Private Perm.	2626	0.000	Unk	9/25/2007		ECP Not	Other	Medium	24"	24"	30		0	0	3	0	$54	20
This culvert appears to be rusting but checking the record shows that it was replaced in 2000. It may be that the end was damaged during installation. Check this culvert again before closing out the plan and see what condition it is in. If necessary replace it at that time.																		
60.3061	875	0.510	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-Ditch Relief	Weather Damage	N/A		0	0	0	0	0	0	$0	0
Private Perm.	875	0.000	ME	4/5/2000		ECP Not	No Action	Low	18"	-	0		0	0	0	0	$0	0
A 18" DRC no action																		
60.3061	879	1.110	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-HDP	Weather Damage	III		0	0	0	0	1	0	$205	0
Private Perm.	879	0.000	ME	4/6/2000		ECP Not	Dip Critical	Medium	24"	-	0		0	2	0	0	$0	0
A 24 cmp on a class 3 , has DP to left . Treat: add CD left hinge.																		
60.3061	880	1.150	McCanl	Alden	Storm Pro	Storm Proofing	Inside ditch	Weather Damage	N/A		0	0	0	2	0	0	$1,020	0
Private Perm.	880	0.000	ME	4/6/2000		ECP Not	Culv. Ditch Relief	High	-	18"	50		0	2	2	0	$0	0
install 18" DRC 75' to left of crossing #7																		
60.3061	6571	1.200	Haschak	Borcich	17-104	Elm	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$100	0
Private Seasonal	6571	0.000	Unk	10/15/2019		ECP Not	Dip Rolling	Medium	-	-	0		0	1	0	0	$0	0
Install rolling dip that intercepts inside ditch.																		
60.3061	881	1.250	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-HDP	Maintenance	N/A		0	0	0	1	0	0	$190	0
Private Perm.	881	0.000	ME	4/6/2000		ECP Not	Culv. Maintenance	Medium	18"	-	0		0	1	0	0	$0	0
A 18" DRC , treat: clean inlet and outlet , install rolling dip on lower road where flow crosses.																		
60.3061	884	2.100	McCanl	Alden	Storm Pro	Storm Proofing	Fill - Landing	Weather Damage	N/A		0	0	0	1	0	0	$190	67
Private Perm.	884	0.000	ME	4/6/2000		ECP Not	Excavate Soil	Medium	-	-	0		0	1	0	67	$3	67
past landing fill failure , treat: excavate back edge of failure approx. 67 yrds. De-water slide.																		
60.3061	885	2.380	McCanl	Alden	Storm Pro	Storm Proofing	Culv.-Ditch Relief	Maintenance	N/A		0	0	0	1	0	0	$115	0
Private Perm.	885	0.000	ME	4/6/2000		ECP Not	Culv. Ditch Relief	Medium	18"	-	0		0	0	0	0	$0	0
clean inlet and outlet.																		

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.3061	886	2.500	McCanl	Alden	Storm Pro	Storm Proofing	Fill - Landing	Weather Damage	N/A		0	0	0	5	0	0	$1,050	611
Private Perm.	886	0.000	ME	4/18/2000		ECP Not	Excavate Soil	High	-	-	0		0	5	4	611	$3	367
	Pot. Landing fill failure on 90% slopes , slopes are well veged, with oaks and conifers, cracks and up to 3' vertical scarps showing , lots of LWD through out fil slowing prod. Rate. Treat: excavate and store up skid to right or left.																	
60.3061	1006	3.950	Pehl	Pehl	03-075	Franklins Tower	Cut Bank Failure	THP ECP	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2752	0.000	Unk	6/15/2006		SPP	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
	Cut Bank failure just east of culvert. Pipe okay.																	
60.3061	1009	4.200	Pehl	Pehl	03-075	Franklins Tower	Cut Bank Failure	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2753	0.000	Unk	6/15/2006		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
	Rock dip crossing buried by cut bank/debris flow. Excavate to make passable, surface with rock.																	
60.306109	1734	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$59	0
Private Seasonal	1734	0.100	TE	8/10/2001		ECP Not	R/W Treatment	Medium	-	-	0		0	0	2	0	$0	0
	Sprayed Pampas Grass in ROW with Roundup and R-11(trace)																	
60.306109	1883	0.000	Craig	Craig	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Not Connected	1883	0.160	Unk	2/12/2002		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.306109	6539	0.050	Haschak	Borcich	17-104	Elm	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	6539	0.000	Unk	10/15/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Dip out at close.																	
60.306109	1884	0.160	Haschak	Borcich	17-104	Elm	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	1884	0.000	Unk	2/12/2002		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Remove all material down to native bed.at close.																	
60.306113	1885	0.000	Craig	Craig	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Not Connected	1885	0.060	Unk	2/12/2002		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Small area of standing water at end of road. No risk of failure.																	
60.306116	1886	0.000	Craig	Craig	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Not Connected	1886	0.070	Unk	2/12/2002		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.306125	1732	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$180	0
Private Seasonal	1732	0.300	TE	8/10/2001		ECP Not	R/W Treatment	Medium	-	-	0		0	0	6	0	$0	0
	Sprayed Pampas Grass in ROW with Roundup and R-11(trace)																	
60.306125	1887	0.000	Craig	Craig	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1887	0.470	Unk	2/12/2002		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Noticed point fracture ~.3 miles out road.																	
60.306125	2345	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	14	0	0	$2,273	235
Storm Proofed	2345	0.480	R&S	2/3/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	8	0	0	$10	235
	Tip and Dip																	
60.306125	1248	0.200	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	6	1	0	$2,440	15
Private Perm.	1248	0.000	R&S	7/3/2008		ECP Not	Culv. Install	High	-	24"	60		0	4	3	267	$271	9
	class 3 fill crossing flow during storm events TREAT excavate endhaul spoil to left , install 24" cmp to grade.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.306125	1247	0.300	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	4	0	0	$900	341
Private Perm.	1247	0.000	R&S	7/2/2008		ECP Not	Excavate Soil	High	-	-	0		0	4	0	341	$9	102
	excavate endhaul to left use 2 dumps																	
60.306125	1246	0.350	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	4	0	0	$738	361
Private Seasonal	1246	0.000	R&S	7/2/2008		ECP Not	Excavate Soil	Medium	-	-	0		0	3	0	361	$5	144
	excavate start to end endhaul spoil to right																	
60.306125	1245	0.450	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	Spr.		0	0	0	2	0	0	$500	10
Private Seasonal	1245	0.000	R&S	7/2/2008		ECP Not	Dip Rolling	Medium	-	-	0		0	3	0	20	$50	10
	several logs placed shallow across road to drain spring seepage TREAT remove logs install rolling dip																	
60.30612521	1733	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$121	0
Private Seasonal	1733	0.200	TE	8/10/2001		ECP Not	R/W Treatment	Medium	-	-	0		0	0	4	0	$0	0
	Sprayed Pampas Grass in ROW with Roundup and R-11(trace)																	
60.30612521	2346	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	14	0	0	$2,453	147
Storm Proofed	2346	0.300	R&S	2/1/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	10	0	0	$17	147
	Tip and Dip																	
60.30612521	1249	0.100	McCanl	Pehl	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	0	2	0	$330	0
Private Perm.	1249	0.000	R&S	8/12/2007		ECP Not	Dip Rolling	Medium	-	-	0		0	2	0	0	$0	0
	install rocked rolling dip top of thru cut , install rolling dip 75' above spur road																	
60.306128	1891	0.000	Craig	Craig	Maintena	Maintenance	Surface Drainage	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	1891	0.200	Unk	2/13/2002		ECP Not	Waterbar	Medium	-	-	0		0	0	0	0	$0	0
	Landing needs a water bar.																	
60.30613	1892	0.000	Craig	Craig	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Not Connected	1892	1.000	Unk	2/13/2002		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.306133	1730	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$31	0
Private Seasonal	1730	0.070	TE	8/10/2001		ECP Not	R/W Treatment	Medium	-	-	0		0	0	1	0	$0	0
	Sprayed Pampas Grass in ROW with Roundup and R-11(trace)																	
60.306133	1893	0.000	Craig	Craig	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Not Connected	1893	0.070	Unk	2/13/2002		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.306133	3138	0.000	Alden	Alden	271 Pep	Pep P0530407	No Problem	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Not Connected	3138	0.072	R&S	2/6/2007		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Ridge top road no chance of delivery																	
60.306135	1729	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$121	0
Private Seasonal	1729	0.200	TE	8/10/2001		ECP Not	R/W Treatment	Medium	-	-	0		0	0	4	0	$0	0
	Sprayed Pampas Grass in ROW with Roundup and R-11(trace)																	
60.306135	1894	0.000	Craig	Craig	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Not Connected	1894	0.200	Unk	2/13/2002		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
60.306135	3137	0.000	Alden	Alden	271 Pep	Pep P0530407	No Problem	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Not Connected	3137	0.210	R&S	2/6/2007		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Ridge top road no chance of delivery																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.306145	2347	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	4	0	0	$820	49
Storm Proofed	2347	0.100	R&S	2/1/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	4	0	0	$17	49
	Tip and Dip. The pit failed making it unsafe to finish the road work.																	
60.306145	1164	0.070	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	2	2	0	$610	178
Private Seasonal	1164	0.000	R&S	9/9/2007		ECP Not	Excavate Soil	High	-	-	0		0	2	0	178	$0	8,900
	Potential road fill failure scarps and cracks showing 5' back from OBF, 90% slopes below ,dist. To stream approx. 200' TREAT : excavate and endhaul to left to landing 200'																	
60.306145	3131	0.100	Alden	Alden	271 Pep	Pep P0530407	No Problem	Maintenance	N/A		0	0	0	25	9	0	$4,985	0
Storm Proofed	3131	0.000	R&S	2/6/2007		ECP Not	Rock Pit	Medium	-	-	0		0	17	0	0	$0	0
	Rock Pit **The pit failed making it unsafe to finish the road work.**																	
60.306169	4370	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	4	0	0	$820	73
Storm Proofed	4370	0.150	R&S	4/23/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	4	0	0	$11	73
	Tip and Dip																	
60.306169	1252	0.010	McCanl	Alden	271 Pep	Pep P0530407	Culv.-Plug	Storm Proofing	III		0	0	0	11	6	0	$3,809	65
Private Perm.	1252	0.000	R&S	7/22/2008		ECP Not	Culv. Replace	Medium	18"	24"	40		0	11	4	210	$59	65
	remove cmp , excavte thru skid crossing below road , construct channel , install 24" cmp to grade, inslope road approaches to inlet of cmp																	
60.306169	1005	0.020	McCanl	Alden	271 Pep	Pep P0530407	Humboldt	Storm Proofing	III		0	0	0	5	0	0	$2,610	60
Private Perm.	1253	0.000	R&S	7/24/2008		ECP Not	Culv. Install	High	-	24"	60		0	6	7	200	$43	60
	logs exsposed 25' below road flow emerging. Excavate top to bot install 24" cmp to grade armour fillslope , remove stored spoil both sides of OBR																	
60.306169	1005	0.050	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	THP... Not	III		0	0	0	0	0	0	$0	0
Private Seasonal	1005	0.000	RB	10/6/2000		ECP Not	Dip Critical	High	-	-	0		0	0	0	0	$0	0
	Dip out class III crossing and surface with rock. Not specified in THP.																	
60.306169	1254	0.100	McCanl	Alden	271 Pep	Pep P0530407	Culv.	Storm Proofing	III		0	0	0	5	0	0	$2,469	10
Private Perm.	1254	0.000	R&S	7/25/2008		ECP Not	Culv. Replace	High	30"	30"	40		0	6	6	75	$247	10
	replace cmp to grade clear channel above and below																	
60.306169	1824	0.120	Alden	Alden	Maintena	Maintenance	No Problem	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	1824	0.000	Unk	10/15/2001		ECP Not	Rock Pit	Low	-	-	0		0	0	0	0	$0	0
	Good Pit																	
60.306169	1255	0.120	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	3	0	0	$675	111
Private Perm.	1255	0.000	R&S	7/25/2008		ECP Not	Excavate Soil	High	-	-	0		0	3	0	251	$8	83
	excavate store locally																	
60.306169	1251	0.200	McCanl	Alden	271 Pep	Pep P0530407	Fill - Road	Storm Proofing	N/A		0	0	0	2	0	0	$450	208
Abandoned Fixed	1251	0.000	R&S	8/1/2008		ECP Not	Excavate Soil	High	-	-	0		0	2	0	208	$14	31
	excavate store locally																	
60.306171	1210	0.000	Pehl	Pehl	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	15	0	0	$2,775	474
Upgraded	1210	0.970	ME	12/29/2001		ECP Not	Dip Rolling	Medium	-	-	0		0	14	0	0	$6	474
	Road drainage upgrade on State 40 Loop. Outslope and dip.																	
60.306171	3130	0.000	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	8	8	0	$2,555	147
Storm Proofed	3130	0.300	R&S	7/29/2008		ECP Not	Tip and Dip	Medium	-	-	0		0	10	3	0	$17	147
	Tip and Dip																	

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class		DRCs	Rock	Left D	Exca.	Truck	Gra.	Cost	Total Yds
Road Class	ID#	End	Crew	Done	Rd Pt	ECP Number	Solution	Priority/Shedule	Old Dia	New Dia	Ln		Right D	Cat	Labor	Yds	$/FSD	FSD Yds
60.306171	5506	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	5506	0.980	Unk	8/25/2009		ECP Not	Herbicides	Medium	-	-	0		0	0	0	0	$0	0
60.306171	1004	0.160	Pehl	Pehl	Maintena	Maintenance	Culv.	THP... Not	III		0	0	0	0	0	0	$736	0
Private Seasonal	1004	0.000	Unk	10/6/2000		ECP Not	Culv. Replace	Low	18"	24"	40		0	0	0	0	$0	0
Culvert with inlet set too high, no dissapator on outlet, and middle is bent. Replace.																		
60.306171	1003	0.330	Pehl	Pehl	96-238	Cox's Opening	Surface Drainage	THP Clean Up	III		0	0	0	0	3	0	$240	0
Private Seasonal	1003	0.000	RB	10/6/2000		ECP Not	Dip Critical	THP Low	-	-	0		0	1	0	0	$0	0
THP specifies that this crossing will be rocked.																		
60.306171	1003	0.330	Haschak	Borcich	17-104	Elm	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	6548	0.000	Unk	10/15/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
Install temporary 6" pipe if water is present. Dip out at close.																		
60.306171	1002	0.400	Pehl	Pehl	96-238	Cox's Opening	Culv.	THP... Not	III		0	0	0	0	0	0	$736	0
Private Seasonal	1002	0.000	Unk	10/13/2000		ECP Not	Culv. Replace	Low	18"	24"	40		0	0	0	0	$0	0
Culvert set high in a through fill to create a seasonal pond. Replace with a pipe lower in fill to reduce blow out potential. Install so the inlet can be partially blocked if a waterhole is needed.																		
60.306171	1002	0.400	Haschak	Borcich	17-104	Elm	Culv.	THP App. Rd.	III		0	0	0	0	0	0	$736	100
Private Seasonal	6577	0.000	Unk	10/15/2019		GWDR-1-17-104 SO	Culv. Replace	Medium	18"	24"	40		0	0	0	0	$7	100
Culvert set high in a through fill to create a seasonal pond. Replace pipe and put outside end lower in fill. Install so the inlet can be partially blocked if a waterhole is needed. If culvert cannot be set at grade either rock armor shall be added as an energy dissipater or a downspout shall be attached to the outlet of the culvert.																		
60.306171	5666	0.460	Alden	Borcich	17-104	Elm	Humboldt	Assessment	III		0	20	0	2	4	0	$710	50
Private Seasonal	5666	0.000	Unk	10/15/2019		ECP Not	Armored Ford	Medium	-	-	0		0	1	0	0	$14	50
Small Class III good dip needs rock armor. This may have been done already check it.																		
60.306171	5667	0.680	Alden	Kelly	Maintena	Maintenance	Culv.	Assessment	II		0	0	0	0	0	0	$1,105	0
Storm Proofed	5667	0.000	Unk	6/1/1995		ECP Not	No Action	No Action	24"	24"	60		0	0	0	0	$0	0
Ok 24" with 1/2 round down spout																		
60.306171	5668	0.720	Alden	Borcich	17-104	Elm	Culv.	Assessment	III		0	10	0	8	4	0	$4,835	100
Storm Proofed	5668	0.000	Unk	10/15/2019		GWDR-1-17-104 SO	Culv. Install	Medium	18"	36"	60		0	8	4	200	$48	100
Replace 18" with 36" culvert. The current culvert is set high with erosion on outside edge of road. Rock armor the outlet.																		
60.306171	5669	0.750	Alden	Borcich	17-104	Elm	Fill - Road	THP App. Rd.	N/A		0	0	0	4	0	0	$900	400
Private Seasonal	5669	0.000	Unk	10/15/2019		GWDR-1-17-104 SO	Excavate Soil	Medium	-	-	0		0	4	0	0	$9	100
Pull edge of road to reduce burden. Widen road into bank. Drain road away from this area. If possible compact cracked area																		
60.306171	5670	0.770	Alden	Borcich	17-104	Elm	Culv.-Ditch Relief	THP App. Rd.	Spr.		0	0	0	0	0	0	$472	0
Private Seasonal	5670	0.000	Unk	10/15/2019		GWDR-1-17-104 SO	Ditch - Clean	No Action	18"	18"	40		0	0	0	0	$0	0
Ditch relief culvert drains wet ditch. If you can't get a good flow from spring towards #37 then see if it will flow towards #36 further up the road because it seems to be disappearing into the road and we don't want to lose the road here because of this spring.																		
60.306171	5671	0.800	Alden	Kelly	Maintena	Maintenance	Culv.	Assessment	III		0	0	0	0	0	0	$1,105	0
Storm Proofed	5671	0.000	Unk	6/1/1995		ECP Not	No Action	No Action	24"	24"	60		0	0	0	0	$0	0
Culvert is set well with down spout.																		
60.306171	6578	0.840	Haschak	Borcich	17-104	Elm	Culv.	THP App. Rd.	III		0	0	0	1	0	0	$125	0
Private Seasonal	6578	0.000	Unk	10/15/2019		ECP Not	Excavate Soil	Medium	-	-	0		0	0	0	0	$0	0
clean head of culvert really well as material upslope has a tendency to plug this culvert.																		

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class / Old Dia	/ New Dia	DRCs / Ln	Rock	Left D / Right D	Exca. / Cat	Truck / Labor	Gra. / Yds	Cost / $/FSD	Total Yds / FSD Yds
60.306171	6579	0.960	Haschak	Borcich	17-104	Elm	Culv.	THP App. Rd.	II		0	0	0	0	0	0	$0	0
Private Seasonal	6579	0.000	Unk	10/15/2019		ECP Not	Culv. Maintenance	Medium	36"	-	0		0	0	0	0	$0	0
	Install downspout or place LWD or 18"+ rock below outlet																	
60.30617137	3129	0.250	Alden	Alden	271 Pep	Pep P0530407	Surface Drainage	Storm Proofing	N/A		0	0	0	13	0	0	$2,800	171
Storm Proofed	3129	0.600	R&S	1/30/2007		ECP Not	Tip and Dip	Medium	-	-	0		0	14	2	0	$16	171
	Tip and Dip																	
60.306173	1136	0.000	Alden	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	16	0	0	$2,735	416
Storm Proofed	1136	0.850	ME	11/7/2000		ECP Not	Dip Rolling	Medium	-	-	0		0	13	0	0	$7	416
60.306173	5700	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$463	0
Private Seasonal	5700	0.750		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	13	0	$0	0
60.306173	6541	0.110	Haschak	Borcich	17-104	Elm	Temp. Crossing	THP App. Rd.	III		0	0	0	0	0	0	$0	0
Private Seasonal	6541	0.000	Unk	10/15/2019		ECP Not	Temp. Crossing	Medium	-	-	0		0	0	0	0	$0	0
	Maintain existing dip.																	
60.306173	998	0.340	Pehl	Pehl	96-404	Lowery Openings	Surface Drainage	THP Clean Up	N/A		0	0	0	0	0	0	$50	0
Private Seasonal	998	0.000	Unk	10/13/2000		ECP Not	Other	THP High	-	-	0		0	1	0	0	$0	0
	Waterbar installed in the middle of a through cut. Remove waterbar and smooth ruts.																	
60.30617353	362	0.000	Kelly	Kelly	96-404	Lowery Openings	Other	THP New Con.	N/A		0	0	0	53	18	0	$6,858	0
Private Seasonal	362	0.000	RB	7/1/1999		ECP Not	Other	Medium	-	-	0		0	4	18	0	$0	0
60.30617376	1138	0.000	Alden	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	16	0	0	$2,735	538
Storm Proofed	1138	1.100	ME	11/7/2000		ECP Not	Dip Rolling	Medium	-	-	0		0	13	0	0	$5	538
60.30617376	997	0.000	Pehl	Pehl	96-404	Lowery Openings	Fill - Road	THP Clean Up	N/A		0	0	0	12	20	0	$3,600	0
Private Seasonal	997	0.000	Unk	12/5/2000		ECP Not	Excavate Soil	THP High	-	-	0		0	3	0	0	$0	0
	Spur road and landing fill are failing. Excavate and end haul or reconstruct road and landing properly with proper keyway, soil moisture and compaction.																	
60.30617376	5701	0.000	Chidlaw	Chidlaw	Maintena	Maintenance	Other	Maintenance	N/A		0	0	0	0	0	0	$637	0
Private Seasonal	5701	1.060		8/1/2011		ECP Not	Herbicides	Medium	-	-	0		0	0	17	0	$0	0
60.31	25	0.000	Kelly	Kelly	Storm Pro	Storm Proofing	Fill - Road	Storm Proofing	N/A		0	0	0	0	0	0		0
Private Perm.	25	0.000		9/1/1998		ECP Not	Excavate Soil	High	30"	30"	0		0	0	0	0	$0	0
60.31	2514	0.000	Alden	Alden	Storm Pro	Storm Proofing	Surface Drainage	Storm Proofing	N/A		0	0	0	59	14	0	$14,785	557
Upgraded	2514	1.140	Unk	12/18/2004		ECP Not	Tip and Dip	Medium	-	-	0		0	59	5	0	$27	557
60.31	2818	0.480	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2818	0.000	PW	10/19/2012		ECP Not	Dip Rolling	THP Low	-	-	0		0	0	0	0	$0	0
	Existing ditch collects seeps above unstable area. Cross drain ditch with a rock dip at a location away from the unstable area.																	
60.31	163	0.500	Bennett	McCanl	Maintena	Maintenance	Cut Bank Failure	Weather Damage	N/A		0	0	0	3	6	0	$615	0
Private Seasonal	163	0.000	RB	4/14/1999		ECP Not	Excavate Soil	High	-	-	0		0	0	0	170	$0	0
	used two trucks for three hours endhauled to old mill site																	
60.31	698	0.530	Pehl	Pehl	08-086	Belladonna	Culv.	THP App. Rd.	II		0	40	0	24	12	2	$11,759	600
Private Seasonal	698	0.000	PW	10/19/2012		Waiver	Culv. Install	THP Low	24"	36"	60		0	20	10	600	$20	600
	Water goes subsurface approx. 50 feet upstream from pipe inlet and emerges from bottom of fill. Remove existing pipe, excavate to grade, and install a 36" pipe. Substantial excavation above inlet will be necessary to remove stored sediment.																	

Road # / Road Class	GIS# / ID#	Mile / End	Plan / Crew	Final / Done	THP# / Rd Pt	THP Name / ECP Number	Problem / Solution	Repair Type / Priority/Shedule	Cr. Class Old Dia	New Dia	DRCs Ln	Rock	Left D / Right D	Exca. Cat	Truck Labor	Gra. Yds	Cost $/FSD	Total Yds FSD Yds
60.31	2819	0.620	Pehl	Pehl	08-086	Belladonna	Culv.-Ditch Relief	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2819	0.000	PW	10/19/2012		ECP Not	Culv. Install	THP Low	18"	-	40		0	0	0	0	$0	0
Existing cross drain with shotgunned outlet and bent inlet. Leave pipe "as is" since new Installation at BRP15 will collect drainage.																		
60.31	2820	0.630	Pehl	Pehl	08-086	Belladonna	Surface Drainage	Maintenance	N/A		0	0	0	0	0	0	$472	0
Private Seasonal	2820	0.000	PW	10/19/2012		ECP Not	Culv. Install	THP Low	-	18"	40		0	0	0	0	$0	0
Install 18" culvert to drain seep. Direct outlet at redwood clump below.																		
60.31	2821	0.680	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2821	0.000	PW	10/19/2012		ECP Not	Culv. Install	THP Low	-	18"	0		0	0	0	0	$0	0
Install 18" culvert to cross drain inside ditch. In the vicinity of this culvert, remove any uncompacted or settling fill material from the outside edge of the road, and properly compact.																		
60.31	2822	0.700	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$472	0
Private Seasonal	2822	0.000	PW	10/19/2012		ECP Not	Culv. Install	THP Low	-	18"	40		0	0	0	0	$0	0
Ditch collects bank seeps above unstabel area. Replacel 18" culvert that cross drains inside ditch.																		
60.31	697	0.710	Kelly	Kelly	Maintena	Maintenance	Culv.-Ditch Relief	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	697	0.000	Unk	2/15/2000		ECP Not	No Action	Medium	18"	-	0		0	0	0	0	$0	0
60.31	2823	0.800	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$472	0
Private Seasonal	2823	0.000	PW	10/19/2012		ECP Not	Culv. Install	THP Low	-	18"	40		0	0	0	0	$0	0
Install 18" culvert to cross drain inside ditch.																		
60.31	2824	0.840	Pehl	Pehl	08-086	Belladonna	Culv.	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2824	0.000	PW	10/19/2012		ECP Not	No Action	THP Low	18"	-	0		0	0	0	0	$0	0
Pipe drains towards an unstable area below road. Make sure most of drainage is captured by new installation at BRP-20 to reduce drainage towards unstable area.																		
60.31	696	0.850	Kelly	Kelly	Maintena	Maintenance	Culv.-Ditch Relief	Maintenance	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	696	0.000	Unk	2/15/2000		ECP Not	No Action	Medium	18"	-	0		0	0	0	0	$0	0
60.31	2825	0.860	Pehl	Pehl	08-086	Belladonna	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2825	0.000	PW	10/19/2012		ECP Not	Culv. Install	THP Low	-	18"	0		0	0	0	0	$0	0
Install 18" culvert to cross drain ditch and reduce flow to BRP 19.																		
60.31	546	0.940	Kelly	Kelly	Maintena	Maintenance	Cut Bank Failure	Maintenance	II		0	0	0	0	0	0	$0	0
Private Seasonal	694	0.000	Unk	7/1/2000		ECP Not	No Action	Medium	30"	-	0		0	0	0	0	$0	0
30" pipe removed 11/14/99. Large slide on fill slope and cut bank. Temporarily abandon until more time and money. REMAP FROM NEW PHOTOS NEXT OPPORTUNITY.																		
60.31	2826	1.100	Pehl	Pehl	Maintena	Maintenance	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	0
Private Seasonal	2826	0.000	Unk	7/4/2006		ECP Not	Tip and Dip	THP Low	-	-	0		0	0	0	0	$0	0
Remove outside berm and outslope road.																		
60.31	2827	1.120	Pehl	Pehl	08-086	Belladonna	Culv.	THP App. Rd.	II		0	0	0	0	0	0	$0	0
Private Seasonal	2827	0.000	PW	10/19/2012		ECP Not	No Action	THP Low	36"	-	0		0	0	0	0	$0	0
Existing 36" culvert. No treatment. Leave "as is".																		
60.3907	3977	0.620	Alden	Alden	05-023	Clover	Fill - Road	THP App. Rd.	II		0	0	0	0	0	0	$0	0
Private Seasonal	3977	0.000	Unk	3/1/2007		1B105023MEN	No Action	No Action	-	-	0		0	0	0	0	$0	0
Road fill slumped, probably some delivery																		
Grand Total All Sites		864										918	0	3,069	2,419	27	$962,283	95,292
													0	2,682	1,184	85,570		84,327

Road Work

- Road # – This is unique road ID number for each road segment on the property.
- Road Class – This is the type of road.
    a. Upgraded – Outsloped and dipped
    b. Storm proofed – Outsloped, dipped and culverts repaired.
    c. Deactivation – Outsloped, dipped, culverts pulled, and the road will be reused.
    d. Abandoned Fixed – Outsloped, dipped, culverts removed and the road will not be reused.
    e. Abandoned Legacy – It will do more damage than good to work on the road. The road will not be reused.
- GIS# - Each existing site in the field (like a culvert) has a unique GIS number, usually the first visit ID#. It appears on the road maps. A new visit to an existing site will reference the GIS#. You can look up the history of visits to a particular site by calling up all the records with the same GIS#.
- ID# - Each "new" road site visit has a unique ID number. It is generated when the record is entered into the database.
- Mile – Each numbered road has mileage ticks from 0 to the end of the road. "Mile" is the distance out the road to the site.
- End – If the site is along a length of road, like tipping and dipping, there is a start point (Mile) and "end" mileage.
- Insp. – The name of the inspector that identified the site and made the prescription is listed here. The inspectors are trained to identify potential sediment sources and make prescriptions in accordance with the Handbook for Forest and Ranch Roads, Weaver and Hagans, 1992. Estimates of sediment production and delivery are made by the inspector.
- Crew – These are the initials of contractor that did the work.
- Planned – Date of site identification.
- Done – Date site work was completed.
- THP# - THP Number
- Rd Pt - This is the working number (THP road point) created by the inspector in the field. It is often found on field flagging.
- THP Name – The THP or program the work is associated with.
- ECP Name – The Erosion Control Plan the site is associated with.
- Problem – The type of problem.
- Solution – The type of solution.
- Repair type – Why was the work done.
- Priority – This reflects the urgency of the problem. A high priority site is one that is likely to deliver a significant amount of sediment during the next 5 year storm event. Medium and low priority sites need upgrading, but are unlikely to deliver significant amounts of sediment in the next several years. High priority sites will be scheduled for completion prior to a low or medium priority site.
- Stream Class – As per the Forest Practice Rules
- Old Dia – The diameter of the old culvert.
- New Dia Ln – The diameter and length of the new culvert if any.
- DRCs – Number of ditch relief culverts needed for the site.
- Rock – Yards of rock needed at the site – rip rap, rock surface, etc.
- Right and Left Ditch – Feet of road to the right and left of the site that is connected and needs treatment.
- Equipment Hours
    a. Exca. – Excavator
    b. Cat – Caterpillar tractor
    c. Labor – Hand labor
    d. Truck – Dump truck or water truck
    e. Gra. – Grader
- Yds - This is the total yardage of soil that must be moved at the site.
- Cost – All the equipment costs, other costs and culvert costs. This does not include administration or logistic costs.
- $/FSD – This is the total cost divided by the yards of soil prevented form delivery (FSD) to the watercourses.
- Total Yds – This is the estimate of yardage that will be mobilized in a failure if the work is not done.
    - FSD (Future Sediment Delivery) – This is the amount of soil that will be prevented from being delivered into the watercourses if the project is completed. It is the relative potential for sediment delivery (RPSD). This yardage only appears if the inspector has been trained to estimate this.

Copper Top THP

NSO Package

COPPER TOP THP
NSO WITHIN 0.7 MILES

November 6, 2023

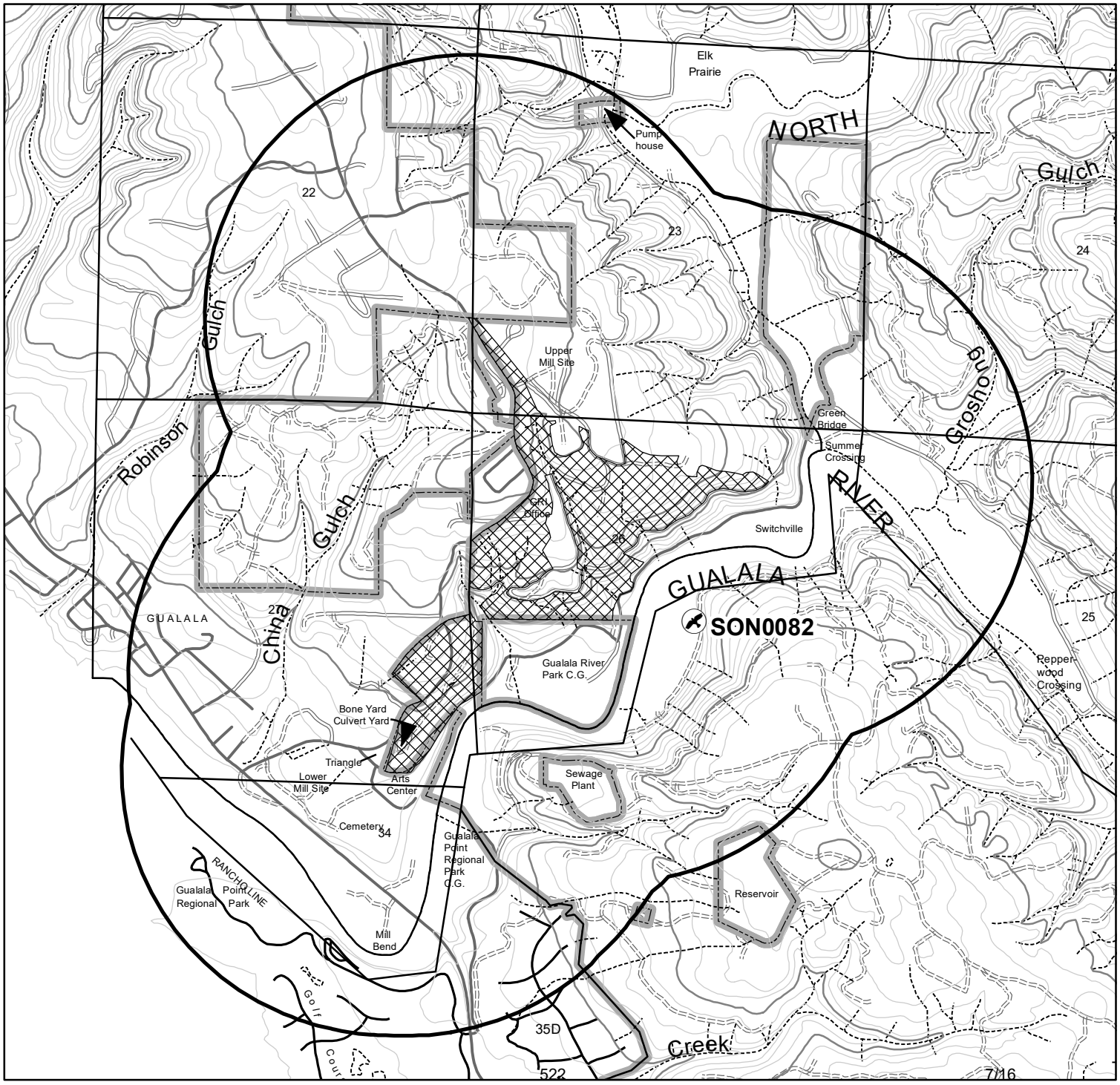
N

1:24,000

NSO Within 0.7 Miles
Copper Top THP Boundary
0.7 Mile THP Buffer
Watercourses
Property Boundary

Road Class

Paved Public
Paved Private
Unpaved Public
Private Permanent
Private Seasonal



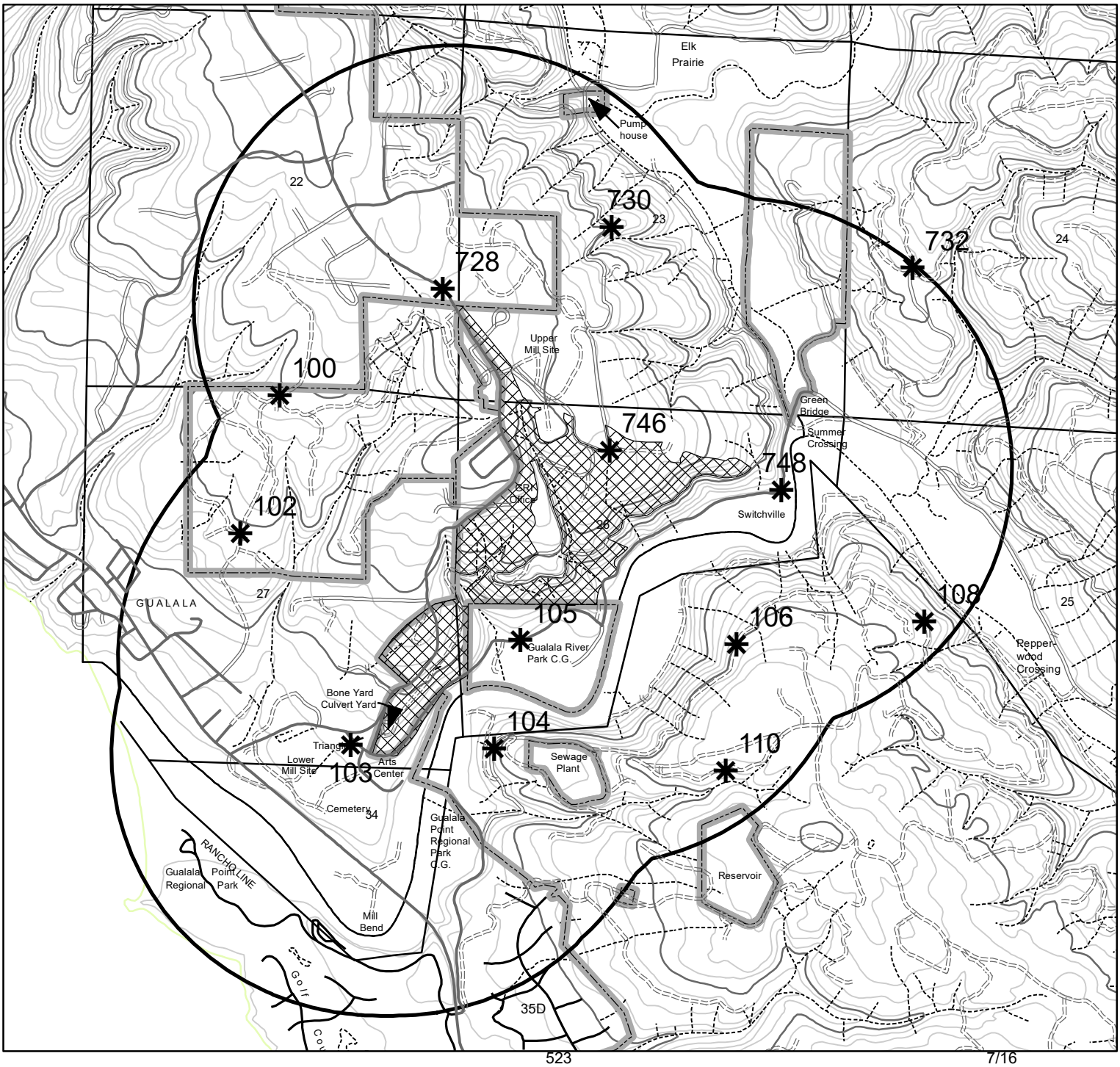
COPPER TOP THP
NSO SURVEY STATIONS

N

1:24,000

NSO Survey Stations	**Road Class**
0.7 Mile THP Buffer	Paved Public
Copper Top THP Boundary	Unpaved Public
Property Boundary	Paved Private
Watercourses	Private Permanent
	Private Seasonal

November 6, 2023



COPPER TOP THP
PRE HARVEST NSO HABITAT WITHIN 0.7 MILES

November 6, 2023

N

1:24,000

Copper Top THP Boundary

0.7 Mile Buffer

Property Boundary

Habitat Type
2 = Nest/Roost
3 = Forage
4 = Unsuitable

PRE HARVEST HABITAT

NEST/ROOST	1356 ACRES
FORAGE	463 ACRES
UNSUITABLE	1008 ACRES

COPPER TOP THP PRE AND POST HARVEST NSO HABITAT WITHIN 0.7 MILES

November 6, 2023

N

1:24,000

Copper Top THP Boundary

0.7 Mile THP Buffer

Property Boundary

Habitat Type

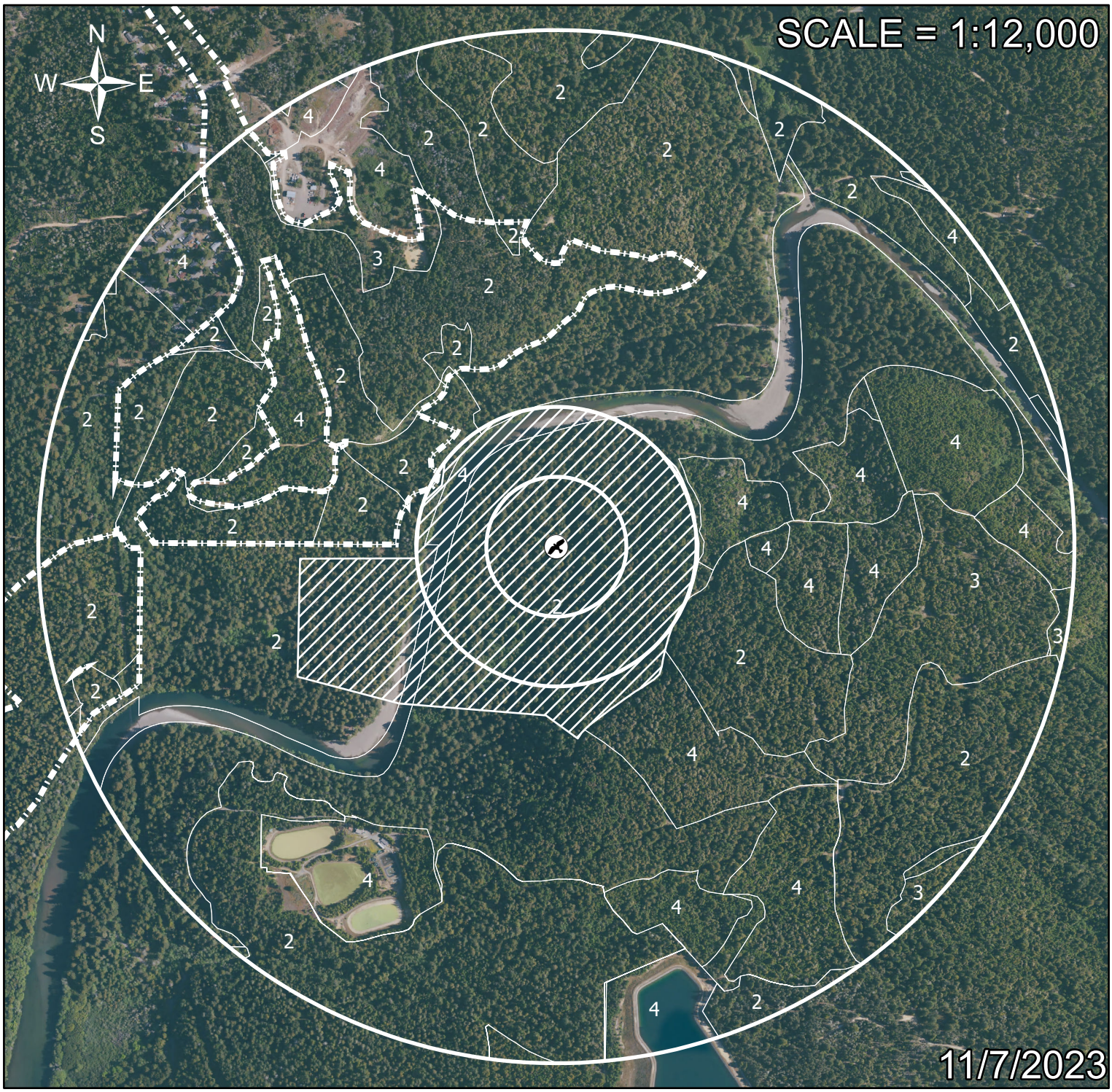
Nest/Roost

Forage

Unsuitable

PRE AND POST HARVEST HABITAT

NEST/ROOST	1356 ACRES
FORAGE	463 ACRES
UNSUITABLE	1008 ACRES



COPPER TOP THP SON0082
PRE-HARVEST HABITAT MAP

HABITAT TOTALS

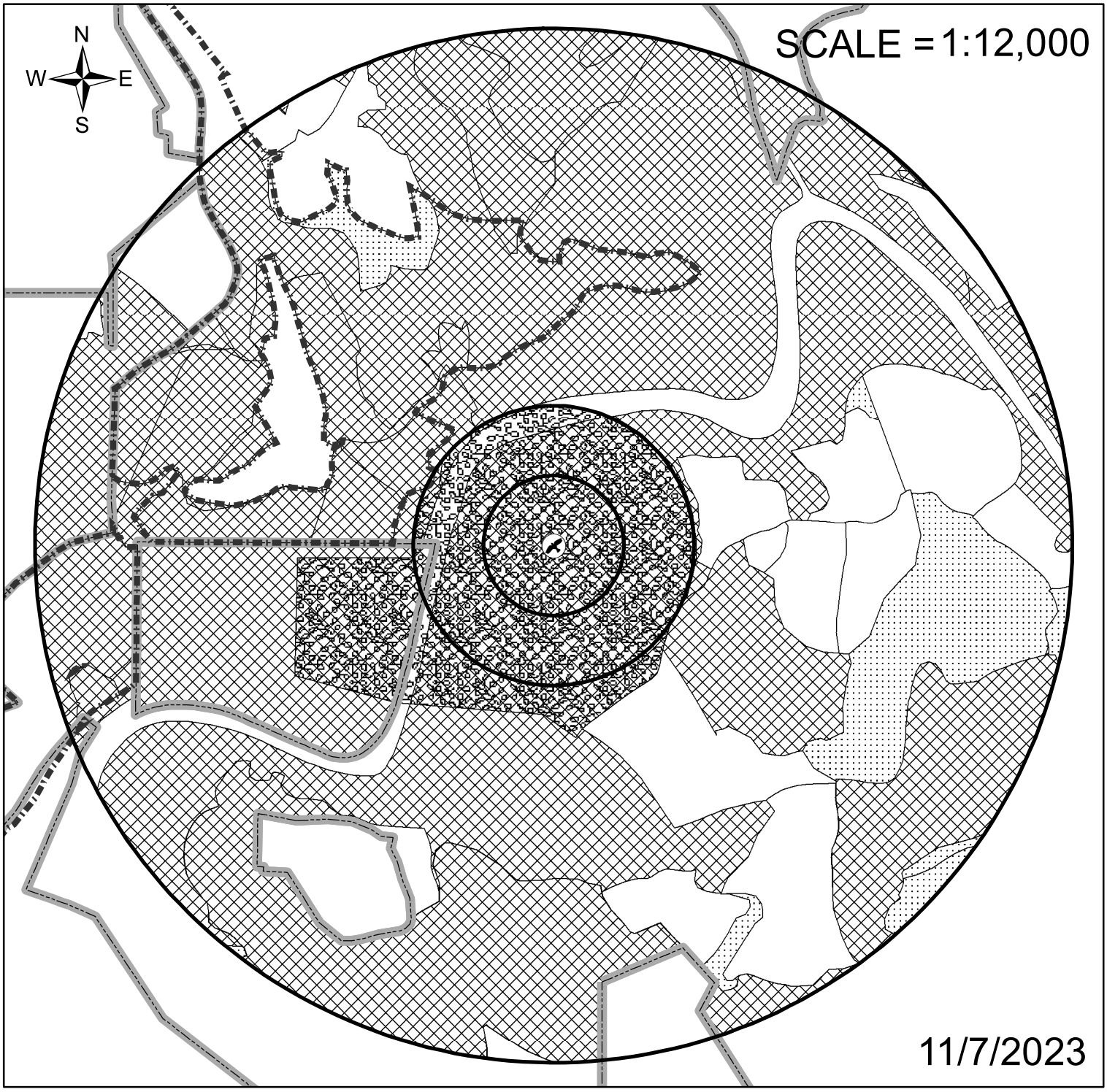
NEST/ROOST	703 ac.
FORAGE	52 ac.
UNSUITABLE	230 ac.
TOTAL ACRES	985 ac.
CORE AREA=	100 ac.

SON0082 LOCATION
500 FOOT BUFFER
1,000 FOOT BUFFER
0.7 MILE BUFFER
COPPER TOP THP BOUNDARY
CORE AREA

HABITAT TYPE

2 = NEST/ROOST
3 = FORAGE
4 = UNSUITABLE

7/16



COPPER TOP THP SON0082
PRE AND POST HARVEST HABITAT MAP

HABITAT TOTALS

NEST/ROOST	703 ac.
FORAGE	52 ac.
UNSUITABLE	230 ac.
TOTAL ACRES	985 ac.
CORE AREA =	100 ac.

- SON0082 LOCATION
- 500 FOOT BUFFER
- 1,000 FOOT BUFFER
- 0.7 MILE BUFFER
- COPPER TOP THP BOUNDARY
- PROPERTY BOUNDARY
- SON0082 CORE AREA
- NEST/ROOST
- FORAGE
- UNSUITABLE

7/16

Spotted Owl Visit Summary 23-1 Copper Top

Active Stations

Station	Date	Surveyor	Wind	Weather	Start	End	Behavior	Sex	Dist.	Azmu
Year 2023										
100	3/3/2023	Town	1-3 mph	Partly Clou	23:35	23:45	No Contact	No Contact	0	0
100	3/16/2023	Town	<1 mph	Partly Clou	1:29	1:39	No Contact	No Contact	0	0
100	4/6/2023	Town	1-3 mph	Overcast	19:59	20:09	No Contact	No Contact	0	0
			Frogs							
100	4/15/2023	Town	1-3 mph	Clear	0:47	0:57	No Contact	No Contact	0	0
100	5/9/2023	Town	1-3 mph	Clear	0:45	0:55	No Contact	No Contact	0	0
100	5/16/2023	Town	1-3 mph	Clear	0:57	1:07	No Contact	No Contact	0	0
Year 2024										
100	3/12/2024	Town	8-12 mph	Clear	0:00	0:10	No Contact	No Contact	0	0
100	4/5/2024	Town	4-7 mph	Partly Clou	0:59	1:09	No Contact	No Contact	0	0
100	4/15/2024	Town	<1 mph	Clear	0:05	0:15	No Contact	No Contact	0	0
100	4/22/2024	Town	4-7 mph	Clear	23:49	0:00	No Contact	No Contact	0	0
100	5/10/2024	Town	<1 mph	Clear	0:35	0:45	No Contact	No Contact	0	0
			Barred owl in China Gulch							
100	5/17/2024	Town	1-3 mph	Fog	0:53	1:03	No Contact	No Contact	0	0
Year 2023										
102	3/3/2023	Town	1-3 mph	Partly Clou	23:20	23:30	No Contact	No Contact	0	0
102	3/16/2023	Town	<1 mph	Partly Clou	1:10	1:20	No Contact	No Contact	0	0
102	4/6/2023	Town	1-3 mph	Overcast	19:30	19:52	No Contact	No Contact	0	0
102	4/15/2023	Town	1-3 mph	Clear	0:35	0:45	No Contact	No Contact	0	0
102	5/9/2023	Town	1-3 mph	Clear	1:00	1:05	No Contact	No Contact	0	0
102	5/16/2023	Town	1-3 mph	Clear	1:30	1:40	No Contact	No Contact	0	0
Year 2024										
102	3/12/2024	Town	8-12 mph	Clear	0:14	0:24	No Contact	No Contact	0	0
102	4/5/2024	Town	4-7 mph	Partly Clou	0:45	0:55	No Contact	No Contact	0	0
102	4/15/2024	Town	<1 mph	Clear	23:50	0:00	No Contact	No Contact	0	0
102	4/22/2024	Town	4-7 mph	Clear	23:35	23:45	No Contact	No Contact	0	0
102	5/10/2024	Town	<1 mph	Clear	0:15	0:25	No Contact	No Contact	0	0
102	5/17/2024	Town	1-3 mph	Fog	1:07	1:17	No Contact	No Contact	0	0
Year 2023										
103	3/5/2023	Town	<1 mph	Partly Clou	21:44	21:54	No Contact	No Contact	0	0
103	4/8/2023	Town	<1 mph	Partly Clou	23:15	23:25	No Contact	No Contact	0	0
103	4/15/2023	Town	1-3 mph	Clear	23:57	0:07	No Contact	No Contact	0	0
103	5/7/2023	Town	1-3 mph	Overcast	0:10	0:20	No Contact	No Contact	0	0
103	5/14/2023	Town	1-3 mph	Partly Clou	1:00	1:10	No Contact	No Contact	0	0
103	5/21/2023	Town	1-3 mph	Partly Clou	1:00	1:10	No Contact	No Contact	0	0
Year 2024										
103	3/13/2024	Town	4-7 mph	Clear	23:44	23:54	No Contact	No Contact	0	0
103	4/5/2024	Town	4-7 mph	Partly Clou	0:15	0:25	No Contact	No Contact	0	0
103	4/15/2024	Town	<1 mph	Clear	23:28	23:38	No Contact	No Contact	0	0
103	4/22/2024	Town	4-7 mph	Clear	21:24	21:34	No Contact	No Contact	0	0
103	5/9/2024	Town	<1 mph	Clear	23:44	23:54	No Contact	No Contact	0	0
103	5/16/2024	Town	4-7 mph	Fog	0:29	0:39	No Contact	No Contact	0	0
Year 2023										
104	3/8/2023	Town	<1 mph	Partly Clou	22:16	22:26	No Contact	No Contact	0	0
104	4/7/2023	Town	<1 mph	Overcast	23:40	23:50	No Contact	No Contact	0	0
104	4/14/2023	Town	1-3 mph	Partly Clou	1:00	1:10	No Contact	No Contact	0	0
104	4/21/2023	Town	1-3 mph	Partly Clou	20:00	20:10	No Contact	No Contact	0	0
104	5/9/2023	Town	<1 mph	Clear	1:25	1:35	No Contact	No Contact	0	0
104	5/16/2023	Town	1-3 mph	Clear	2:15	2:25	No Contact	No Contact	0	0

Station	Date	Surveyor	Wind	Weather	Start	End	Behavior	Sex	Dist.	Azmu
Year 2024										
104	3/7/2024	Town	<1 mph	Clear	22:20	22:30	No Contact	No Contact	0	0
104	3/15/2024	Town	4-7 mph	Clear	23:56	0:06	No Contact	No Contact	0	0
104	4/10/2024	Town	4-7 mph	Clear	1:04	1:14	No Contact	No Contact	0	0
104	4/19/2024	Town	4-7 mph	Partly Clou	22:46	22:56	No Contact	No Contact	0	0
104	5/9/2024	Town	<1 mph	Clear	0:15	0:25	No Contact	No Contact	0	0
104	5/16/2024	Town	4-7 mph	Fog	1:10	1:20	No Contact	No Contact	0	0
Year 2023										
105	3/5/2023	Town	<1 mph	Partly Clou	21:28	21:38	No Contact	No Contact	0	0
105	4/8/2023	Town	<1 mph	Partly Clou	22:59	23:09	No Contact	No Contact	0	0
105	4/15/2023	Town	1-3 mph	Clear	23:45	23:54	No Contact	No Contact	0	0
			Barred Owl flew in to surveyor							
105	5/7/2023	Town	1-3 mph	Overcast	0:27	0:37	No Contact	No Contact	0	0
105	5/14/2023	Town	1-3 mph	Partly Clou	1:16	1:26	No Contact	No Contact	0	0
105	5/21/2023	Town	1-3 mph	Partly Clou	1:14	1:24	No Contact	No Contact	0	0
			Barred Owl							
Year 2024										
105	3/13/2024	Town	4-7 mph	Clear	23:30	23:40	No Contact	No Contact	0	0
105	4/5/2024	Town	4-7 mph	Partly Clou	23:57	0:07	No Contact	No Contact	0	0
			Barred owl.							
105	4/15/2024	Town	<1 mph	Clear	23:14	23:24	No Contact	No Contact	0	0
105	4/22/2024	Town	4-7 mph	Clear	21:37	21:47	No Contact	No Contact	0	0
105	5/9/2024	Town	<1 mph	Clear	23:28	23:38	No Contact	No Contact	0	0
105	5/16/2024	Town	4-7 mph	Fog	0:14	0:24	No Contact	No Contact	0	0
Year 2023										
106	3/8/2023	Town	<1 mph	Partly Clou	21:46	21:56	No Contact	No Contact	0	0
106	4/7/2023	Town	<1 mph	Overcast	0:15	0:30	No Contact	No Contact	0	0
			Barred Owl							
106	4/14/2023	Town	1-3 mph	Partly Clou	0:23	0:33	No Contact	No Contact	0	0
			Silent Barred Owl							
106	4/21/2023	Town	1-3 mph	Partly Clou	20:25	20:35	No Contact	No Contact	0	0
			Barred Owl							
106	5/9/2023	Town	<1 mph	Clear	0:49	1:00	No Contact	No Contact	0	0
106	5/16/2023	Town	1-3 mph	Clear	1:58	2:08	No Contact	No Contact	0	0
Year 2024										
106	3/7/2024	Town	<1 mph	Clear	21:57	22:07	No Contact	No Contact	0	0
106	3/15/2024	Town	4-7 mph	Clear	23:27	23:37	No Contact	No Contact	0	0
106	4/10/2024	Town	4-7 mph	Clear	0:00	0:10	No Contact	No Contact	0	0
106	4/19/2024	Town	4-7 mph	Partly Clou	23:30	23:40	No Contact	No Contact	0	0
			Barred owl.							
106	5/9/2024	Town	<1 mph	Clear	0:55	1:05	No Contact	No Contact	0	0
			Barred owl at station.							
106	5/16/2024	Town	4-7 mph	Fog	1:35	1:45	No Contact	No Contact	0	0
Year 2023										
108	3/8/2023	Town	<1 mph	Partly Clou	21:30	21:40	No Contact	No Contact	0	0
108	4/7/2023	Town	<1 mph	Overcast	0:30	0:40	No Contact	No Contact	0	0
108	4/14/2023	Town	1-3 mph	Partly Clou	0:10	0:20	No Contact	No Contact	0	0
108	4/21/2023	Town	1-3 mph	Partly Clou	20:38	20:48	No Contact	No Contact	0	0
108	5/9/2023	Town	<1 mph	Clear	0:34	0:44	No Contact	No Contact	0	0
108	5/16/2023	Town	1-3 mph	Clear	1:45	1:55	No Contact	No Contact	0	0
			Barred Owl by River							
Year 2024										
108	3/7/2024	Town	<1 mph	Clear	21:44	21:54	No Contact	No Contact	0	0
108	3/15/2024	Town	4-7 mph	Clear	23:15	23:25	No Contact	No Contact	0	0
108	4/10/2024	Town	4-7 mph	Clear	0:17	0:27	No Contact	No Contact	0	0
			barred owl							

Station	Date	Surveyor	Wind	Weather	Start	End	Behavior	Sex	Dist.	Azmu
108	4/19/2024	Town	4-7 mph	Partly Clou	23:44	23:54	No Contact	No Contact	0	0
			Barred owl followed from station 106.							
108	5/9/2024	Town	<1 mph	Clear	1:07	1:17	No Contact	No Contact	0	0
			still hear barred owl at station 106							
108	5/16/2024	Town	4-7 mph	Fog	1:49	1:59	No Contact	No Contact	0	0
			Barred owl by River. Very vocal and moving							
Year	*2023*									
110	3/8/2023	Town	<1 mph	Partly Clou	22:00	22:10	No Contact	No Contact	0	0
110	4/7/2023	Town	<1 mph	Overcast	23:00	23:10	No Contact	No Contact	0	0
110	4/14/2023	Town	1-3 mph	Partly Clou	0:39	0:49	No Contact	No Contact	0	0
110	4/21/2023	Town	1-3 mph	Partly Clou	21:50	22:00	No Contact	No Contact	0	0
110	5/9/2023	Town	<1 mph	Clear	1:09	1:19	No Contact	No Contact	0	0
110	5/16/2023	Town	1-3 mph	Clear	20:20	20:30	No Contact	No Contact	0	0
			Barred Owl flew in							
Year	*2024*									
110	3/7/2024	Town	<1 mph	Clear	21:16	21:26	No Contact	No Contact	0	0
110	3/15/2024	Town	4-7 mph	Clear	22:47	22:57	No Contact	No Contact	0	0
			skunk							
110	4/10/2024	Town	4-7 mph	Clear	23:30	23:40	No Contact	No Contact	0	0
110	4/19/2024	Town	4-7 mph	Partly Clou	23:04	23:14	No Contact	No Contact	0	0
110	5/9/2024	Town	<1 mph	Clear	0:36	0:46	No Contact	No Contact	0	0
110	5/16/2024	Town	4-7 mph	Fog	2:10	2:20	No Contact	No Contact	0	0
Year	*2023*									
728	3/3/2023	Town	1-3 mph	Partly Clou	21:40	21:50	No Contact	No Contact	0	0
728	3/16/2023	Town	<1 mph	Partly Clou	23:10	23:20	No Contact	No Contact	0	0
728	4/8/2023	Town	<1 mph	Partly Clou	22:40	22:50	No Contact	No Contact	0	0
728	4/15/2023	Town	1-3 mph	Clear	1:09	1:19	No Contact	No Contact	0	0
728	5/9/2023	Town	1-3 mph	Clear	0:05	0:15	No Contact	No Contact	0	0
728	5/16/2023	Town	1-3 mph	Clear	0:30	0:40	No Contact	No Contact	0	0
Year	*2024*									
728	3/12/2024	Town	8-12 mph	Clear	21:41	21:51	No Contact	No Contact	0	0
728	4/8/2024	Town	1-3 mph	Clear	0:09	0:19	No Contact	No Contact	0	0
728	4/8/2024	Town	1-3 mph	Clear	1:09	1:19	No Contact	No Contact	0	0
728	4/15/2024	Town	<1 mph	Clear	1:16	1:26	No Contact	No Contact	0	0
728	4/22/2024	Town	4-7 mph	Clear	21:09	21:19	No Contact	No Contact	0	0
728	5/10/2024	Town	<1 mph	Clear	22:29	22:39	No Contact	No Contact	0	0
728	5/17/2024	Town	1-3 mph	Fog	0:20	0:30	No Contact	No Contact	0	0
Year	*2023*									
730	3/3/2023	Town	1-3 mph	Partly Clou	20:57	21:07	No Contact	No Contact	0	0
730	3/16/2023	Town	<1 mph	Partly Clou	22:18	22:28	No Contact	No Contact	0	0
730	4/8/2023	Town	<1 mph	Partly Clou	21:59	22:09	No Contact	No Contact	0	0
730	4/14/2023	Town	<1 mph	Clear	23:00	23:10	No Contact	No Contact	0	0
730	4/21/2023	Town	<1 mph	Clear	23:30	23:40	No Contact	No Contact	0	0
730	5/9/2023	Town	1-3 mph	Clear	23:30	23:40	No Contact	No Contact	0	0
730	5/16/2023	Town	1-3 mph	Clear	23:35	23:45	No Contact	No Contact	0	0
Year	*2024*									
730	3/12/2024	Town	8-12 mph	Clear	21:04	21:14	No Contact	No Contact	0	0
			pair Barred Owls by river.							
730	4/8/2024	Town	1-3 mph	Clear	23:50	0:00	No Contact	No Contact	0	0
730	4/16/2024	Town	8-12 mph	Clear	0:50	1:00	No Contact	No Contact	0	0
			Same Barred owl as 714							
730	4/23/2024	Town	1-3 mph	Partly Clou	1:14	1:24	No Contact	No Contact	0	0
			Pair Barred owls by river.							
730	5/10/2024	Town	<1 mph	Clear	22:00	22:10	No Contact	No Contact	0	0
			Barred owls from station 714							
730	5/17/2024	Town	1-3 mph	Fog	22:17	22:27	No Contact	No Contact	0	0

Station	Date	Surveyor	Wind	Weather	Start	End	Behavior	Sex	Dist.	Azmu
Year	*2023*									
732	3/4/2023	Town	1-3 mph	Partly Clou	21:10	21:20	No Contact	No Contact	0	0
732	3/11/2023	Town	<1 mph	Overcast	20:55	21:05	No Contact	No Contact	0	0
732	4/8/2023	Town	<1 mph	Partly Clou	19:45	19:55	No Contact	No Contact	0	0
732	4/15/2023	Town	1-3 mph	Clear	22:45	22:55	No Contact	No Contact	0	0
732	5/10/2023	Town	<1 mph	Clear	0:00	0:10	No Contact	No Contact	0	0
732	5/17/2023	Town	1-3 mph	Clear	23:15	23:25	No Contact	No Contact	0	0
Year	*2024*									
732	3/14/2024	Town	4-7 mph	Clear	21:45	21:55	No Contact	No Contact	0	0
732	4/5/2024	Town	4-7 mph	Partly Clou	23:00	23:10	No Contact	No Contact	0	0
732	4/15/2024	Town	<1 mph	Clear	22:00	22:10	No Contact	No Contact	0	0
732	4/22/2024	Town	4-7 mph	Clear	22:30	22:40	No Contact	No Contact	0	0
			Barred owl.							
732	5/9/2024	Town	<1 mph	Clear	22:45	22:55	No Contact	No Contact	0	0
			Barred by LNF Gualala							
732	5/16/2024	Town	4-7 mph	Fog	23:33	23:43	No Contact	No Contact	0	0
			Barred far away by Gualala River							
Year	*2023*									
746	3/3/2023	Town	1-3 mph	Partly Clou	21:19	21:29	No Contact	No Contact	0	0
746	3/16/2023	Town	<1 mph	Partly Clou	22:45	22:55	No Contact	No Contact	0	0
746	4/8/2023	Town	<1 mph	Partly Clou	22:20	22:30	No Contact	No Contact	0	0
746	4/14/2023	Town	<1 mph	Clear	23:20	23:30	No Contact	No Contact	0	0
746	4/21/2023	Town	<1 mph	Clear	23:49	0:00	No Contact	No Contact	0	0
746	5/9/2023	Town	1-3 mph	Clear	23:50	0:00	No Contact	No Contact	0	0
746	5/16/2023	Town	1-3 mph	Clear	23:54	0:04	No Contact	No Contact	0	0
Year	*2024*									
746	3/12/2024	Town	8-12 mph	Clear	21:25	21:35	No Contact	No Contact	0	0
746	4/8/2024	Town	1-3 mph	Clear	1:23	1:33	No Contact	No Contact	0	0
746	4/16/2024	Town	8-12 mph	Clear	1:07	1:17	No Contact	No Contact	0	0
746	4/23/2024	Town	1-3 mph	Partly Clou	1:29	1:39	No Contact	No Contact	0	0
746	5/10/2024	Town	<1 mph	Clear	22:14	22:24	No Contact	No Contact	0	0
746	5/17/2024	Town	1-3 mph	Fog	22:33	22:43	No Contact	No Contact	0	0
Year	*2023*									
748	3/5/2023	Town	<1 mph	Partly Clou	21:15	21:25	No Contact	No Contact	0	0
748	4/8/2023	Town	<1 mph	Partly Clou	22:45	22:55	No Contact	No Contact	0	0
			Barred Owl							
748	4/15/2023	Town	1-3 mph	Clear	22:30	23:40	No Contact	No Contact	0	0
748	5/7/2023	Town	1-3 mph	Overcast	0:40	0:50	No Contact	No Contact	0	0
748	5/14/2023	Town	1-3 mph	Partly Clou	1:30	1:40	No Contact	No Contact	0	0
748	5/21/2023	Town	1-3 mph	Partly Clou	1:30	1:40	No Contact	No Contact	0	0
Year	*2024*									
748	3/13/2024	Town	4-7 mph	Clear	23:18	23:28	No Contact	No Contact	0	0
748	4/5/2024	Town	4-7 mph	Partly Clou	23:45	23:55	No Contact	No Contact	0	0
748	4/15/2024	Town	<1 mph	Clear	23:00	23:10	No Contact	No Contact	0	0
748	4/22/2024	Town	4-7 mph	Clear	21:52	22:02	No Contact	No Contact	0	0
748	5/9/2024	Town	<1 mph	Clear	23:15	23:25	No Contact	No Contact	0	0
748	5/16/2024	Town	4-7 mph	Fog	0:00	0:10	No Contact	No Contact	0	0

Spotted Owl Walk-In Visit Information

As of: 12/21/2020

Center		Visit	Sta.	Date	Surveyor	Start	End	Wind	Weather	Mouse Result	Occupancy	T	R	Sec	DBH	BA	Visit Type
Son0082	Switchvill	962	0	5/17/2021	Town, Pam	18:30	19:30	4-7 mph	Clear	No Contact	No Contact				0		Walk-in
2 surveyors. One starts below water treatment and follows road broadcasting toward STA104. Barred owl flies in, silent at first, vocal when play BAOW calls. 2nd surveyor starts near STA108 and walks broadcasting toward STA104.																	
Son0082	Switchvill	974	0	4/15/2022	Town, Pam	16:25	17:15	1-3 mph	Overcast	No Contact	No Contact				0		Walk-in
Park near water treatment plant & broadcast & walk up road thru gate & beyond. Go into woods to historic AC and walk around area. Back to main road and near STA 106 see barred owl fly in and he was very vocal. He was mobbed by over 12 stellar jays (poor guy). Left barred and broadcast again when out of his hearing. No NSO.																	
Son0082	Switchvill	997	0	5/17/2023	Town, Pam	16:30	17:30	1-3 mph	Clear	No Contact	No Contact				0		Walk-in
Start at gate by water treatment plant and walk up road. By AC walked into woods on skid trails. Walked back on road to road junction. At 17:12 mobbing Jays showed Barred Owl that followed surveyor. Jays relentless. No NSOs.																	
Son0082	Switchvill	1004	0	3/15/2024	Town, Pam	18:00	19:00	4-7 mph	Clear	No Contact	No Contact				0		Walk-in
Park by water treatment and walk and broadcast called up road to historic AC. Cut into woods. No owls.																	

Data Version Date:
05/29/2024

Report Generation Date:
7/8/2024

Report #1 - Spotted Owl Sites Found

Known Spotted Owl sites having observations within the search area.

Meridian, Township, Range, Section (MTRS) searched:

M_11N_15W Sections(22,23,24,25,26,27,34,35,36);

Masterowl	*Subspecies*	*LatDD NAD83*	*LonDD NAD83*	*MTRS*	*AC Coordinate Source*
MEN0179	NORTHERN	38.789914	-123.504183	M 11N 15W 23	Contributor
MEN0371	NORTHERN	38.806553	-123.517364	M 11N 15W 15	Contributor
MEN0510	NORTHERN	38.798709	-123.480809	M 11N 15W 13	Contributor
SON0017	NORTHERN	38.768938	-123.476506	M 11N 14W 30	Contributor
SON0082	NORTHERN	38.771471	-123.505195	M 11N 15W 26	Contributor

Note: Only SON0082 is within 0.7 miles of Plan area.

Data Version Date:
05/29/2024

Report Generation Date:
7/8/2024

Report #2 - Observations Reported

List of observations reported by site.

Meridian, Township, Range, Section (MTRS) searched:

M_11N_15W Sections(22,23,24,25,26,27,34,35,36);

Type	*Date*	*Time*	*#Adults*	*Age/Sex*	*Pair*	*Nest*	*#Young*	*Latitude DD NAD83*	*Longitude DD NAD83*	*MTRS*	*Coordinate Source*
Masterowl: MEN0179 Subspecies: NORTHERN											
NEG	1990-04-16		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
POS	1990-04-16		2	UMUF	Y			38.796858	-123.487652	M 11N 15W 13	Half-section centroid
POS	1990-06-01		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
NEG	1990-06-17		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	1990-07-07		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	1990-07-19		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	1991-01-25	0630	0					38.790188	-123.511441	M 11N 15W 23	Quarter-section centroid
NEG	1991-01-29	1800	0					38.790188	-123.511441	M 11N 15W 23	Quarter-section centroid
NEG	1991-01-31		0					38.796947	-123.492351	M 11N 15W 13	Quarter-section centroid
POS	1991-02-15	0700	1	UU				38.797150	-123.501841	M 11N 15W 14	Quarter-section centroid
NEG	1991-02-18	0800	0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	1991-02-22	0100	0					38.790188	-123.511441	M 11N 15W 23	Quarter-section centroid
NEG	1991-03-14	1830	0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	1991-04-10	1200	0					38.796947	-123.492351	M 11N 15W 13	Quarter-section centroid
POS	1991-04-22	0630	2	UUUU				38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
NEG	1991-05-15		0					38.784542	-123.504136	M 11N 15W 23	Activity center

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1991-05-22		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1991-05-23		2	UMUF	Y	Y		38.792341	-123.496234	M 11N 15W 24	Contributor
POS	1991-05-29	1625	2	UMUF	Y	Y		38.792341	-123.496234	M 11N 15W 24	Contributor
POS	1991-06-01		2	UMUF	Y		1	38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1991-07-08	1722	1	UM	Y	Y	2	38.792341	-123.496234	M 11N 15W 24	Contributor
POS	1991-11-04	2044	1	UF				38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1991-11-10	1755	2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1992-03-13		1	UU				38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1992-05-08		2	UMUF	Y	N		38.789922	-123.501894	M 11N 15W 23	Quarter-section centroid
POS	1992-06-01		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1992-06-04		2	UMUF	Y			38.790055	-123.506662	M 11N 15W 23	Half-section centroid
POS	1992-09-16		2	UMUF	Y	N		38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1993-03-08		1	UU				38.782650	-123.501866	M 11N 15W 23	Quarter-section centroid
POS	1993-03-08	2115	1	UU				38.782393	-123.492389	M 11N 15W 24	Quarter-section centroid
NEG	1993-03-22	2000	0					38.785883	-123.487589	M 11N 15W 24	Section centroid
POS	1993-04-08		1	UU				38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1993-04-28		1	UU				38.797150	-123.501841	M 11N 15W 14	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1993-04-28		0					38.785883	-123.487589	M 11N 15W 24	Section centroid
NEG	1993-05-04		0					38.785883	-123.487589	M 11N 15W 24	Section centroid
NEG	1993-05-10		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1993-05-13		0					38.785883	-123.487589	M 11N 15W 24	Section centroid
NEG	1993-05-18		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
POS	1993-06-01		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1993-06-02		2	UMUF	Y			38.793715	-123.496482	M 11N 15W 13	Contributor
POS	1993-06-03	1200	2	UMUF				38.796947	-123.492351	M 11N 15W 13	Quarter-section centroid
NEG	1993-06-16		0					38.785883	-123.487589	M 11N 15W 24	Section centroid
POS	1993-07-22	1310	1	UM				38.789187	-123.492654	M 11N 15W 24	Contributor
POS	1993-11-13	1214	2	UMUF				38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
NEG	1994-03-22		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1994-03-24		0					38.785883	-123.487589	M 11N 15W 24	Section centroid
NEG	1994-03-30		0					38.785883	-123.487589	M 11N 15W 24	Section centroid
POS	1994-04-15		1	UU				38.796947	-123.492351	M 11N 15W 13	Quarter-section centroid
POS	1994-06-01		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1994-06-01	1158	2	UMUF	Y			38.786442	-123.506602	M 11N 15W 23	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1994-11-22	1911	1	UM				38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	1995-04-02		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1995-04-23		0					38.786443	-123.506607	M 11N 15W 23	Section centroid
NEG	1995-04-24		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
POS	1995-05-31	2142	1	UM				38.786442	-123.506602	M 11N 15W 23	Section centroid
POS	1995-06-01		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1995-07-10		1	UU				38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1995-07-11		1	UU				38.789922	-123.501894	M 11N 15W 23	Quarter-section centroid
POS	1995-11-09	1849	2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
NEG	1996-03-07	2100	0					38.786442	-123.506602	M 11N 15W 23	Section centroid
POS	1996-03-17		1	UU				38.796947	-123.492351	M 11N 15W 13	Quarter-section centroid
POS	1996-03-18		1	UU				38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1996-04-05		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
NEG	1996-04-07		0					38.785883	-123.487589	M 11N 15W 24	Section centroid
POS	1996-05-25		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1996-06-01		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1996-06-30		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1996-07-10		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1996-10-24	1426	1	UU				38.789922	-123.501894	M 11N 15W 23	Quarter-section centroid
POS	1996-10-24		1	UU				38.789922	-123.501894	M 11N 15W 23	Quarter-section centroid
POS	1997-02-24	0000	2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
NEG	1997-03-12		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1997-03-22		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
POS	1997-04-15		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1997-04-30	1325	2	UMUF	Y	Y		38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1997-05-27		2	UMUF	Y	Y	1	38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1997-06-01		2	UMUF	Y		1	38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1997-07-03		2	UMUF	Y		1	38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1997-07-15	1837	1	UF			1	38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1997-11-04	1904	1	UM				38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1998-03-03		1	UU				38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1998-04-24		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1998-05-18		1	UU				38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1998-06-01		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1998-06-10	1200	0					38.785883	-123.487589	M 11N 15W 24	Section centroid
POS	1998-07-29		1	UM				38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
NEG	1998-08-13		0					38.785883	-123.487589	M 11N 15W 24	Section centroid
NEG	1998-08-13		0					38.788932	-123.473342	M 11N 14W 19	Quarter-section centroid
NEG	1998-08-20		0					38.784897	-123.468539	M 11N 14W 19	Section centroid
POS	1998-08-20		1	UF				38.789435	-123.482869	M 11N 15W 24	Quarter-section centroid
NEG	1998-08-21		0					38.785883	-123.487589	M 11N 15W 24	Section centroid
NEG	1998-08-27		0					38.784897	-123.468539	M 11N 14W 19	Section centroid
NEG	1998-08-27		0					38.785883	-123.487589	M 11N 15W 24	Section centroid
POS	1998-10-12		2	UMUF	Y			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1998-10-21		1	UU				38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
POS	1998-10-21	1148	1	UU				38.784542	-123.504136	M 11N 15W 23	Activity center
NEG	1999-03-17	2028-2038	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	1999-03-20	1719	0					38.785883	-123.487589	M 11N 15W 24	Section centroid
NEG	1999-03-29	2205-2215	0					38.791161	-123.486695	M 11N 15W 24	Contributor
NEG	1999-04-12	2318-2328	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	1999-04-23	0202-0212	0					38.791290	-123.517890	M 11N 15W 22	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1999-04-24	0014-0024	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	1999-05-01	0025-0035	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	1999-05-13	2141-2151	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	1999-05-15	1400	0					38.785883	-123.487589	M 11N 15W 24	Section centroid
NEG	1999-05-20	2321-2331	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	1999-05-20	0050-0100	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	1999-05-22	1715	0					38.785883	-123.487589	M 11N 15W 24	Section centroid
POS	1999-05-22	0138	2	UMUF	Y			38.792341	-123.496234	M 11N 15W 24	Contributor
NEG	1999-06-01	0007-0017	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	1999-06-02	1730	0					38.785883	-123.487589	M 11N 15W 24	Section centroid
NEG	1999-06-02	2216-2226	0					38.791290	-123.517890	M 11N 15W 22	Contributor
POS	1999-06-02	0128	1	UM				38.796947	-123.492351	M 11N 15W 13	Quarter-section centroid
POS	1999-06-03	0642	1	UU				38.797150	-123.501841	M 11N 15W 14	Quarter-section centroid
POS	1999-06-03	0739-0842	1	UU				38.790582	-123.498195	M 11N 15W 23	Contributor
NEG	1999-06-10	2240-2250	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	1999-06-17	2327-2337	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2000-03-02	2303	0					38.786442	-123.506602	M 11N 15W 23	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2000-03-03	2117-2137	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2000-03-03	2000	0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	2000-04-06	2352-0002	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2000-04-09	2105	0					38.790462	-123.520828	M 11N 15W 22	Quarter-section centroid
NEG	2000-04-15	1050	0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	2000-04-19	2023	0					38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	2000-04-26	2144	1	UM				38.791290	-123.517890	M 11N 15W 22	Contributor
POS	2000-04-28	2310	1	UM				38.797150	-123.501841	M 11N 15W 14	Quarter-section centroid
NEG	2000-05-09	2105-2115	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2000-06-04	2347-2357	0					38.783380	-123.516870	M 11N 15W 22	Contributor
POS	2000-06-04	2236	1	UM				38.797150	-123.501841	M 11N 15W 14	Quarter-section centroid
POS	2000-06-06	0845	1	UM				38.789922	-123.501894	M 11N 15W 23	Quarter-section centroid
NEG	2000-06-28	2138-2148	0					38.791290	-123.517890	M 11N 15W 22	Contributor
POS	2001-03-10	2223	1	UF				38.797150	-123.501841	M 11N 15W 14	Quarter-section centroid
POS	2001-03-10	2223	1	UF				38.793119	-123.499775	M 11N 15W 23	Contributor
POS	2001-03-10	2240	1	UU				38.797150	-123.501841	M 11N 15W 14	Quarter-section centroid
NEG	2001-03-12	1941	0					38.785883	-123.487589	M 11N 15W 24	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2001-03-14	1955-2005	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2001-03-18	1940-1950	0					38.783380	-123.516870	M 11N 15W 22	Contributor
POS	2001-05-05	1400	2	UMUF	Y			38.792234	-123.496210	M 11N 15W 24	Contributor
NEG	2001-05-24	2313-2323	0					38.783380	-123.516870	M 11N 15W 22	Contributor
POS	2001-05-25	0050	1	UM				38.797150	-123.501841	M 11N 15W 14	Quarter-section centroid
NEG	2001-06-13	2121	0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	2001-06-14	2103-2113	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2001-06-14	2205-2215	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2001-06-29	2331-2341	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2002-03-04	2345-2355	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2002-03-06	2115	0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	2002-03-12	2326-2336	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2002-04-09	2325-2335	0					38.791290	-123.517890	M 11N 15W 22	Contributor
POS	2002-04-11	1430	2	UMUF	Y			38.795955	-123.488514	M 11N 15W 13	Contributor
NEG	2002-04-20	0129-0139	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2002-04-21	0058-0108	0					38.791290	-123.517890	M 11N 15W 22	Contributor
POS	2002-04-21	2357	2	UMUF	Y			38.790299	-123.509950	M 11N 15W 23	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2002-04-22	1708	2	UMUF	Y			38.789914	-123.504183	M 11N 15W 23	Contributor
NEG	2002-04-30	0133-0143	0					38.783380	-123.516870	M 11N 15W 22	Contributor
AC	2002-05-02	1728-1732	2	UMUF	Y	Y		38.789914	-123.504183	M 11N 15W 23	Contributor
POS	2003		1	UU		Y		38.789859	-123.504173	M 11N 15W 23	Contributor
POS	2003-03-06	0044	1	UM				38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2003-03-07	2021-2031	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2003-03-07	2156-2206	0					38.783380	-123.516870	M 11N 15W 22	Contributor
POS	2003-03-30	1505-1520	2	UMUF	Y			38.789914	-123.504183	M 11N 15W 23	Contributor
NEG	2003-04-02	1931-1941	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2003-04-02	2033-2043	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2003-04-14	0003-0013	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2003-04-30	0159-0209	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2003-04-30	0118-0128	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2003-04-30	0040-0050	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2004-03-11	2343-2353	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2004-03-11	2302-2312	0					38.791290	-123.517890	M 11N 15W 22	Contributor
POS	2004-03-19	1729-1745	2	UMUF	Y			38.789673	-123.507622	M 11N 15W 23	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2004-04-07	0015-0025	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2004-04-15	0119-0129	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2004-06-14	0142-0152	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2004-06-15	0134-0144	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2005-04-21	2212-2222	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2005-04-21	0121-0131	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2005-05-10	2220-2230	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2005-06-09	2242-2252	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2005-06-23	2148-2158	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2005-06-25	2157-2207	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2005-07-20	2107-2117	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2005-07-26	2128-2148	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2005-07-27	2132-2142	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2006-04-13	0259-0309	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2006-04-25	0118-0128	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2006-04-25	0035-0045	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2006-04-25	0301-0311	0					38.783380	-123.516870	M 11N 15W 22	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2006-05-25	2153-2203	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2006-05-25	2350-0000	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2006-06-02	2314-2324	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2006-06-02	2232-2242	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2006-06-03	2201-2211	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2007-03-28	2022-2032	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2007-03-28	1928-1938	0					38.783990	-123.509120	M 11N 15W 23	Contributor
POS	2007-03-28	1904	1	UU				38.782650	-123.501866	M 11N 15W 23	Quarter-section centroid
NEG	2007-03-29	2054-2104	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2007-04-05	2338-2348	0					38.791290	-123.517890	M 11N 15W 22	Contributor
POS	2007-04-06	1804	2	UMUF	Y			38.784542	-123.504136	M 11N 15W 23	Contributor
NEG	2007-04-07	0127-0137	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2007-04-25		0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2007-04-25	2146-2156	0					38.791290	-123.517890	M 11N 15W 22	Contributor
NEG	2008-05-17	2125	0					38.789922	-123.501894	M 11N 15W 23	Quarter-section centroid
NEG	2009-04-06	2038	0					38.789922	-123.501894	M 11N 15W 23	Quarter-section centroid
NEG	2009-04-13	2015	0					38.789922	-123.501894	M 11N 15W 23	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2011	2400	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2011	2400	0					38.794570	-123.517684	M 11N 15W 15	Contributor
NEG	2011-03-04	2241-2251	0					38.793119	-123.499775	M 11N 15W 23	Contributor
POS	2011-03-06	2047-2100	1	UM				38.786171	-123.508792	M 11N 15W 23	Contributor
POS	2011-04-01	2203-2213	1	UM				38.786171	-123.508792	M 11N 15W 23	Contributor
NEG	2011-05-12	2059-2109	0					38.793119	-123.499775	M 11N 15W 23	Contributor
NEG	2012	2400	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2012	2400	0					38.794570	-123.517684	M 11N 15W 15	Contributor
NEG	2012	2400	0					38.793119	-123.499775	M 11N 15W 23	Contributor
NEG	2012	2400	0					38.789150	-123.491524	M 11N 15W 24	Contributor
NEG	2012	2400	0					38.797460	-123.512839	M 11N 15W 14	Contributor
NEG	2012	2400	0					38.786171	-123.508792	M 11N 15W 23	Contributor
NEG	2012	2400	0					38.790299	-123.509950	M 11N 15W 23	Contributor
NEG	2012	2400	0					38.784782	-123.493778	M 11N 15W 24	Contributor
NEG	2013	2400	0					38.797460	-123.512839	M 11N 15W 14	Contributor
NEG	2013	2400	0					38.793119	-123.499775	M 11N 15W 23	Contributor
NEG	2013	2400	0					38.784782	-123.493778	M 11N 15W 24	Contributor

Type	*Date*	*Time*	*#Adults*	*Age/Sex*	*Pair*	*Nest*	*#Young*	*Latitude DD NAD83*	*Longitude DD NAD83*	*MTRS*	*Coordinate Source*
NEG	2013	2400	0					38.786171	-123.508792	M 11N 15W 23	Contributor
NEG	2013	2400	0					38.790299	-123.509950	M 11N 15W 23	Contributor
NEG	2013	2400	0					38.789150	-123.491524	M 11N 15W 24	Contributor
NEG	2013	2400	0					38.794570	-123.517684	M 11N 15W 15	Contributor
NEG	2013	2400	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2014		0					38.789914	-123.504183	M 11N 15W 23	Activity center
Masterowl: MEN0371 Subspecies: NORTHERN											
POS	1990-08-07		2	UMUF	Y		1	38.792521	-123.513749	M 11N 15W 23	Contributor
NEG	1991-02-22		0					38.797442	-123.511389	M 11N 15W 14	Quarter-section centroid
NEG	1991-04-30		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1991-05-15		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1991-05-23		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1991-06-11		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1991-06-13		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1991-06-18		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1991-07-01		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1991-07-09		0					38.800879	-123.506508	M 11N 15W 14	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1991-07-12		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1991-07-17		1	UU				38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1991-07-23		1	UU				38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1991-11-10		2	UMUF				38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1992-03-12		1	UU				38.804698	-123.511084	M 11N 15W 14	Quarter-section centroid
POS	1992-03-26		1	UU				38.810326	-123.501553	M 11N 15W 11	Contributor
POS	1992-03-26		1	UU				38.804698	-123.511084	M 11N 15W 14	Quarter-section centroid
POS	1992-04-22		1	UU				38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1992-04-27		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1992-05-15		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1992-06-04		1	UU				38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1993-03-22	2120	1	UU				38.797442	-123.511389	M 11N 15W 14	Quarter-section centroid
POS	1993-03-22		1	UU				38.797442	-123.511389	M 11N 15W 14	Quarter-section centroid
POS	1993-05-13		1	UM				38.799460	-123.513569	M 11N 15W 14	Contributor
POS	1993-05-13	2228	1	UM				38.801074	-123.511231	M 11N 15W 14	Half-section centroid
NEG	1993-05-18		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1993-06-02	1200	2	UMUF	Y			38.804698	-123.511084	M 11N 15W 14	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1993-06-03		2	UMUF	Y			38.804698	-123.511084	M 11N 15W 14	Quarter-section centroid
POS	1993-06-04	1719	2	UMUF				38.804698	-123.511084	M 11N 15W 14	Quarter-section centroid
POS	1993-06-09		2	UMUF	Y			38.804698	-123.511084	M 11N 15W 14	Quarter-section centroid
NEG	1994-03-22		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	1994-04-28		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1994-08-01		0					38.815693	-123.506613	M 11N 15W 11	Section centroid
POS	1994-08-12		1	UU				38.819315	-123.506800	M 11N 15W 11	Contributor
NEG	1995-04-02		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	1995-04-11		0					38.815693	-123.506613	M 11N 15W 11	Section centroid
NEG	1995-04-11		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1995-05-09		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	1995-05-17		0					38.815693	-123.506613	M 11N 15W 11	Section centroid
NEG	1995-05-30		0					38.815693	-123.506613	M 11N 15W 11	Section centroid
NEG	1995-08-02		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	1996-03-13	2205	0					38.815693	-123.506613	M 11N 15W 11	Section centroid
POS	1996-03-19		1	UU				38.812150	-123.511160	M 11N 15W 11	Quarter-section centroid
POS	1996-03-19		2	UMUF	Y			38.812150	-123.511160	M 11N 15W 11	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1996-03-20		3	UMUF	Y			38.812150	-123.511160	M 11N 15W 11	Quarter-section centroid
NEG	1996-05-12		0					38.815693	-123.506613	M 11N 15W 11	Section centroid
NEG	1996-05-25		0					38.815693	-123.506613	M 11N 15W 11	Section centroid
POS	1996-07-05		1	UU				38.805323	-123.520509	M 11N 15W 15	Quarter-section centroid
POS	1996-07-05		1	UU				38.797815	-123.520904	M 11N 15W 15	Quarter-section centroid
POS	1996-07-06	1200	1	UU				38.805323	-123.520509	M 11N 15W 15	Quarter-section centroid
NEG	1996-07-06		0					38.812150	-123.511160	M 11N 15W 11	Quarter-section centroid
NEG	1996-07-12		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
POS	1996-07-18		1	UU	Y			38.804698	-123.511084	M 11N 15W 14	Quarter-section centroid
POS	1996-07-18		1	UU	Y			38.797442	-123.511389	M 11N 15W 14	Quarter-section centroid
NEG	1996-08-07		0					38.815693	-123.506613	M 11N 15W 11	Section centroid
NEG	1996-08-23		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1996-08-27		2	UMUF	Y			38.805323	-123.520509	M 11N 15W 15	Quarter-section centroid
POS	1996-08-27	2025	2	UMUF	Y			38.797442	-123.511389	M 11N 15W 14	Quarter-section centroid
NEG	1997-02-24		0					38.809983	-123.518251	M 11N 15W 10	Activity center
NEG	1997-03-31		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1997-04-29		1	UU				38.805323	-123.520509	M 11N 15W 15	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1997-04-30		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1997-07-29		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1998-03-03		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1998-04-07		0					38.815693	-123.506613	M 11N 15W 11	Section centroid
POS	1998-04-07		1	UU				38.805323	-123.520509	M 11N 15W 15	Quarter-section centroid
NEG	1998-04-14		0					38.815693	-123.506613	M 11N 15W 11	Section centroid
POS	1998-04-14		2	UMUF	Y			38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
POS	1998-04-20		2	UMUF	Y			38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
NEG	1998-04-20		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1998-05-05		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1998-05-08		1	UU				38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
NEG	1998-05-17		0					38.801922	-123.525471	M 11N 15W 15	Section centroid
NEG	1998-06-02		0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	1998-06-05		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	1998-06-18		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1998-07-28		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1999-03-20	1609	2	UMUF	Y	Y		38.810610	-123.519062	M 11N 15W 10	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2000-03-02	2219	0					38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
POS	2000-03-05	1038	2	UMUF	Y			38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
NEG	2000-04-26	2303	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	2000-04-26	2114	0					38.801984	-123.525606	M 11N 15W 15	Section centroid
NEG	2000-06-07	0150	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	2000-06-28	2219	0					38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	2001-03-10	2231	0					38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	2001-03-10	1645	1	UU				38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
NEG	2001-03-14	1907	0					38.801984	-123.525606	M 11N 15W 15	Section centroid
POS	2001-05-03	0137	1	UM				38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
POS	2001-05-08	1630	1	UU				38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
NEG	2001-05-15	2234	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	2001-05-25	0050	1	UM				38.797150	-123.501841	M 11N 15W 14	Quarter-section centroid
POS	2001-06-26	1830	2	UMUF	Y			38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
POS	2002-03-06	1500	2	UMUF	Y			38.805323	-123.520509	M 11N 15W 15	Quarter-section centroid
POS	2002-04-09	1755	2	UMUF	Y			38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
POS	2002-04-21	1350	1	UM				38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid

Type	*Date*	*Time*	*#Adults*	*Age/Sex*	*Pair*	*Nest*	*#Young*	*Latitude DD NAD83*	*Longitude DD NAD83*	*MTRS*	*Coordinate Source*
POS	2002-04-21	0029	1	UM				38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
POS	2002-04-21	0014	1	UM				38.801822	-123.522796	M 11N 15W 15	Contributor
POS	2002-05-02	1515	2	UMUF	Y			38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
NEG	2003-03-07	1924	0					38.801984	-123.525606	M 11N 15W 15	Section centroid
POS	2003-03-09	1651	1	UF				38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
NEG	2003-04-02	2014	0					38.801984	-123.525606	M 11N 15W 15	Section centroid
AC	2003-04-13	1230	2	UMUF	Y	Y		38.806553	-123.517364	M 11N 15W 15	Contributor
POS	2004-04-29	1704	2	UMUF	Y			38.807014	-123.517078	M 11N 15W 15	Contributor
NEG	2005		0					38.806553	-123.517364	M 11N 15W 15	Activity center
POS	2006		1	UM				38.806553	-123.517364	M 11N 15W 15	Activity center
POS	2007-04-05	1715	1	UM				38.805323	-123.520509	M 11N 15W 15	Quarter-section centroid
POS	2007-04-07	1539	2	UMUF	Y	N		38.807014	-123.517078	M 11N 15W 15	Contributor
POS	2007-05-17	1930	2	UMUF	Y	N		38.805323	-123.520509	M 11N 15W 15	Quarter-section centroid
POS	2008-03-23	1926	1	AM				38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
POS	2008-03-30	1825	2	AMAF	Y			38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
POS	2008-05-18	1930	2	AMAF	Y			38.809983	-123.518251	M 11N 15W 10	Contributor
NEG	2009-04-12	1100	0					38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2010		1	UM				38.806553	-123.517364	M 11N 15W 15	Activity center
NEG	2011	2400	0					38.801984	-123.525606	M 11N 15W 15	Section centroid
NEG	2011	2400	0					38.800558	-123.500457	M 11N 15W 14	Contributor
NEG	2011	2400	0					38.794570	-123.517684	M 11N 15W 15	Contributor
NEG	2011	2400	0					38.802262	-123.504678	M 11N 15W 14	Contributor
POS	2011-03-04	1700-1730	2	UMUF	Y			38.815693	-123.506613	M 11N 15W 11	Section centroid
POS	2011-03-06	2319-2329	1	UM				38.801984	-123.525606	M 11N 15W 15	Section centroid
NEG	2011-04-01	2030-2040	0					38.801984	-123.525606	M 11N 15W 15	Section centroid
POS	2011-04-03	0945-1050	1	UM				38.801922	-123.525471	M 11N 15W 15	Section centroid
POS	2011-05-16	2000-2014	1	UM				38.801984	-123.525606	M 11N 15W 15	Section centroid
NEG	2012	2400	0					38.801984	-123.525606	M 11N 15W 15	Section centroid
NEG	2012	2400	0					38.797460	-123.512839	M 11N 15W 14	Contributor
NEG	2012	2400	0					38.814692	-123.524189	M 11N 15W 10	Contributor
NEG	2012	2400	0					38.813749	-123.531468	M 11N 15W 10	Contributor
NEG	2012	2400	0					38.794570	-123.517684	M 11N 15W 15	Contributor
NEG	2012	2400	0					38.802262	-123.504678	M 11N 15W 14	Contributor
NEG	2012	2400	0					38.801984	-123.525606	M 11N 15W 15	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2012-03-08	1000-1130	1	UF				38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	2012-04-28	1800-1900	0					38.801922	-123.525471	M 11N 15W 15	Section centroid
NEG	2013	2400	0					38.801984	-123.525606	M 11N 15W 15	Section centroid
NEG	2013	2400	0					38.807437	-123.497538	M 11N 15W 14	Contributor
NEG	2013	2400	0					38.814692	-123.524189	M 11N 15W 10	Contributor
NEG	2013	2400	0					38.813749	-123.531468	M 11N 15W 10	Contributor
NEG	2013	2400	0					38.797460	-123.512839	M 11N 15W 14	Contributor
NEG	2013	2400	0					38.801984	-123.525606	M 11N 15W 15	Section centroid
NEG	2013	2400	0					38.794570	-123.517684	M 11N 15W 15	Contributor
NEG	2013	2400	0					38.802262	-123.504678	M 11N 15W 14	Contributor
NEG	2013-03-07	2254-2304	0					38.808257	-123.522569	M 11N 15W 15	Contributor
POS	2013-03-07	2237-2250	2	UMUF	Y			38.805303	-123.515347	M 11N 15W 14	Contributor
NEG	2013-03-08	1545-1700	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	2014		1	UF				38.806553	-123.517364	M 11N 15W 15	Activity center
NEG	2019-04-02	0915-1025	0					38.805323	-123.520509	M 11N 15W 15	Quarter-section centroid
NEG	2020	2400	0					38.805303	-123.515347	M 11N 15W 14	Contributor
NEG	2020	2400	0					38.805060	-123.533790	M 11N 15W 15	Contributor

Type	*Date*	*Time*	*#Adults*	*Age/Sex*	*Pair*	*Nest*	*#Young*	*Latitude DD NAD83*	*Longitude DD NAD83*	*MTRS*	*Coordinate Source*
NEG	2020	2400	0					38.816630	-123.515780	M 11N 15W 11	Contributor
NEG	2020	2400	0					38.813620	-123.531940	M 11N 15W 10	Contributor
NEG	2020-03-01	1920-1930	0					38.814692	-123.524189	M 11N 15W 10	Contributor
NEG	2020-03-08	2040-2050	0					38.814692	-123.524189	M 11N 15W 10	Contributor
NEG	2020-04-14	2130-2140	0					38.814692	-123.524189	M 11N 15W 10	Contributor
NEG	2020-04-15	1730-1830	0					38.806553	-123.517364	M 11N 15W 15	Activity center
NEG	2020-05-13	2145-2155	0					38.814692	-123.524189	M 11N 15W 10	Contributor
NEG	2020-05-20	2334-2344	0					38.814692	-123.524189	M 11N 15W 10	Contributor
NEG	2021	2400	0					38.814692	-123.524189	M 11N 15W 10	Contributor
NEG	2021	2400	0					38.805303	-123.515347	M 11N 15W 14	Contributor
NEG	2021	2400	0					38.813620	-123.531940	M 11N 15W 10	Contributor
NEG	2021	2400	0					38.816630	-123.515780	M 11N 15W 11	Contributor
NEG	2021	2400	0					38.805060	-123.533790	M 11N 15W 15	Contributor
NEG	2021-03-22	1750-1900	0					38.806553	-123.517364	M 11N 15W 15	Activity center
Masterowl: MEN0510 Subspecies: NORTHERN											
POS	1990-05-03	2152	1	UF				38.804149	-123.483060	M 11N 15W 13	Quarter-section centroid
POS	1990-06-01		1	UU				38.796779	-123.482953	M 11N 15W 13	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1995-04-24		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
POS	1996-03-17		1	UU				38.804149	-123.483060	M 11N 15W 13	Quarter-section centroid
POS	1996-03-24		1	UU				38.799146	-123.481322	M 11N 15W 13	Contributor
POS	1996-03-25		2	UMUF	Y			38.799146	-123.481322	M 11N 15W 13	Contributor
POS	1996-04-05		2	UMUF	Y			38.799146	-123.481322	M 11N 15W 13	Contributor
POS	1996-06-06		2	UMUF	Y			38.796779	-123.482953	M 11N 15W 13	Quarter-section centroid
NEG	1997-05-19		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1997-05-27		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1997-07-29		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1998-04-24		0					38.799693	-123.468785	M 11N 14W 18	Section centroid
POS	1998-04-24		1	UU				38.796779	-123.482953	M 11N 15W 13	Quarter-section centroid
NEG	1998-04-25		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1998-05-05		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1998-05-18		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
POS	1998-06-01		1	UU				38.796779	-123.482953	M 11N 15W 13	Quarter-section centroid
NEG	1998-07-29		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1998-08-13		0					38.799693	-123.468785	M 11N 14W 18	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1998-08-13		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1998-08-20		0					38.800699	-123.487242	M 11N 15W 13	Section centroid
NEG	1998-08-20		0					38.799693	-123.468785	M 11N 14W 18	Section centroid
NEG	1998-08-27		0					38.799693	-123.468785	M 11N 14W 18	Section centroid
NEG	1998-08-27		0					38.800699	-123.487242	M 11N 15W 13	Section centroid
NEG	1999-03-29	2009-2019	0					38.803014	-123.474921	M 11N 14W 18	Contributor
NEG	1999-05-22	1600	0					38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	1999-06-17	1600	0					38.800499	-123.487642	M 11N 15W 13	Section centroid
POS	2000-06-27	2334	1	UU				38.796779	-123.482953	M 11N 15W 13	Quarter-section centroid
NEG	2002-03-06	2137	0					38.800499	-123.487642	M 11N 15W 13	Section centroid
POS	2002-04-10	2201	1	UM				38.800318	-123.483186	M 11N 15W 13	Contributor
POS	2002-04-10	2142	1	UF				38.791161	-123.486695	M 11N 15W 24	Contributor
NEG	2002-04-11	1430	0					38.796779	-123.482953	M 11N 15W 13	Quarter-section centroid
AC	2002-05-14	1500	2	UMUF	Y			38.798709	-123.480809	M 11N 15W 13	Contributor
POS	2002-05-15	1300	1	UM				38.800465	-123.483006	M 11N 15W 13	Half-section centroid
POS	2002-05-15	1300	1	UM				38.804149	-123.483060	M 11N 15W 13	Quarter-section centroid
NEG	2003-04-10	1725-1925	0					38.796779	-123.482953	M 11N 15W 13	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2003-05-15	1705	0					38.796779	-123.482953	M 11N 15W 13	Quarter-section centroid
NEG	2003-06-10	1800-2020	0					38.796779	-123.482953	M 11N 15W 13	Quarter-section centroid
NEG	2006		0					38.798709	-123.480809	M 11N 15W 13	Activity center
NEG	2011-03-04	2227-2237	0					38.803014	-123.474921	M 11N 14W 18	Contributor
NEG	2011-03-04	2213-2223	0					38.803358	-123.486652	M 11N 15W 13	Contributor
NEG	2011-04-01	2230-2240	0					38.803358	-123.486652	M 11N 15W 13	Contributor
NEG	2011-04-03	1859-1909	0					38.803014	-123.474921	M 11N 14W 18	Contributor
POS	2011-05-12	1615-1630	2	UMUF	Y			38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	2012	2400	0					38.791490	-123.470585	M 11N 14W 19	Contributor
NEG	2012	2400	0					38.798537	-123.470552	M 11N 14W 18	Contributor
NEG	2012	2400	0					38.791161	-123.486695	M 11N 15W 24	Contributor
NEG	2012	2400	0					38.800699	-123.487242	M 11N 15W 13	Contributor
NEG	2012	2400	0					38.790009	-123.478609	M 11N 15W 24	Contributor
POS	2012-03-10	1700-1830	2	UMUF	Y			38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	2012-03-25	1915-1940	0					38.800318	-123.483186	M 11N 15W 13	Contributor
POS	2012-04-27	1815-1915	2	UMUF	Y			38.800499	-123.487642	M 11N 15W 13	Section centroid
NEG	2013	2400	0					38.798537	-123.470552	M 11N 14W 18	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2013	2400	0					38.791161	-123.486695	M 11N 15W 24	Contributor
NEG	2013-03-08	1936-1946	0					38.790009	-123.478609	M 11N 15W 24	Contributor
POS	2013-03-08	1915-1925	1	UU				38.791490	-123.470585	M 11N 14W 19	Contributor
POS	2013-03-08	1715-1718	2	UMUF	Y			38.800318	-123.483186	M 11N 15W 13	Contributor
NEG	2013-04-19	2327-2337	0					38.790009	-123.478609	M 11N 15W 24	Contributor
NEG	2013-04-19	2249-2259	0					38.791490	-123.470585	M 11N 14W 19	Contributor
NEG	2013-04-27	0206-0216	0					38.791490	-123.470585	M 11N 14W 19	Contributor
POS	2013-04-27	0245-0255	1	UU				38.790009	-123.478609	M 11N 15W 24	Contributor
NEG	2013-05-26	0204-0214	0					38.790009	-123.478609	M 11N 15W 24	Contributor
NEG	2013-06-03	0226-0236	0					38.790009	-123.478609	M 11N 15W 24	Contributor
NEG	2013-07-06	0309-0319	0					38.790009	-123.478609	M 11N 15W 24	Contributor
POS	2013-07-10	0830-0945	2	UMUF	Y			38.799693	-123.468785	M 11N 14W 18	Section centroid
POS	2014		2	UMUF	Y			38.798709	-123.480809	M 11N 15W 13	Activity center
Masterowl: SON0017 Subspecies: NORTHERN											
POS	1990-02-02		1	UU				38.773615	-123.463826	M 11N 14W 30	Quarter-section centroid
POS	1990-02-07		1	UM				38.766342	-123.464101	M 11N 14W 30	Quarter-section centroid
POS	1990-03-21		2	UMUF	Y	Y		38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1990-04-04	1700	1	UM				38.768549	-123.470988	M 11N 14W 30	Contributor
POS	1990-06-17	2045	0				2	38.773390	-123.454662	M 11N 14W 29	Quarter-section centroid
NEG	1991-04-23		0					38.771320	-123.487547	M 11N 15W 25	Section centroid
POS	1991-04-24	2010	2	UMUF	Y			38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	1991-05-21		1	UU				38.773390	-123.454662	M 11N 14W 29	Quarter-section centroid
POS	1991-07-17		1	UU				38.785883	-123.487589	M 11N 15W 24	Section centroid
POS	1991-07-17	9999	1	UU				38.771320	-123.487547	M 11N 15W 25	Section centroid
POS	1991-07-17	9999	1	UU				38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	1991-08-07		1	UU				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	1991-08-07		1	UU				38.767528	-123.482860	M 11N 15W 25	Quarter-section centroid
POS	1991-08-15	2040	1	UU				38.767528	-123.482860	M 11N 15W 25	Quarter-section centroid
POS	1991-10-02		1	UU				38.767528	-123.482860	M 11N 15W 25	Quarter-section centroid
NEG	1992-03-10		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	1992-03-24		2	UUUU				38.773390	-123.454662	M 11N 14W 29	Quarter-section centroid
NEG	1992-03-31		0					38.785883	-123.487589	M 11N 15W 24	Section centroid
POS	1992-04-25		2	UMUF	Y			38.773390	-123.454662	M 11N 14W 29	Quarter-section centroid
POS	1992-05-01		2	UMUF				38.769964	-123.450450	M 11N 14W 29	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1992-05-01	9999	2	UMUF				38.770325	-123.468628	M 11N 14W 30	Section centroid
NEG	1992-05-12		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
NEG	1992-05-15		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
NEG	1992-07-09		0					38.769964	-123.450450	M 11N 14W 29	Section centroid
POS	1993-01-02		1	UU				38.774809	-123.482748	M 11N 15W 25	Quarter-section centroid
NEG	1993-03-22		0					38.784897	-123.468539	M 11N 14W 19	Section centroid
NEG	1993-04-28		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	1993-05-05		1	UU				38.773615	-123.463826	M 11N 14W 30	Quarter-section centroid
NEG	1993-06-16		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
NEG	1993-06-23		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	1994-01-19	1723	2	UMUF	Y			38.768981	-123.475595	M 11N 14W 30	Contributor
POS	1994-03-03		1	UU				38.768981	-123.475595	M 11N 14W 30	Contributor
NEG	1994-03-24		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	1994-04-01		1	UM				38.768981	-123.475595	M 11N 14W 30	Contributor
NEG	1994-04-06		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	1994-04-27		2	UMUF	Y			38.768981	-123.475595	M 11N 14W 30	Contributor
POS	1995-03-30		2	UMUF	Y			38.768549	-123.470988	M 11N 14W 30	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1995-04-10		0					38.769964	-123.450450	M 11N 14W 29	Section centroid
POS	1995-04-20		1	UU				38.768549	-123.470988	M 11N 14W 30	Contributor
NEG	1995-05-04		0					38.784113	-123.450136	M 11N 14W 20	Section centroid
POS	1995-05-10	9999	1	UU				38.773615	-123.463826	M 11N 14W 30	Quarter-section centroid
POS	1995-05-10		1	UU				38.780545	-123.454511	M 11N 14W 20	Quarter-section centroid
POS	1995-05-11		2	UMUF	Y	Y		38.768981	-123.475595	M 11N 14W 30	Contributor
NEG	1995-05-18		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
NEG	1995-05-25		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	1995-05-29		2	UMUF	Y			38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	1995-06-01	0925	2	UMUF	Y	Y		38.768981	-123.475595	M 11N 14W 30	Contributor
POS	1995-07-06		2	UMUF	Y	Y	1	38.768981	-123.475595	M 11N 14W 30	Contributor
POS	1995-09-18		1	UU				38.773604	-123.445765	M 11N 14W 29	Quarter-section centroid
NEG	1996-02-26		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	1996-03-03		1	UU				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	1996-03-04		1	UU				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
NEG	1996-03-13	0937	0					38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	1996-03-17		2	UMUF	Y			38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1996-03-18		2	UMUF	Y			38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	1996-05-09		1	UU				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
NEG	1996-06-30		0					38.769964	-123.450450	M 11N 14W 29	Section centroid
NEG	1996-06-30		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
NEG	1996-08-05		0					38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	1997-03-03		2	UMUF				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	1997-04-14		2	UMUF	Y	Y		38.768549	-123.470988	M 11N 14W 30	Contributor
NEG	1997-04-29		0					38.771320	-123.487547	M 11N 15W 25	Section centroid
POS	1997-05-27		2	UMUF	Y			38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
NEG	1997-06-10		0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1997-06-17		0					38.771320	-123.487547	M 11N 15W 25	Section centroid
POS	1997-07-01		1	UU				38.767528	-123.482860	M 11N 15W 25	Quarter-section centroid
POS	1997-07-01	9999	1	UU				38.759878	-123.473693	M 11N 14W 31	Quarter-section centroid
POS	1997-07-22		1	UU				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	1998-03-03		2	UMUF	Y			38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	1998-04-28		2	UMUF	Y			38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	1998-06-09		1	UU				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1998-07-13		0					38.769964	-123.450450	M 11N 14W 29	Section centroid
NEG	1998-07-20		0					38.769964	-123.450450	M 11N 14W 29	Section centroid
POS	1998-07-24		1	UM				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	1998-07-29		2	UMUF	Y			38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
NEG	1998-08-13		0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1998-08-20		0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1998-08-27		0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999	2400	0					38.771384	-123.457321	M 11N 14W 29	Contributor
NEG	1999	2400	0					38.775071	-123.448740	M 11N 14W 29	Contributor
POS	1999-03-15	1753	2	UMUF	Y			38.771723	-123.474797	M 11N 14W 30	Contributor
NEG	1999-03-17	0015	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-03-19	1926	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-03-28	2250	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-04-07	2025	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-04-08	2233	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-04-14	2255	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-04-21	2058	0					38.771320	-123.487547	M 11N 15W 25	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1999-04-21	1601-1646	2	UMUF	Y			38.769832	-123.474835	M 11N 14W 30	Contributor
POS	1999-04-23	2153	1	UM				38.760569	-123.475284	M 11N 14W 31	Contributor
NEG	1999-05-01	2334	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-05-14	2212	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
POS	1999-05-20	2356	2	UMUF	Y			38.767528	-123.482860	M 11N 15W 25	Quarter-section centroid
NEG	1999-05-21	2327	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-06-02	2216	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-06-03	2304	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	2000	2400	0					38.771384	-123.457321	M 11N 14W 29	Contributor
NEG	2000	2400	0					38.775071	-123.448740	M 11N 14W 29	Contributor
NEG	2000-03-04	1505	0					38.766541	-123.477305	M 11N 14W 30	Activity center
POS	2000-03-11	0920	1	UU				38.774344	-123.473236	M 11N 14W 30	Quarter-section centroid
POS	2000-03-13	2200	1	UM				38.773615	-123.463826	M 11N 14W 30	Quarter-section centroid
POS	2000-03-14	1101	2	UMUF	Y			38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
NEG	2000-03-30	1943	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
POS	2000-03-31	1333-1442	2	UMUF	Y			38.774862	-123.461222	M 11N 14W 30	Contributor
POS	2000-03-31	1045	2	UMUF	Y			38.773615	-123.463826	M 11N 14W 30	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2000-04-03	2307	1	UU				38.767678	-123.492242	M 11N 15W 25	Quarter-section centroid
POS	2000-04-18	1854	1	UM				38.759343	-123.474495	M 11N 14W 31	Contributor
POS	2000-04-18	1957	1	UF				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	2000-04-18	1928	1	UF				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
NEG	2000-04-28	1500	0					38.769964	-123.450450	M 11N 14W 29	Section centroid
POS	2000-06-06	2406	1	UU				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	2001-03-11	1216	2	UMUF	Y			38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
NEG	2001-03-14	2150	0					38.770325	-123.468628	M 11N 14W 30	Section centroid
NEG	2001-03-15	2258	0					38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
NEG	2001-04-18	1330	0					38.769964	-123.450450	M 11N 14W 29	Section centroid
AC	2001-05-05	1615	2	UMUF	Y	Y		38.768938	-123.476506	M 11N 14W 30	Contributor
POS	2001-05-08	2222	1	UM				38.751048	-123.475289	M 11N 14W 31	Contributor
NEG	2001-05-16	2240	0					38.770325	-123.468628	M 11N 14W 30	Section centroid
NEG	2002-03-05	1425-1640	0					38.773615	-123.463826	M 11N 14W 30	Quarter-section centroid
POS	2002-03-05	1340	1	UU				38.769832	-123.474835	M 11N 14W 30	Contributor
POS	2002-03-13	2346	1	UM				38.771384	-123.457321	M 11N 14W 29	Contributor
NEG	2002-03-14	1325-1650	0					38.773497	-123.450212	M 11N 14W 29	Half-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2002-03-14	1400-1700	0					38.773615	-123.463826	M 11N 14W 30	Quarter-section centroid
NEG	2002-03-15	2002	0					38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	2002-04-06	1211-1238	2	UMUF	Y	N		38.769832	-123.474835	M 11N 14W 30	Contributor
POS	2002-04-11	2113	1	UM				38.766429	-123.487526	M 11N 15W 25	Contributor
NEG	2002-04-23	1530-1800	0					38.773615	-123.463826	M 11N 14W 30	Quarter-section centroid
POS	2003-03-04	2024	1	UM				38.756052	-123.479172	M 11N 15W 36	Contributor
POS	2003-03-09	1435-1557	2	UMUF	Y			38.768569	-123.476942	M 11N 14W 30	Contributor
POS	2003-05-13	1635-1714	1	UU				38.768672	-123.477129	M 11N 14W 30	Contributor
POS	2003-05-14	1838-1907	2	UMUF	Y			38.776563	-123.460283	M 11N 14W 30	Contributor
NEG	2003-07-21	2238	0					38.770325	-123.468628	M 11N 14W 30	Section centroid
NEG	2004-04-06	1530	0					38.766541	-123.477305	M 11N 14W 30	Activity center
POS	2004-04-13	1710-1730	1	UU				38.769832	-123.474835	M 11N 14W 30	Contributor
NEG	2004-05-20	2010	0					38.766541	-123.477305	M 11N 14W 30	Activity center
NEG	2005-03-13	1235	0					38.766541	-123.477305	M 11N 14W 30	Activity center
NEG	2005-07-08	1840	0					38.766541	-123.477305	M 11N 14W 30	Activity center
POS	2005-07-25	2000	2	UMUF				38.766541	-123.477305	M 11N 14W 30	Activity center
NEG	2005-07-26	1400	0					38.766541	-123.477305	M 11N 14W 30	Activity center

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2005-07-27	1830	0					38.766541	-123.477305	M 11N 14W 30	Activity center
POS	2006		2	UMUF	Y			38.756266	-123.477812	M 11N 14W 31	Contributor
NEG	2006-03-30	1400	0					38.766541	-123.477305	M 11N 14W 30	Activity center
NEG	2006-04-05	1300	0					38.766541	-123.477305	M 11N 14W 30	Activity center
POS	2006-06-02	1300	1	UF				38.766541	-123.477305	M 11N 14W 30	Activity center
POS	2006-06-03	1230	2	UMUF	Y			38.756266	-123.477812	M 11N 14W 31	Contributor
NEG	2007		0					38.768938	-123.476506	M 11N 14W 30	Activity center
POS	2008-03-27	0021	2	AMAF	Y			38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	2008-04-01	2325	2	AMAF	Y			38.766541	-123.477305	M 11N 14W 30	Contributor
POS	2008-05-20	1933	2	AMAF	Y	N		38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	2009-04-11	2257	1	AM				38.767034	-123.473487	M 11N 14W 30	Quarter-section centroid
POS	2010		2	UMUF	Y			38.768938	-123.476506	M 11N 14W 30	Activity center
NEG	2011	2400	0					38.751819	-123.488838	M 11N 15W 36	Contributor
POS	2011-03-06	1934-1949	2	UMUF	Y			38.770640	-123.477159	M 11N 14W 30	Contributor
NEG	2011-03-06	1957-2007	0					38.760569	-123.475284	M 11N 14W 31	Contributor
NEG	2011-03-06	1857-1907	0					38.775640	-123.474278	M 11N 14W 30	Contributor
NEG	2011-04-02	2114-2124	0					38.766429	-123.487526	M 11N 15W 25	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2011-04-02	2059-2109	0					38.761461	-123.484415	M 11N 15W 36	Contributor
POS	2011-04-03	1930-1934	1	UF				38.775640	-123.474278	M 11N 14W 30	Contributor
POS	2011-04-04	1630-1800	2	UMUF	Y			38.756103	-123.469053	M 11N 14W 31	Section centroid
NEG	2011-05-12	2257-2307	0					38.775640	-123.474278	M 11N 14W 30	Contributor
NEG	2011-05-13	2257-2307	0					38.766429	-123.487526	M 11N 15W 25	Contributor
NEG	2011-05-13	2244-2254	0					38.761461	-123.484415	M 11N 15W 36	Contributor
POS	2011-06-05	2343-2355	2	UMUF	Y			38.761461	-123.484415	M 11N 15W 36	Contributor
NEG	2011-06-05	0002-0012	0					38.766429	-123.487526	M 11N 15W 25	Contributor
NEG	2011-06-12	0059-0109	0					38.766429	-123.487526	M 11N 15W 25	Contributor
POS	2011-06-12	0113-0125	1	UU				38.761461	-123.484415	M 11N 15W 36	Contributor
POS	2011-06-21	2117-2120	1	UU				38.766429	-123.487526	M 11N 15W 25	Contributor
POS	2011-06-29	2144-2148	1	UU				38.761461	-123.484415	M 11N 15W 36	Contributor
NEG	2011-06-29	2127-2137	0					38.766429	-123.487526	M 11N 15W 25	Contributor
NEG	2012	2400	0					38.766429	-123.487526	M 11N 15W 25	Contributor
NEG	2012	2400	0					38.761477	-123.494327	M 11N 15W 36	Contributor
NEG	2012	2400	0					38.751819	-123.488838	M 11N 15W 36	Contributor
POS	2012-03-07	2118-2128	1	UM				38.761461	-123.484415	M 11N 15W 36	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2012-03-07	2019-2029	0					38.775640	-123.474278	M 11N 14W 30	Contributor
POS	2012-03-26	1300-1430	2	UMUF	Y			38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	2012-03-29	2356-0006	1	UU				38.761461	-123.484415	M 11N 15W 36	Contributor
NEG	2012-04-27	2225-2235	0					38.761461	-123.484415	M 11N 15W 36	Contributor
POS	2012-06-29	0001-0011	1	UM				38.761461	-123.484415	M 11N 15W 36	Contributor
NEG	2012-07-06	0213-0223	0					38.761461	-123.484415	M 11N 15W 36	Contributor
NEG	2013	2400	0					38.756052	-123.479172	M 11N 15W 36	Contributor
NEG	2013	2400	0					38.761461	-123.484415	M 11N 15W 36	Contributor
NEG	2013	2400	0					38.766429	-123.487526	M 11N 15W 25	Contributor
NEG	2013	2400	0					38.760569	-123.475284	M 11N 14W 31	Contributor
NEG	2013	2400	0					38.751819	-123.488838	M 11N 15W 36	Contributor
NEG	2013	2400	0					38.761477	-123.494327	M 11N 15W 36	Contributor
NEG	2013	2400	0					38.757367	-123.487494	M 11N 15W 36	Contributor
POS	2013-03-05	0930-0935	1	UF				38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	2013-03-08	2157-2207	1	UU				38.770640	-123.477159	M 11N 14W 30	Contributor
NEG	2013-03-08	2127-2137	0					38.775640	-123.474278	M 11N 14W 30	Contributor
POS	2013-04-19	2148-2158	2	UMUF	Y			38.770640	-123.477159	M 11N 14W 30	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2013-04-24	0805-0930	1	UU				38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	2013-07-06	0159-0209	1	UM				38.775640	-123.474278	M 11N 14W 30	Contributor
NEG	2013-07-06	0130-0140	0					38.770640	-123.477159	M 11N 14W 30	Contributor
POS	2014		1	UM				38.768938	-123.476506	M 11N 14W 30	Activity center
POS	2015		1	UU				38.769820	-123.474509	M 11N 14W 30	Activity center
NEG	2020	2400	0					38.766370	-123.473300	M 11N 14W 30	Contributor
NEG	2020	2400	0					38.760569	-123.475284	M 11N 14W 31	Contributor
NEG	2020	2400	0					38.756052	-123.479172	M 11N 15W 36	Contributor
NEG	2021	2400	0					38.761461	-123.484415	M 11N 15W 36	Contributor
NEG	2021	2400	0					38.770640	-123.477159	M 11N 14W 30	Contributor
NEG	2021	2400	0					38.769350	-123.466620	M 11N 14W 30	Contributor
NEG	2021	2400	0					38.756052	-123.479172	M 11N 15W 36	Contributor
NEG	2021	2400	0					38.760569	-123.475284	M 11N 14W 31	Contributor
NEG	2021	2400	0					38.766370	-123.473300	M 11N 14W 30	Contributor
NEG	2021	2400	0					38.757367	-123.487494	M 11N 15W 36	Contributor
Masterowl: SON0082 Subspecies: NORTHERN											
POS	1990-02-12	2001	1	UM				38.768549	-123.470988	M 11N 14W 30	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1993-01-11		1	UU				38.775076	-123.492350	M 11N 15W 25	Quarter-section centroid
POS	1995-04-02		1	UU				38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
POS	1995-04-17		1	UU				38.767968	-123.510776	M 11N 15W 26	Quarter-section centroid
NEG	1995-04-23		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1995-05-02		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	1995-05-04		2	UMUF	Y			38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
NEG	1995-05-10		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	1995-05-26		1	UU				38.775076	-123.492350	M 11N 15W 25	Quarter-section centroid
POS	1995-05-26		2	UMUF	Y			38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
NEG	1995-05-29		0					38.775076	-123.492350	M 11N 15W 25	Quarter-section centroid
NEG	1995-06-29		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1995-07-11		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	1995-07-18		1	UU				38.775270	-123.501745	M 11N 15W 26	Quarter-section centroid
NEG	1995-07-19	1200	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1995-11-10	1809	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	1996-03-03		1	UU				38.767968	-123.510776	M 11N 15W 26	Quarter-section centroid
NEG	1996-03-06	2110	0					38.772158	-123.525161	M 11N 15W 27	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1996-03-14	0515	0					38.772158	-123.525161	M 11N 15W 27	Section centroid
POS	1996-03-14	0616	2	UMUF	Y			38.765244	-123.507338	M 11N 15W 26	Contributor
NEG	1996-03-22		0					38.772158	-123.525161	M 11N 15W 27	Section centroid
POS	1996-04-29		1	UU				38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
NEG	1996-05-02		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	1996-05-09		1	UU				38.767968	-123.510776	M 11N 15W 26	Quarter-section centroid
NEG	1996-05-13		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1996-05-20		0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1996-05-30		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	1996-06-06		1	UF				38.775847	-123.520376	M 11N 15W 27	Quarter-section centroid
NEG	1996-06-07	1200	0					38.772158	-123.525161	M 11N 15W 27	Section centroid
NEG	1996-06-16		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1996-06-17		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1996-07-10		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1996-08-30		0					38.772158	-123.525161	M 11N 15W 27	Section centroid
NEG	1997-03-03		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1997-03-10		0					38.771628	-123.506267	M 11N 15W 26	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1997-04-08		0					38.757230	-123.505889	M 11N 15W 35	Section centroid
NEG	1997-04-09		0					38.772158	-123.525161	M 11N 15W 27	Section centroid
NEG	1997-04-09		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1997-04-29		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1997-05-02		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1997-05-08		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1997-06-10		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1997-06-17		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1997-06-26		0					38.757230	-123.505889	M 11N 15W 35	Section centroid
NEG	1997-07-01		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1998-04-09		0					38.757230	-123.505889	M 11N 15W 35	Section centroid
NEG	1998-04-15		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1998-04-16		0					38.757230	-123.505889	M 11N 15W 35	Section centroid
NEG	1998-04-24		0					38.757230	-123.505889	M 11N 15W 35	Section centroid
POS	1998-05-13		1	UM				38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
NEG	1998-05-18		0					38.772158	-123.525161	M 11N 15W 27	Section centroid
NEG	1998-06-02		0					38.771628	-123.506267	M 11N 15W 26	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1998-06-03		0					38.772158	-123.525161	M 11N 15W 27	Section centroid
NEG	1998-07-28		0					38.772158	-123.525161	M 11N 15W 27	Section centroid
NEG	1999-03-15	0015	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-03-17	0015	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-03-19	1926	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-03-28	2250	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-04-08	2233	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-04-21	2058	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-04-24	2028	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1999-04-28	1700	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1999-05-01	2334	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-05-13	2046	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1999-05-14	2212	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
POS	1999-05-14	2052	1	UM				38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1999-05-20	2343	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-05-21	2327	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-06-01	2055	0					38.771628	-123.506267	M 11N 15W 26	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1999-06-02	2216	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-06-03	2304	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	1999-06-09	2055	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1999-08-29	2000	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	2000		2	UMUF	Y			38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
NEG	2000-03-03	2000	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2000-03-12	0732	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2000-03-14	0026	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2000-03-14	1902	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2000-03-30	1943	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
POS	2000-04-03	2025	1	UM				38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	2000-04-03	2247	1	UU				38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	2000-04-03	1947	1	UM				38.775270	-123.501745	M 11N 15W 26	Quarter-section centroid
POS	2000-04-04	1431	2	UMUF	Y			38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
NEG	2000-04-05	2052	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2000-04-06	2015	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2000-04-07	1945	0					38.771628	-123.506267	M 11N 15W 26	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2000-04-13	2100	1	UM				38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	2000-04-14	2059	2	UMUF	Y			38.775270	-123.501745	M 11N 15W 26	Quarter-section centroid
NEG	2000-04-15	1050	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2000-04-18	2105	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2000-04-24	0030	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2000-06-04	2122	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	2000-06-06	2352	1	UM				38.767678	-123.492242	M 11N 15W 25	Quarter-section centroid
POS	2000-06-29	1100	2	UMUF	Y			38.772547	-123.500126	M 11N 15W 26	Contributor
NEG	2001-03-13	1933	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2001-03-15	1611	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2001-04-04	1730	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2001-04-19	1630	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2001-05-05	1145	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2001-05-08	0313	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	2001-05-16	0030	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
NEG	2002-03-06	2002-03-06	0					38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
NEG	2002-03-15	2002	0					38.771628	-123.506267	M 11N 15W 26	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2002-03-15	2033	1	UM				38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	2002-04-11	0041	1	UM				38.765786	-123.514210	M 11N 15W 26	Contributor
NEG	2002-04-11	2101	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	2002-04-12	0041	1	UF				38.767968	-123.510776	M 11N 15W 26	Quarter-section centroid
POS	2002-04-12	1125	1	UF				38.765987	-123.514497	M 11N 15W 26	Contributor
NEG	2002-04-21	1050-1305	0					38.767968	-123.510776	M 11N 15W 26	Quarter-section centroid
NEG	2002-04-22	0123	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2002-04-22	0123	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	2002-04-30	0016	1	UU				38.770009	-123.502228	M 11N 15W 26	Contributor
NEG	2002-04-30	2149	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2002-05-01	1230-1400	0					38.767968	-123.510776	M 11N 15W 26	Quarter-section centroid
POS	2002-05-01	0016	1	UU				38.771628	-123.506267	M 11N 15W 26	Section centroid
POS	2002-05-05	1230	1	UM				38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
NEG	2002-05-13	2349	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2002-05-14	1300-1633	0					38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
NEG	2002-05-15	1312-1523	0					38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
NEG	2002-08-30	1111	0					38.771320	-123.487547	M 11N 15W 25	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2003-03-04	1420-1452	1	UF				38.771698	-123.503227	M 11N 15W 26	Contributor
NEG	2003-03-06	2023	0					38.785883	-123.487589	M 11N 15W 24	Section centroid
POS	2003-03-08	1913	1	UM				38.766296	-123.487434	M 11N 15W 25	Contributor
NEG	2003-04-03	1540-1630	0					38.767968	-123.510776	M 11N 15W 26	Quarter-section centroid
POS	2003-04-07	2214	1	UM				38.784782	-123.493778	M 11N 15W 24	Contributor
POS	2003-04-08	1536-1550	1	UU				38.769112	-123.503789	M 11N 15W 26	Contributor
POS	2003-04-09	1745-1830	1	UF				38.769260	-123.503613	M 11N 15W 26	Contributor
NEG	2003-04-10	2330	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
POS	2003-04-29	1901-1942	1	UU				38.769390	-123.503854	M 11N 15W 26	Contributor
POS	2003-04-30	2350	1	UF				38.771008	-123.492923	M 11N 15W 25	Contributor
POS	2004-03-10	1440-1535	2	UMUF	Y			38.772132	-123.502149	M 11N 15W 26	Contributor
POS	2004-05-20	1840	2	AMAF	Y	Y	1	38.771471	-123.505195	M 11N 15W 26	Contributor
POS	2005		1	UU		Y		38.771471	-123.505195	M 11N 15W 26	Contributor
POS	2005-06-09	1916	2	UMUF	Y	Y	2	38.771471	-123.505195	M 11N 15W 26	Contributor
AC	2006		1	UU		Y		38.771471	-123.505195	M 11N 15W 26	Contributor
POS	2006-04-07	1445-1454	2	UMUF	Y			38.771471	-123.505195	M 11N 15W 26	Contributor
POS	2007-04-10	2154	1	UM				38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2007-05-15	0111	2	UMUF	Y			38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
POS	2008-05-21	0056	1	UU				38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
NEG	2009		0					38.771471	-123.505195	M 11N 15W 26	Activity center
NEG	2010		0					38.771471	-123.505195	M 11N 15W 26	Activity center
NEG	2011	2400	0					38.777482	-123.508707	M 11N 15W 26	Contributor
NEG	2011	2400	0					38.770009	-123.502228	M 11N 15W 26	Contributor
NEG	2011	2400	0					38.771008	-123.492923	M 11N 15W 25	Contributor
NEG	2011	2400	0					38.774406	-123.516242	M 11N 15W 27	Contributor
NEG	2011	2400	0					38.772302	-123.496673	M 11N 15W 25	Contributor
NEG	2011	2400	0					38.765786	-123.514210	M 11N 15W 26	Contributor
NEG	2011	2400	0					38.776040	-123.500132	M 11N 15W 26	Contributor
NEG	2011	2400	0					38.770021	-123.512985	M 11N 15W 26	Contributor
NEG	2011	2400	0					38.777923	-123.485538	M 11N 15W 25	Contributor
NEG	2011	2400	0					38.765077	-123.502655	M 11N 15W 26	Contributor
NEG	2011	2400	0					38.759479	-123.502901	M 11N 15W 35	Contributor
NEG	2012	2400	0					38.774406	-123.516242	M 11N 15W 27	Contributor
NEG	2012	2400	0					38.759479	-123.502901	M 11N 15W 35	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2012	2400	0					38.777923	-123.485538	M 11N 15W 25	Contributor
NEG	2012	2400	0					38.765786	-123.514210	M 11N 15W 26	Contributor
NEG	2012	2400	0					38.770009	-123.502228	M 11N 15W 26	Contributor
NEG	2012	2400	0					38.776040	-123.500132	M 11N 15W 26	Contributor
NEG	2012	2400	0					38.777482	-123.508707	M 11N 15W 26	Contributor
NEG	2012	2400	0					38.771008	-123.492923	M 11N 15W 25	Contributor
NEG	2012	2400	0					38.772302	-123.496673	M 11N 15W 25	Contributor
NEG	2012	2400	0					38.765077	-123.502655	M 11N 15W 26	Contributor
NEG	2012	2400	0					38.770021	-123.512985	M 11N 15W 26	Contributor
NEG	2012-03-28	1015-1200	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2012-04-30	1830-1930	0					38.771420	-123.505189	M 11N 15W 26	Activity center
NEG	2013	2400	0					38.776040	-123.500132	M 11N 15W 26	Contributor
NEG	2013	2400	0					38.772302	-123.496673	M 11N 15W 25	Contributor
NEG	2013	2400	0					38.770009	-123.502228	M 11N 15W 26	Contributor
NEG	2013	2400	0					38.771008	-123.492923	M 11N 15W 25	Contributor
NEG	2013	2400	0					38.777923	-123.485538	M 11N 15W 25	Contributor
NEG	2013	2400	0					38.774406	-123.516242	M 11N 15W 27	Contributor

Type	*Date*	*Time*	*#Adults*	*Age/Sex*	*Pair*	*Nest*	*#Young*	*Latitude DD NAD83*	*Longitude DD NAD83*	*MTRS*	*Coordinate Source*
NEG	2013	2400	0					38.765077	-123.502655	M 11N 15W 26	Contributor
NEG	2013	2400	0					38.770021	-123.512985	M 11N 15W 26	Contributor
NEG	2013	2400	0					38.765786	-123.514210	M 11N 15W 26	Contributor
NEG	2013	2400	0					38.759479	-123.502901	M 11N 15W 35	Contributor
NEG	2013	2400	0					38.777482	-123.508707	M 11N 15W 26	Contributor
NEG	2013-03-04	1150-1315	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2013-05-31	1400-1530	0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	2014		0					38.771471	-123.505195	M 11N 15W 26	Activity center
POS	2015		1	UU				38.771420	-123.505189	M 11N 15W 26	Activity center
Additional surveys within the search area with no Spotted Owls detected											
NEG	1999-04-12	2345-2355	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	1999-04-12	2333-2343	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	1999-07-21	0017-0027	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	1999-07-21	0029-0039	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2000-05-23	0051-0101	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2000-05-23	0039-0049	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2000-07-13	2314-2324	0					38.773920	-123.526760	M 11N 15W 27	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2000-07-13	2302-2312	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2000-07-21	2345-2355	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2000-07-21	2333-2343	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2001-03-31	2312-2322	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2001-03-31	2300-2310	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2001-05-24	0008-0018	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2001-05-24	0021-0031	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2001-06-23	0011-0021	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2001-06-23		0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2002-04-10	0113-0123	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2002-04-10	0126-0136	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2002-05-14	0147-0157	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2002-05-14	0130-0140	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2002-06-15	2134-2144	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2002-06-15	2152-2202	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2003-03-07	2037-2047	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2003-03-07	2021-2031	0					38.773920	-123.526760	M 11N 15W 27	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2003-05-14	2159-2209	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2003-05-14	2114-2124	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2003-06-08	2154-2204	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2003-06-08	2207-2217	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2004-04-13	0026-0036	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2004-04-13	0012-0022	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2004-07-01	2248-2258	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2004-07-01	2303-2313	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2004-07-09	2114-2124	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2004-07-09	2127-2137	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2005-06-09	2115-2125	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2005-06-09	2129-2139	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2005-06-25	2039-2049	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2005-06-25	2026-2036	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2005-08-27	0013-0023	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2005-08-27	0030-0040	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2006-04-26	0331-0341	0					38.779090	-123.525610	M 11N 15W 27	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2006-04-26	0310-0320	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2006-05-25	0012-0022	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2006-05-25	0026-0036	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2006-06-03	2043-2053	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2006-06-03	2100-2110	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2007-03-29	2026-2036	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2007-03-29	2039-2049	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2007-04-05	2223-2233	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2007-04-05	2235-2245	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2007-04-25	2317-2327	0					38.791520	-123.532910	M 11N 15W 22	Contributor
NEG	2007-04-25	0031-0041	0					38.783960	-123.526040	M 11N 15W 22	Contributor
NEG	2007-04-25	0003-0013	0					38.773920	-123.526760	M 11N 15W 27	Contributor
NEG	2007-04-25	0016-0026	0					38.779090	-123.525610	M 11N 15W 27	Contributor
NEG	2007-05-12	2331-2341	0					38.791520	-123.532910	M 11N 15W 22	Contributor
NEG	2007-05-12	0019-0029	0					38.783960	-123.526040	M 11N 15W 22	Contributor
NEG	2007-05-18	0143-0153	0					38.783960	-123.526040	M 11N 15W 22	Contributor
NEG	2007-05-18	0112-0122	0					38.791520	-123.532910	M 11N 15W 22	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2011	2400	0					38.783960	-123.526040	M 11N 15W 22	Contributor
NEG	2011	2400	0					38.753527	-123.501421	M 11N 15W 35	Contributor
NEG	2011	2400	0					38.774002	-123.527015	M 11N 15W 27	Contributor
NEG	2011	2400	0					38.765824	-123.521345	M 11N 15W 27	Contributor
NEG	2011	2400	0					38.779407	-123.525176	M 11N 15W 27	Contributor
NEG	2011	2400	0					38.791520	-123.532910	M 11N 15W 22	Contributor
NEG	2012	2400	0					38.753527	-123.501421	M 11N 15W 35	Contributor
NEG	2012	2400	0					38.774002	-123.527015	M 11N 15W 27	Contributor
NEG	2012	2400	0					38.765824	-123.521345	M 11N 15W 27	Contributor
NEG	2012	2400	0					38.783960	-123.526040	M 11N 15W 22	Contributor
NEG	2012	2400	0					38.791520	-123.532910	M 11N 15W 22	Contributor
NEG	2012	2400	0					38.779407	-123.525176	M 11N 15W 27	Contributor
NEG	2013	2400	0					38.753527	-123.501421	M 11N 15W 35	Contributor
NEG	2013	2400	0					38.791520	-123.532910	M 11N 15W 22	Contributor
NEG	2013	2400	0					38.765824	-123.521345	M 11N 15W 27	Contributor
NEG	2013	2400	0					38.783960	-123.526040	M 11N 15W 22	Contributor
NEG	2013	2400	0					38.779407	-123.525176	M 11N 15W 27	Contributor

Type	*Date*	*Time*	*#Adults*	*Age/Sex*	*Pair*	*Nest*	*#Young*	*Latitude DD NAD83*	*Longitude DD NAD83*	*MTRS*	*Coordinate Source*
NEG	2013	2400	0					38.774002	-123.527015	M 11N 15W 27	Contributor