MISC. ADDENDUMS

SECTION V

ESTIMATED SURFACE SOIL EROSION HAZARD

SOIL FACTORS soil names — FACTOR RATING BY AREA

A- 221W-Cottoneva Loam- gentle slopes selection

B- 220W-Big River Loamy Sand - gentle slopes selection

C- 122W-Dehaven Hotel Irmulco- moderate slopes selection

A. SOIL	Fine	Medium	Coarse	A	B	C
1. DETACHABILITY	Low	Moderate	High			
Rating	1-9	10-18	19-30	18	25	17
2. PERMEABILITY	Slow	Moderate	Rapid			
Rating	5-4	3-2	1	2	1	3
B. DEPTH TO RESTRICTIVE LAYER OR BEDROCK						
	Shallow 1"- 19"	Moderate 20"-39"	Deep 40"-60"(+)			
Rating	15-9	8-4	3-1	1	1	5
C. PERCENT SURFACE COARSE FRAGMENTS GREATER THAN 2 MM IN SIZE INCLUDING ROCKS OR STONES						
	Low (-) 10-39%	Moderate 40-70%	High 71-100%			
Rating	10-6	5-3	2-1	10	10	8

Factor Rating	A	B	C
	31	37	33

II. SLOPE FACTOR									
Slope	5-15%	16-30%	31-40%	41-50%	51-70%	71-80% (+)			
Rating	1-3	4-6	7-10	11-15	16-25	26-35	1	1	8

III. PROTECTIVE VEGETATIVE COVER REMAINING AFTER DISTURBANCE						
	Low 0-40%	Moderate 41-80%	High 81-100%			
Rating	15-8	7-4	3-1	2	2	4

IV. TWO-YEAR, ONE-HOUR RAINFALL INTENSITY (Hundredths Inch)							
	Low (-) 30-39	Moderate 40-59	High 60-69	Extreme 70-80 (+)			
Rating	1-3	4-7	8-11	12-15	12	12	12
EROSION HAZARD RATING					46	52	57
	<50 LOW (L)	50-65 MODERATE (M)	66-75 HIGH (H)	>75 EXTREME (E)			
THE DETERMINATION IS-					L	M	M

ESTIMATED SURFACE SOIL EROSION HAZARD

SOIL FACTORS soil names — FACTOR RATING BY AREA

A-340W Irmulco Tramway- moderate slopes selection

B-340W Irmulco Tramway- steep slopes clearcut

C-340W Irmulco Tramway- moderate slopes clearcut

A. SOIL	Fine	Medium	Coarse	A	B	C
1. DETACHABILITY	Low	Moderate	High			
Rating	1-9	10-18	19-30	17	17	17
2. PERMEABILITY	Slow	Moderate	Rapid			
Rating	5-4	3-2	1	3	3	3
B. DEPTH TO RESTRICTIVE LAYER OR BEDROCK						
	Shallow 1"- 19"	Moderate 20"-39"	Deep 40"-60"(+)			
Rating	15-9	8-4	3-1	5	5	5
C. PERCENT SURFACE COARSE FRAGMENTS GREATER THAN 2 MM IN SIZE INCLUDING ROCKS OR STONES						
	Low (-) 10-39%	Moderate 40-70%	High 71-100%			
Rating	10-6	5-3	2-1	10	10	10

Factor Rating	A	B	C
	35	35	35

II. SLOPE FACTOR

Slope	5-15%	16-30%	31-40%	41-50%	51-70%	71-80% (+)	A	B	C
Rating	1-3	4-6	7-10	11-15	16-25	26-35	10	18	9

III. PROTECTIVE VEGETATIVE COVER REMAINING AFTER DISTURBANCE

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

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

	Low (-) 30-39	Moderate 40-59	High 60-69	Extreme 70-80 (+)	A	B	C
Rating	1-3	4-7	8-11	12-15	12	12	12
EROSION HAZARD RATING					61	73	64
	<50 LOW (L)	50-65 MODERATE (M)	66-75 HIGH (H)	>75 EXTREME (E)			
THE DETERMINATION IS-					M	H	M

Erosion Control Plan (ECP) Elk THP

This document addresses the requirements of California Water Quality Control Board Order R1-2009-0038 for Erosion Control Plans related to timber harvest activities on Non-Federal lands in the North Coast Region. This ECP is submitted for Gualala Redwood Timber LLC Elk THP.

The RPF has conducted an inventory of controllable sediment discharge sources within the Project area concentrating especially on the areas that have the potential to affect the Gualala River. Controllable sediment discharge source (CSDS) means sites or locations, both existing and those created by proposed timber harvest activities, within the Project area that meet all 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 these General WDRs,
2. was caused or affected by human activity, and
3. may feasibly and reasonably respond to prevention and minimization management measures.

Method Used to Inventory Sediment Sites- The inventory method consisted of an appurtenant road inventory and ground assessment of the harvest units, and a complete ground assessment of all watercourses, and associated stream protection zones. During the road assessment the following items were looked for 1- Road fill with the potential to fail and deliver, 2- Landing fill with the potential to fail and deliver, 3- Watercourse crossings with the potential to fail and deliver, 4- Wet areas that could saturate the road prism and cause it to fail and deliver, 5- Places where the road is dumping water onto unstable areas, 6- Places where unstable banks are diverting inside ditches, 7- Places where inadequate waterbars or rolling dips are causing surface erosion of the road, 8- Places where insloped roads can be converted to outsloped roads, 9- Instream landings, 10- WLPZ landings, roads or skid trails.

The assessment of the watercourses was done by walking the centerline and /or the WLPZ lines on both sides of the watercourses. The following items were looked for 1- watercourse diversions 2- skid trail crossings that were not adequately pulled or are likely to divert water out of the natural channel or into unstable banks 3- Perched fill on skid trails that are likely to deliver 4- Mounds at the end of skid trails that could collect water and then breach thereby delivering sediment. 5- Skid trails that are inadequately waterbarred and are having surface erosion. 6- Skid trails that are directing water onto

unstable slopes 7- WLPZ skid trails that are causing problems.

Hillslopes were also assessed during the course of plan layout (although not as completely as roads and watercourses) and skid trails or other man-caused potential sediment sources were noted and beneficial actions developed if feasible.
The schedule for implementing the prevention and minimization management measures for the controllable sediment sources will be consistent with the life of the Timber Harvest Plan. The plan will be to implement these measures in accordance with the priority level assigned to the site (lower priority sites may be repaired while repairing the high priority sites if the sites are in the same area and if this will result in the most efficient use of the equipment but generally high priority sites will be repaired first). Work at all sites will be accomplished prior to plan expiration (assuming other agency permits are approved, i.e. 1600, NSO no-take etc.). The general prevention and minimization measures will be implemented concurrent with operations.

Section I.
Inventory and Treatment of Controllable Sediment Sources
Five erosion control points were found. See map and database attached at end of this report
The following is the methodologies that are used for this erosion control plan when new CSDS points are discovered.
1-The method used to estimate the potential sediment volume.
The methods used to estimate potential sediment volume were developed by Jack Monschke and are quick to use and provide answers that are accurate to within 10% of more intense methods developed by Pacific Watershed Associates (PWA). Some estimators (e.g. McCanless) working for the landowner may use PWA methodology.

2-The method used to estimate the relative potential for sediment delivery.
Relative potential for sediment delivery is a percentage of the sediment volume estimated at the site that has the potential to enter a watercourse. This estimation is affected by the following factors. #1- The distance to the watercourse #2- The steepness of the intervening slopes #3- Other factors such as a bench between the sediment and the watercourse, thick vegetation versus no vegetation or highly erodible soil also may affect this number.

3-The method used to determine the priority of a site.
The priority is shown under Priority/Schedule in the attached Erosion Control Plan Road Work Order database. High priority items are scheduled to be repaired prior to the first winter period after start of operations while

medium and low priority items are scheduled to be repaired prior to completion of the plan. Priority is determined by the following method. Highest priority is given to sites that are likely to deliver sediment during the next five year storm event. These are normally sites that appear to be close to failure and are proximate to a class I or class II watercourse. Medium sites may be close to watercourses but do not appear to be in danger of failing soon or are farther from watercourses but appear less stable. Low priority sites are not close to watercourses and do not appear to be in danger of failing but could deliver sediment to a watercourse if they do eventually fail. The proximity of the erosion site, size of the potential delivery, type of watercourse (Class I, Class II, and Class III), distance to a class I if the watercourse is a class II or III, and whether the Class I watercourse is listed as impaired are all also considered in evaluating priority.

Section II.

General Prevention and Minimization Measures for Controllable Sediment Discharge

In addition to the site specific measures (when CSDS points are discovered), the general measures proposed in this project, either as required by CALFIRE under the Forest Practice Rules, by another State or Federal regulating agency, or as a matter of landowner policy, will prevent or minimize future sediment delivery. These measures are included in Section II of the THP under items 18, 23, 26, 27 and 38 and are not repeated here.

- Roads

Practices related to the construction, reconstruction, and maintenance of truck roads are key factors in the control of sediment that could be produced from timber harvesting operations. To address this concern, landowner has focused considerable effort on the proper construction of forest roads. Landowner has directed its road construction program towards developing roads that avoid steep slopes and unstable areas. In circumstances where it has been necessary to construct roads on steep slopes, full bench and minimum width roads have been built using end-haul equipment and appropriate construction techniques.

Landowner's road construction, re-construction, and maintenance standards and techniques have been developed in conjunction with the Handbook For Forest And Ranch Roads (Weaver and Hagans), and Designing Watercourse Crossings for Passage of 100-year Flood Flows, Wood and Sediment (Cafferata, Spittler, Wopat, Bundros, and Flanagan).

- New construction/re-construction

- Emphasize erosion control by outsloping, utilizing critical dips over crossings, and rolling dips and/or water bars to avoid concentrating water on the road surface. Emphasize proper placement and sizing of culverts. When water is present during culvert/bridge installations use pump around techniques to minimize sedimentation. Utilize riprap, seed and mulch, and energy dissipaters on culvert installations.

- Emphasize disconnecting road systems from watershed hydrology through outsloping and rolling dips.

- Minimize number of roads.

- Minimize road widths.

- Use temporary roads where appropriate.

- Abandon all temporary roads proposed for construction after use. Abandonment includes crossing removal and road surface treatment, including large dips spaced at intervals not less than those required for the assigned erosion hazard rating, and/or obliterating the road by pulling fill materials and incorporating the fill into the road for outsloping. All entrances will be blocked to standard four-wheel drive vehicles. At crossing sites where abandonment is prescribed, fills will be pulled back to a 2:1 ratio (two feet horizontal and 1 foot vertical).

- Limit construction/re-construction activities to times of the year when soils are not saturated.

-Treatment of sidecast or fill material extending more than 20 feet in slope distance from the outside edge of the roadbed that has access to a watercourse or lake which is protected by a WLPZ may include, but need not be limited to, mulching, rip-rapping, or grass seeding. Where straw, mulch, or slash is used, the minimum coverage will be 90%, and any treated area that has been subject to reuse or has less than 90% surface cover will be treated again prior to the end of timber operations. The RPF may implement alternative treatments that will achieve the same level of erosion control and sediment discharge prevention.

- Road related operations focus on maintenance during the winter period.

- Maintenance

Landowner compliments proper road design and construction with a strong program to ensure that roads are adequately maintained, particularly in regard to drainage structures and erosion control. Landowner implements the following road maintenance program in its operating areas to ensure that potentially significant impacts from erosion processes related to road maintenance are avoided:

-Access on these roads during the winter period will be limited. Incidental use may include timber falling, hazard abatement burning, road maintenance inspections, reforestation, wildlife surveys, botanical surveys, and/or timber harvest plan layout. Where appropriate, such access will be restricted to the use of low ground pressure all-terrain vehicles.

- Periodically, and prior to the onset of the winter period, landowner's forestry staff will inspect all roads appurtenant to timber harvest plans operated that year. The inspection will assess the effectiveness and quality of all newly installed and existing erosion control structures, and will identify areas needing additional maintenance prior to the winter period. A list will be prepared of those areas identified as needing additional work or repair. Items to be assessed as part of the road inspection program include the following:

- Waterbars will be inspected to insure proper spacing, depth and complete diversion of water flow from the road surface.

- Ditches will be inspected to insure that they are properly functioning and free of debris that could plug the ditch or a culvert and cause diversion of water onto the road surface.

- Culverts will be inspected to insure that they are properly placed and functioning, and that downspouts are correctly installed.

- The road prism will be inspected to identify areas exhibiting ponding, inadequately breached outside berms, unprotected fresh fill slopes, or other sites that exhibit a potential for cut bank or fill failure.

- All newly constructed and reconstructed roads will be inspected

prior to the winter period to insure that they were properly constructed, that they are in compliance with the Forest Practice Rules, and that mitigation measures included in THPs were properly applied.

- After the pre-winter inspection is completed all observed problems will be corrected prior to the winter period.

- Newly constructed or reconstructed roads will be inspected during the winter period. Special attention will be given to road conditions during and after significant storm events so that problems can be promptly identified and corrected. Repairs will be made at the time of inspection if possible. If a larger crew or heavy equipment is necessary to repair a problem, the location will be noted and the repair will be carried out as soon as conditions allow.

- Yarding

Landowner emphasizes the use of low impact yarding systems and that yarding systems are in conformance with the Forest Practice Rules.

Cable yarding, which achieves less ground disturbance than tractor yarding, is used when feasible.

To minimize sediment discharges during the wetter times of year the Forest Practice Rules apply seasonal restrictions on yarding operations.

Erosion control structures shall be installed on all constructed skid trails and tractor roads prior to the end of the day if the U.S. Weather Service forecast is a "chance" (30% or more) of rain before the next day, and prior to any shutdown periods. Loading, hauling, and maintenance activities will be restricted to "dry, rainless periods but shall not be conducted on saturated soil conditions that may produce sediment in quantities sufficient to cause a visible increase in turbidity of downstream waters in receiving Class I, II, III or IV waters or that violate Water Quality Requirements", and shall further be guided by diligence and prudence in achieving the goals of 14CCR 914.

Tractor operations are excluded from unstable areas. If an unstable area is found during operations an Equipment Exclusion Zone will be implemented around the unstable area, or if operations within the unstable area are necessary, an amendment to the THP will be sent to CALFIRE.

- Log Hauling

Log hauling will only occur on haul roads that have a stable operating surface.

Log hauling will be suspended if a significant storm event occurs that would cause saturated soil conditions on haul roads regardless of time of year. Hauling will not be resumed until it is determined that the road surface can withstand truck traffic without causing significant rutting of the road surface, loss of surface material, or generate waterborne sediment in amounts sufficient to cause a visible turbidity increase in downstream Class I, II, III, or IV waters.

- Burning

Broadcast burning is not proposed for this THP.

- Winter Operations

"Winter period" means the period between November 15 and April 1.

Winter operations are not proposed for this harvest plan.

Fuel Management Plan:

If applicable, a fuel management plan will be prepared to protect water quality from the use and storage of petroleum products and to assure that all State and Federal regulations pertaining to the handling and storage of fuel are adhered to during logging operations. This project does not meet the minimum requirements as stated in Order # R1-2004-0030 for a fuel management plan to be prepared.

Inspection Plan:

The intent will be to inspect all those points identified in the inventory included in the Erosion Control Plan. Any new sites found during these inspections will be noted and addressed in accordance with the provisions of section III.B.3.

Section III-
Site Inspections

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 these General

WDRs.

Site inspections shall be conducted by the forestry staff of Delta Pacific, Inc. as managers of landowner. Contact at 707-884-3521.

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

a. Project Areas where Timber Harvest Activities have not yet Commenced;

No inspections are required.

b. Project Areas where Timber Harvest Activities have Commenced and No Winter Period Timber Harvest Activities have Occurred;

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 discharges sources have developed.

c. Project Areas With Winter Period Timber Harvest Activities;

Project areas with timber harvest activities during the winter period shall, at a minimum, conduct inspections of such Project areas while Timber Harvest Activities occur and the Project is covered under General WDRs as follows:

1. Immediately following the cessation of winter period timber harvest activities to assure areas with winter timber harvest activities are secure for the winter;

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 discharges sources have developed.

d. Inspection reports prepared shall identify where management measures have been ineffective and when landowner will implement repairs or design changes to correct management measure failures.

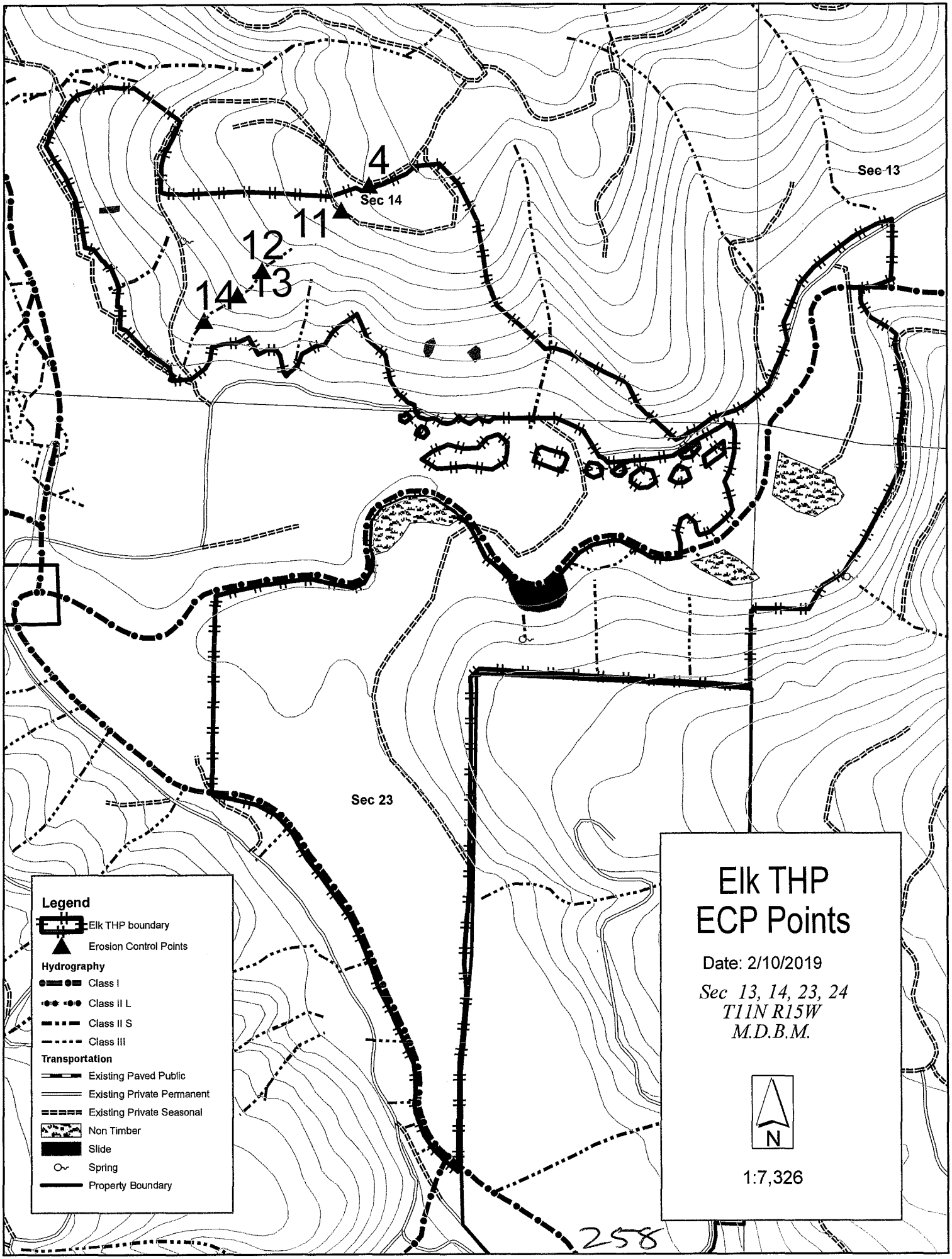
e. If any new controllable sediment discharge sources are identified, such sites shall be addressed in accordance with the provisions of section III.B.3.

f. Equipment, materials, and workers shall be available for rapid response to failures and emergencies, and implement, as feasible, emergency management measures depending upon field conditions and worker safety for access.

Reporting Requirements:

If during any inspection or during the course of conducting timber harvest activities, a violation of an applicable water quality requirement or conditions of these General WDRs is discovered, the provisions of section III.B.3. shall be followed.

For all other inspections where violations are not discovered, landowner shall submit a summary report to the Executive Officer by June 30th for each year of coverage under these 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.


4
Sec 14
11
12
13
14
Sec 13
Sec 23
Legend
Elk THP boundary
Erosion Control Points
Hydrography
Class I
Class II L
Class II S
Class III
Transportation
Existing Paved Public
Existing Private Permanent
Existing Private Seasonal
Non Timber
Slide
Spring
Property Boundary
Elk THP
ECP Points
Date: 2/10/2019
Sec 13, 14, 23, 24
T11N R15W
M.D.B.M.
N
1:7,326
258

Erosion Control Plan

Hydrologic Unit All **Repair type** All
Planning Watershed All **Priority** All
Road # All **From Mi** All **To Mi** All **Road Class** All
THP All **From Date** 1/1/1980 **To Date** 2/10/2019

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	Left D / Right D	Exca. Cat	Truck Labor	Gra. Com.	Rock Yds	Cost $/FSD	Total Yds FSD Yds
0	6692	0.000	Haschak		18-04	Elk	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	2,000
Existing Skid	6692	0.000	Unk		14		Temp. Crossing	Medium	-	-	0	0	0	0	0	0	$0	0
	Skid trail crossing a class III. The following points are all going to have a similar description, 11. 12, 13 and 14. An old skid trail that ran down the ridge has channeled water and created erosion the hillside. It is a swale at the top and I am calling it a class III lower down however it does not appear to comnnect to anything. In order try to fix the problem road point 4 at the the top of the ric will stop water from entering at the top of the swale. Road point 11 is a road crossing this swale and 12, 13 and 14 are skid trails crossing the "class III" lower down. Instead of dipping out the crossings like normal it is proposed to place a very large waterbar at each crossing. This will disperse the water and should stop the erosion. Since it is running down a ridge it doesn't collect a lot water so this should work and the "class III" will no longer be a class III.																	
0	6691	0.000	Haschak		18-04	Elk	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	2,000
Existing Skid	6691	0.000	Unk		13		Temp. Crossing	Medium	-	-	0	0	0	0	0	0	$0	0
	Skid trail crossing a class III. The following points are all going to have a similar description, 11. 12, 13 and 14. An old skid trail that ran down the ridge has channeled water and created erosion the hillside. It is a swale at the top and I am calling it a class III lower down however it does not appear to comnnect to anything. In order try to fix the problem road point 4 at the the top of the ric will stop water from entering at the top of the swale. Road point 11 is a road crossing this swale and 12, 13 and 14 are skid trails crossing the "class III" lower down. Instead of dipping out the crossings like normal it is proposed to place a very large waterbar at each crossing. This will disperse the water and should stop the erosion. Since it is running down a ridge it doesn't collect a lot water so this should work and the "class III" will no longer be a class III.																	
0	6690	0.000	Haschak		18-04	Elk	Temp. Crossing	THP Non-Road	III		0	0	0	0	0	0	$0	2,000
Existing Skid	6690	0.000	Unk		12		Temp. Crossing	Medium	-	-	0	0	0	0	0	0	$0	0
	Skid trail crossing a class III. The following points are all going to have a similar description, 11. 12, 13 and 14. An old skid trail that ran down the ridge has channeled water and created erosion the hillside. It is a swale at the top and I am calling it a class III lower down however it does not appear to comnnect to anything. In order try to fix the problem road point 4 at the the top of the ric will stop water from entering at the top of the swale. Road point 11 is a road crossing this swale and 12, 13 and 14 are skid trails crossing the "class III" lower down. Instead of dipping out the crossings like normal it is proposed to place a very large waterbar at each crossing. This will disperse the water and should stop the erosion. Since it is running down a ridge it doesn't collect a lot water so this should work and the "class III" will no longer be a class III.																	
0	6689	0.000	Haschak		18-04	Elk	Temp. Crossing	THP App. Rd.	Swale		0	0	0	0	0	0	$0	0
Private Seasonal	6689	0.000	Unk		11		Temp. Crossing	Medium	-	-	0	0	0	0	0	0	$0	0
	Road crossing a swale. The following points are all going to have a similar description, 11. 12, 13 and 14. An old skid trail that ran down the ridge has channeled water and created erosion of the hillside. It is a swale at the top and I am calling it a class III lower down however it does not appear to comnnect to anything. In order try to fix the problem road point 4 at the the top of the ridge will stop water from entering at the top of the swale. Road point 11 is a road crossing this swale and 12, 13 and 14 are skid trails crossing the "class III" lower down. Instead of dipping out the crossings like normal it is proposed to place a large waterbar at each crossing. This will disperse the water and should stop the erosion. Since it is running down a ridge it doesn't collect a lot of water so this should work and the "class III" will no longer be a class III																	
Road Number				0	**Grand Total All Sites**	4	**Culvert Costs**		$0		0	0	0	0	0	0	$0	6,000
											0	0	0	0	0	0	#Num!	0
60.45	6670	0.520	Haschak		18-04	Elk	Surface Drainage	THP App. Rd.	N/A		0	0	0	0	0	0	$0	300
Private Seasonal	6670	0.000	Unk		4		Dip Rolling	Medium	-	-	0	0	0	0	0	0	$0	0
	Drainage has caused erosion to the south inside the unit. Remove drainage at this location and disperse drainage at other locations up and down road.																	
Road Number				60.45	**Grand Total All Sites**	1	**Culvert Costs**		$0		0	0	0	0	0	0	$0	300
											0	0	0	0	0	0	#Num!	0

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem		Repair Type	Cr. Class		DRCs	Left D	Exca.	Truck	Gra.	Rock	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	Com.	Yds	$/FSD	FSD Yds
						Grand Total All Sites		5	**Culvert Costs**		$0		0	0	0	0	0	$0	6,300
													0	0	0	0	0	#Num!	0

260

Road #	GIS#	Mile	Plan	Final	THP#	THP Name	Problem	Repair Type	Cr. Class	DRCs	Left D	Exca.	Truck	Gra.	Rock	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	Com.	Yds	$/FSD	FSD Yds

Road Work

- Road # – This is unique road ID number for each road segment on the property.
- Road Class – This is the type of road.
  - Upgraded – Outsloped and dipped
  - Storm proofed – Outsloped, dipped and culverts repaired.
  - Deactivation – Outsloped, dipped, culverts pulled, and the road will be reused.
  - Abandoned Fixed – Outsloped, dipped, culverts removed and the road will not be reused.
  - 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. In a THP, the implementation priorities below apply.
  - THP Low – Mitigation applied prior to THP completion.
  - THP Med – Mitigation applied concurrent with operations affecting site.
  - THP High – Mitigations applied in the first year after THP approval or as described in the plan.
- 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
  - Exca. – Excavator
  - Cat – Caterpillar tractor
  - Labor – Hand labor
  - Truck – Dump truck or water truck
  - Gra. – Grader
  - Com. - Compactor and pilot car if needed.
- Yds - This is the total yardage of soil that must be moved at the site.
- Cost – All the equipment costs plus the 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) PSD (Potential 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. This also includes road surface erosion that disconnecting the roads from the watercourses will prevent from being delivered. On upgraded roads it is typically 0.2 cubic feet per square foot of road per decade for the portion (typically 50%) that has been disconnected. The road and cut bank width is assumed to be 25 feet.

Downstream landowners

APN, Owner , Street Address, City State Zip

141-240-15,STILLMAN MARK STANLEY,PO BOX 56,GUALALA CA 95445

141-270-05,NORTH GUALALA WATER COMPANY,PO BOX 1000,GUALALA CA 95445

141-240-22,FESLER RICHARD WILLIAM & VICTORIA L,PO BOX 339,GUALALA CA 95445

7/30/18

Dear Sirs,

The Forest Practice Regulations require that I provide notice by letter, of proposed timber operations, to all landowners within 1,000 feet downstream of a proposed THP boundary, whose ownership adjoins or includes a class I, II, or IV watercourse that receives drainage from the proposed timber operations.

A timber harvest plan is proposed in the following watersheds; Robinson Creek and Doty creek. The legal description is Sec 13, 14, 23, 24, T11N R15W M.D.B.M. Mendocino County. The plan area is approximately 2 miles northeast of the town of Gualala. This plan is located on the U.S.G.S. 7.5 min maps Gualala and McGuire Ridge. The following watercourses receive drainage from the proposed timber operation: The North Fork and the Little North Fork of the Gualala River and several unnamed class II watercourses. If you have knowledge of any domestic water supply whose source is in the above watercourses or that may be affected by the operations please contact me at the following address in writing within ten (10) days of the date of this notice.
Art Haschak 387 Pacific Blvd. Arcata, CA 95521.

If domestic water supplies are noted, the THP will contain mitigations necessary to protect those water supplies.

Thank you for your assistance.

Sincerely,

Art Haschak RPF #2423

To Independent Coast Observer

Dear Sirs,

Please run the following notice in your newspaper one (1) day only, to appear as soon as possible.

Notice

A timber harvest plan is proposed in the following watersheds; Robinson Creek and Doty creek. The legal description is Sec 13, 14, 23, 24, T11N R15W M.D.B.M. Mendocino County. The plan area starts approximately 2 miles northeast of the town of Gualala. This plan is located on the U.S.G.S. 7.5 min maps Gualala and McGuire Ridge. The following watercourses receive drainage from the proposed timber operation: The North Fork and the Little North Fork of the Gualala River and several unnamed class II watercourses. If you have knowledge of any domestic water supply whose source is in the above watercourses or that may be affected by the operations please contact me at the following address in writing within ten (10) days of the date of this notice.
Art Haschak 387 Pacific Blvd. Arcata, CA 95521.

Please send a notice of publication and an invoice to my address. Thank you for your attention to this matter. If you have any questions please do not hesitate to call.

Sincerely,

Art Haschak 387 Pacific Blvd Arcata, CA 95521.

Independent Coast Observer

P.O. Box 1200
Gualala, CA 95445

(707) 884-3501
(707) 884-1710 fax
www.mendonoma.com

Proof of Publication of NOTICE

Public Notice

NOTICE

A timber harvest plan is proposed in the following watersheds; Robinson Creek and Doty Creek. The legal description is Sec 13, 14, 23, 24 T11N R15W M.D.B.M. Mendocino County. The plan area starts approximately 2 miles northeast of the town of Gualala. This plan is located on the U.S.G.S. 7.5 min maps Gualala and McGuire Ridge. The following watercourses receive drainage from the proposed timber operation: The North Fork and Little North Fork of the Gualala River and several unnamed class II watercourses. If you have knowledge of any domestic water supply whose source is in the above watercourses or that may be affected by the operations please contact me at the following address in writing within ten (10) days of the date of this notice.

Art Haschak 387 Pacific Blvd. Arcata, CA 95521.
(7435) August 3, 2018

I, the undersigned say:
That I am over the age of eighteen and am not a party to or interested in the above entitled matter of proceeding; and am, and at all times embraced in the publication herein mentioned, was the principal clerk of the editor and publisher of the INDEPENDENT COAST OBSERVER, a weekly newspaper printed, published and circulated in the County of Mendocino, and adjudged a newspaper of general circulation by the Superior Court of California, Proceeding #15294, that the above NOTICE of which is annexed a true printed copy, was printed in type not smaller than nonpareil and published in said newspaper on the following date(s), to wit: August 3, 2018.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.
Executed and dated at Gualala, California, this July 31, 2018

Signature _____

(ICO Ad number 7435)

265

North Gualala Water Company

NGWC
Est. 1939

Art Haschak
arthaschak@gmail.com

August 9, 2019

RE: Timber Harvest Plan # 1-19-00098-MEN Resubmission

Dear Art,

There is a domestic/drinking water supply that is on an adjacent property to the proposed Timber Harvest Plan in the North Fork of the Gualala River. The local domestic potable water supply, operated by North Gualala Water Company, is fed by two alluvial wells located near to where the proposed harvest plan is located. Please plan the THP to protect our local water source and the watershed that supplies it.

NGWC thanks your effort in helping to maintain the public's health and safety.

Regards,

David Bower

President, North Gualala Water Company

265-1 ADDED 9/12/19

P. O. Box 1000, Gualala, CA 95445-1000
P: 707.884.3579 / F: 707.884.1620 / Email: office@ngwco.com/ Web: http://ngwco.com

Nick Kent
Gualala Redwood Timber, LLC
P.O. Box 197
39951 Old Stage Road
Gualala, CA 95445

June 25th 2019
RE: Plum THP Inventory

Gualala Redwood Timber's Plum Timber Harvest Plan (1-16-094MEN) was harvested in 2017. In the spring and summer of 2019 the accessible units of the THP that were harvest were inventoried by Eric Sutera (RPF #2942). The THP consists of a total of 19 distinct units varying in size from 1.4-acres to 21-acres, with total acreage of 154-acres. Not all of the units were harvested in 2017, only the harvested units were the focus of this inventory. Additionally, due to flooding and high waters after a heavy rain season the northern most units beyond the North Fork Gualala River and Robinson Creek were not accessible at the time of the inventory data collection.

Methodology:

In ArcGIS the THP has been divided into three section as required in the California Forest Practice Rules – ASP Flood Plain Rules; Core Zone, Zone A and Zone B. Since no timber operations can take place in the Core Zone, plots were only cruised in the sampling area of Zones A and B. A random 3-chain by 3-chain grid was placed across the sampling area. Plots were randomly selected from this pool for data collection. A total of 24 plots have been cruised, 9 in Zone B and 15 in Zone A.

Plot Design:

The plot design is a series of three concentric plots based on the tree diameter at breast height (DBH). The inner plot was a fixed area plot 1/100th acre in size (11.78-ft radius) for measuring all live trees 1-inch to 5.5-inch DBH. All live trees greater than or equal to 5.6-inch in DBH to a maximum DBH of 42.85-inch were measured on 40-BAF prism plot. All live trees greater than 42.85-inch DBH were measured on a 1/4-acre fixed area plot (58.9-ft radius). The Limiting Distance for 42.85-inch DBH tree using a BAF 40 prism, which has a Plot Radius Factor of 1.375, is 58.9-ft, the radius of a 1/4 –acre plot.

This concentric design was used to keep the plot size within the given sampling Zone A or Zone B. In most cases across the THP sampling area the Zones were too narrow for standard BAF plots to be used, trees would be sampled inappropriately in adjacent Zones.

Tree measurements consisted of recording the Species, DBH to the nearest 1/10-inch, Total Height, Crown Ratio and Defect in 16-ft logs.

The tree inventory data was compiled using FORSEE.

Results:

Stand	Species	TPA	BA/Acre
Zone A	Douglas-fir	14.1	10.7
Zone A	Redwood	204.2	348.0
Zone A	Conifers	218.3	358.6
Zone A	Hardwoods	422.1	116.1

Stand	Species	TPA	BA/Acre
Zone B	Douglas-fir	-	-
Zone B	Redwood	300.9	466.6
Zone B	Conifers	300.9	466.6
Zone B	Hardwoods	5.5	13.3

Stand	SpGP	DBHClass	TPA	BA/A
Zone A	Douglas-fir	2 - 6		
Zone A	Douglas-fir	6 - 12	11	5
Zone A	Douglas-fir	12 - 18	2	3
Zone A	Douglas-fir	18 - 24		
Zone A	Douglas-fir	24 - 30		
Zone A	Douglas-fir	30 - 36	1	3
Zone A	Douglas-fir	36 - 42		
Zone A	Douglas-fir	42 - 48		
Zone A	Douglas-fir	48 - 54		
Zone A	Douglas-fir	54 - 60		

Stand	SpGP	DBHClass	TPA	BA/A
Zone A	Redwood	2 - 6	61	6
Zone A	Redwood	6 - 12	33	13
Zone A	Redwood	12 - 18	15	16
Zone A	Redwood	18 - 24	17	40
Zone A	Redwood	24 - 30	17	64
Zone A	Redwood	30 - 36	7	43
Zone A	Redwood	36 - 42	5	45
Zone A	Redwood	42 - 48	5	59
Zone A	Redwood	48 - 54	3	44
Zone A	Redwood	54 - 60	1	18

Stand	SpGP	DBHClass	TPA	BA/A
Zone A	Conifers	2 - 6	61	6
Zone A	Conifers	6 - 12	44	19
Zone A	Conifers	12 - 18	17	19
Zone A	Conifers	18 - 24	17	40
Zone A	Conifers	24 - 30	17	64
Zone A	Conifers	30 - 36	8	45
Zone A	Conifers	36 - 42	5	45
Zone A	Conifers	42 - 48	5	59
Zone A	Conifers	48 - 54	3	44
Zone A	Conifers	54 - 60	1	18

Stand	SpGP	DBHClass	TPA	BA/A
Zone B	Douglas-fir	2 - 6	-	-
Zone B	Douglas-fir	6 - 12	-	-
Zone B	Douglas-fir	12 - 18	-	-
Zone B	Douglas-fir	18 - 24	-	-
Zone B	Douglas-fir	24 - 30	-	-
Zone B	Douglas-fir	30 - 36	-	-
Zone B	Douglas-fir	36 - 42	-	-
Zone B	Douglas-fir	42 - 48	-	-
Zone B	Douglas-fir	48 - 54	-	-
Zone B	Douglas-fir	54 - 60	-	-

Stand	SpGP	DBHClass	TPA	BA/A
Zone B	Redwood	2 - 6	36	7
Zone B	Redwood	6 - 12	157	73
Zone B	Redwood	12 - 18	46	53
Zone B	Redwood	18 - 24	20	47
Zone B	Redwood	24 - 30	18	67
Zone B	Redwood	30 - 36	7	40
Zone B	Redwood	36 - 42	7	60
Zone B	Redwood	42 - 48	5	60
Zone B	Redwood	48 - 54	2	27
Zone B	Redwood	54 - 60	2	33

Stand	SpGP	DBHClass	TPA	BA/A
Zone B	Conifers	2 - 6	36	7
Zone B	Conifers	6 - 12	157	73
Zone B	Conifers	12 - 18	46	53
Zone B	Conifers	18 - 24	20	47
Zone B	Conifers	24 - 30	18	67
Zone B	Conifers	30 - 36	7	40
Zone B	Conifers	36 - 42	7	60
Zone B	Conifers	42 - 48	5	60
Zone B	Conifers	48 - 54	2	27
Zone B	Conifers	54 - 60	2	33

Robinson Creek Road work completed

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
80.70606	4512	0.870	Alden	Alden	98-106	Woodson	No Problem	Storm Proofing	II		0	0	0	0	0	0	$0	0
Deactivated	4512	0.000	Unk	2/6/1998	159	ECP Not	No Action	No Action	Pull	Pull	0		0	0	0	0	$0	0
80.70606	4514	1.100	Alden	Alden	98-106	Woodson	No Problem	Storm Proofing	III		0	0	0	0	0	0	$0	0
Deactivated	4514	0.000	Unk	2/6/1998	152	ECP Not	No Action	No Action	Pull	Pull	0		0	0	0	0	$0	0
80.70606049	4503	0.000	Alden	Alden	98-106	Woodson	No Problem	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Not Connected	4503	0.035	Unk	2/26/199		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Ridge top spur																	
80.70606085	4504	0.000	Alden	Alden	98-106	Woodson	No Problem	Storm Proofing	N/A		0	0	0	0	0	0	$0	0
Not Connected	4504	0.031	Unk	2/26/199		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
	Ridge top spur																	
80.706091	4486	0.000	Alden	Kelly	98-106	Woodson	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	4486	0.050	Unk	6/6/1998		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
	Short Spur road																	
80.7066	4488	0.000	Alden	Kelly	98-106	Woodson	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	4488	0.170	Unk	6/6/1998		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
80.9076	4880	2.920	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	4880	3.000	Unk	11/4/200		ECP Not	No Action	Medium	-	-	0		0	0	0	0	$0	0
80.907694	4881	0.000	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	4881	0.520	Unk	11/4/200		ECP Not	No Action	No Action	-	-	0		0	0	0	0	$0	0
92.1096	5941	0.000	Alden	Alden	Maintena	Maintenance	No Problem	Assessment	N/A		0	0	0	0	0	0	$0	0
Not Connected	5941	0.510	Unk	12/12/20		ECP Not	No Action	Low	-	-	0		0	0	0	0	$0	0
Grand Total All Sites					526						3,334		0	1,872	1,223	48	$712,887	45,889
													0	2,029	974	29,788		44,411

266

266

Summary

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Gualala (3812375) OR Point Arena (3812386) OR Eureka Hill (3812385) OR Zeni Ridge (3812384) OR McGuire Ridge (3812374) OR Stewarts Point (3812364) OR Ornbaun Valley (3812383) OR Gube Mountain (3812373) OR Annapolis (3812363))

Elk THP

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Abronia umbellata var. breviflora pink sand-verbena	G4G5T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	10 30	61 S:2	0	1	0	0	0	1	2	0	2	0	0
Accipiter gentilis northern goshawk	G5 S3	None None	BLM_S-Sensitive CDF_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	1,300 1,300	432 S:1	0	1	0	0	0	0	1	0	1	0	0
Agrostis blasdalei Blasdale's bent grass	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	16 80	62 S:8	0	1	1	0	0	6	4	4	8	0	0
Ammodramus savannarum grasshopper sparrow	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	85 85	27 S:1	0	1	0	0	0	0	0	1	1	0	0
Aplodontia rufa nigra Point Arena mountain beaver	G5T1 S1	Endangered None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	40 450	39 S:25	1	5	1	0	0	18	9	16	25	0	0
Arborimus pomo Sonoma tree vole	G3 S3	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	40 2,240	222 S:31	0	2	0	0	0	29	28	3	31	0	0
Ascaphus truei Pacific tailed frog	G4 S3S4	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	166 1,000	491 S:6	0	0	0	0	0	6	0	6	6	0	0
Astragalus agnicidus Humboldt County milk-vetch	G2 S2	None Endangered	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_BerrySB-Berry Seed Bank SB_RSABG-Rancho Santa Ana Botanic Garden	1,350 1,680	61 S:2	0	1	0	1	0	0	0	2	2	0	0
Bombus caliginosus obscure bumble bee	G4? S1S2	None None	IUCN_VU-Vulnerable	100 2,000	181 S:5	0	0	0	0	0	5	5	0	5	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Bombus occidentalis western bumble bee	G2G3 S1	None None	USFS_S-Sensitive XERCES_IM-Imperiled	100 100	282 S:1	0	0	0	0	0	1	1	0	1	0	0
Brachyramphus marmoratus marbled murrelet	G3G4 S1	Threatened Endangered	CDF_S-Sensitive IUCN_EN-Endangered NABCI_RWL-Red Watch List	200 200	110 S:1	0	0	0	0	0	1	1	0	1	0	0
Brasenia schreberi watershield	G5 S3	None None	Rare Plant Rank - 2B.3	1,095 1,095	43 S:1	0	0	0	0	0	1	0	1	1	0	0
Calystegia purpurata ssp. saxicola coastal bluff morning-glory	G4T2T3 S2S3	None None	Rare Plant Rank - 1B.2	50 150	42 S:11	1	2	3	0	0	5	2	9	11	0	0
Campanula californica swamp harebell	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	30 1,250	139 S:57	1	26	19	3	0	8	16	41	57	0	0
Carex californica California sedge	G5 S2	None None	Rare Plant Rank - 2B.3	475 1,250	41 S:9	0	3	1	0	0	5	0	9	9	0	0
Carex lyngbyei Lyngbye's sedge	G5 S3	None None	Rare Plant Rank - 2B.2	20 20	29 S:1	0	0	0	0	0	1	1	0	1	0	0
Carex saliniformis deceiving sedge	G2 S2	None None	Rare Plant Rank - 1B.2	60 750	18 S:6	1	0	0	0	0	5	4	2	6	0	0
Castilleja ambigua var. humboldtiensis Humboldt Bay owl's-clover	G4T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	2 2	31 S:1	1	0	0	0	0	0	1	0	1	0	0
Castilleja mendocinensis Mendocino Coast paintbrush	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	100 100	47 S:1	0	0	0	0	0	1	0	1	1	0	0
Cerorhinca monocerata rhinoceros auklet	G5 S3	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	20 20	10 S:2	0	0	0	0	0	2	2	0	2	0	0
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	G3 S2.1	None None			60 S:3	0	0	0	0	0	3	3	0	3	0	0
Coastal Brackish Marsh Coastal Brackish Marsh	G2 S2.1	None None			30 S:2	0	0	0	0	0	2	2	0	2	0	0
Coastal Terrace Prairie Coastal Terrace Prairie	G2 S2.1	None None		280 280	8 S:1	0	1	0	0	0	0	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Coptis laciniata Oregon goldthread	G4? S3?	None None	Rare Plant Rank - 4.2	180 410	122 S:2	0	1	0	0	0	1	0	2	2	0	0
Corynorhinus townsendii Townsend's big-eared bat	G3G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	480 1,030	628 S:3	0	0	0	0	0	3	3	0	3	0	0
Cuscuta pacifica var. papillata Mendocino dodder	G5T1 S1	None None	Rare Plant Rank - 1B.2		5 S:2	0	0	0	0	0	2	1	1	2	0	0
Danaus plexippus pop. 1 monarch - California overwintering population	G4T2T3 S2S3	None None	USFS_S-Sensitive	20 250	383 S:9	0	0	1	0	0	8	9	0	9	0	0
Dicamptodon ensatus California giant salamander	G3 S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	50 1,650	232 S:28	0	1	0	0	0	27	21	7	28	0	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	75 75	1357 S:1	0	0	0	0	0	1	1	0	1	0	0
Erethizon dorsatum North American porcupine	G5 S3	None None	IUCN_LC-Least Concern	889 889	508 S:1	0	0	0	0	0	1	1	0	1	0	0
Erigeron supplex supple daisy	G2 S2	None None	Rare Plant Rank - 1B.2	20 600	21 S:14	1	3	4	1	0	5	3	11	14	0	0
Erysimum concinnum bluff wallflower	G3 S2	None None	Rare Plant Rank - 1B.2	150 150	30 S:1	0	0	0	0	0	1	1	0	1	0	0
Eucyclogobius newberryi tidewater goby	G3 S3	Endangered None	AFS_EN-Endangered CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	5 5	127 S:1	1	0	0	0	0	0	1	0	1	0	0
Fratercula cirrhata tufted puffin	G5 S1S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern		17 S:1	0	0	0	0	0	1	1	0	1	0	0

269

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Fritillaria roderickii Roderick's fritillary	G1Q S1	None Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	80 150	8 S:3	0	0	0	0	1	2	3	0	2	1	0
Gilia capitata ssp. pacifica Pacific gilia	G5T3 S2	None None	Rare Plant Rank - 1B.2		73 S:3	0	0	0	0	0	3	2	1	3	0	0
Gilia capitata ssp. tomentosa woolly-headed gilia	G5T1 S1	None None	Rare Plant Rank - 1B.1	70 70	11 S:1	0	0	0	0	1	0	1	0	0	1	0
Glyceria grandis American manna grass	G5 S3	None None	Rare Plant Rank - 2B.3	200 200	10 S:1	0	0	0	0	0	1	1	0	1	0	0
Haliaeetus leucocephalus bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	1,100 1,100	327 S:1	0	0	1	0	0	0	0	1	1	0	0
Hesperevax sparsiflora var. brevifolia short-leaved evax	G4T3 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	40 100	56 S:6	0	2	0	0	0	4	2	4	6	0	0
Hesperocyparis pygmaea pygmy cypress	G1 S1	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	30 1,300	37 S:7	0	2	0	0	0	5	2	5	7	0	0
Horkelia marinensis Point Reyes horkelia	G2 S2	None None	Rare Plant Rank - 1B.2	1,275 1,275	36 S:1	0	0	0	0	0	1	1	0	1	0	0
Horkelia tenuiloba thin-lobed horkelia	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	150 1,300	27 S:13	0	2	5	0	0	6	5	8	13	0	0
Hypogymnia schizidiata island tube lichen	G2 S1	None None	Rare Plant Rank - 1B.3	1,135 1,135	10 S:1	0	0	1	0	0	0	0	1	1	0	0
Kopsiopsis hookeri small groundcone	G4? S1S2	None None	Rare Plant Rank - 2B.3	1,995 1,995	21 S:1	0	1	0	0	0	0	0	1	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Lasthenia californica ssp. bakeri Baker's goldfields	G3T1 S1	None None	Rare Plant Rank - 1B.2	20 150	19 S:4	0	0	0	0	1	3	3	1	3	1	0
Lasthenia californica ssp. macrantha perennial goldfields	G3T2 S2	None None	Rare Plant Rank - 1B.2	20 50	59 S:6	0	0	0	0	0	6	6	0	6	0	0
Lasthenia conjugens Contra Costa goldfields	G1 S1	Endangered None	Rare Plant Rank - 1B.1 SB_UCBBG-UC Berkeley Botanical Garden	100 100	36 S:1	0	0	0	0	0	1	1	0	1	0	0
Lathyrus palustris marsh pea	G5 S2	None None	Rare Plant Rank - 2B.2	65 450	13 S:2	0	1	0	0	0	1	0	2	2	0	0
Lavinia symmetricus parvipinnis Gualala roach	G4T1T2 S2S3	None None	CDFW_SSC-Species of Special Concern	1 160	4 S:3	2	1	0	0	0	0	0	3	3	0	0
Lilium maritimum coast lily	G2 S2	None None	Rare Plant Rank - 1B.1	25 1,160	80 S:36	1	11	14	2	0	8	20	16	36	0	0
Lycopodium clavatum running-pine	G5 S3	None None	Rare Plant Rank - 4.1	570 570	120 S:1	0	0	0	1	0	0	0	1	1	0	0
Microseris paludosa marsh microseris	G2 S2	None None	Rare Plant Rank - 1B.2		38 S:1	0	0	0	0	0	1	1	0	1	0	0
Northern Coastal Bluff Scrub Northern Coastal Bluff Scrub	G2 S2.2	None None		50 50	1 S:1	1	0	0	0	0	0	1	0	1	0	0
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	G3 S3.2	None None			53 S:1	0	0	0	0	0	1	1	0	1	0	0
Oenothera wolfii Wolf's evening-primrose	G2 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_BerrySB-Berry Seed Bank	100 100	29 S:1	0	0	0	0	0	1	1	0	1	0	0
Oncorhynchus gorbuscha pink salmon	G5 S1	None None		40 40	1 S:1	0	0	1	0	0	0	0	1	1	0	0
Oncorhynchus kisutch pop. 4 coho salmon - central California coast ESU	G4 S2?	Endangered Endangered	AFS_EN-Endangered	250 580	23 S:2	0	0	0	0	0	2	2	0	2	0	0
Oncorhynchus mykiss irideus pop. 16 steelhead - northern California DPS	G5T2T3Q S2S3	Threatened None	AFS_TH-Threatened	12 975	12 S:4	0	1	0	0	0	3	3	1	4	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Piperia candida white-flowered rein orchid	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	600 1,100	167 S:6	0	1	1	0	0	4	1	5	6	0	0
Potamogeton epihydrus Nuttall's ribbon-leaved pondweed	G5 S2S3	None None	Rare Plant Rank - 2B.2		25 S:1	0	0	0	0	0	1	1	0	1	0	0
Rana boylii foothill yellow-legged frog	G3 S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	10 1,618	2359 S:57	4	5	0	0	2	46	14	43	55	0	2
Rana draytonii California red-legged frog	G2G3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	20 825	1507 S:8	0	3	0	0	0	5	3	5	8	0	0
Rhyacotriton variegatus southern torrent salamander	G3G4 S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	350 350	415 S:1	0	1	0	0	0	0	0	1	1	0	0
Sidalcea calycosa ssp. rhizomata Point Reyes checkerbloom	G5T2 S2	None None	Rare Plant Rank - 1B.2	100 200	34 S:5	1	0	2	1	0	1	2	3	5	0	0
Sidalcea malachroides maple-leaved checkerbloom	G3 S3	None None	Rare Plant Rank - 4.2	15 600	136 S:12	0	1	6	1	1	3	12	0	11	1	0
Sidalcea malviflora ssp. purpurea purple-stemmed checkerbloom	G5T1 S1	None None	Rare Plant Rank - 1B.2		19 S:3	0	0	0	0	0	3	3	0	3	0	0
Speyeria zerene behrensii Behren's silverspot butterfly	G5T1 S1	Endangered None	XERCES_CI-Critically Imperiled	60 265	9 S:7	1	0	0	0	0	6	7	0	2	0	5
Taricha rivularis red-bellied newt	G4 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	10 10,000	136 S:10	0	0	0	0	0	10	7	3	10	0	0
Taxidea taxus American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	68 68	563 S:1	0	1	0	0	0	0	0	1	1	0	0
Trifolium buckwestiorum Santa Cruz clover	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_USDA-US Dept of Agriculture	330 1,680	50 S:21	0	3	0	0	0	18	6	15	21	0	0

272

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Trifolium trichocalyx Monterey clover	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_USDA-US Dept of Agriculture	346 700	6 S:3	0	3	0	0	0	0	0	3	3	0	0
Usnea longissima Methuselah's beard lichen	G4 S4	None None	Rare Plant Rank - 4.2 BLM_S-Sensitive	320 1,400	206 S:5	0	1	0	1	0	3	3	2	5	0	0

273

Stream Monitoring Report

Ownerships: All
Visit Purpose: All
Planning Watersheds: Robinson Creek

Station Number	Name	Miles Up Stream	Year	Temperature Seasonal Maximum	Temperature MWAT	LWD Bank Full >6 In & >4 Ft or >10 CuFt CuFt/ 1000'	LWD Bank Full Pieces/ 1000'	Substrate >0.85 mm	Substrate D50	Streambed (Thalweg) Slope	Streambed (Thalweg) VI	Streambed (Thalweg) A/D	Riparian Zone Canopy % WLPZ	Riparian Zone Canopy % Cr.	Riparian Zone Basal Area	Riparian Zone Tallest Tree	Fish or Redds per Mile Coho	Fish or Redds per Mile SH (1+)	Fish or Redds per Mile Redds	Aquatic Macroinvertebrates Richness	Aquatic Macroinvertebrates Hilsenhoff Simpson	Aquatic Macroinvertebrates % Dominant Russian R Index	Aquatic Macroinvertebrates
Hydrologic Unit				**NF Gualala**																				
Abieta Springs																								
752	AbtT	0.09	2009	17.9	16.6																			
Abieta Springs			Avg	17.9	16.6																			
Alder Creek																								
816	016	0.00	2013														0	249	2					
816	016	0.00	2014														0	200	0					
816	016	0.00	2015														0	193						
816	016	0.00	2016														0	91						
211	Dry3	0.19	1995	17.7	15.7			17%																
211	Dry3	0.19	1996	17.7	15.9																			
211	Dry3	0.19	1997	16.9	15.2			13%																
211	Dry3	0.19	1998			3,148	57		48	0.8%	22						16	0						
211	Dry3	0.19	1999			2,815	53		58	0.7%	20	-0.10	86%	87%	207	118	0	148						
211	Dry3	0.19	2000	16.5	14.8	2,834	49		60	0.7%	21	-0.07	84%	77%			0	48		32	0.79	4.4	16	40
211	Dry3	0.19	2001	16.4	14.1	5,375	85		56	0.7%	19	-0.10					0	127						
211	Dry3	0.19	2002	15.6	14.0	6,311	95		62	0.7%	17	-0.39					11	143						
211	Dry3	0.19	2003	16.1	14.9	7,238	93		43	0.7%	22	-0.33					0	174						
211	Dry3	0.19	2004	14.8	13.7	7,142	98		38	0.8%	29	-0.27					23	175						
211	Dry3	0.19	2005	16.4	15.0	7,078	96		36	0.8%	29	-0.22												
211	Dry3	0.19	2006			7,066	91		29	0.8%	21	0.52												
211	Dry3	0.19	2007			6,993	97		26	0.8%	20	0.54												
211	Dry3	0.19	2008	14.9	13.8	7,283	112		21	0.8%	21	0.42	93%	82%			0	0						
211	Dry3	0.19	2009	15.2	13.7	7,306	115		31	0.9%	23	0.42	88%	79%			0	407						
211	Dry3	0.19	2010	15.4	14.1	7,387	115		30	0.9%	21	0.56												
211	Dry3	0.19	2011	15.0	13.8	7,358	116		30	0.9%	21	0.39	82%	80%			0	63						
211	Dry3	0.19	2012			7,131	112		33	0.9%	25	0.19												
211	Dry3	0.19	2013	14.5	13.0	7,096	107		27	0.9%	22	0.10												
211	Dry3	0.19	2014	15.0	13.8	7,353	106		32	0.9%	24	0.14					0	90						
211	Dry3	0.19	2015			6,819	117		36	1.0%	20	0.14	85%	78%										

274

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	
211	Dry3	0.19	2016	15.8	14.3	7,906	129		37	1.0%	18	0.16	87%	82%			0	21						
211	Dry3	0.19	2017			7,755	124						90%	85%			0	37						
211	Dry3	0.19	2018														0	26						
212	Dry2	1.29	1995	20.9	17.9																			
212	Dry2	1.29	1996	20.7	17.8																			
212	Dry2	1.29	1997	20.5	17.9																			
212	Dry2	1.29	1998	20.6	17.6																			
212	Dry2	1.29	2000			2,477	37			1.8%	13		76%	56%	81	90				41	0.92	4.5	22	19
212	Dry2	1.29	2004														0	500						
212	Dry2	1.29	2005	17.9	16.1																			
212	Dry2	1.29	2008	16.8	15.9	2,185	28		36	1.9%	14	-0.40	87%	85%										
212	Dry2	1.29	2009	16.8	15.7																			
212	Dry2	1.29	2011	16.7	15.3																			
212	Dry2	1.29	2012	16.5	15.1																			
212	Dry2	1.29	2018																					
753	Dry1	1.61	2009	16.5	15.7																			
Dry Creek				**Avg 16.8**	**15.2**	**6,093**	**92**	**14%**	**38**	**0.9%**	**21**	**0.09**	**86%**	**79%**	**144**	**104**	**3**	**142**	**1**	**37**	**0.86**	**4.5**	**19**	**30**
902	Ful	0.06	1999	24.0	18.9																			
902	Ful	0.06	2013	21.7	19.1																			
Fuller Creek				**Avg 22.9**	**19.0**																			
815	015	0.00	2013														0	0	0					
815	015	0.00	2014														0	0						
815	015	0.00	2015														0	42						
815	015	0.00	2016														0	20						
209	MGG2	0.08	1995	16.7	15.9			19%																
209	MGG2	0.08	1996	16.4	15.6																			
209	MGG2	0.08	1997	15.5	14.4			23%																
209	MGG2	0.08	2003														0	104						
210	MGG1	0.42	1995	20.4	16.4																			
210	MGG1	0.42	2002	14.2	13.9																			
210	MGG1	0.42	2003	14.8	14.6																			
210	MGG1	0.42	2004	14.9	14.5																			
210	MGG1	0.42	2008	14.1	13.5																			

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 Simpson	Hilsenhoff Russian R Index	% Dominant
210	MGG1	0.42	2011	13.9	13.8																	
McGann Gulch			Avg	15.6	14.7			22%									0	33	0			
Stream		Miles Up Stream	Year																			
801	001	0.00	2013															141				
801	001	0.00	2014														0	712	0			
801	001	0.00	2015														0	344				
801	001	0.00	2016														0	31				
251	NFG	0.06	1996	19.0	16.6																	
251	NFG	0.06	1997	19.3	17.5																	
251	NFG	0.06	2000	19.0	16.4																	
473	NFG4	0.44	2001	19.3	16.6	2,518	64		26	0.3%	28		93%	84%	135	138						
473	NFG4	0.44	2003														0	291				
473	NFG4	0.44	2009	17.9	15.7																	
473	NFG4	0.44	2013	18.3	16.1																	
473	NFG4	0.44	2015	17.9	15.9																	
473	NFG4	0.44	2016	17.4	15.6																	
473	NFG4	0.44	2018																			
802	002	1.19	2013															268	3			
802	002	1.19	2014														0	644	1			
802	002	1.19	2015														0	373				
802	002	1.19	2016														0	48				
802	002	1.19	2018																			
204	NFG3	1.25	1995	20.6	17.5																	
204	NFG3	1.25	1996	20.1	18.7																	
204	NFG3	1.25	1997	19.4	18.2																	
204	NFG3	1.25	1998	20.2	17.7												0	0				
204	NFG3	1.25	1999			2,326	46		19	0.4%	23		64%	46%	140	133	0	109				
204	NFG3	1.25	2000	19.9	17.0												0	698				
204	NFG3	1.25	2001	18.6	16.7	2,922	97		24	0.4%	26	-0.41					0	84				
204	NFG3	1.25	2002														0	317				
204	NFG3	1.25	2003														0	255				
204	NFG3	1.25	2007			3,174	57		15													
204	NFG3	1.25	2008	16.8	15.5	2,981	60		28	0.3%	31	-1.00	80%	69%			0	79				
204	NFG3	1.25	2009	17.7	15.9												0	1,484				
204	NFG3	1.25	2010	17.4	15.9																	

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	Cr.	Basal Area	Tallest Tree	Coho	SH (1+)	Redds	Richness Simpson	Hilsenhoff Russian R	% Dominant Index
204	NFG3	1.25	2011	17.1	15.6																	
204	NFG3	1.25	2012	17.2	15.5																	
204	NFG3	1.25	2013	17.7	16.3																	
204	NFG3	1.25	2014	16.4	15.4												0	642				
204	NFG3	1.25	2015	16.3	15.3												0	209				
204	NFG3	1.25	2016	16.6	15.5												0	42				
204	NFG3	1.25	2017														0	50				
204	NFG3	1.25	2018														0	21				
803	003	2.71	2013															503	10			
803	003	2.71	2014														0	328	1			
803	003	2.71	2015														0	339	3			
803	003	2.71	2016														0	127	0			
803	003	2.71	2017														0	13				
258	NFG	3.83	1994	24.5	19.3																	
258	NFG	3.83	2011	18.7	16.3																	
258	NFG	3.83	2012	18.3	16.5																	
258	NFG	3.83	2016	18.1	16.8																	
258	NFG	3.83	2018																			
804	004	3.83	2012																3			
804	004	3.83	2013															202	6			
804	004	3.83	2014														0	324	4			
804	004	3.83	2015														0	315				
804	004	3.83	2016														0	174				
205	NFG	4.94	1995	21.4	17.7																	
205	NFG	4.94	1996	20.4	17.8																	
205	NFG	4.94	1997	21.1	18.1																	
205	NFG	4.94	2001	19.3	17.0																	
205	NFG	4.94	2012	17.5	15.5																	
205	NFG	4.94	2013	18.6	16.0																	
805	005	5.25	2012																3			
805	005	5.25	2013															494	10			
805	005	5.25	2014														0	566	3			
805	005	5.25	2015														0	267				
805	005	5.25	2016														0	196				
406	NFG2	5.38	1998	21.4	18.6																	

277

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	Cr.	Basal Area	Tallest Tree	Coho	SH (1+)	Redds	Richness Simpson	Hilsenhoff Russian R Index	% Dominant
406	NFG2	5.38	2004														0	303				
406	NFG2	5.38	2012	18.3	16.0																	
406	NFG2	5.38	2013	19.4	16.8																	
406	NFG2	5.38	2015	19.4	16.6																	
406	NFG2	5.38	2018																			
474	NFG	6.08	2001	22.4	18.4																	
474	NFG	6.08	2002	20.9	18.7																	
474	NFG	6.08	2003	22.1	19.3																	
474	NFG	6.08	2004	20.5	18.8																	
474	NFG	6.08	2008	21.7	18.4																	
474	NFG	6.08	2010	20.3	17.6																	
474	NFG	6.08	2011	20.8	17.9																	
474	NFG	6.08	2012	18.7	15.9																	
474	NFG	6.08	2013	20.2	17.6																	
474	NFG	6.08	2014	19.7	16.5																	
474	NFG	6.08	2016	20.4	17.7																	
474	NFG	6.08	2018																			
North Fork Gualala				**Avg**	**19.3**	**16.9**	**2,784**	**65**	**22**	**0.3%**	**27**	**-0.7**	**79%**	**66%**	**137**	**136**	**0**	**305**	**4**			
269	Pea3	0.30	1994		16.2	15.7																
269	Pea3	0.30	1998		17.5	16.0																
269	Pea3	0.30	2008		16.8	15.5																
269	Pea3	0.30	2009		16.2	15.2																
269	Pea3	0.30	2012		16.0	14.7																
213	Pea2	1.52	1995		17.0	16.0																
213	Pea2	1.52	1996		17.3	16.1																
213	Pea2	1.52	1997		17.8	16.4																
Peaches Creek				**Avg**	**16.9**	**15.7**																
814	014	0.00	2012																0			
814	014	0.00	2013														0	185	0			
814	014	0.00	2014														0	394	0			
814	014	0.00	2015														0	76				
814	014	0.00	2016														0	130				
260	Rob	0.01	1994		14.6	13.8																

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 Simpson	Hilsenhoff Russian R Index	% Dominant
207	Rob2	0.11	1995	19.6	15.8			15%														
207	Rob2	0.11	1996	19.6	15.7																	
207	Rob2	0.11	1997	20.2	16.2			18%														
207	Rob2	0.11	1998	18.5	15.4			18%									12	0				
207	Rob2	0.11	1999			1,643	49		36	1.4%	13		66%	74%	201	139	0	113				
207	Rob2	0.11	2000	17.2	14.7												0	422				
207	Rob2	0.11	2001														0	13				
207	Rob2	0.11	2003														0	100				
207	Rob2	0.11	2004														0	361				
207	Rob2	0.11	2005	14.8	14.1																	
207	Rob2	0.11	2008	15.8	14.6												0	21				
207	Rob2	0.11	2009	15.6	14.5																	
207	Rob2	0.11	2010	14.7	13.6																	
207	Rob2	0.11	2011	15.1	14.0	1,713	48		22	1.3%	25	-0.32	88%	72%								
207	Rob2	0.11	2012	14.8	13.9																	
207	Rob2	0.11	2015	16.2	15.1																	
409	Rob	0.57	2005	16.0	14.6																	
263	Rob	0.78	1994	17.7	15.5																	
263	Rob	0.78	2003														0	101				
263	Rob	0.78	2004														0	317				
263	Rob	0.78	2011	14.9	14.0																	
263	Rob	0.78	2012	14.9	13.8																	
208	Rob1	1.29	1995	16.6	14.9																	
208	Rob1	1.29	1996	16.4	15.0																	
208	Rob1	1.29	1997	16.7	14.9																	
208	Rob1	1.29	1998	16.2	14.9																	
208	Rob1	1.29	2003														0	76				
Robinson Cr West				**Avg**	**16.5**	**14.7**	**1,678**	**49**	**17%**	**29**	**1.4%**	**19**	**-0.3**	**77%**	**73%**	**201**	**139**	**1**	**165**	**0**		
206	Sosu	0.04	1995	20.4	14.2																	
206	Sosu	0.04	1996	16.9	14.2																	
206	Sosu	0.04	1997	16.4	13.8																	
206	Sosu	0.04	1998	16.5	14.4																	
206	Sosu	0.04	2000	18.0	14.0																	
Sosueme Cr				**Avg**	**17.6**	**14.1**																

Summary Robinson Creek Watershed

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	Hilsenhoff Russian R	% Dominant Index	
Hydrologic Uni	NF Gualala	Avg	17.8	15.8	5,218	85	18%	35	0.9%	22	0.002	83%	76%	153	124	1	218	3	37	0.86	4.5	19	30
		Avg	17.8	15.8	5,218	85	18%	35	0.9%	22	0.002	83%	76%	153	124	1	218	3	37	0.86	4.5	19	30
		Min	13.9	13.0	1,643	28	8%	15	0.3%	13	-1	64%	46%	81	90	0	0	0	32	0.79	4.4	16	19
		Max	24.5	19.3	7,906	129	48%	62	1.9%	31	0.56	93%	87%	207	139	23	1,484	10	41	0.92	4.5	22	40
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.

280

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

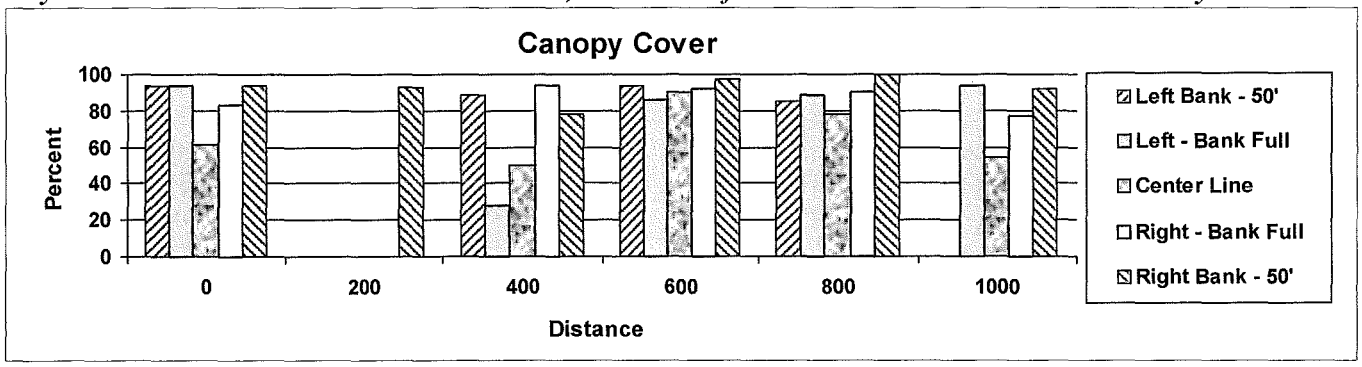
- Richness – Total number of Genuses represented.
- Simpson Diversity Index – Measures the evenness of species diversity
- Hilsenhoff – This is a locally modified Hilsenhoff index. It indicates levels of organic pollution
- Russian River Index – A localized index that combines several standard metrics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

Canopy Cover

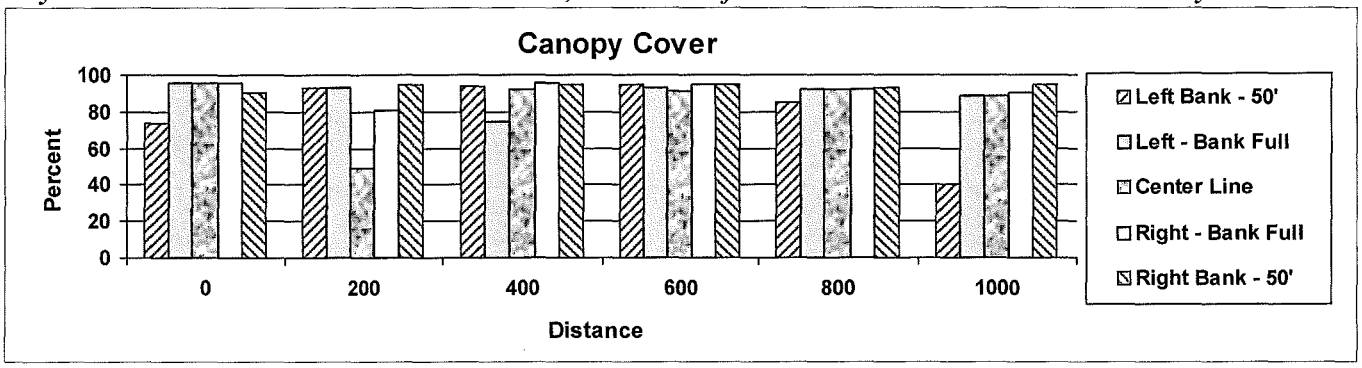
Ownerships: All

Planning Watershed: Robinson Creek

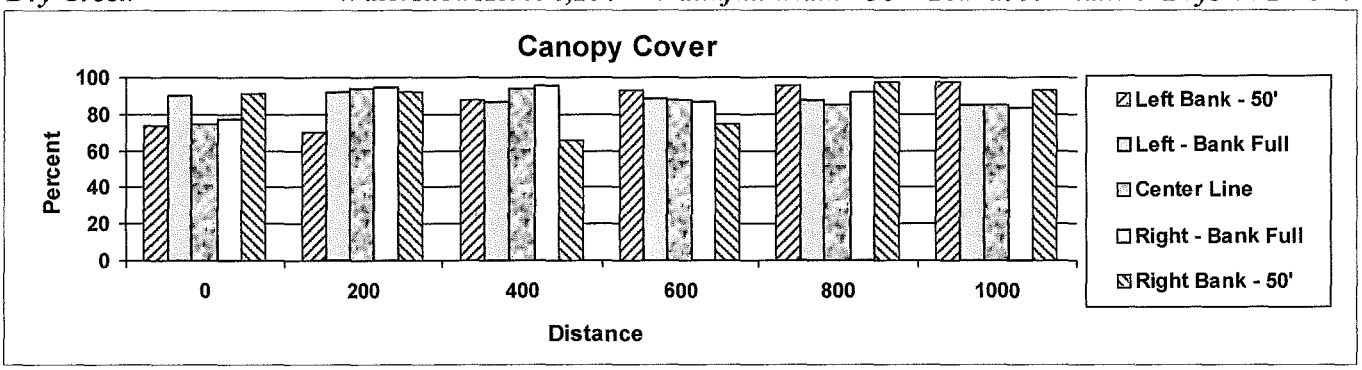
Dry Creek *Watershed Acres 3,756* *Bankfull width 38 ' Year 2000 Station Dry2 212 425*



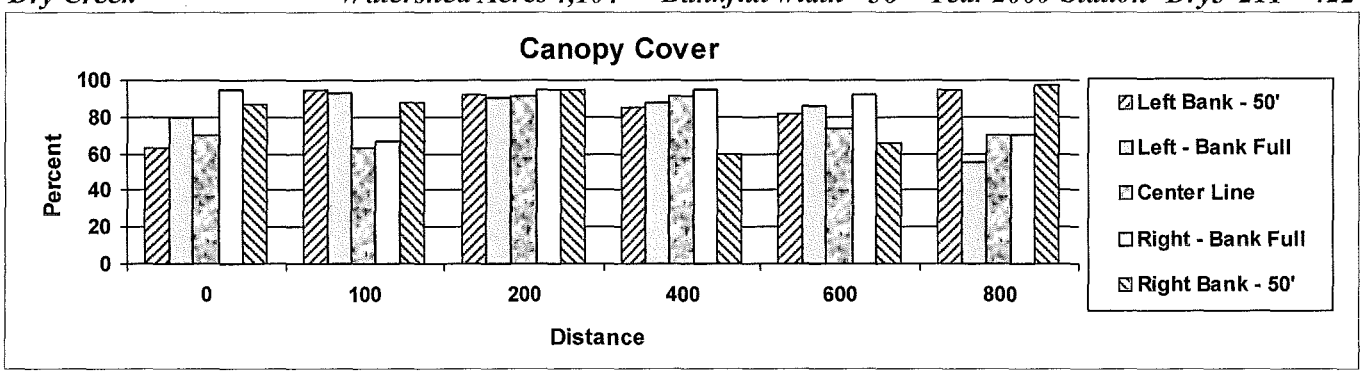
Dry Creek *Watershed Acres 3,756* *Bankfull width 38 ' Year 2008 Station Dry2 212 945*



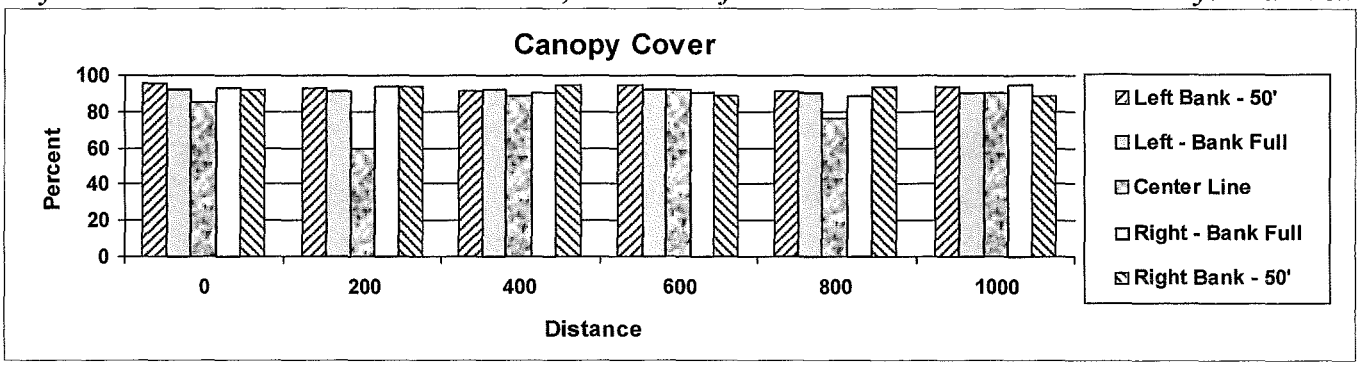
Dry Creek *Watershed Acres 4,104* *Bankfull width 36 ' Year 1999 Station Dry3 211 344*



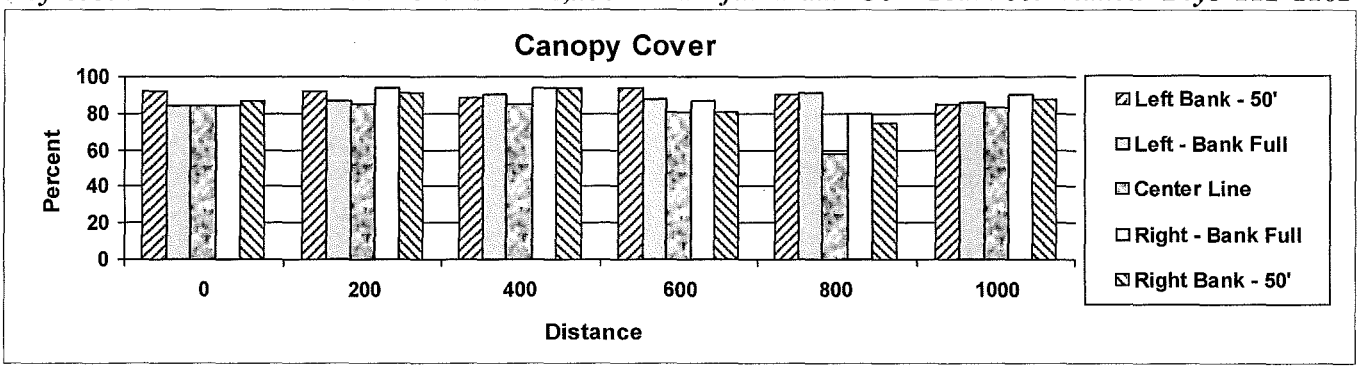
Dry Creek *Watershed Acres 4,104* *Bankfull width 36 ' Year 2000 Station Dry3 211 422*



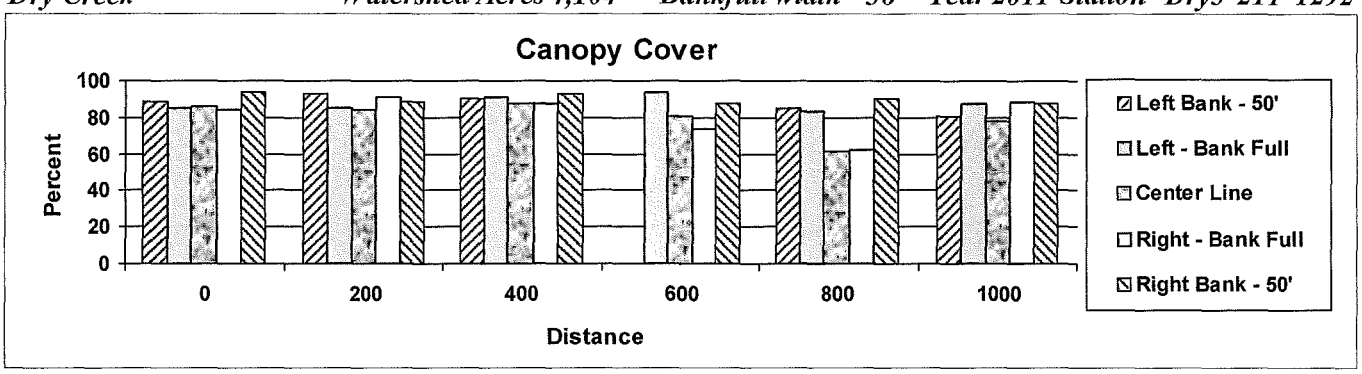
Dry Creek *Watershed Acres 4,104* *Bankfull width 36 ' Year 2008 Station Dry3 211 902*



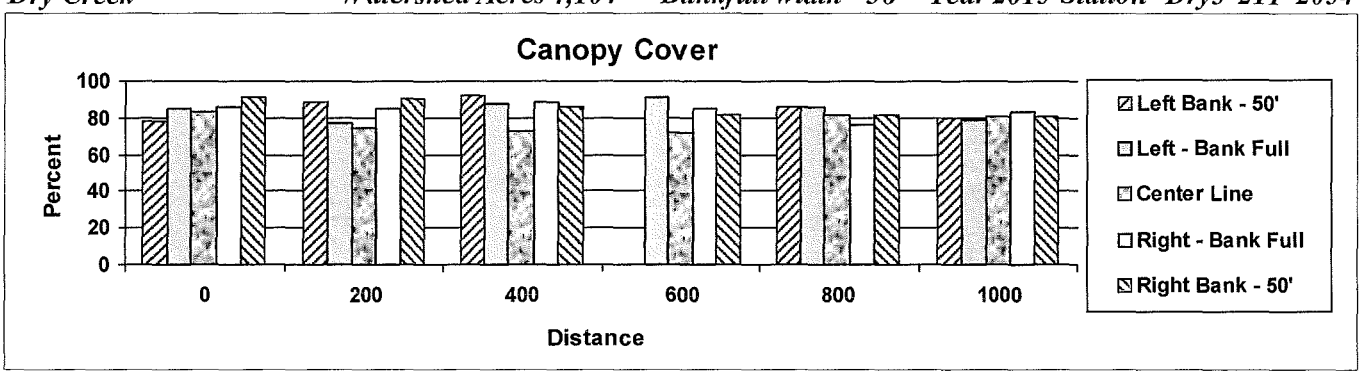
Dry Creek *Watershed Acres 4,104* *Bankfull width 36 ' Year 2009 Station Dry3 211 1182*



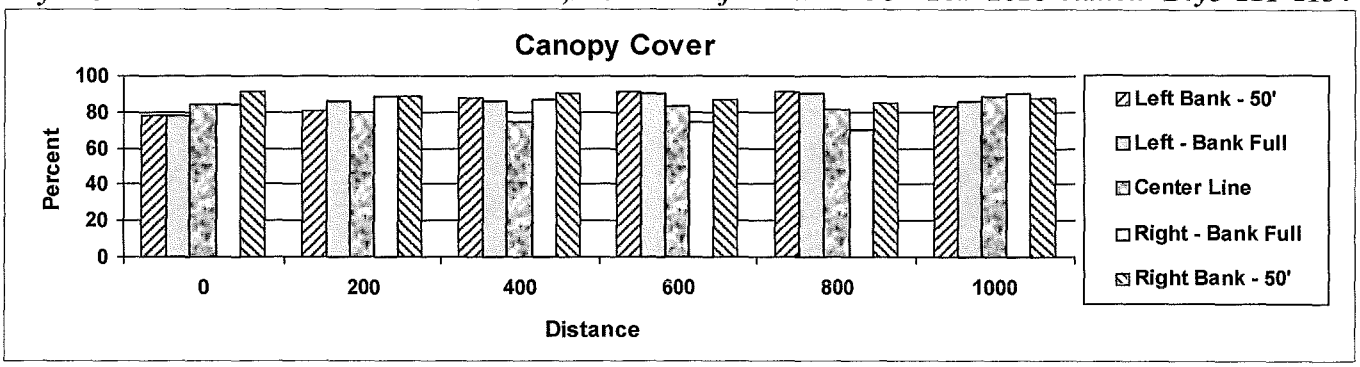
Dry Creek *Watershed Acres 4,104* *Bankfull width 36 ' Year 2011 Station Dry3 211 1292*



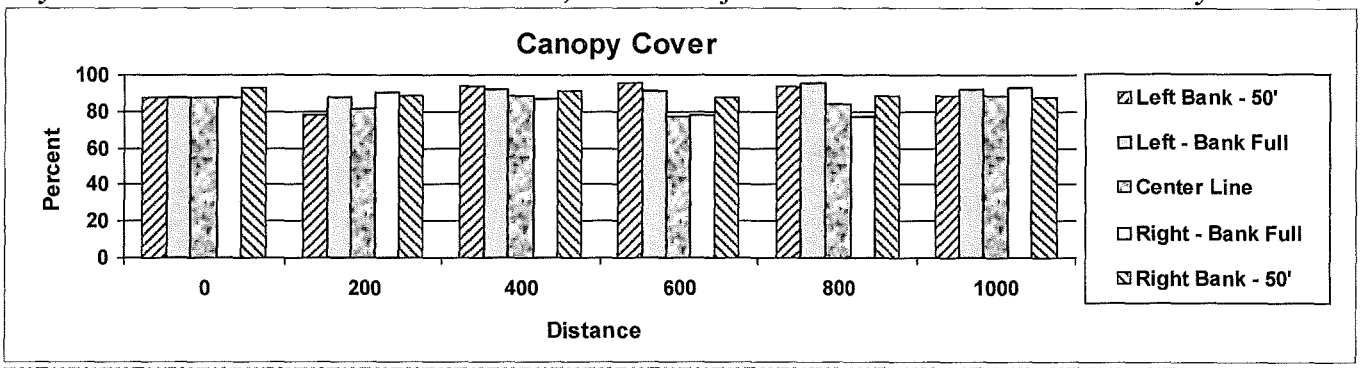
Dry Creek *Watershed Acres 4,104* *Bankfull width 36 ' Year 2015 Station Dry3 211 2054*



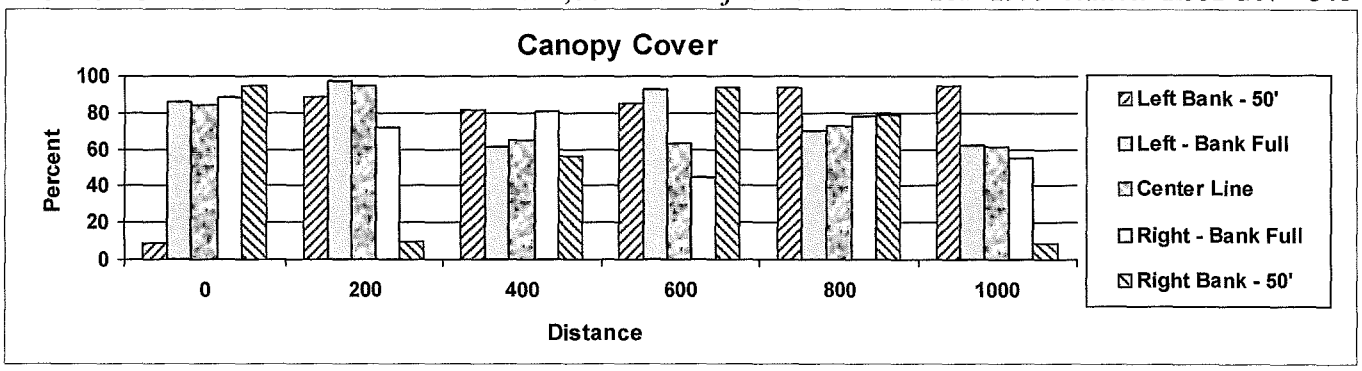
Dry Creek *Watershed Acres 4,104* *Bankfull width 36 ' Year 2016 Station Dry3 211 2134*



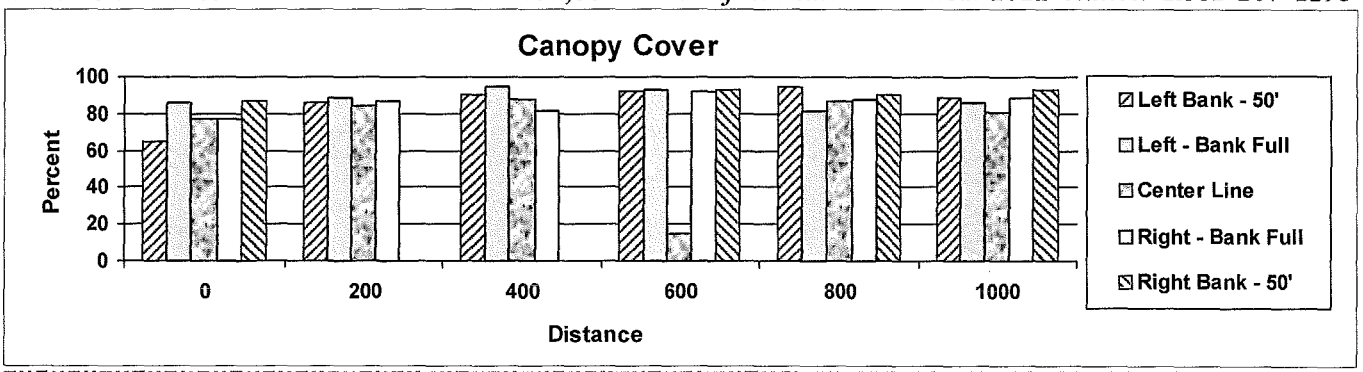
Dry Creek *Watershed Acres 4,104* *Bankfull width 36 ' Year 2017 Station Dry3 211 2138*



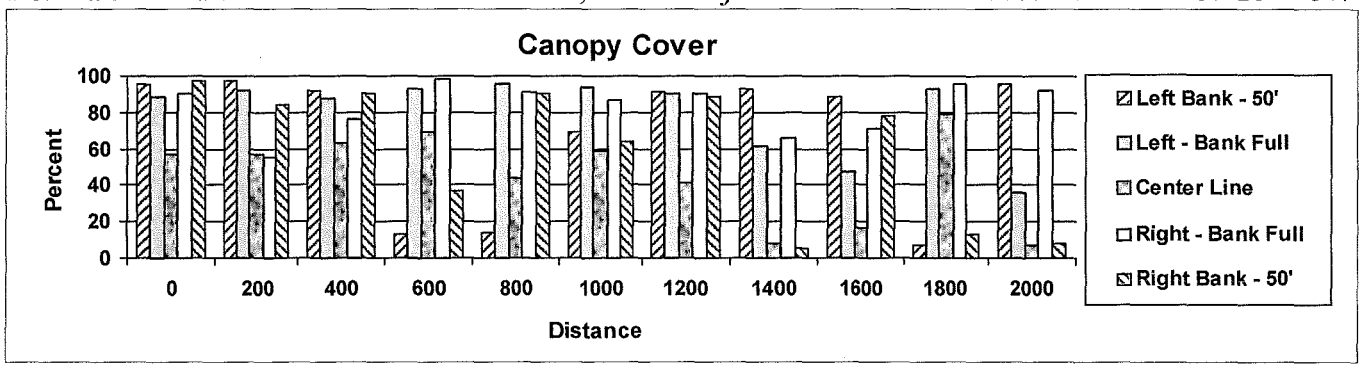
Robinson Cr West *Watershed Acres 1,068* *Bankfull width ' Year 1999 Station Rob2 207 345*



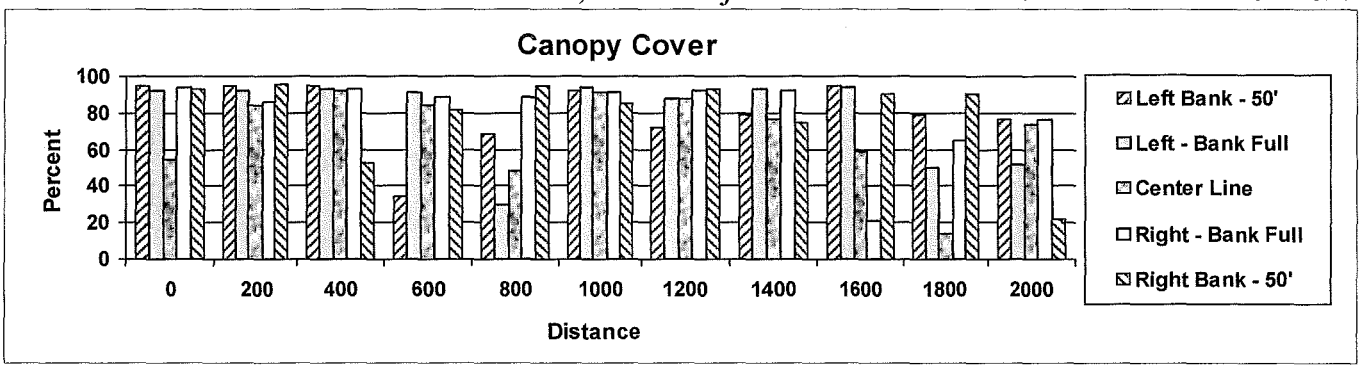
Robinson Cr West *Watershed Acres 1,068* *Bankfull width ' Year 2011 Station Rob2 207 1293*



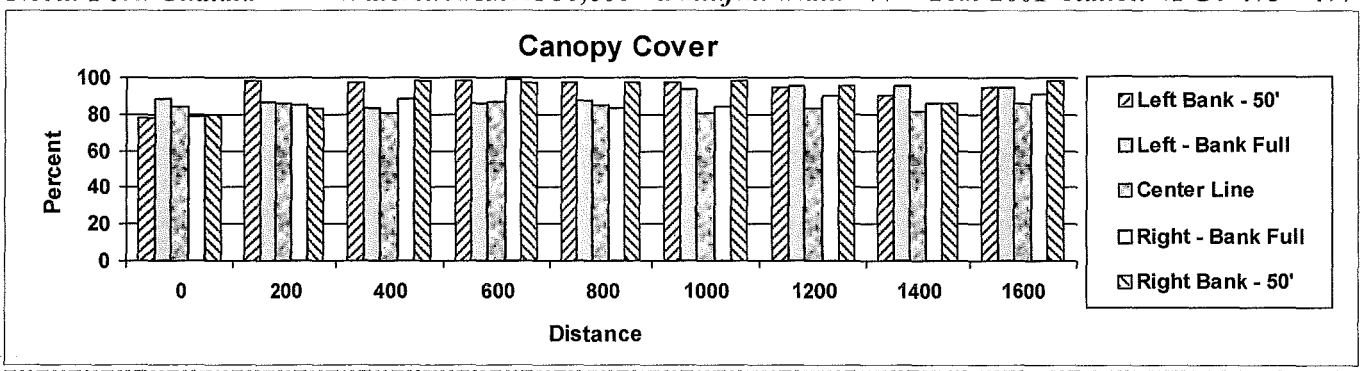
North Fork Gualala *Watershed Acres 25,433* *Bankfull width* *' Year 1999 Station VFG3 204 347*



North Fork Gualala *Watershed Acres 25,433* *Bankfull width* *' Year 2008 Station VFG3 204 898*



North Fork Gualala *Watershed Acres 30,600* *Bankfull width 77 ' Year 2001 Station VFG4 473 477*

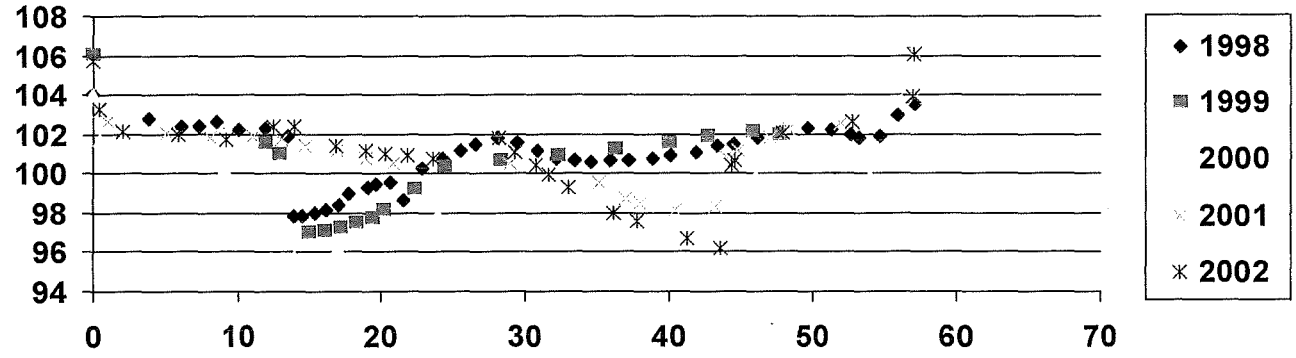


Cross Sections

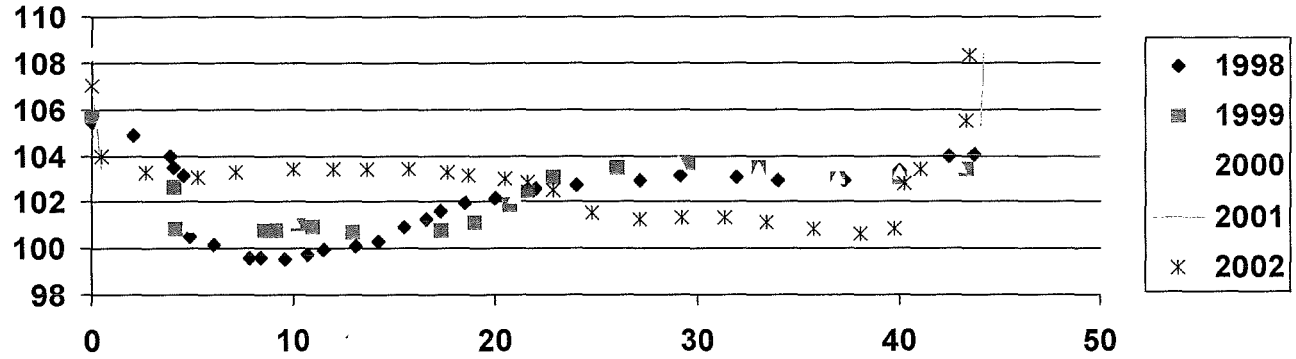
Planning Watershed: Robinson Creek

Station Name Dry3 **Stream:** Dry Creek

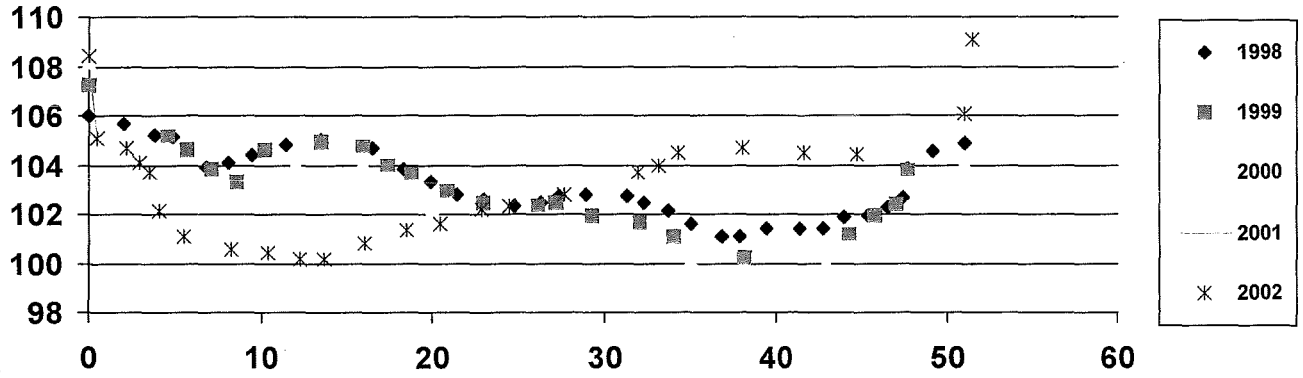
Cross Section 1



Cross Section 2

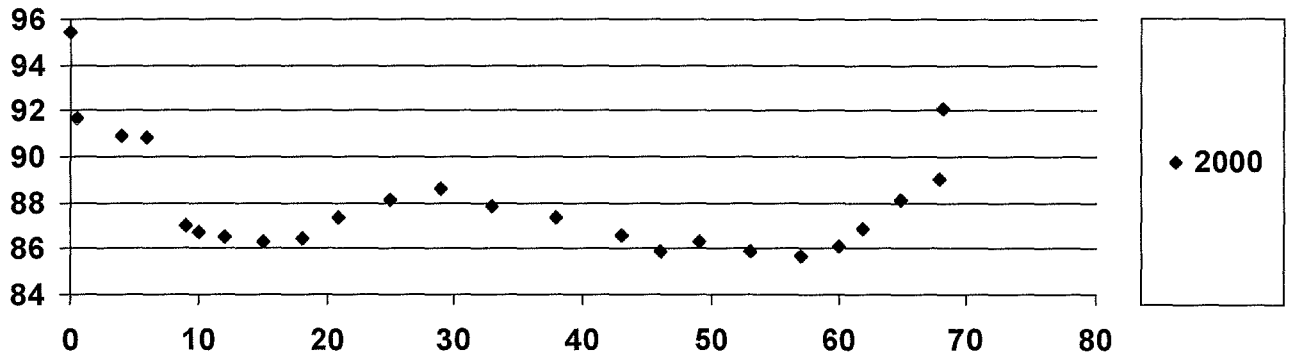


Cross Section 3

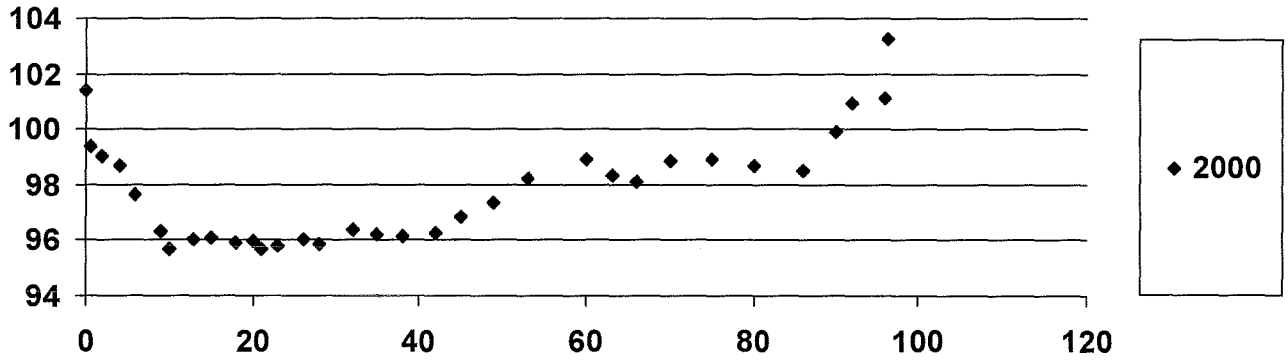


Station Name Dry2 **Stream:** Dry Creek

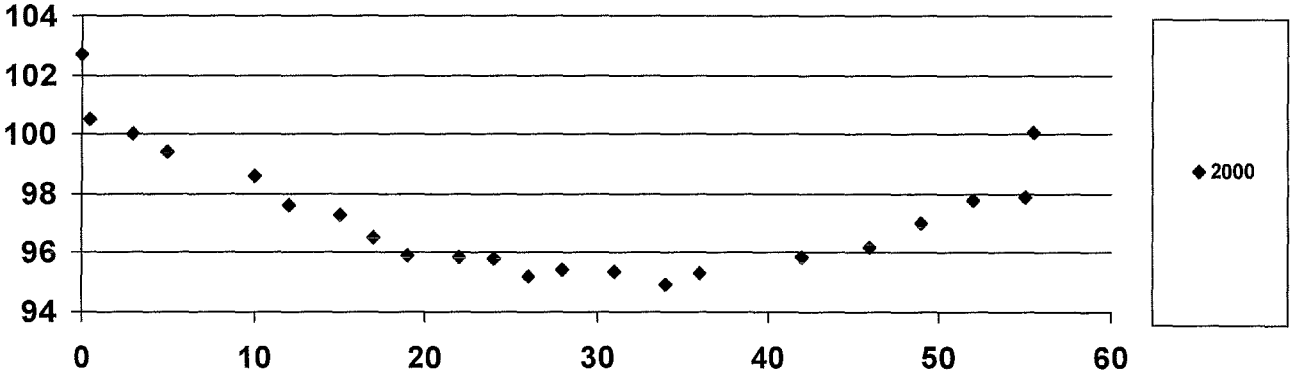
Cross Section 1



Cross Section 2

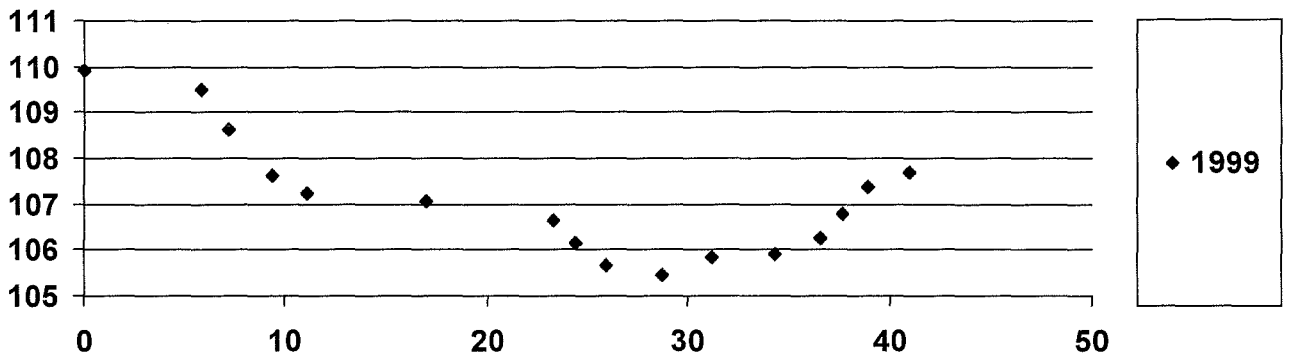


Cross Section 3

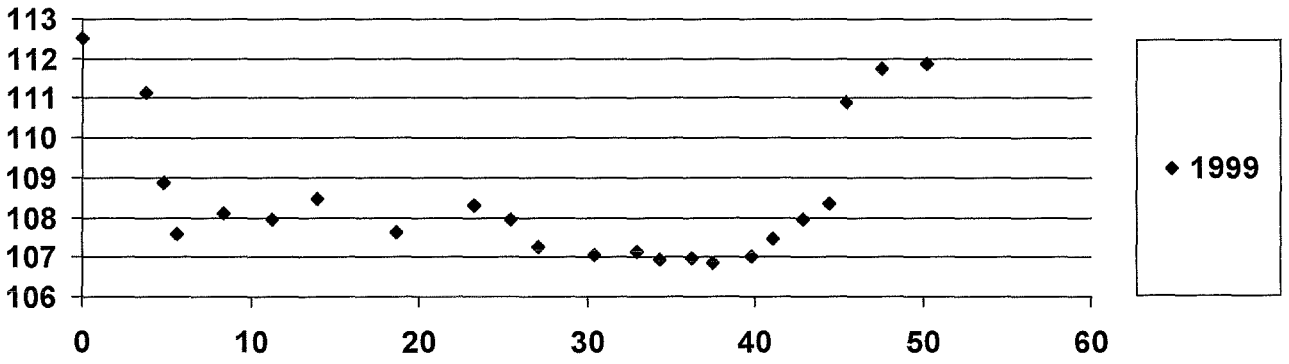


Station Name Rob2 **Stream:** Robinson Cr West

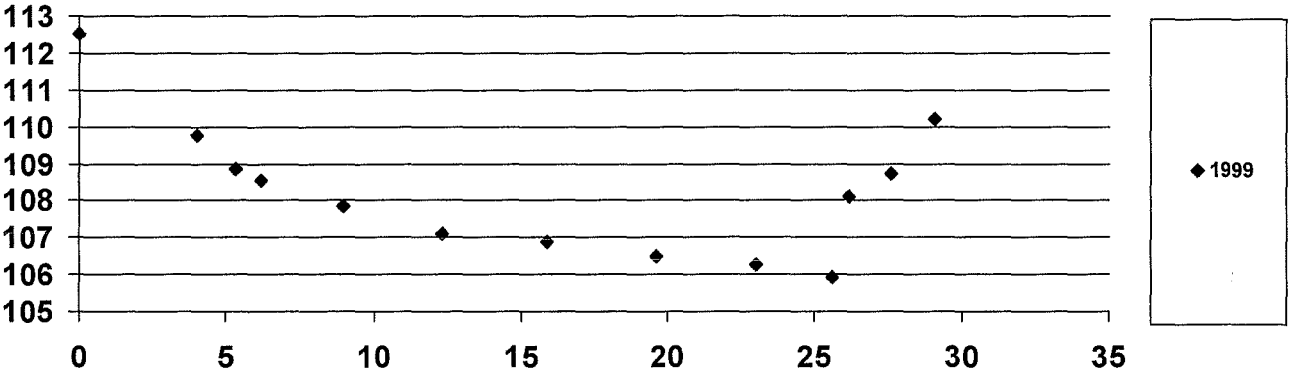
Cross Section 1



Cross Section 2

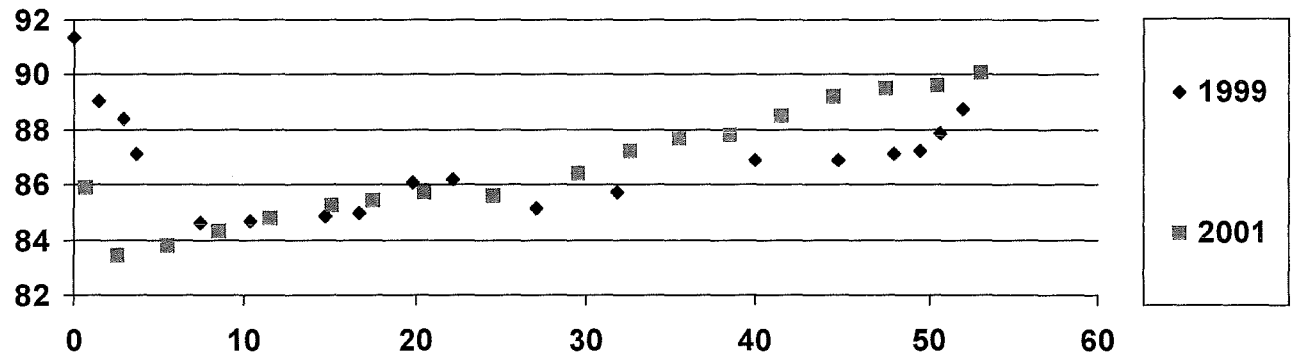


Cross Section 3

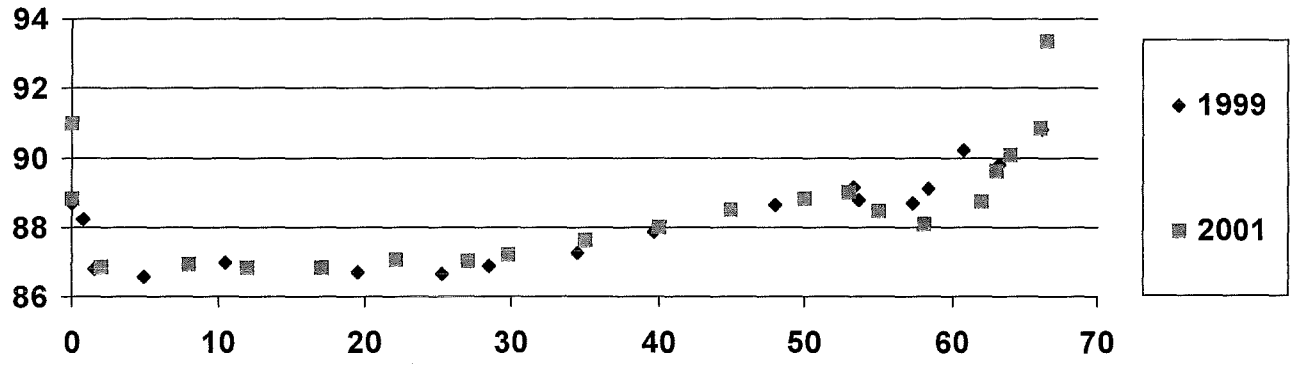


Station Name NFG3 **Stream:** North Fork Gualala

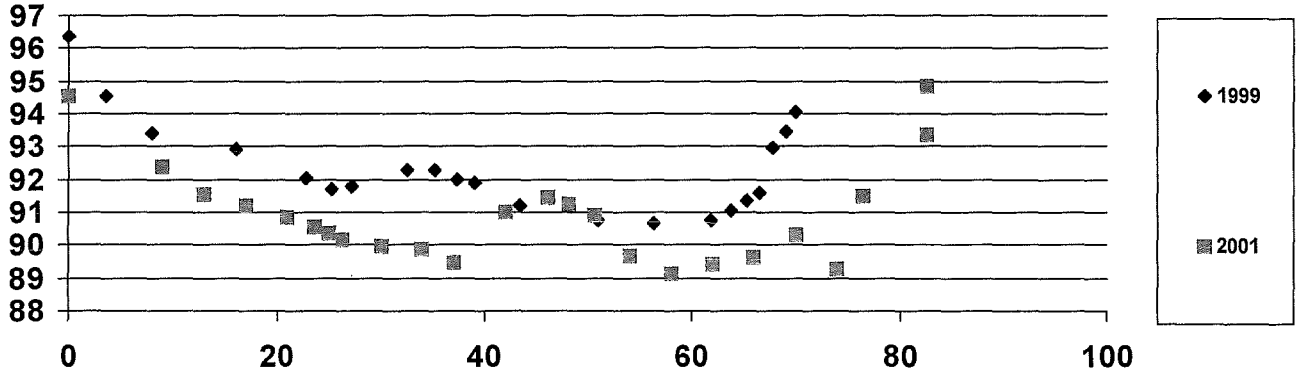
Cross Section 1



Cross Section 2

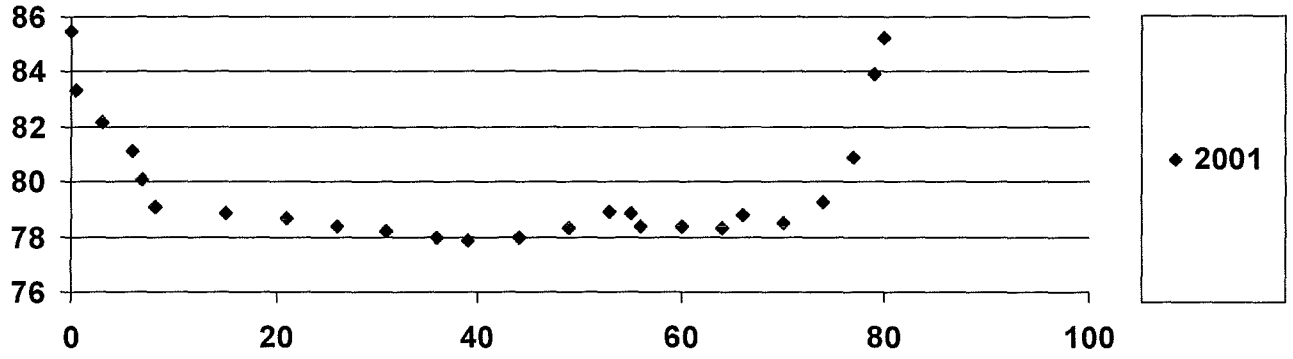


Cross Section 3

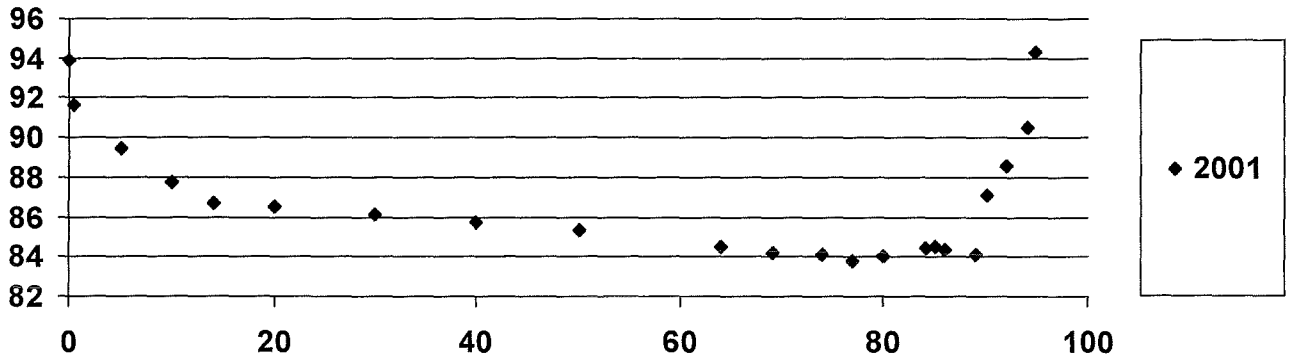


Station Name NFG4 **Stream:** North Fork Gualala

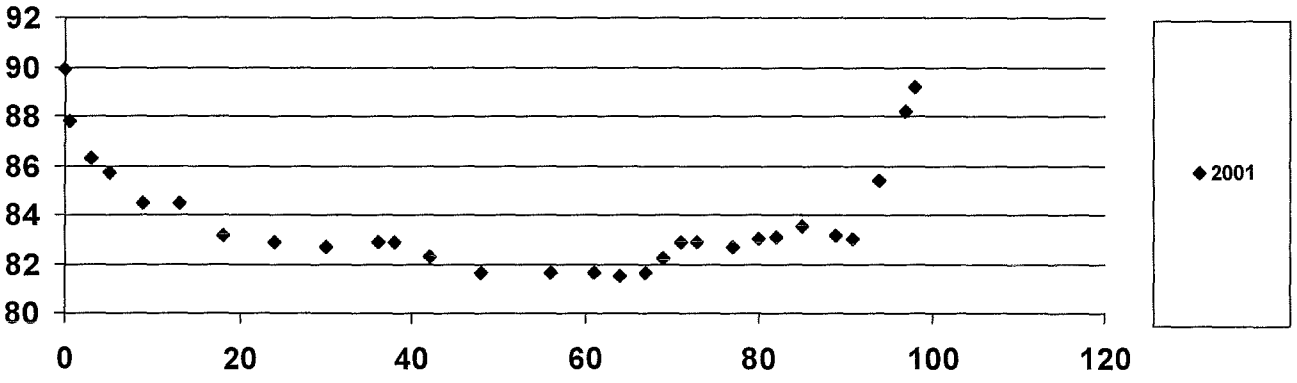
Cross Section 1



Cross Section 2



Cross Section 3



Biological Report

Ownerships: All
Visit Purpose: All
Planning Watersheds: Robinson Creek

Stream	Station Name	#	Year	Distance up Stream (Feet)	Reach Length (Feet)	Purpose	Fish or Redds per Mile: Adult Fish SH	Redds	Coho Fry	Steelhead Parr 1+	Benthic Macroinvertebrates (BMI): Richness	Simpson	ETP Taxa	% Dominant	Russian River Index	North Coast IBI
Watershed: NF Gualala																
Dry Cr	016	816	2013	0	2,123	Fish Pool Dive			0.0	249						
Dry Cr	016	816	2013	0	8,000	Spawner Survey	0.0	2.0								
Dry Cr	016	816	2014	0	2,666	Fish Pool Dive			0.0	200						
Dry Cr	016	816	2014	0	8,000	Spawner Survey	0.0	0.0								
Dry Cr	016	816	2015	0	2,080	Fish Pool Dive			0.0	193						
Dry Cr	016	816	2016	0	3,379	Fish Pool Dive			0.0	91						
Dry Cr	Dry3	211	1998	1,000	1,000	Fish Reach Dive			15.8	0						
Dry Cr	Dry3	211	1999	1,000	1,000	Fish Reach Dive			0.0	148						
Dry Cr	Dry3	211	2000	1,000	1,000	Riffle BMI					32	0.79	16	40%	16	
Dry Cr	Dry3	211	2000	1,000	1,000	Fish Reach Dive			0.0	48						
Dry Cr	Dry3	211	2001	1,000	1,000	Fish Reach Dive			0.0	127						
Dry Cr	Dry3	211	2002	1,000	1,000	Fish Reach Dive			10.6	143						
Dry Cr	Dry3	211	2003	1,000	728	Fish Reach Dive			0.0	174						
Dry Cr	Dry3	211	2004	1,000	936	Fish Reach Dive			22.6	175						
Dry Cr	Dry3	211	2008	1,000	1,000	Fish Reach Dive			0.0	0						
Dry Cr	Dry3	211	2009	1,000	1,000	Fish Reach Dive			0.0	407						
Dry Cr	Dry3	211	2011	1,000	1,000	Fish Reach Dive			0.0	63						
Dry Cr	Dry3	211	2014	1,000	1,000	Fish Reach Dive			0.0	90						
Dry Cr	Dry3	211	2016	1,000	1,000	Fish Reach Dive			0.0	21						
Dry Cr	Dry3	211	2017	1,000	1,000	Fish Reach Dive			0.0	37						
Dry Cr	Dry3	211	2018	1,000	1,000	Fish Reach Dive			0.0	26						
Dry Cr	Dry2	212	2000	6,800	1,000	Riffle BMI					41	0.92	18	19%	22	
Dry Cr	Dry2	212	2004	6,800	1,257	Fish Reach Dive			0.0	500						
McGann Gulch	015	815	2013	0	20	Fish Pool Dive			0.0	0						
McGann Gulch	015	815	2013	0	2,000	Spawner Survey	0.0	0.0								
McGann Gulch	015	815	2014	0	55	Fish Pool Dive			0.0	0						
McGann Gulch	015	815	2015	0	127	Fish Pool Dive			0.0	42						
McGann Gulch	015	815	2016	0	269	Fish Pool Dive			0.0	20						
McGann Gulch	MGG2	209	2003	400	1,115	Fish Reach Dive			0.0	104						
NF Gualala	001	801	2013	0	3,342	Fish Pool Dive				141						
NF Gualala	001	801	2014	0	6,300	Spawner Survey	0.0	0.0								
NF Gualala	001	801	2014	0	5,586	Fish Pool Dive			0.0	712						
NF Gualala	001	801	2015	0	3,786	Fish Pool Dive			0.0	344						
NF Gualala	001	801	2016	0	2,751	Fish Pool Dive			0.0	31						
NF Gualala	NFG4	473	2003	2,300	1,651	Fish Reach Dive			0.0	291						
NF Gualala	002	802	2013	6,300	8,000	Spawner Survey	0.7	3.3								
NF Gualala	002	802	2013	6,300	4,888	Fish Pool Dive				268						
NF Gualala	002	802	2014	6,300	8,000	Spawner Survey	1.3	1.3								
NF Gualala	002	802	2014	6,300	7,445	Fish Pool Dive			0.0	644						
NF Gualala	002	802	2015	6,300	5,839	Fish Pool Dive			0.0	373						
NF Gualala	002	802	2016	6,300	4,157	Fish Pool Dive			0.0	48						
NF Gualala	002	802	2018	6,300	4,175	Fish Pool Dive			0.0	44						

Reach length for "fish pool dives" is only the length of the pools actually snorkel surveyed.
Reach length for "spawner surveys" is the longest survey in that reach during that season.

Stream	Station Name	#	Year	Distance up Stream (Feet)	Reach Length (Feet)	Purpose	Fish or Redds per Mile				Benthic Macroinvertebrates (BMI)					
							Adult Fish SH	Redds	Coho Fry	Steel-head Parr 1+	Rich-ness	Simp-son	ETP Taxa	% Dom-inant	Russian River Index	North Coast IBI
NF Gualala	NFG3	204	1998	6,600	1,100	Fish Reach Dive			0.0	0						
NF Gualala	NFG3	204	1999	6,600	1,500	Fish Reach Dive			0.0	109						
NF Gualala	NFG3	204	2000	6,600	575	Fish Reach Dive			0.0	698						
NF Gualala	NFG3	204	2001	6,600	1,000	Fish Reach Dive			0.0	84						
NF Gualala	NFG3	204	2002	6,600	1,000	Fish Reach Dive			0.0	317						
NF Gualala	NFG3	204	2003	6,600	1,530	Fish Reach Dive			0.0	255						
NF Gualala	NFG3	204	2008	6,600	1,000	Fish Reach Dive			0.0	79						
NF Gualala	NFG3	204	2009	6,600	1,000	Fish Reach Dive			0.0	1,484						
NF Gualala	NFG3	204	2014	6,600	2,000	Fish Reach Dive			0.0	642						
NF Gualala	NFG3	204	2015	6,600	2,000	Fish Reach Dive			0.0	209						
NF Gualala	NFG3	204	2016	6,600	2,000	Fish Reach Dive			0.0	42						
NF Gualala	NFG3	204	2017	6,600	2,000	Fish Reach Dive			0.0	50						
NF Gualala	NFG3	204	2018	6,600	2,000	Fish Reach Dive			0.0	21						
NF Gualala	003	803	2013	14,300	5,900	Spawner Survey	1.8	9.8								
NF Gualala	003	803	2013	14,300	3,056	Fish Pool Dive				503						
NF Gualala	003	803	2014	14,300	4,498	Fish Pool Dive			0.0	328						
NF Gualala	003	803	2014	14,300	5,900	Spawner Survey	1.8	0.9								
NF Gualala	003	803	2015	14,300	5,900	Spawner Survey	0.9	2.7								
NF Gualala	003	803	2015	14,300	3,800	Fish Pool Dive			0.0	339						
NF Gualala	003	803	2016	14,300	3,874	Fish Pool Dive			0.0	127						
NF Gualala	003	803	2017	14,300	4,333	Fish Pool Dive			0.0	13						
NF Gualala	004	804	2012	20,200	7,500	Spawner Survey	0.0	2.8								
NF Gualala	004	804	2013	20,200	7,500	Spawner Survey	9.2	6.3								
NF Gualala	004	804	2013	20,200	4,845	Fish Pool Dive				202						
NF Gualala	004	804	2014	20,200	6,008	Fish Pool Dive			0.0	324						
NF Gualala	004	804	2014	20,200	7,500	Spawner Survey	2.1	3.5								
NF Gualala	004	804	2015	20,200	5,189	Fish Pool Dive			0.0	315						
NF Gualala	004	804	2016	20,200	3,895	Fish Pool Dive			0.0	174						
NF Gualala	005	805	2012	27,700	3,700	Spawner Survey	14.3	2.9								
NF Gualala	005	805	2013	27,700	3,700	Spawner Survey	11.4	10.0								
NF Gualala	005	805	2013	27,700	2,851	Fish Pool Dive				494						
NF Gualala	005	805	2014	27,700	5,100	Spawner Survey	2.1	3.1								
NF Gualala	005	805	2014	27,700	4,912	Fish Pool Dive			0.0	566						
NF Gualala	005	805	2015	27,700	2,867	Fish Pool Dive			0.0	267						
NF Gualala	005	805	2016	27,700	2,533	Fish Pool Dive			0.0	196						
NF Gualala	NFG2	406	2004	28,400	1,862	Fish Reach Dive			0.0	303						
Robinson W	014	814	2012	0	3,200	Spawner Survey	0.0	0.0								
Robinson W	014	814	2013	0	627	Fish Pool Dive			0.0	185						
Robinson W	014	814	2013	0	3,200	Spawner Survey	0.0	0.0								
Robinson W	014	814	2014	0	764	Fish Pool Dive			0.0	394						
Robinson W	014	814	2014	0	4,000	Spawner Survey	0.0	0.0								
Robinson W	014	814	2015	0	829	Fish Pool Dive			0.0	76						
Robinson W	014	814	2016	0	1,258	Fish Pool Dive			0.0	130						

Reach length for "fish pool dives" is only the length of the pools actually snorkel surveyed.
Reach length for "spawner surveys" is the longest survey in that reach during that season.

Stream	Station Name	#	Year	Distance up Stream (Feet)	Reach Length (Feet)	Purpose	Fish or Redds per Mile			Benthic Macroinvertebrates (BMI)					
							Adult Fish SH	Redds	Coho Fry	Steel-head Parr 1+	Rich-ness	Simp-son	ETP Taxa	% Dom-inant	Russian River Index	North Coast IBI
Robinson W	Rob2	207	1998	600	900	Fish Reach Dive			11.7	0						
Robinson W	Rob2	207	1999	600	700	Fish Reach Dive			0.0	113						
Robinson W	Rob2	207	2000	600	150	Fish Reach Dive			0.0	422						
Robinson W	Rob2	207	2001	600	400	Fish Reach Dive			0.0	13						
Robinson W	Rob2	207	2003	600	475	Fish Reach Dive			0.0	100						
Robinson W	Rob2	207	2004	600	600	Fish Reach Dive			0.0	361						
Robinson W	Rob2	207	2008	600	1,000	Fish Reach Dive			0.0	21						
Robinson W	Rob	263	2003	4,100	893	Fish Reach Dive			0.0	101						
Robinson W	Rob	263	2004	4,100	367	Fish Reach Dive			0.0	317						
Robinson W	Rob1	208	2003	6,800	907	Fish Reach Dive			0.0	76						

Total Station Visits: 95

Reach length for "fish pool dives" is only the length of the pools actually snorkel surveyed.
Reach length for "spawner surveys" is the longest survey in that reach during that season.

Thalweg Report

Ownerships: All

Planning Watersheds: Robinson Creek

Stream	Station Name	Station #	Visit ID	Year	Distance up Stream (Feet)	Drainage Area (Acres)	Slope	Streambed Agradation Degradation (Feet)	Variation Index	Pools >1'	%	>2'	%	>3'	%	Max Depth (Feet)	Longitudinal Cross Sectional Area of Pools >1' Deep (Sq Ft/1,000')
Watershed NF Gualala																	
Dry Cr	Dry3	211	302	1998	1,000	4,104	0.76%		22.2	7	45%	2	8%	2	8%	5.3	405
Dry Cr	Dry3	211	344	1999	1,000	4,104	0.72%	-0.10	20.2	8	42%	3	23%	1	8%	4.0	378
Dry Cr	Dry3	211	422	2000	1,000	4,104	0.74%	-0.07	20.6	8	41%	4	23%	1	4%	4.2	385
Dry Cr	Dry3	211	481	2001	1,000	4,104	0.69%	-0.10	19.5	7	47%	3	26%	1	5%	3.7	395
Dry Cr	Dry3	211	557	2002	1,000	4,104	0.70%	-0.39	17.5	6	43%	3	17%	1	7%	3.5	298
Dry Cr	Dry3	211	577	2003	1,000	4,104	0.74%	-0.33	22.1	6	56%	4	42%	2	26%	4.0	502
Dry Cr	Dry3	211	636	2004	1,000	4,104	0.77%	-0.27	29.4	5	41%	4	31%	2	13%	6.8	381
Dry Cr	Dry3	211	689	2005	1,000	4,104	0.75%	-0.22	29.1	4	34%	4	34%	2	16%	6.7	387
Dry Cr	Dry3	211	801	2006	1,000	4,104	0.80%	0.52	21.1	7	48%	5	37%	1	7%	3.0	393
Dry Cr	Dry3	211	874	2007	1,000	4,104	0.78%	0.54	19.9	6	25%	3	13%	2	9%	4.2	279
Dry Cr	Dry3	211	902	2008	1,000	4,104	0.84%	0.42	21.3	8	47%	5	32%	1	8%	3.4	484
Dry Cr	Dry3	211	1182	2009	1,000	4,104	0.86%	0.42	23.1	10	48%	6	31%	1	4%	4.1	451
Dry Cr	Dry3	211	1235	2010	1,000	4,104	0.86%	0.56	21.1	5	35%	3	24%	2	13%	3.6	348
Dry Cr	Dry3	211	1292	2011	1,000	4,104	0.90%	0.39	21.0	6	46%	4	27%	0	0%	3.0	449
Dry Cr	Dry3	211	1373	2012	1,000	4,104	0.91%	0.19	25.3	5	41%	4	29%	3	24%	3.9	533
Dry Cr	Dry3	211	1565	2013	1,000	4,104	0.94%	0.10	22.4	6	49%	4	34%	3	24%	3.9	553
Dry Cr	Dry3	211	1745	2014	1,000	4,104	0.91%	0.14	23.9	6	46%	6	46%	2	15%	3.9	531
Dry Cr	Dry3	211	2054	2015	1,000	4,104	0.96%	0.14	19.8	7	49%	5	32%	1	11%	3.6	404
Dry Cr	Dry3	211	2134	2016	1,000	4,104	0.95%	0.16	18.1	9	61%	6	35%	1	3%	3.5	456
Dry Cr	Dry3	211	2138	2017	1,000	4,104											
Dry Cr	Dry3	211	2260	2018	1,000	4,104											
Dry Cr	Dry2	212	425	2000	6,800	3,756	1.82%		12.8	5	32%	0	0%	0	0%	2.0	267
Dry Cr	Dry2	212	945	2008	6,800	3,756	1.89%	-0.40	14.2	4	23%	1	13%	0	0%	2.1	231
NF Gualala	NFG4	473	477	2001	2,300	30,600	0.26%		27.6	6	65%	2	17%	1	11%	4.4	556
NF Gualala	NFG3	204	347	1999	6,600	25,433	0.37%		23.0	9	74%	3	32%	1	12%	4.7	654
NF Gualala	NFG3	204	495	2001	6,600	25,433	0.38%	-0.41	26.3	12	67%	4	38%	4	38%	4.9	770
NF Gualala	NFG3	204	878	2007	6,600	25,433											
NF Gualala	NFG3	204	898	2008	6,600	25,433	0.33%	-1.00	30.6	8	77%	8	77%	4	40%	5.8	972
Robinson W	Rob2	207	345	1999	600	1,068	1.39%		13.1	2	5%	0	0%	0	0%	1.2	25
Robinson W	Rob2	207	1293	2011	600	1,068	1.31%	-0.32	24.8	9	24%	1	3%	0	0%	2.5	171

Total Reach Visits: 30

Logs placed in Creeks

Ownerships: All

Planning Watersheds: Robinson Creek

	Bank Full						Total							
	D1	D2	Length	Cu Ft	Cu M	Bd Ft	D1	D2	Length	Root Wad	CuFt	CuM	BdFt*	Trucks
Dry Creek														
Logs 14			*Total*	*144*	*4*	*864*					*778*	*22*	*4,671*	*1*
McGann Gulch														
Logs 26			*Total*	*1,467*	*41*	*10,292*				*248*	*2,729*	*76*	*16,376*	*3*
North Fork Gualala														
Logs 67			*Total*	*6,935*	*194*	*50,665*				*1,509*	*10,841*	*304*	*65,048*	*13*
Robinson Cr West														
Logs 81			*Total*	*3,416*	*96*	*51,001*				*5,084*	*10,002*	*280*	*60,010*	*12*
Grand Total														
Average	*29*	*23*	*23*	*93*	*3*	*641*	*29*	*21*	*33*	*122*	*130*	*4*	*777*	
Logs 188			*Total*	*11,962*	*335*	*112,822*				*6,841*	*24,351*	*682*	*146,105*	*29*

** There are about 5 thousand board feet on a log truck*

Change in log water depth after LWD placement

			Change in the depth of the water under a log from first depth (Deeper is positive)				
		Distance Moved	*2002*	*2004*	*2005*	*2006*	*2008*	*2012*
North Fork Gualala (63 Logs)								
Avg		*2,539*		*0.1*	*0.1*	*0.4*	*0.2*	
Min		*0*		*-1.3*	*0.1*	*-1.9*	*-2.0*	
Max		*21,888*		*1.5*	*0.1*	*3.6*	*3.4*	
Robinson Cr West (52 Logs)								
Avg		*26*				*0.1*	*0.2*	*0.3*
Min		*0*				*-0.6*	*-0.6*	*-0.6*
Max		*388*				*2.0*	*2.1*	*2.1*
Avg	**Grand Total**	*1,403*		*0.1*	*0.1*	*0.2*	*0.2*	*0.3*
Min		*0*		*-1.3*	*0.1*	*-1.9*	*-2.0*	*-0.6*
Max		*21,888*		*1.5*	*0.1*	*3.6*	*3.4*	*2.1*

Large Wood Retention

STREAM NAME	*Wood Placed*		*Wood Missing*		*Wood Functioning*		
	Logs	*MBF*	*Logs*	*MBF*	*Logs*	*MBF*	*Percent*
Big Pepperwood	50	2,506	3	0	47	2,506	94%
Doty Creek	39	19,550			39	19,550	100%
Dry Creek	14	4,671			14	4,671	100%
Fuller Creek	82	36,389	60	25,915	22	10,474	27%
Groshong Gulch	24	15,698			24	15,698	100%
Jennifer Creek	3	1,663			3	1,663	100%
Little North Fork Gualala	343	246,863	4	264	339	246,598	99%
Little Pepperwood	22	10,508			22	10,508	100%
Log Cabin Creek	4	2,905			4	2,905	100%
McGann Gulch	26	16,376			26	16,376	100%
North Fork Gualala	150	141,297	35	22,914	115	118,382	77%
Robinson Cr West	81	60,010			81	60,010	100%
Rockpile Creek	21	20,969	10	4,888	11	16,080	52%
Roxane Creek	4	942			4	942	100%
South Fork Gualala River	5	14,709	2	8,063	3	6,646	60%
Wheatfield Fork Gualala River	2	5,742			2	5,742	100%
Total	**870**	**600,797**	**114**	**62,045**	**756**	**538,752**	**87%**

Doty Creek Road work completed

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
80.46	1441	0.000	Taylor	Hagans	271 LNF	LNF P01030405A	Slide - Shallow	Storm Proofing	N/A		0	0	0	6	0	0	$1,680	367
Private Seasonal	1441	0.000	GE	10/3/200	23	ECP Not	Other	Medium	-	-	0		0	8	10	305	$46	37
	Past landslide 30' x 3' x 30' with 20% delivery to channel below, and cracks that extend to right for a potential future landslide, 110' x 3' x 30'. Future delivery will be minimal, 37 cu yards. Scarps are 120' above class 3 stream.																	
	In place outslope for 110', pulling up potential failure (110' x 3' x 30').																	
80.46	1653	0.210	Taylor	Hagans	271 LNF	LNF P01030405A	Culv.	Storm Proofing	III		0	0	20	0	0	0	$0	300
Private Seasonal	1653	0.000	GE	10/10/20	22	ECP Not	Remove Crossing	Medium	-	Pull	0		320	0	0	479	$0	300
	Humboldt crossing near headwall of swale. Flow is visible 5' down at hole near top. No sign of surface flow above road. A minor spring emerges 35' to the right of CLP, and may have caused fillslope to fail to right of CLP(shown in XS6). Diversion potential is likely, due to slight dip at crossing(plus minor surface flow on road). Flow emerges directly below OBF and the channel below is choked with LWD and sediment. Future erosion will be further erosion of road prism, and channel enlargement below road, and surface collapse from Top to IBR.																	
	Excavate from Top to Bot. Install 24" culvert. Install critical dip. Stockpile spoils 150' to right.																	
80.46	1440	0.701	Taylor	Hagans	271 LNF	LNF P01030405A	Culv.	Storm Proofing	III		0	0	300	2	0	0	$400	161
Private Seasonal	1440	0.000	GE	10/10/20	21	ECP Not	Other	Medium	-	-	0		365	0	5	607	$2	161
	Small 3' x 1' class 3 stream below Fish Rock Road, that begins in swale above 80.46 road. Channel above road has large stump in it. Above stump channel is not well defined, but notched below and gullies across road to OBF and down to channel below. Fillslope below crossing has large logs in it. Water is currently flowing out of log in fill. Lots of fill and debris in channel below BOT.																	
	Install 24" culvert. Lay slopes back 2:1 from Bot to Exc. Bot. Outslope road for 365' to right with 75' of ditch from spring to crossing. Outslope road for 300' to left with no ditch. Install 1 rolling dip to right. Endhual spoils 250' to right to wide landing.																	
80.6	2932	0.000	Shively	Shively	Maintena	Maintenance	Other	Storm Proofing	N/A		0	0	0	0	0	0	$0	156
Storm Proofed	2932	0.320	Unk	1/1/2005		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	156
80.6042	2933	0.000	Shively	Shively	Maintena	Maintenance	Other	Storm Proofing	N/A		0	0	0	0	0	0	$0	484
Storm Proofed	2933	0.990	Unk	1/1/2005		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	484
80.604238	2934	0.000	Shively	Shively	Maintena	Maintenance	Other	Storm Proofing	N/A		0	0	0	0	0	0	$0	112
Abandoned Fixed	2934	0.230	Unk	1/1/2005		ECP Not	Other	Medium	-	-	0		0	0	0	0	$0	112
Grand Total All Sites	467										110		48,410	2,606	1,063	41	$780,305	72,190
													42,777	2,374	1,022	42,340		62,939

Summary

Stream Monitoring Report

Ownerships: All
Visit Purpose: All
Planning Watersheds: Doty Creek

Station Number	Stream Name	Miles Up Stream	Year	Temperature Seasonal Maximum	Temperature MWAT	LWD Bank Full >6 In & >4 Ft or >10 CuFt CuFt/ 1000'	LWD Bank Full >6 In & >4 Ft or >10 CuFt Pieces/ 1000'	Substrate >0.85 mm	Substrate D50	Streambed (Thalweg) Slope	Streambed (Thalweg) VI	Streambed (Thalweg) A/D	Riparian Zone Canopy % WLPZ	Riparian Zone Canopy % Cr.	Riparian Zone Basal Area	Riparian Zone Tallest Tree	Fish or Redds per Mile Coho	Fish or Redds per Mile SH (1+)	Fish or Redds per Mile Redds	Aquatic Macroinvertebrates Richness / Simpson	Aquatic Macroinvertebrates Hilsenhoff / Russian R Index	Aquatic Macroinvertebrates % Dominant
Hydrologic Unit																						
Stream		**Basin Total**																				
813	013	0.00	2013														0	122	0			
813	013	0.00	2014														0	154				
813	013	0.00	2015														0	260				
813	013	0.00	2016														0	126				
256	Dot2	0.02	1993					16%														
256	Dot2	0.02	1994		14.1	12.9		11%														
256	Dot2	0.02	1995					17%														
256	Dot2	0.02	1997					17%														
281	Dot1	0.02	1998		14.8	13.7																
281	Dot1	0.02	2008		14.5	13.4																
281	Dot1	0.02	2012		13.8	12.7																
281	Dot1	0.02	2014		14.5	13.5																
280	Dot3	0.83	2013		12.9	12.9																
280	Dot3	0.83	2014		13.7	13.5																
Doty Creek				Avg	14.0	13.3		16%									0	165	0			
Stream		**Basin Total**																				
811	011	0.00	2013														0	167	7			
811	011	0.00	2014														0	127	1			
811	011	0.00	2015														0	159	0			
811	011	0.00	2016														0	144				
201	LNF5	0.02	1992					11%														
201	LNF5	0.02	1993					21%														
201	LNF5	0.02	1994		15.8	14.7		20%														
201	LNF5	0.02	1995		16.7	15.1		21%														
201	LNF5	0.02	1996		15.9	14.6																
201	LNF5	0.02	1997		16.7	15.4		16%														
201	LNF5	0.02	1998		16.3	15.0																
201	LNF5	0.02	2001		16.5	14.8																

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	Cr.	Basal Area	Tallest Tree	Coho	SH (1+)	Redds	Richness Simpson	Hilsenhoff Russian R Index	% Dominant
201	LNF5	0.02	2003	16.1	15.0																	
201	LNF5	0.02	2004	16.9	15.7																	
201	LNF5	0.02	2005	15.6	14.5																	
201	LNF5	0.02	2008	16.4	15.2																	
201	LNF5	0.02	2009	15.8	14.8																	
201	LNF5	0.02	2010	15.0	13.7																	
201	LNF5	0.02	2011	15.1	14.0																	
201	LNF5	0.02	2012	14.8	13.9																	
201	LNF5	0.02	2013	16.6	15.7																	
201	LNF5	0.02	2014	16.0	15.1																	
201	LNF5	0.02	2015	16.5	15.6																	
201	LNF5	0.02	2016																			
201	LNF5	0.02	2017	16.8	16.2																	
404	LNF3	0.45	1998														16	0				
404	LNF3	0.45	2001			5,250	83		34	0.6%	33		97%	96%	163	121						
404	LNF3	0.45	2003														0	589				
404	LNF3	0.45	2004			5,098	68		33	0.8%	57	-0.61					0	70				
404	LNF3	0.45	2014	15.6	14.7																	
812	012	1.29	2013															297	0			
812	012	1.29	2014														0	297	3			
812	012	1.29	2015														0	565				
812	012	1.29	2016														0	418				
202	LNF2	1.47	1993					11%														
202	LNF2	1.47	1994	16.4	14.6			15%														
202	LNF2	1.47	1995					19%														
202	LNF2	1.47	1997					20%														
202	LNF2	1.47	1998														32	0				
202	LNF2	1.47	2003														0	322				
202	LNF2	1.47	2004														0	391				
202	LNF2	1.47	2013	17.1	15.2																	
202	LNF2	1.47	2016	15.6	14.4																	
274	LNF8	1.68	1995	16.4	14.6																	
274	LNF8	1.68	1996	16.1	14.1																	
203	LNF1	2.27	1993					17%														
203	LNF1	2.27	1994	15.1	13.6			20%														

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	
203	LNF1	2.27	1995	15.8	14.2			12%																
203	LNF1	2.27	1996	15.3	13.7																			
203	LNF1	2.27	1997	15.8	14.5			19%																
203	LNF1	2.27	1998	15.2	13.9	3,010	65		25	1.5%	23						0	0						
203	LNF1	2.27	1999	15.1	13.8	3,632	73		43	1.5%	21	-0.19	87%	89%	255	143	0	285						
203	LNF1	2.27	2000	15.3	13.9	3,771	71		46	1.5%	21	-0.08					0	143		31	0.85	4.5	19	30
203	LNF1	2.27	2001	15.2	13.5	4,802	119		42	1.5%	20	-0.10					0	148						
203	LNF1	2.27	2002	14.5	13.0	4,969	138		65	1.4%	28	-0.26					0	169						
203	LNF1	2.27	2003	15.2	14.0	4,951	140		60	1.4%	30	-0.40					0	235						
203	LNF1	2.27	2004	15.6	14.2	4,912	139		42	1.5%	32	-0.73					0	666						
203	LNF1	2.27	2005	14.9	13.6	5,080	138		40	1.4%	31	-0.93								30		4.6		41
203	LNF1	2.27	2006			5,389	135		36	1.5%	28	-1.08												
203	LNF1	2.27	2007			5,400	134		31	1.5%	31	-0.38												
203	LNF1	2.27	2008	15.3	13.9	6,009	151		23	1.4%	34	-0.72	86%	88%	475	185	0	58						
203	LNF1	2.27	2009	15.1	13.7	6,115	152		48	1.5%	34	-0.66	89%	91%			0	803						
203	LNF1	2.27	2010	14.5	13.1	6,100	149		42	1.5%	33	-0.62												
203	LNF1	2.27	2011	14.6	13.4	6,048	153		43	1.4%	40	-0.53	77%	89%			0	433						
203	LNF1	2.27	2012	14.1	13.0	8,086	175		37	1.5%	33	-0.56					0	343						
203	LNF1	2.27	2013	15.5	14.2	8,101	174		33	1.5%	34	-0.53					0	238						
203	LNF1	2.27	2014	15.1	14.1	8,094	177		26	1.5%	35	-0.36					0	480						
203	LNF1	2.27	2015	15.5	14.4	7,997	174		34	1.5%	34	-0.40	86%	89%			0	243						
203	LNF1	2.27	2016	14.7	13.6	8,163	181		35	1.5%	31	-0.43	89%	88%			0	259						
203	LNF1	2.27	2017	16.0	14.9	8,295	190						93%	93%			0	121						
203	LNF1	2.27	2018			8,250	193						94%	95%			0	74						
408	LNF7	2.37	2005	14.9	13.7																			
255	LNF6	2.86	1993					19%																
255	LNF6	2.86	1994	15.9	14.3			17%																
255	LNF6	2.86	1995					12%																
255	LNF6	2.86	1997					26%																
255	LNF6	2.86	2013	15.2	14.7																			
255	LNF6	2.86	2014	15.5	14.8																			
Little North Fork Gualala			Avg	15.6	14.4	5,979	138	18%	39	1.4%	32	-0.5	88%	91%	298	150	2	266	2	30	0.85	4.5	19	35
Hydrologic Uni NF Gualala			Avg	15.4	14.2	5,979	138	18%	39	1.4%	32	-0.5	88%	91%	298	150	1	254	2	30	0.85	4.5	19	35

Summary Doty Creek watershed

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	Hilsenhoff Russian R	% Dominant Index	
		Avg	15.4	14.2	5,979	138	18%	39	1.4%	32	-0.5	88%	91%	298	150	1	254	2	30	0.85	4.5	19	35
		Min	12.9	12.7	3,010	65	5%	23	0.6%	20	-1.1	77%	88%	163	121	0	0	0	30	0.85	4.5	19	30
		Max	17.1	16.2	8,295	193	36%	65	1.5%	57	-0.08	97%	96%	475	185	32	803	7	31	0.85	4.6	19	41
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

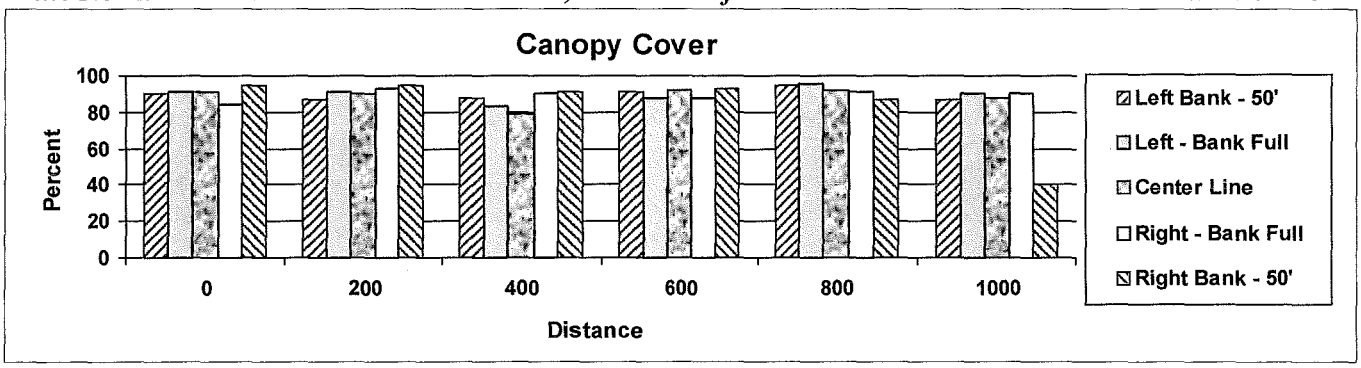
301

Canopy Cover

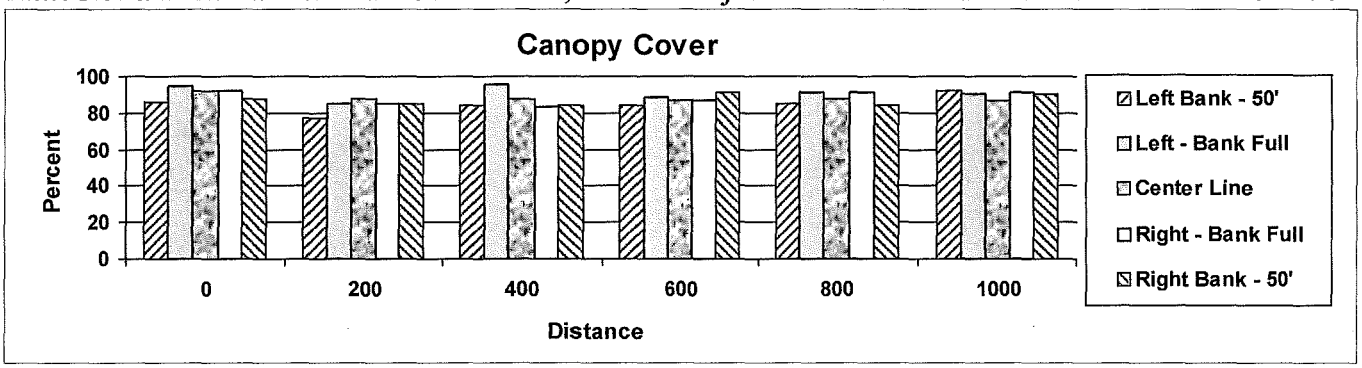
Ownerships: All

Planning Watersheds: Doty Creek

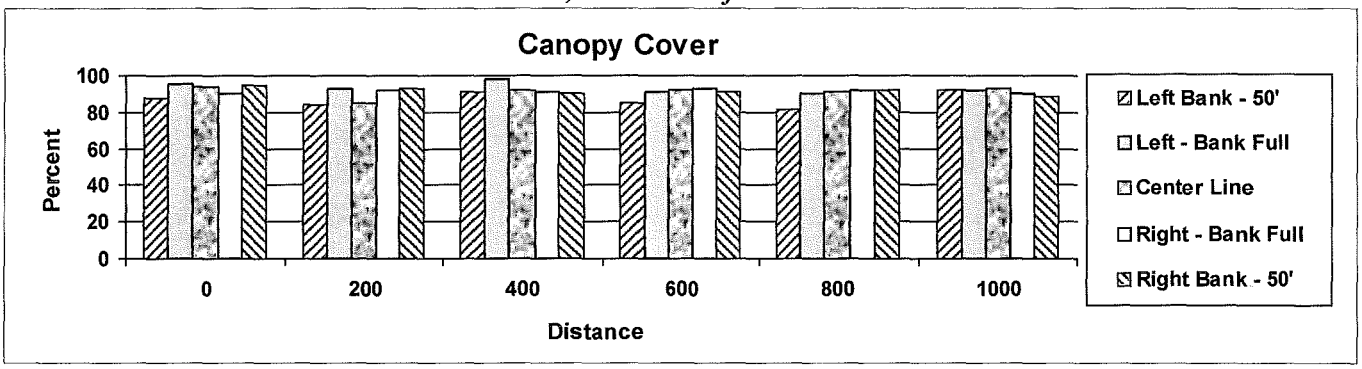
Little North Fork Gualala Watershed Acres 1,963 Bankfull width 29 ' Year 1999 Station LNF1 203 342



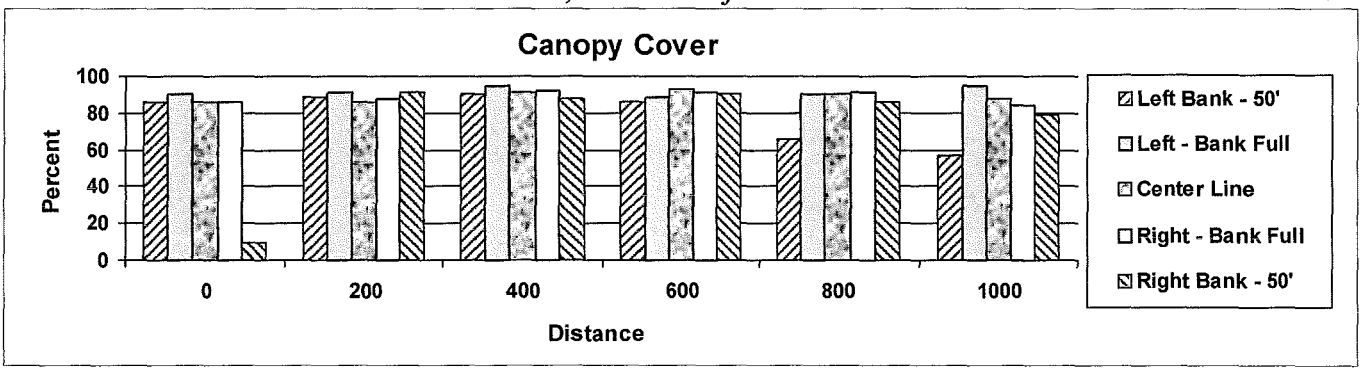
Little North Fork Gualala Watershed Acres 1,963 Bankfull width 29 ' Year 2008 Station LNF1 203 901



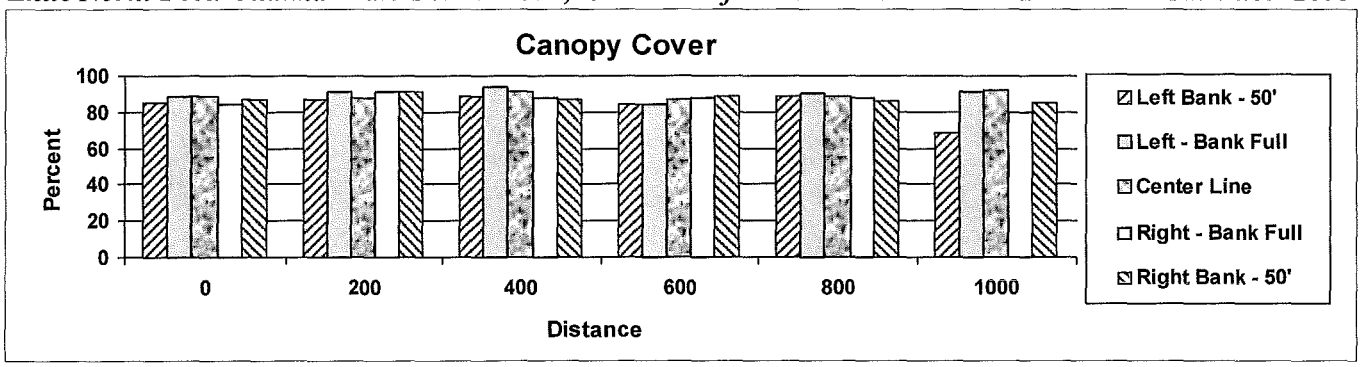
Little North Fork Gualala Watershed Acres 1,963 Bankfull width 29 ' Year 2009 Station LNF1 203 1065



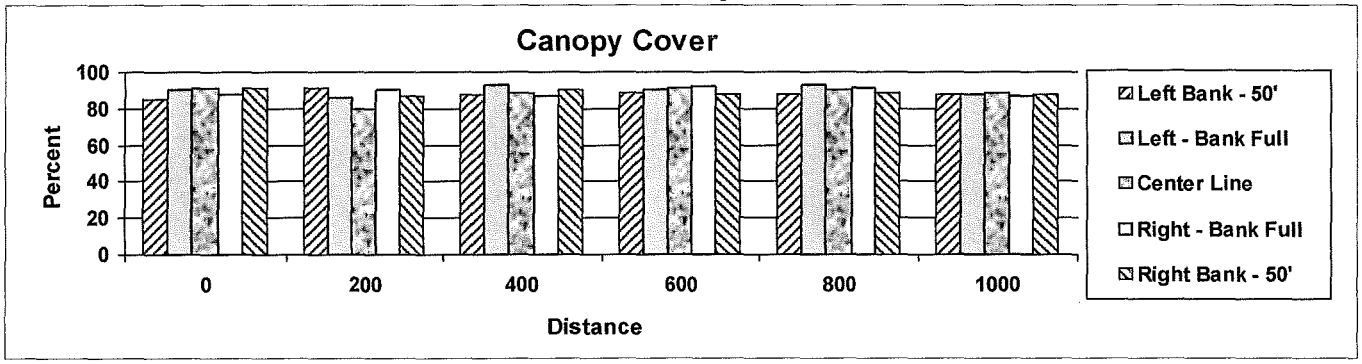
Little North Fork Gualala Watershed Acres 1,963 Bankfull width 29 ' Year 2011 Station LNF1 203 1290



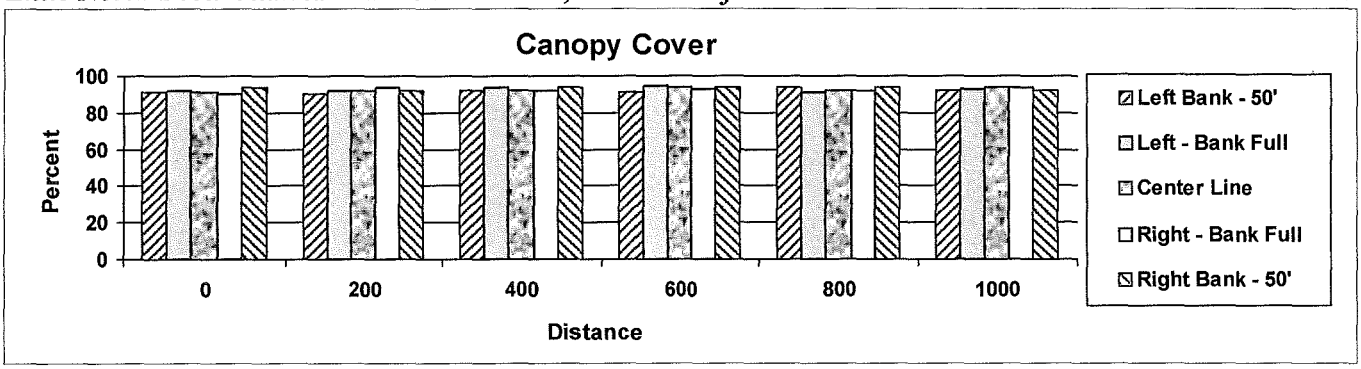
Little North Fork Gualala Watershed Acres 1,963 Bankfull width 29 ' Year 2015 Station LNF1 203 2053



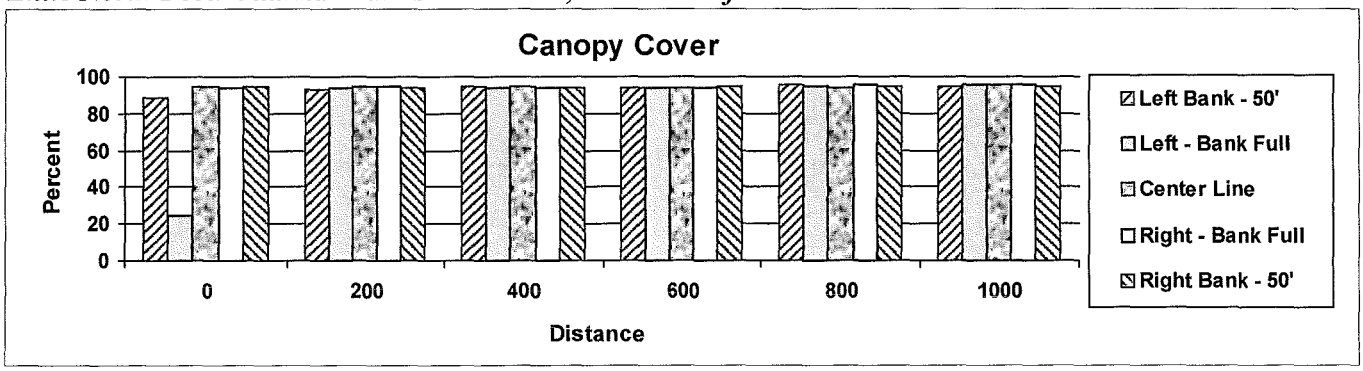
Little North Fork Gualala Watershed Acres 1,963 Bankfull width 29 ' Year 2016 Station LNF1 203 2135



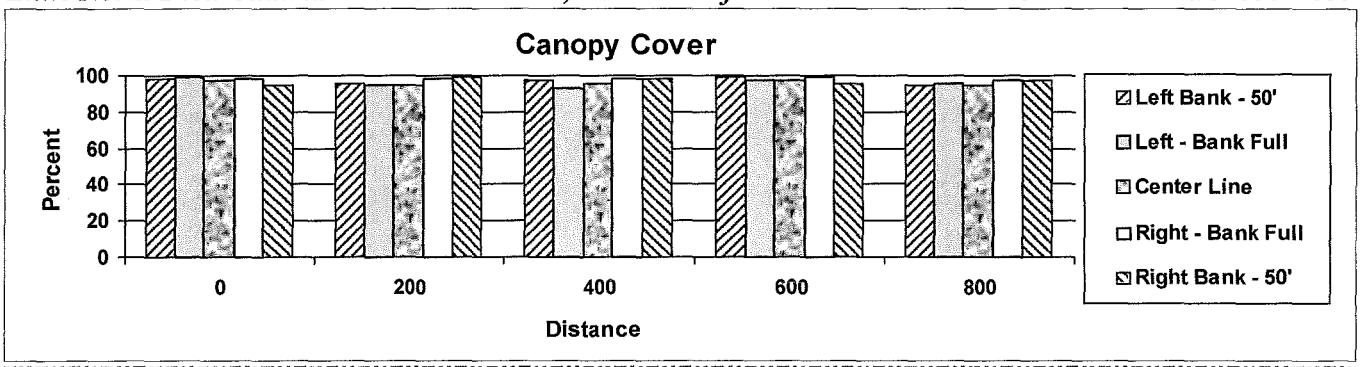
Little North Fork Gualala Watershed Acres 1,963 Bankfull width 29 ' Year 2017 Station LNF1 203 2136



Little North Fork Gualala Watershed Acres 1,963 Bankfull width 29 ' Year 2018 Station LNF1 203 2258



Little North Fork Gualala Watershed Acres 4,217 Bankfull width 24 ' Year 2001 Station LNF3 404 480

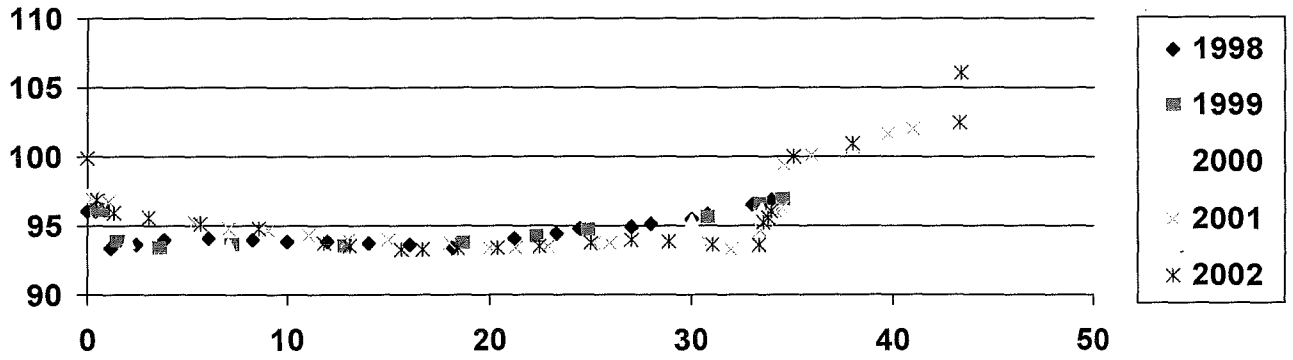


Cross Sections

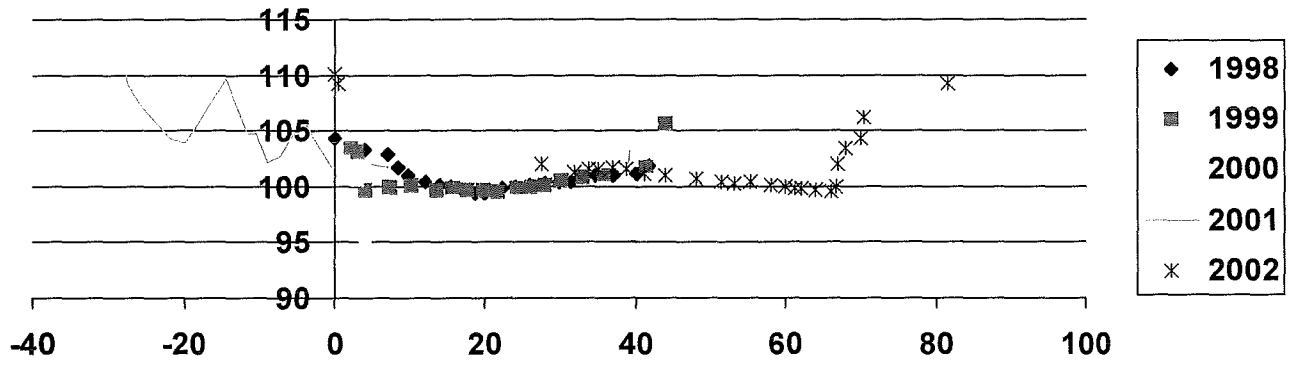
Planning Watershed: Doty Creek

Station Name LNF1 **Stream:** Little North Fork Gualala

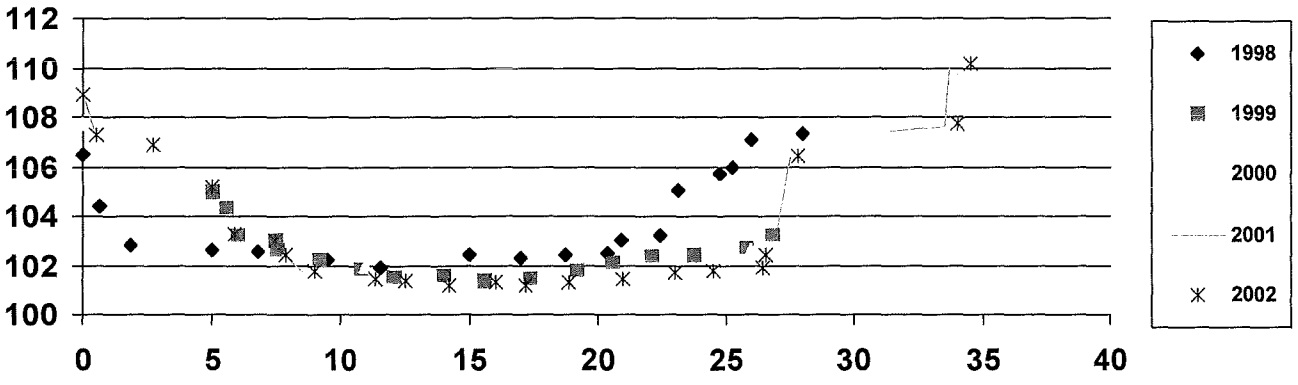
Cross Section 1



Cross Section 2

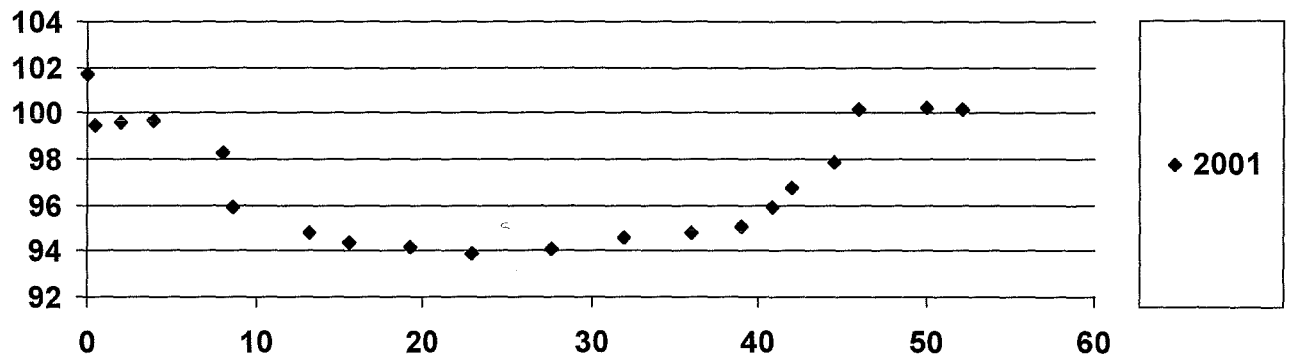


Cross Section 3

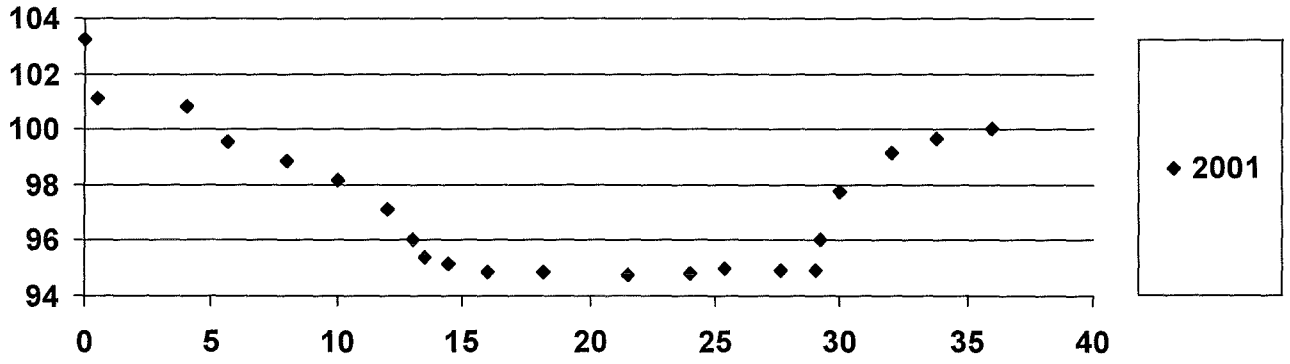


Station Name LNF3 **Stream:** Little North Fork Gualala

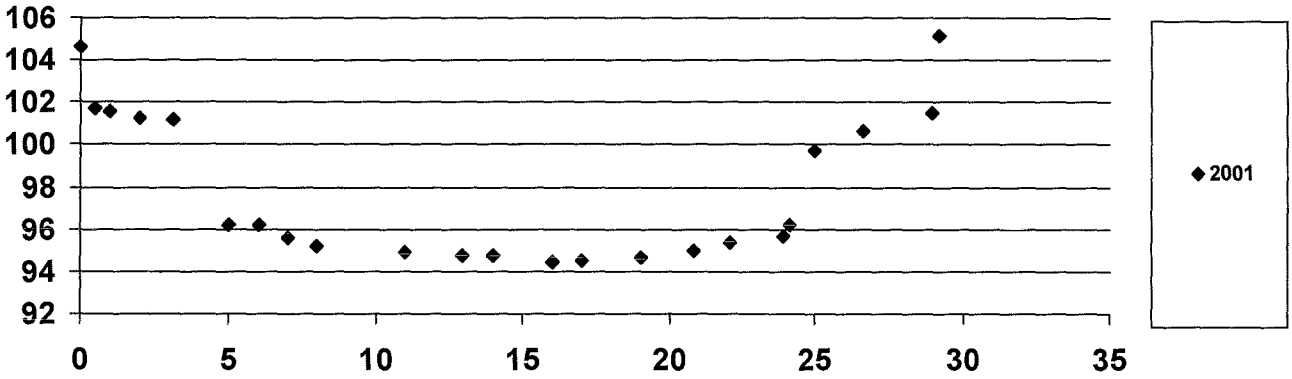
Cross Section 1



Cross Section 2



Cross Section 3



Thalweg Report

Ownerships: All

Planning Watersheds: Doty Creek

Stream	Station Name	Station #	Station Visit ID	Station Year	Distance up Stream (Feet)	Drainage Area (Acres)	Slope	Streambed Agradation Degradation (Feet)	Variation Index	Pools >1'	Pools >1' %	Pools >2'	Pools >2' %	Pools >3'	Pools >3' %	Pools Max Depth (Feet)	Longitudinal Cross Sectional Area of Pools >1' Deep (Sq Ft/1,000')
Watershed NF Gualala																	
LNF Gualala	LNF3	404	480	2001	2,400	4,217	0.57%		33.2	5	63%	4	53%	2	30%	3.5	577
LNF Gualala	LNF3	404	635	2004	2,400	4,217	0.79%	-0.61	56.8	9	77%	4	45%	2	27%	5.0	978
LNF Gualala	LNF1	203	33	1998	12,000	1,963	1.54%		23.3	8	35%	0	0%	0	0%	2.0	264
LNF Gualala	LNF1	203	342	1999	12,000	1,963	1.52%	-0.19	21.1	9	38%	0	0%	0	0%	2.0	275
LNF Gualala	LNF1	203	419	2000	12,000	1,963	1.49%	-0.08	21.1	7	23%	0	0%	0	0%	1.9	150
LNF Gualala	LNF1	203	491	2001	12,000	1,963	1.49%	-0.10	20.3	7	23%	2	7%	0	0%	2.1	161
LNF Gualala	LNF1	203	558	2002	12,000	1,963	1.41%	-0.26	28.2	12	42%	4	14%	1	4%	3.2	304
LNF Gualala	LNF1	203	574	2003	12,000	1,963	1.42%	-0.40	29.8	13	39%	4	16%	1	3%	3.2	363
LNF Gualala	LNF1	203	634	2004	12,000	1,963	1.54%	-0.73	32.4	13	47%	6	25%	1	4%	3.1	374
LNF Gualala	LNF1	203	685	2005	12,000	1,963	1.35%	-0.93	31.4	11	42%	5	20%	1	6%	3.0	386
LNF Gualala	LNF1	203	799	2006	12,000	1,963	1.46%	-1.08	28.1	15	57%	3	14%	0	0%	2.9	436
LNF Gualala	LNF1	203	872	2007	12,000	1,963	1.49%	-0.38	30.5	15	56%	4	18%	1	3%	4.4	452
LNF Gualala	LNF1	203	901	2008	12,000	1,963	1.43%	-0.72	33.8	14	61%	5	24%	1	3%	4.4	482
LNF Gualala	LNF1	203	1065	2009	12,000	1,963	1.45%	-0.66	34.1	14	49%	5	18%	1	2%	4.3	434
LNF Gualala	LNF1	203	1233	2010	12,000	1,963	1.45%	-0.62	32.6	14	53%	5	20%	1	4%	3.9	423
LNF Gualala	LNF1	203	1290	2011	12,000	1,963	1.44%	-0.53	40.2	13	46%	4	15%	2	9%	5.4	462
LNF Gualala	LNF1	203	1372	2012	12,000	1,963	1.48%	-0.56	33.2	9	42%	5	21%	1	4%	5.2	416
LNF Gualala	LNF1	203	1563	2013	12,000	1,963	1.45%	-0.53	33.7	14	54%	5	19%	3	11%	5.0	458
LNF Gualala	LNF1	203	1744	2014	12,000	1,963	1.48%	-0.36	35.0	15	64%	8	34%	1	3%	4.6	627
LNF Gualala	LNF1	203	2053	2015	12,000	1,963	1.48%	-0.40	34.4	15	64%	5	21%	3	10%	5.0	573
LNF Gualala	LNF1	203	2135	2016	12,000	1,963	1.49%	-0.43	31.1	15	59%	4	13%	2	7%	4.6	529
LNF Gualala	LNF1	203	2136	2017	12,000	1,963											
LNF Gualala	LNF1	203	2258	2018	12,000	1,963											

Total Reach Visits: 23

Biological Report

Ownerships: All
Visit Purpose: All
Planning Watersheds: Doty Creek

Stream	*Station Name*	*#*	*Year*	*Distance up Stream (Feet)*	*Reach Length (Feet)*	*Purpose*	*Fish or Redds per Mile*				*Benthic Macroinvertebrates (BMI)*					
							Adult Fish SH	*Redds*	*Coho Fry*	*Steel-head Parr 1+*	*Rich-ness*	*Simp-son*	*ETP Taxa*	*% Dom-inant*	*Russian River Index*	*North Coast IBI*
Watershed: NF Gualala																
Doty Cr	013	813	2013	0	302	Fish Pool Dive			0.0	122						
Doty Cr	013	813	2013	0	1,400	Spawner Survey	0.0	0.0								
Doty Cr	013	813	2014	0	447	Fish Pool Dive			0.0	154						
Doty Cr	013	813	2015	0	467	Fish Pool Dive			0.0	260						
Doty Cr	013	813	2016	0	378	Fish Pool Dive			0.0	126						
LNF Gualala	011	811	2013	0	4,707	Fish Pool Dive			0.0	167						
LNF Gualala	011	811	2013	0	4,000	Spawner Survey	2.6	6.6								
LNF Gualala	011	811	2014	0	6,800	Spawner Survey	0.8	0.8								
LNF Gualala	011	811	2014	0	3,946	Fish Pool Dive			0.0	127						
LNF Gualala	011	811	2015	0	4,683	Fish Pool Dive			0.0	159						
LNF Gualala	011	811	2015	0	6,800	Spawner Survey	0.8	0.0								
LNF Gualala	011	811	2016	0	4,302	Fish Pool Dive			0.0	144						
LNF Gualala	LNF3	404	1998	2,400	1,000	Fish Reach Dive			15.8	0						
LNF Gualala	LNF3	404	2003	2,400	870	Fish Reach Dive			0.0	589						
LNF Gualala	LNF3	404	2004	2,400	757	Fish Reach Dive			0.0	70						
LNF Gualala	012	812	2013	6,800	2,865	Fish Pool Dive				297						
LNF Gualala	012	812	2013	6,800	4,400	Spawner Survey	0.0	0.0								
LNF Gualala	012	812	2014	6,800	3,376	Fish Pool Dive			0.0	297						
LNF Gualala	012	812	2014	6,800	8,200	Spawner Survey	0.0	2.6								
LNF Gualala	012	812	2015	6,800	3,745	Fish Pool Dive			0.0	565						
LNF Gualala	012	812	2016	6,800	3,798	Fish Pool Dive			0.0	418						
LNF Gualala	LNF2	202	1998	7,780	1,000	Fish Reach Dive			31.7	0						
LNF Gualala	LNF2	202	2003	7,780	770	Fish Reach Dive			0.0	322						
LNF Gualala	LNF2	202	2004	7,780	688	Fish Reach Dive			0.0	391						

Reach length for "fish pool dives" is only the length of the pools actually snorkel surveyed.
Reach length for "spawner surveys" is the longest survey in that reach during that season.

Stream	Station Name	#	Year	Distance up Stream (Feet)	Reach Length (Feet)	Purpose	Fish or Redds per Mile			Benthic Macroinvertebrates (BMI)					
							Adult Fish SH	Redds	Coho Fry	Steel-head Parr 1+	Rich-ness	Simp-son	ETP Taxa	% Dom-inant	Russian River Index	North Coast IBI
LNF Gualala	LNF1	203	1998	12,000	1,000	Fish Reach Dive			0.0	0						
LNF Gualala	LNF1	203	1999	12,000	1,000	Fish Reach Dive			0.0	285						
LNF Gualala	LNF1	203	2000	12,000	1,000	Fish Reach Dive			0.0	143						
LNF Gualala	LNF1	203	2000	12,000	1,000	Riffle BMI					31	0.85	19	30%	19	
LNF Gualala	LNF1	203	2001	12,000	1,000	Fish Reach Dive			0.0	148						
LNF Gualala	LNF1	203	2002	12,000	1,000	Fish Reach Dive			0.0	169						
LNF Gualala	LNF1	203	2003	12,000	561	Fish Reach Dive			0.0	235						
LNF Gualala	LNF1	203	2004	12,000	531	Fish Reach Dive			0.0	666						
LNF Gualala	LNF1	203	2005	12,000	1,000	Riffle BMI					30		17	41%		
LNF Gualala	LNF1	203	2008	12,000	1,000	Fish Reach Dive			0.0	58						
LNF Gualala	LNF1	203	2009	12,000	1,000	Fish Reach Dive			0.0	803						
LNF Gualala	LNF1	203	2011	12,000	1,000	Fish Reach Dive			0.0	433						
LNF Gualala	LNF1	203	2012	12,000	1,000	Fish Reach Dive			0.0	343						
LNF Gualala	LNF1	203	2013	12,000	1,000	Fish Reach Dive			0.0	238						
LNF Gualala	LNF1	203	2014	12,000	1,000	Fish Reach Dive			0.0	480						
LNF Gualala	LNF1	203	2015	12,000	1,000	Fish Reach Dive			0.0	243						
LNF Gualala	LNF1	203	2016	12,000	1,000	Fish Reach Dive			0.0	259						
LNF Gualala	LNF1	203	2017	12,000	1,000	Fish Reach Dive			0.0	121						
LNF Gualala	LNF1	203	2018	12,000	1,000	Fish Reach Dive			0.0	74						

Total Station Visits: 43

Reach length for "fish pool dives" is only the length of the pools actually snorkel surveyed.
Reach length for "spawner surveys" is the longest survey in that reach during that season.

Logs placed in Creeks

Ownerships: All

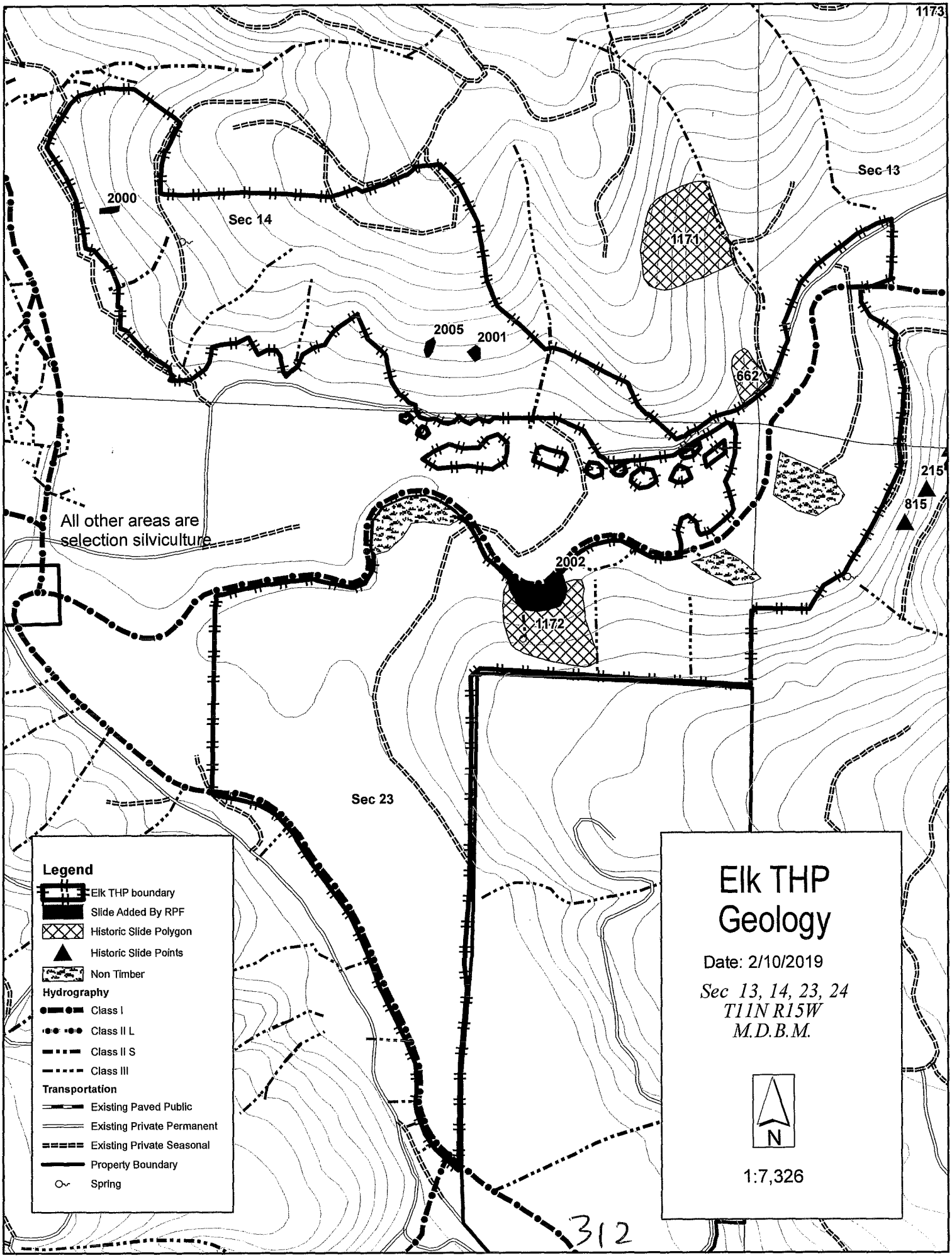
Planning Watersheds: Doty Creek

		Bank Full							Total				
	D1	D2	Length	Cu Ft	Cu M	Bd Ft	D1	D2	Length	Root Wad	CuFt	CuM	BdFt*	Trucks
Doty Creek														
Logs 39			*Total*	1,766	49	14,405				635	3,258	91	19,550	4
Jennifer Creek														
Logs 3			*Total*	139	4	832					277	8	1,663	0
Little North Fork Gualala														
Logs 343			*Total*	23,988	672	186,997				7,178	41,053	1,149	246,316	49
Log Cabin Creek														
Logs 4			*Total*			2,905				484	484	14	2,905	1
Roxane Creek														
Logs 4			*Total*			942				157	157	4	942	0
Grand Total														
Average	31	27	18	86	2	530	31	25	27	92	115	3	691	
Logs 393			*Total*	25,893	725	206,082				8,454	45,229	1,266	271,376	54

** There are about 5 thousand board feet on a log truck*

Change in log water depth after LWD placement

			Change in the depth of the water under a log from first depth (Deeper is positive)					
		Distance Moved	*2002*	*2004*	*2005*	*2006*	*2008*	*2012*
Doty Creek (24 Logs)								
Avg		*6*				*0.1*	*0.1*	*0.2*
Min		*0*				*-0.6*	*-0.6*	*-0.5*
Max		*48*				*1.5*	*1.6*	*1.8*
Little North Fork Gualala (178 Logs)								
Avg		*383*	*0.7*	*0.3*	*0.4*	*0.4*	*0.5*	*0.6*
Min		*0*	*-2.5*	*-3.5*	*-2.5*	*-3.1*	*-2.5*	*-2.8*
Max		*14,091*	*2.9*	*2.9*	*3.4*	*3.0*	*3.5*	*4.1*
Avg	**Grand Total**	*338*	*0.7*	*0.3*	*0.4*	*0.3*	*0.4*	*0.5*
Min		*0*	*-2.5*	*-3.5*	*-2.5*	*-3.1*	*-2.5*	*-2.8*
Max		*14,091*	*2.9*	*2.9*	*3.4*	*3.0*	*3.5*	*4.1*


1173
Sec 13
2000
Sec 14
1171
2005
2001
662
215
815
All other areas are
selection silviculture
2002
1172
Sec 23
Legend
Elk THP boundary
Slide Added By RPF
Historic Slide Polygon
Historic Slide Points
Non Timber
Hydrography
Class I
Class II L
Class II S
Class III
Transportation
Existing Paved Public
Existing Private Permanent
Existing Private Seasonal
Property Boundary
Spring
Elk THP
Geology
Date: 2/10/2019
Sec 13, 14, 23, 24
T11N R15W
M.D.B.M.
N
1:7,326
312

*Landslides**

Planning Watershed *Doty Creek*

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
8	8	Best CEG	1970	Photos	Hill Slope	Headwall Swale	Convergent	Natural	50-64	NA	222	55
10	10	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural		NA	5,369	4,026
12	12	Best CEG	1970	Photos	Landing	Headwall Swale	Convergent	Mgt. Relate	30-49	NA	2,370	1,777
13	13	Best CEG	1970	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	1,481	740
14	14	Best CEG	1970	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	1,481	370
15	15	Best CEG	1970	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	1,481	370
22	22	Best CEG	1970	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	648	486
37	37	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	30-49	NA	2,370	1,777
55	55	Best CEG	1970	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	1,481	740
57	57	Best CEG	1959	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	30-49	NA	2,370	1,185
58	58	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	1,481	370
60	60	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	75-84	NA	389	97
61	61	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	389	97
68	68	Best CEG	1984	Photos	Road	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	1,037	777
74	74	Best CEG	1998	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	65-74	NA	6,519	4,888
78	78	Best CEG	1959	Photos	Hill Slope	Headwall Swale	Convergent	Natural	75-84	NA	648	486
79	79	Best CEG	1959	Photos	Hill Slope	Headwall Swale	Convergent	Natural	30-49	NA	648	486
80	80	Best CEG	1959	Photos	Hill Slope	Headwall Swale	Convergent	Natural	85+	NA	648	486
89	89	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural		NA	648	162
90	90	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural		NA	648	162
94	94	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	30-49	NA	6,519	4,888
95	95	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	50-64	NA	6,519	4,888
96	96	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	30-49	NA	6,519	4,888
97	97	Best CEG	1984	Photos	Hill Slope	Headwall Swale	Convergent	Natural	50-64	NA	2,370	1,777
98	98	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	65-74	NA	2,370	1,777
103	103	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	65-74	NA	6,519	3,259
114	114	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	1,790,426	0
131	131	Best CEG	1970	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	30-49	Ukn	389	194
132	132	Best CEG	1970	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	75-84	NA	222	111
134	134	Best CEG	1970	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	30-49	NA	389	97
135	135	Best CEG	1970	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	50-64	NA	389	97
136	136	Best CEG	1970	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	30-49	Ukn	222	166
137	137	Best CEG	1970	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	30-49	Ukn	67	49
139	139	Best CEG	1970	Photos	Road	Inner Gorge	Plannar	Mgt. Relate		NA	8,475	6,356
140	140	Best CEG	1970	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	389	97
148	148	Best CEG	1970	Photos	Road	Inner Gorge		Mgt. Relate	0-29	Ukn	2,370	1,777
149	149	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	30-49	Ukn	389	194
150	150	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	65-74	NA	389	292
151	151	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	65-74	NA	1,481	740
155	155	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	389	194
156	156	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	0-29	Ukn	7,407	5,555
157	157	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate		Ukn	10,920	5,460
158	158	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate		Ukn	16,895	12,671
159	159	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate		Ukn	1,778	1,333
160	160	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	75-84	NA	222	55
161	161	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	NA	389	97
162	162	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	Ukn	889	222
163	163	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	30-49	NA	389	97
165	165	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate		Ukn	222	55

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
168	168	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	648	324
169	169	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	75-84	NA	648	324
170	170	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	1,481	1,110
171	171	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	0-29	NA	1,481	1,110
175	175	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	1,481	370
182	182	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	75-84	Ukn	1,481	740
185	185	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	6,519	4,888
192	192	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Convergent	Natural	50-64	NA	2,444	611
193	193	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Divergent	Natural	85+	NA	1,481	1,110
196	196	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	30-49	NA	889	222
199	199	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge		Natural	50-64	Ukn	1,037	777
200	200	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	N/A	Natural		NA	5,138	3,853
204	204	Best CEG	1984	Photos	Landing	Inner Gorge	Convergent	Mgt. Relate	0-29	Ukn	1,037	777
205	205	Best CEG	1984	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	0-29	Ukn	389	194
206	206	Best CEG	1947	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	0-29	NA	222	55
207	207	Best CEG	1970	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	0-29	NA	1,481	370
218	218	Best CEG	1970	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	0-29	NA	1,481	740
219	219	Best CEG	1947	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	648	324
223	223	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	30-49	NA	4,074	2,037
225	225	Best CEG	1998	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	2,370	1,777
226	226	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	30-49	NA	67	16
227	227	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	75-84	NA	222	55
228	228	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	30-49	NA	222	55
229	229	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	30-49	NA	648	324
244	244	Best CEG	1970	Photos	Hill Slope	Inner Gorge	Convergent	Natural	65-74	Ukn	1,481	740
245	245	Best CEG	1930	Photos	Hill Slope	Inner Gorge	Convergent	Natural	85+	NA	648	162
259	259	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural	75-84	Ukn	7,407	3,703
263	263	Best CEG	1947	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	50-64	Ukn	1,481	1,110
264	264	Best CEG	1947	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	85+	Ukn	1,481	1,110
268	268	Best CEG	1947	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	Ukn	6,519	4,888
269	269	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	30-49	Ukn	2,444	1,833
274	274	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural	65-74	Ukn	222	111
275	275	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural	0-29	Ukn	222	111
276	276	Best CEG	1970	Photos	Hill Slope	Inner Gorge	Plannar	Natural	0-29	Ukn	222	111
277	277	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural	85+	Ukn	222	55
287	287	Best CEG	1970	Photos	Hill Slope	Inner Gorge	Plannar	Natural	85+	Ukn	648	324
291	291	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural	50-64	Ukn	2,370	1,185
299	299	Best CEG	1970	Photos	Landing	Inner Gorge	Convergent	Mgt. Relate	75-84	NA	648	324
300	300	Best CEG	1970	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	30-49	NA	1,481	370
303	303	Best CEG	1959	Photos	Landing	Inner Gorge	Convergent	Mgt. Relate	0-29	NA	1,481	1,110
305	305	Best CEG	1970	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	85+	Ukn	648	324
306	306	Best CEG	1970	Photos	Landing	Inner Gorge		Mgt. Relate		Ukn	6,519	4,888
352	352	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	165,826	0
413	413	Best CEG	1970	Photos	Road	Inner Gorge		Mgt. Relate	30-49	NA	889	444
434	434	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	85+	NA	11,852	2,962
533	533	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	0-29	Ukn	1,481	1,110
534	534	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	Ukn	7,407	5,555
535	535	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	0-29	Ukn	7,407	5,555
536	536	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	Ukn	7,407	5,555
537	537	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	Ukn	4,074	3,055
562	562	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	0-29	NA	7,407	5,555
563	563	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	1,481	1,110
564	564	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	0-29	NA	4,074	2,037
573	573	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	4,074	2,037

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
579	579	Best CEG	1970	Photos	Skid Trail	Inner Gorge		Mgt. Relate	85+	Ukn	1,481	1,110
580	580	Best CEG	1970	Photos	Skid Trail	Inner Gorge		Mgt. Relate	65-74	NA	1,481	1,110
581	581	Best CEG	1970	Photos	Skid Trail	Inner Gorge		Mgt. Relate	75-84	Ukn	389	292
582	582	Best CEG	1970	Photos	Skid Trail	Inner Gorge		Mgt. Relate	50-64	NA	2,444	1,833
584	584	Best CEG	1970	Photos	Skid Trail	Inner Gorge		Mgt. Relate	50-64	Ukn	4,074	3,055
621	621	Best CEG	1959	Photos	Hill Slope	Inner Gorge		Natural	85+	Ukn	648	486
622	622	Best CEG	1970	Photos	Landing	Inner Gorge		Mgt. Relate	50-64	NA	6,519	4,888
675	675	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate		NA	11,188	8,391
684	684	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	0-29	Ukn	6,519	4,888
685	685	Best CEG	1970	Photos	Skid Trail	Inner Gorge		Mgt. Relate		NA	12,128	6,064
686	686	Best CEG	1970	Photos	Skid Trail	Inner Gorge		Mgt. Relate	0-29	Ukn	222	111
693	693	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	85+	Ukn	1,481	740
694	694	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural	85+	Ukn	222	55
695	695	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural	0-29	Ukn	222	55
697	697	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		Ukn	10,823	8,117
698	698	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		Ukn	5,885	4,414
699	699	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		Ukn	5,757	4,317
700	700	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		Ukn	1,006	754
708	708	Best CEG	1970	Photos	Road		Convergent	Mgt. Relate	65-74	NA	889	222
709	709	Best CEG	1970	Photos	Road		Convergent	Mgt. Relate	85+	NA	648	324
711	711	Best CEG	1970	Photos	Road		Plannar	Mgt. Relate	65-74	NA	389	97
713	713	Best CEG	1970	Photos	Road		Plannar	Mgt. Relate	65-74	NA	222	55
714	714	Best CEG	1970	Photos	Road		Plannar	Mgt. Relate	50-64	NA	222	55
716	716	Best CEG	1970	Photos	Road			Mgt. Relate	50-64	NA	222	55
718	718	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	65-74	NA	222	111
719	719	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	222	111
721	721	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	50-64	NA	222	55
728	728	Best CEG	1970	Photos	Stream Bank Failure		Plannar	Natural	65-74	NA	389	97
742	742	Best CEG	1984	Photos	Road		Divergent	Mgt. Relate	50-64	NA	222	55
744	744	Best CEG	1970	Photos	Road		Plannar	Mgt. Relate	50-64	NA	648	324
751	751	Best CEG	1959	Photos	Hill Slope		Convergent	Natural	0-29	NA	6,519	4,888
764	764	Best CEG	1947	Photos	Hill Slope		Convergent	Natural	75-84	NA	389	0
773	773	Best CEG	1959	Photos	Hill Slope		Convergent	Natural	75-84	NA	7,407	3,703
794	794	Best CEG	1998	Photos	Hill Slope		Plannar	Natural	85+	NA	222	55
874	874	Best CEG	1970	Photos	Road			Mgt. Relate	50-64	Ukn	389	194
875	875	Best CEG	1970	Photos	Road			Mgt. Relate	65-74	Ukn	389	292
876	876	Best CEG	1970	Photos	Road			Mgt. Relate	50-64	NA	1,481	1,110
878	878	Best CEG	1970	Photos	Road			Mgt. Relate	65-74	NA	222	166
879	879	Best CEG	1970	Photos	Road			Mgt. Relate	30-49	NA	389	194
880	880	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate	30-49	NA	389	97
890	890	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	0-29	Ukn	648	324
891	891	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	30-49	Ukn	648	324
901	901	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	6,519	4,888
930	930	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	648	324
1007	1007	Best CEG	1959	Photos	Skid Trail		Plannar	Mgt. Relate		NA	2,535	633
1008	1008	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	0-29	NA	67	16
1014	1014	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	50-64	NA	222	55
1015	1015	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	30-49	NA	222	55
1059	1059	Best CEG	1970	Photos	Hill Slope		Convergent	Natural	30-49	NA	648	486
1066	1066	Best CEG	1998	Photos	Hill Slope		Plannar	Natural	0-29	NA	222	55
1142	1142	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	185,195	0
1168	1168	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	2,828,939	0
1175	1175	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	1,493,481	0
1179	1179	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	210,481	0

Planning Watershed *Doty Creek*

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
1180	1180	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	198,707	0
1181	1181	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	2,271,599	0
1182	1182	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	697,816	0
1238	1238	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	10,046,250	0
1239	1239	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	192,625	0
1240	1240	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	18,100	0
1241	1241	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	197,821	0
1255	1255	Best CEG	1998	Photos	Road	Headwall Swale	Convergent	Mgt. Relate		NA	11,852	8,889
1256	1256	Best CEG	1998	Photos	Hill Slope	Headwall Swale	Convergent	Natural		NA	1,481	1,110
1416	1416	Fisher	2004	Field	Hill Slope	Headwall Swale	N/A	Natural	0-29	II	278	278
1417	1417	Fisher	1959	Field	Stream Bank Failure	Inner Gorge		Natural	50-64	II	67	67
1418	1418	Fisher	1959	Field	Stream Bank Failure	Inner Gorge		Natural	50-64	II	67	67
1419	1419	Fisher	1959	Field	Hill Slope			Natural		II	0	0
1420	1420	Fisher	1959	Field	Hill Slope			Natural		II	0	0
1421	1421	Fisher	1959	Field	Hill Slope			Natural		II	0	0
1422	1422	Fisher	1959	Field	Stream Bank Failure	Inner Gorge		Natural	75-84	II	0	0
1423	1423	Fisher	2004	Field	Stream Bank Failure	Inner Gorge		Natural	75-84	II	400	400
1424	1424	Fisher	1984	Field	Hill Slope			Natural		II	89	89
1425	1425	Fisher	1970	Field	Hill Slope			Natural		II	0	0
1426	1426	Fisher	1959	Field	Hill Slope			Natural		II	0	0
1428	1428	Fisher	1984	Field	Hill Slope			Natural		II	67	33
1429	1429	Fisher	1900	Field	Hill Slope			Natural		II	667	466
1430	1430	Fisher	1959	Field	Hill Slope			Natural		II	0	0
1431	1431	Fisher	1959	Field	Hill Slope			Natural		II	0	0
1432	1432	Fisher	1970	Field	Hill Slope			Natural		II	0	0
1433	1433	Fisher	1984	Field	Hill Slope			Natural		II	0	0
1434	1434	Fisher		Field	Hill Slope			Natural		II	0	0
1435	1435	Fisher		Field	Hill Slope			Natural		II	0	0
1436	1436	Fisher		Field	Hill Slope			Natural		II	0	0
1437	1437	Fisher	1984	Field	Hill Slope			Natural		II	0	0
1438	1438	Fisher	1998	Field	Hill Slope			Natural		II	8,889	8,889
1439	1439	Fisher	1984	Field	Hill Slope			Natural		II	0	0
1440	1440	Fisher	1984	Field	Hill Slope			Natural		II	0	0
1448	1448	Best CEG	2004	Photos	Hill Slope		Convergent	Natural			434	324
1449	1449	Best CEG	2004	Photos	Skid Trail		Plannar	Mgt. Relate			434	108
1450	1450	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			144	108
1451	1451	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			144	108
1452	1452	Best CEG	1984	Photos	Hill Slope		Convergent	Natural			1,185	888
1453	1453	Best CEG	1998	Field	Road		Plannar	Mgt. Relate			200	100
1454	1454	Best CEG	2004	Field	Stream Bank Failure		Plannar	Natural			144	108
1455	1455	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			56	41
1456	1456	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			56	41
1457	1457	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			144	108
1458	1458	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			144	108
1459	1459	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			144	108
1460	1460	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			144	108
1461	1461	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			144	108
1462	1462	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			178	133
1463	1463	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			400	300
1464	1464	Best CEG	1998	Field	Stream Bank Failure		Plannar	Natural			333	83
1465	1465	Best CEG	2004	Field	Stream Bank Failure		Plannar	Natural			67	49
1466	1466	Best CEG	2004	Field	Stream Bank Failure		Plannar	Natural			67	49
1467	1467	Best CEG	2004	Field	Stream Bank Failure		Plannar	Natural			67	49
1468	1468	Best CEG	2004	Field	Stream Bank Failure		Plannar	Natural			67	49

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
1469	1469	Best CEG	2004	Field	Stream Bank Failure		Plannar	Natural			67	49
1470	1470	Best CEG	2004	Field	Stream Bank Failure		Plannar	Natural			67	49
1471	1471	Best CEG	2004	Photos	Road		Plannar	Mgt. Relate			100	25
1472	1472	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural			453	226
1473	1473	Best CEG	2004	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural			417	313
1474	1474	Best CEG	2004	Field	Stream Bank Failure		Plannar	Natural			711	533
1475	1475	Best CEG	2004	Photos	Stream Bank Failure		Convergent	Natural			146	109
1476	1476	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			146	36
1477	1477	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			146	73
1478	1478	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			260	130
1479	1479	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			260	65
1480	1480	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			146	36
1481	1481	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			146	109
1482	1482	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			146	109
1483	1483	Best CEG	2004	Photos	Road		Plannar	Mgt. Relate			434	216
1484	1484	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			146	36
1485	1485	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Divergent	Natural			7,555	5,665
1486	1486	Best CEG	1998	Field	Stream Bank Failure	Inner Gorge	Divergent	Natural			32,519	1,625
1487	1487	Best CEG	1998	Photos	Stream Bank Failure		Plannar	Natural			178	44
1488	1488	Best CEG	1998	Photos	Hill Slope		Plannar	Natural			178	44
1489	1489	Best CEG	1998	Photos	Hill Slope	Headwall Swale	Convergent	Natural			2,066	1,033
1490	1490	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			146	73
1491	1491	Best CEG	2004	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural			434	324
1492	1492	Best CEG	2004	Photos	Road		Convergent	Mgt. Relate			146	36
1493	1493	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural			255	127
1494	1494	Best CEG	1984	Photos	Stream Bank Failure		Plannar	Natural			256	191
1495	1495	Best CEG	1959	Field	Stream Bank Failure		Plannar	Natural			144	108
1535	1535	Best CEG	1970	Photos	Stream Bank Failure	Headwall Swale	Convergent	Natural			1,660	1,245
1658	1658		0		THP Site, no data			No Info.			0	0
1659	1659		0		THP Site, no data			No Info.			0	0
1660	1660		0		THP Site, no data			No Info.			0	0
1661	1661		0		THP Site, no data			No Info.			0	0
1662	1662		0		THP Site, no data			No Info.			0	0
1663	1663		0		THP Site, no data			No Info.			0	0
1664	1664		0		THP Site, no data			No Info.			0	0
1665	1665		0		THP Site, no data			No Info.			0	0
1666	1666		0		THP Site, no data			No Info.			0	0
1682	1682		0		THP Site, no data			No Info.			0	0
1683	1683		0		THP Site, no data			No Info.			0	0
1719	1719		0		THP Site, no data			No Info.			0	0
1720	1720		0		THP Site, no data			No Info.			0	0
1728	1728		0		THP Site, no data			No Info.			0	0
1729	1729		0		THP Site, no data			No Info.			0	0
1730	1730		0		THP Site, no data			No Info.			0	0
1797	1797	Haschak	1970	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	II	3,333	3,333
1798	1798	Haschak	1970	Field	Hill Slope	Inner Gorge	Plannar	Natural	75-84	II	417	417
1799	1799	Haschak	1959	Field	Stream Bank Failure	Headwall Swale	Convergent	Natural	50-64	III	1,111	1,111
1801	1801	Haschak	1970	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	II	694	694
1802	1802	Haschak	1970	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	II	833	833
1803	1803	Haschak	1959	Field	Road	Inner Gorge	Plannar	Mgt. Relate	75-84	I	3,125	2,500
1808	1808	Haschak	1984	Field	Road	Inner Gorge	Plannar	Mgt. Relate	85+	I	139	69
1809	1809	Haschak	1984	Field	Road	Inner Gorge	Plannar	Mgt. Relate	65-74	II	833	750
1810	1810	Haschak	2004	Field	Road		Plannar	Mgt. Relate	65-74	NA	139	0
1811	1811	Haschak	1984	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	50-64	II	278	222

Planning Watershed *Doty Creek*

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
1812	1812	Haschak	1970	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	85+	II	1,389	1,250
1813	1813	Haschak	1947	Field	Hill Slope		Plannar	Natural	30-49	NA	5,589	0
1814	1814	Haschak	1998	Field	Hill Slope		Plannar	Natural	65-74	NA	833	0
1815	1815	Haschak	2004	Field	Skid Trail		Convergent	Mgt. Relate	65-74	III	32	32
1816	1816	Haschak	1998	Field	Road		Plannar	Mgt. Relate	65-74	NA	417	0
1817	1817	Haschak	1947	Field	Translational Slide		Plannar	Natural	50-64	NA	833	0
1818	1818	Haschak	2004	Field	Road		Convergent	Mgt. Relate	65-74	III	370	0
1832	1832	Haschak	1984	Field	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	III	267	200
1928	1928	Haschak	1984	Field	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	65-74	II	139	111
1929	1929	Haschak	1959	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84		1,481	1,481
1930	1930	Haschak	1984	Field	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	II	370	278
1932	1932	Haschak	2004	Field	Landing		N/A	Mgt. Relate	50-64	NA	133	0
1933	1933	Haschak	2004	Field	Road		N/A	Mgt. Relate	75-84	NA	9	0
1934	1934	Haschak	2004	Field	Road		N/A	Mgt. Relate	65-74	NA	17	0
1936	1936	Haschak	1998	Field	Road		Divergent	Mgt. Relate	65-74	NA	107	0
1937	1937	Haschak	1901	Field	Translational Slide	Inner Gorge	Convergent	Natural	50-64	II	3,333	2,000
1938	1938	Haschak	1970	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	II	4,444	3,778
1939	1939	Haschak	1901	Field	Unknown	Inner Gorge	Plannar	Natural	75-84	II	400	400
1940	1940	Haschak	2004	Field	Unknown	Inner Gorge	Plannar	Natural	85+	II	237	190
1941	1941	Haschak	1901	Field	Translational Slide	Inner Gorge	Plannar	Natural	65-74	II	3,704	1,852
1942	1942	Haschak	1984	Field	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	II	59	18
1943	1943	Haschak	1970	Field	Road	Inner Gorge	Plannar	Mgt. Relate	75-84	II	556	0
1988	1988	Haschak	1970	Field	Hill Slope	Inner Gorge	Plannar	Natural	50-64	I	444	222
1989	1989	Haschak	1970	Field	Hill Slope	Inner Gorge	Plannar	Natural	50-64	I	926	926
1990	1990	Haschak	1984	Field	Hill Slope	Inner Gorge	Convergent	Natural	75-84	II	1,667	1,417
1991	1991	Haschak	1970	Field	Road		Plannar	Mgt. Relate	50-64	NA	556	0
1992	1992	Haschak	1998	Field	Hill Slope	Inner Gorge	Plannar	Natural	65-74	II	100	0
1993	1993	Haschak	1998	Field	Hill Slope	Inner Gorge	Plannar	Natural	65-74	II	100	0
1994	1994	Haschak	1970	Field	Hill Slope		Plannar	Natural	50-64	I	1,111	556
1995	1995	Haschak	1970	Field	Hill Slope		Plannar	Natural	50-64	I	1,111	556
1996	1996	Haschak	1970	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	65-74	III	1,111	1,111
1997	1997	Haschak	1970	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	65-74	III	1,111	1,111
1998	1998	Haschak	1959	Field	Unknown	Inner Gorge	N/A	Natural	50-64	II	1,111	1,111
1999	1999	Haschak	1970	Field	Hill Slope	Inner Gorge	Plannar	Natural	65-74	II	1,111	889
2000	2000	Haschak	1998	Field	Hill Slope		Plannar	Natural	50-64	NA	926	0

Summary for 'PW Name' = Doty Creek (300 detail records)

Delivery **Avg** *974* **Min** *0* **Max** *12,671* **Sum** *292,069*

*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.

Landslides - Delivery to Watercourses (Yards)

Planning Watershed *Doty Creek*

	Photo year observed		***1900****	***1930***	***1947***	***1959***	***1970***	***1984***	***1998***	***2004***	***Total***
	Natural		0	24,214	7,109	15,865	29,807	2,857	11,398	2,677	93,927
	Mgt. Related				379	4,039	135,966	2,011	15,654	385	158,435
Doty Creek		**Sum**	*0*	*24,214*	*7,488*	*19,904*	*165,773*	*4,868*	*27,052*	*3,063*	*252,362*
		Per Year				*1,659*	*15,070*	*348*	*1,932*	*510*	
		Percent	*0.0%*	*9.6%*	*3.0%*	*7.9%*	*65.7%*	*1.9%*	*10.7%*	*1.2%*	*100.0%*

**** Historic Translational Slides ** Slides that were old on the 1947 photos***

Landslides - Total Yards

Planning Watershed *Doty Creek*

	Source	***ancient***	***1930*****	***1947***	***1959***	***1970***	***1984***	***1998***	***2004***
	Natural	20,297,264	35,758	9,870	27,330	43,657	3,811	47,385	4,230
	Mgt. Related			870	7,869	217,307	3,519	20,941	1,113
Sum	**Doty Creek**	*20,297,264*	*35,758*	*10,741*	*35,198*	*260,964*	*7,330*	*68,326*	*5,344*
				Per Year	*2,933*	*23,724*	*524*	*4,880*	*891*

**** Translational Slides*** ***** Slides that were old on the 1947 photos***

Landslides*

Planning Watershed *Robinson Creek*

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
3	3	Best CEG	1959	Photos	Skid Trail	Headwall Swale	Divergent	Mgt. Relate	30-49	NA	889	222
6	6	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Plannar	Mgt. Relate	50-64	NA	4,074	2,037
11	11	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	0-29	NA	2,370	1,777
16	16	Best CEG	1970	Photos	Landing	Headwall Swale	Convergent	Mgt. Relate	30-49	NA	2,370	1,777
31	31	Best CEG	1970	Photos	Road	Headwall Swale	Divergent	Mgt. Relate	0-29	NA	370	92
32	32	Best CEG	1959	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate		NA	1,791	1,343
38	38	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	75-84	NA	22,222	16,666
39	39	Best CEG	1959	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	75-84	NA	889	222
54	54	Best CEG	1970	Photos	Stream Bank Failure		N/A	Natural		NA	1,465	1,098
62	62	Best CEG	1970	Photos	Stream Bank Failure	Headwall Swale	Convergent	Natural	65-74	Ukn	1,481	1,110
63	63	Best CEG	1970	Photos	Stream Bank Failure	Headwall Swale	Convergent	Natural	50-64	NA	370	277
64	64	Best CEG	1998	Photos	Stream Bank Failure	Headwall Swale	Convergent	Natural	50-64	NA	648	3
71	71	Best CEG	1998	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	389	194
72	72	Best CEG	1998	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	75-84	NA	222	55
73	73	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	85+	NA	648	324
83	83	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	50-64	NA	4,074	2,037
84	84	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	50-64	NA	648	324
85	85	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	50-64	NA	648	324
86	86	Best CEG	1947	Photos	Hill Slope	Headwall Swale	Convergent	Natural	30-49	NA	648	324
87	87	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	75-84	NA	648	324
88	88	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	65-74	NA	648	324
91	91	Best CEG	1947	Photos	Hill Slope	Headwall Swale	Convergent	Natural	30-49	NA	1,481	740
102	102	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	30-49	NA	2,370	1,777
104	104	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	65-74	NA	389	97
105	105	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Convergent	Natural	50-64	NA	389	97
106	106	Best CEG	1947	Photos	Hill Slope	Headwall Swale	Convergent	Natural	65-74	NA	389	97
110	110	Best CEG	1947	Photos	Hill Slope	Headwall Swale	Convergent	Natural	65-74	NA	1,481	370
111	111	Best CEG	1947	Photos	Hill Slope	Headwall Swale	Convergent	Natural	75-84	NA	648	162
112	112	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Plannar	Natural	50-64	NA	222	111
113	113	Best CEG	1930	Photos	Hill Slope	Headwall Swale	Plannar	Natural	50-64	NA	648	324
118	118	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	2,370	592
125	125	Best CEG	1970	Photos	Skid Trail	Headwall Swale	Convergent	Mgt. Relate	50-64	NA	648	486
129	129	Best CEG	1970	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	1,481	740
130	130	Best CEG	1970	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	75-84	NA	4,074	2,037
141	141	Best CEG	1959	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	0-29	NA	7,407	5,555
142	142	Best CEG	1970	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	11,852	8,889
143	143	Best CEG	1959	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	50-64	Ukn	1,481	1,110
144	144	Best CEG	1970	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	50-64	Ukn	1,481	1,110
147	147	Best CEG	1959	Photos	Road	Inner Gorge	Plannar	Mgt. Relate		Ukn	6,791	5,093
152	152	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	85+	Ukn	389	292
164	164	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	75-84	NA	889	667
166	166	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate		Ukn	389	292
167	167	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	389	194
176	176	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	4,074	2,037
177	177	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	75-84	NA	4,074	3,055
178	178	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	NA	7,407	5,555
179	179	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	NA	7,407	3,703
180	180	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	648	486
181	181	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	648	486

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
183	183	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	Ukn	1,481	1,110
184	184	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	Ukn	1,481	1,110
188	188	Best CEG	1970	Photos	Skid Trail	Inner Gorge		Mgt. Relate	30-49	Ukn	9,778	7,333
194	194	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	50-64	Ukn	222	166
195	195	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	Ukn	222	166
201	201	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	N/A	Natural		NA	3,672	2,754
203	203	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Convergent	Natural	0-29	Ukn	2,370	1,777
208	208	Best CEG	1970	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	75-84	Ukn	648	324
209	209	Best CEG	1970	Photos	Landing	Inner Gorge	Plannar	Mgt. Relate	50-64	Ukn	648	324
212	212	Best CEG	1998	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	65-74	NA	67	49
215	215	Best CEG	1970	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	85+	NA	4,074	2,037
217	217	Best CEG	1959	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	75-84	Ukn	222	55
221	221	Best CEG	1998	Photos	Road	Inner Gorge		Mgt. Relate	85+	NA	2,370	1,777
222	222	Best CEG	1998	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	65-74	NA	370	277
224	224	Best CEG	1998	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	30-49	NA	67	49
254	254	Best CEG	1930	Photos	Hill Slope	Inner Gorge	Divergent	Natural	30-49	NA	889	222
258	258	Best CEG	1947	Photos	Hill Slope	Inner Gorge	Plannar	Natural		Ukn	1,712	1,284
270	270	Best CEG	1930	Photos	Hill Slope	Inner Gorge	Plannar	Natural	65-74	NA	389	194
278	278	Best CEG	1998	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	75-84	Ukn	389	292
279	279	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural	65-74	Ukn	389	292
280	280	Best CEG	1930	Photos	Hill Slope	Inner Gorge	Plannar	Natural	65-74	NA	67	33
281	281	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural	75-84	NA	389	97
283	283	Best CEG	1930	Photos	Hill Slope	Inner Gorge	Plannar	Natural	75-84	Ukn	389	194
288	288	Best CEG	1930	Photos	Hill Slope	Inner Gorge	Plannar	Natural	65-74	Ukn	4,074	2,037
292	292	Best CEG	1970	Photos	Hill Slope	Inner Gorge	Plannar	Natural	85+	Ukn	6,519	4,888
296	296	Best CEG	1930	Photos	Hill Slope	Inner Gorge		Natural	0-29	NA	222	111
302	302	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Convergent	Natural	0-29	Ukn	1,481	1,110
317	317	Best CEG	1959	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	50-64	NA	389	0
318	318	Best CEG	1959	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	50-64	NA	389	0
319	319	Best CEG	1959	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	30-49	NA	389	0
320	320	Best CEG	1959	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	0-29	NA	389	0
321	321	Best CEG	1959	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	30-49	Ukn	889	444
340	340	Best CEG	1970	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	85+	Ukn	1,481	740
353	353	Best CEG	1970	Photos	Road	Inner Gorge	Divergent	Mgt. Relate	0-29	Ukn	4,074	3,055
385	385	Best CEG	1959	Photos	Road	Inner Gorge	Plannar	Mgt. Relate		NA	5,730	2,864
394	394	Best CEG	1959	Photos	Road	Inner Gorge	Plannar	Mgt. Relate		Ukn	6,591	4,943
395	395	Best CEG	1959	Photos	Road	Inner Gorge	Plannar	Mgt. Relate		Ukn	8,998	6,748
414	414	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate		Ukn	2,963	1,481
415	415	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate		Ukn	1,710	855
428	428	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	65-74	Ukn	648	486
438	438	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	Ukn	389	292
495	495	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	50-64	Ukn	648	486
497	497	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	65-74	Ukn	1,037	777
499	499	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	85+	Ukn	222	166
500	500	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	85+	Ukn	389	292
505	505	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	85+	Ukn	889	667
529	529	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	0-29	Ukn	1,481	1,110
538	538	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	Ukn	7,407	5,555
539	539	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate		Ukn	8,746	6,559
545	545	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	30-49	NA	889	444
546	546	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	Ukn	2,444	1,833
549	549	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	75-84	NA	889	667
565	565	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	NA	4,074	3,055
566	566	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	75-84	Ukn	370	277

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
567	567	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	NA	648	324
568	568	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	1,481	740
577	577	Best CEG	1959	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	Ukn	11,852	8,889
578	578	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	Ukn	2,370	1,777
583	583	Best CEG	1970	Photos	Skid Trail	Inner Gorge		Mgt. Relate	85+	NA	222	111
599	599	Best CEG	1959	Photos	Stream Bank Failure	Inner Gorge	Divergent	Natural	50-64	Ukn	389	292
605	605	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural		Ukn	12,849	9,636
607	607	Best CEG	1959	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	Ukn	389	292
610	610	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural	75-84	Ukn	648	324
613	613	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural	65-74	NA	889	444
614	614	Best CEG	1959	Photos	Hill Slope	Inner Gorge	Plannar	Natural	50-64	Ukn	648	486
619	619	Best CEG	1970	Photos	Hill Slope	Inner Gorge		Natural	50-64	Ukn	222	111
620	620	Best CEG	1970	Photos	Hill Slope	Inner Gorge		Natural	65-74	Ukn	222	111
623	623	Best CEG	1970	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	30-49	NA	222	166
624	624	Best CEG	1970	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	85+	NA	222	166
626	626	Best CEG	1984	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	75-84	Ukn	222	166
628	628	Best CEG	1970	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	85+	NA	648	486
629	629	Best CEG	1970	Photos	Road	Inner Gorge	Convergent	Mgt. Relate	50-64	NA	648	486
630	630	Best CEG	1970	Photos	Road	Inner Gorge	Divergent	Mgt. Relate	75-84	NA	389	292
632	632	Best CEG	1970	Photos	Road	Inner Gorge	Divergent	Mgt. Relate	30-49	Ukn	370	277
633	633	Best CEG	1998	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	30-49	NA	389	292
634	634	Best CEG	1970	Photos	Road	Inner Gorge	Plannar	Mgt. Relate		NA	8,899	6,673
635	635	Best CEG	1970	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	50-64	Ukn	889	667
637	637	Best CEG	1959	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	389	97
638	638	Best CEG	1959	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	0-29	NA	222	55
639	639	Best CEG	1984	Photos	Road	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	1,481	1,110
640	640	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate		NA	4,995	3,745
641	641	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	0-29	NA	222	166
642	642	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	85+	NA	222	166
643	643	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	NA	67	49
644	644	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	0-29	NA	648	486
646	646	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	Ukn	222	166
647	647	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	NA	222	166
648	648	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	NA	222	166
649	649	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	85+	Ukn	370	277
650	650	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	Ukn	648	486
651	651	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	65-74	NA	648	486
652	652	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	NA	648	486
653	653	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	50-64	Ukn	222	166
654	654	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	NA	222	166
655	655	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	30-49	NA	389	292
658	658	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	85+	Ukn	648	486
659	659	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	Ukn	4,074	3,055
660	660	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Convergent	Mgt. Relate	75-84	NA	648	486
662	662	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate		NA	5,543	4,157
663	663	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	50-64	NA	1,481	740
664	664	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	75-84	Ukn	222	166
665	665	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	65-74	NA	222	166
666	666	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	65-74	NA	389	292
667	667	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	65-74	NA	389	292
668	668	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	85+	NA	389	194
671	671	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	75-84	NA	648	486
672	672	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	85+	Ukn	648	486
673	673	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	50-64	Ukn	648	324

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
674	674	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Divergent	Mgt. Relate	65-74	NA	7,407	1,851
676	676	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	222	166
678	678	Best CEG	1984	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	389	194
679	679	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	222	55
680	680	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	65-74	NA	1,481	1,110
681	681	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	NA	648	486
682	682	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	85+	NA	648	486
683	683	Best CEG	1970	Photos	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	648	486
687	687	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Convergent	Natural	85+	Ukn	389	292
688	688	Best CEG	1984	Photos	Hill Slope	Inner Gorge	Convergent	Natural	85+	NA	222	55
689	689	Best CEG	1984	Photos	Hill Slope	Inner Gorge	Convergent	Natural	65-74	NA	222	111
690	690	Best CEG	1970	Photos	Hill Slope	Inner Gorge	Convergent	Natural	85+	NA	222	166
691	691	Best CEG	1970	Photos	Hill Slope	Inner Gorge	Convergent	Natural	65-74	NA	222	166
696	696	Best CEG	1947	Photos	Hill Slope	Inner Gorge	Plannar	Natural	85+	Ukn	389	292
701	701	Best CEG	1959	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		Ukn	1,057	792
702	702	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		Ukn	1,851	1,388
703	703	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	N/A	Natural		Ukn	1,468	1,101
704	704	Best CEG	1970	Photos	Stream Bank Failure	Inner Gorge	N/A	Natural		NA	5,984	4,488
707	707	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	1,619,067	0
712	712	Best CEG	1970	Photos	Road		Plannar	Mgt. Relate	50-64	NA	389	97
715	715	Best CEG	1959	Photos	Road		Plannar	Mgt. Relate	75-84	NA	4,074	1,018
717	717	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	75-84	Ukn	2,370	1,777
723	723	Best CEG	1959	Photos	Stream Bank Failure		Convergent	Natural	50-64	Ukn	222	55
725	725	Best CEG	1970	Photos	Stream Bank Failure		Convergent	Natural	50-64	NA	1,481	1,110
726	726	Best CEG	1947	Photos	Stream Bank Failure		Divergent	Natural	50-64	NA	389	97
729	729	Best CEG	1959	Photos	Stream Bank Failure		Plannar	Natural	65-74	NA	7,407	1,851
730	730	Best CEG	1947	Photos	Stream Bank Failure		Plannar	Natural	75-84	NA	389	97
732	732	Best CEG	1970	Photos	Stream Bank Failure		Plannar	Natural	65-74	NA	1,481	370
733	733	Best CEG	1970	Photos	Stream Bank Failure		Plannar	Natural	50-64	NA	1,481	740
736	736	Best CEG	1970	Photos	Stream Bank Failure			Natural	0-29	NA	9,778	7,333
737	737	Best CEG	1959	Photos	Stream Bank Failure		N/A	Natural		NA	4,676	3,507
743	743	Best CEG	1959	Photos	Road		Divergent	Mgt. Relate	75-84	NA	889	222
745	745	Best CEG	1998	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	389	194
747	747	Best CEG	1998	Photos	Skid Trail		Divergent	Mgt. Relate	65-74	NA	222	111
748	748	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	75-84	Ukn	389	97
749	749	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	30-49	Ukn	389	97
762	762	Best CEG	1930	Photos	Hill Slope		Convergent	Natural	50-64	NA	6,519	4,888
763	763	Best CEG	1930	Photos	Hill Slope		Convergent	Natural	50-64	Ukn	6,519	4,888
771	771	Best CEG	1947	Photos	Hill Slope		Convergent	Natural	75-84	NA	648	324
772	772	Best CEG	1947	Photos	Hill Slope		Convergent	Natural	30-49	NA	648	324
774	774	Best CEG	1930	Photos	Hill Slope		Convergent	Natural	85+	NA	648	324
781	781	Best CEG	1998	Photos	Hill Slope		Divergent	Natural	30-49	NA	648	486
784	784	Best CEG	1998	Photos	Hill Slope		Divergent	Natural	85+	NA	2,370	1,185
793	793	Best CEG	1947	Photos	Hill Slope		Plannar	Natural	75-84	NA	222	55
795	795	Best CEG	1947	Photos	Hill Slope		Plannar	Natural	30-49	NA	389	97
796	796	Best CEG	1998	Photos	Hill Slope		Plannar	Natural	75-84	NA	222	55
798	798	Best CEG	1930	Photos	Hill Slope		Plannar	Natural	30-49	NA	648	162
801	801	Best CEG	1947	Photos	Hill Slope			Natural	85+	NA	2,370	592
802	802	Best CEG	1947	Photos	Hill Slope			Natural	50-64	NA	2,370	592
807	807	Best CEG	1970	Photos	Road		Convergent	Mgt. Relate	65-74	NA	389	97
813	813	Best CEG	1959	Photos	Road		Convergent	Mgt. Relate	75-84	Ukn	648	486
815	815	Best CEG	1984	Photos	Road		Convergent	Mgt. Relate	85+	NA	389	97
816	816	Best CEG	1984	Photos	Road		Convergent	Mgt. Relate	30-49	NA	389	97
825	825	Best CEG	1970	Photos	Road		Convergent	Mgt. Relate	65-74	NA	648	162

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
858	858	Best CEG	1970	Photos	Road		Plannar	Mgt. Relate	85+	NA	4,074	1,018
860	860	Best CEG	1970	Photos	Road		Plannar	Mgt. Relate	75-84	Ukn	389	292
861	861	Best CEG	1970	Photos	Road		Plannar	Mgt. Relate	75-84	NA	1,481	1,110
862	862	Best CEG	1970	Photos	Road		Plannar	Mgt. Relate	75-84	Ukn	648	486
881	881	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	65-74	NA	222	55
894	894	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	648	324
897	897	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate	65-74	Ukn	370	277
902	902	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	85+	NA	6,519	4,888
904	904	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	Ukn	389	292
905	905	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	389	97
906	906	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	30-49	NA	222	111
907	907	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	Ukn	389	97
908	908	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	75-84	NA	389	97
909	909	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	65-74	Ukn	389	194
912	912	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	75-84	NA	389	97
933	933	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	648	324
934	934	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	75-84	NA	648	162
935	935	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	30-49	Ukn	648	486
936	936	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	Ukn	648	486
937	937	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	65-74	NA	648	162
951	951	Best CEG	1970	Photos	Skid Trail		Divergent	Mgt. Relate	50-64	NA	4,074	2,037
973	973	Best CEG	1984	Photos	Skid Trail		Divergent	Mgt. Relate	50-64	NA	889	444
993	993	Best CEG	1970	Photos	Skid Trail		Divergent	Mgt. Relate	85+	NA	648	162
994	994	Best CEG	1970	Photos	Skid Trail		Divergent	Mgt. Relate	75-84	NA	648	162
995	995	Best CEG	1970	Photos	Skid Trail		Divergent	Mgt. Relate	50-64	NA	648	486
996	996	Best CEG	1970	Photos	Skid Trail		Divergent	Mgt. Relate	50-64	NA	1,481	1,110
999	999	Best CEG	1984	Photos	Skid Trail		Divergent	Mgt. Relate	30-49	NA	648	486
1005	1005	Best CEG	1970	Photos	Skid Trail		Divergent	Mgt. Relate	65-74	NA	2,370	1,185
1006	1006	Best CEG	1984	Photos	Skid Trail		Divergent	Mgt. Relate	85+	NA	2,370	1,185
1012	1012	Best CEG	1959	Photos	Skid Trail		Plannar	Mgt. Relate	30-49	Ukn	2,370	1,777
1013	1013	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	75-84	NA	2,370	1,777
1016	1016	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	75-84	NA	389	97
1022	1022	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	75-84	NA	222	111
1040	1040	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	50-64	NA	1,481	740
1041	1041	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	85+	NA	4,074	2,037
1042	1042	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	30-49	Ukn	1,481	740
1043	1043	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	75-84	Ukn	648	486
1044	1044	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	75-84	Ukn	648	486
1045	1045	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	50-64	Ukn	1,481	1,110
1049	1049	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate	85+	Ukn	1,037	777
1055	1055	Best CEG	1970	Photos	Skid Trail			Mgt. Relate	0-29	Ukn	1,481	1,110
1056	1056	Best CEG	1970	Photos	Skid Trail		N/A	Mgt. Relate		Ukn	1,477	1,107
1061	1061	Best CEG	1970	Photos	Hill Slope		Convergent	Natural	0-29	Ukn	2,370	1,777
1062	1062	Best CEG	1998	Photos	Hill Slope		Convergent	Natural	50-64	NA	648	486
1063	1063	Best CEG	1998	Photos	Hill Slope		Convergent	Natural	85+	NA	1,037	777
1064	1064	Best CEG	1970	Photos	Hill Slope		Divergent	Natural	65-74	NA	648	324
1089	1089	Best CEG	1970	Photos	Stream Bank Failure		N/A	Natural		Ukn	2,340	1,755
1090	1090	Best CEG	1970	Photos	Stream Bank Failure		N/A	Natural		Ukn	1,224	918
1091	1091	Best CEG	1970	Photos	Stream Bank Failure		N/A	Natural		NA	2,558	1,917
1092	1092	Best CEG	1970	Photos	Stream Bank Failure		N/A	Natural		NA	3,870	2,901
1095	1095	Best CEG	1970	Photos	Stream Bank Failure		N/A	Natural		NA	3,458	2,593
1096	1096	Best CEG	1970	Photos	Stream Bank Failure		N/A	Natural		NA	1,694	1,270
1106	1106	Best CEG	1959	Photos	Road		Plannar	Mgt. Relate	0-29	NA	67	16
1107	1107	Best CEG	1959	Photos	Road		Plannar	Mgt. Relate	0-29	NA	67	16

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
1111	1111	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	222	166
1112	1112	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	222	111
1113	1113	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	222	55
1114	1114	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate	0-29	NA	648	486
1115	1115	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	648	486
1116	1116	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	75-84	NA	648	486
1117	1117	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	648	324
1118	1118	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	0-29	NA	648	486
1119	1119	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate		NA	6,121	3,060
1120	1120	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	222	55
1121	1121	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate	65-74	NA	222	55
1122	1122	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	222	55
1123	1123	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	75-84	NA	389	292
1124	1124	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	75-84	NA	222	166
1126	1126	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	648	162
1127	1127	Best CEG	1984	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	648	486
1128	1128	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	85+	NA	648	486
1129	1129	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	30-49	NA	1,481	1,110
1130	1130	Best CEG	1970	Photos	Skid Trail		Convergent	Mgt. Relate	50-64	NA	648	162
1131	1131	Best CEG	1984	Photos	Skid Trail		Divergent	Mgt. Relate	85+	NA	222	166
1132	1132	Best CEG	1984	Photos	Skid Trail		Divergent	Mgt. Relate	50-64	NA	648	486
1133	1133	Best CEG	1984	Photos	Skid Trail		Divergent	Mgt. Relate	85+	NA	1,481	740
1134	1134	Best CEG	1970	Photos	Skid Trail		Plannar	Mgt. Relate		NA	2,174	1,629
1135	1135	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	85+	NA	222	55
1136	1136	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	30-49	NA	648	486
1137	1137	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	75-84	NA	648	486
1138	1138	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	65-74	NA	222	55
1139	1139	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	50-64	NA	1,481	1,110
1140	1140	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	75-84	NA	648	324
1141	1141	Best CEG	1984	Photos	Skid Trail		Plannar	Mgt. Relate	75-84	NA	648	486
1145	1145	Best CEG	1984	Photos	Hill Slope		Convergent	Natural	30-49	NA	389	97
1147	1147	Best CEG	1984	Photos	Hill Slope		Convergent	Natural	75-84	NA	1,481	1,110
1151	1151	Best CEG	1959	Photos	Hill Slope		Plannar	Natural	85+	NA	4,074	2,037
1171	1171	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	136,279	0
1172	1172	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	115,093	0
1173	1173	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	131,177	0
1176	1176	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	709,133	0
1177	1177	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	158,787	0
1178	1178	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	208,126	0
1183	1183	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	2,087,281	0
1184	1184	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	1,195,580	0
1185	1185	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	810,899	0
1186	1186	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	883,735	0
1187	1187	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	95,438	0
1188	1188	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	115,929	0
1189	1189	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	272,833	0
1190	1190	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	846,950	0
1191	1191	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	244,331	0
1193	1193	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	489,286	0
1194	1194	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	1,174,596	0
1203	1203	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	92,190	0
1204	1204	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	199,302	0
1205	1205	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	399,204	0
1206	1206	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	100,220	0

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
1207	1207	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	210,976	0
1208	1208	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	86,901	0
1242	1242	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	1,097,287	0
1243	1243	Best CEG	1900	Photos	Translational Slide		N/A	Natural		NA	804,962	0
1250	1250	Best CEG	1959	Photos	Stream Bank Failure		N/A	Natural		NA	1,598	1,198
1251	1251	Best CEG	1959	Photos	Stream Bank Failure		N/A	Natural		NA	7,516	5,637
1252	1252	Best CEG	1970	Photos	Stream Bank Failure		N/A	Natural		NA	5,893	4,420
1253	1253	Best CEG	1970	Photos	Stream Bank Failure		N/A	Natural		NA	8,314	6,235
1257	1257	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	67	16
1258	1258	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	67	33
1259	1259	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	6,980	5,235
1260	1260	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Convergent	Natural		NA	30,465	15,232
1261	1261	Best CEG	1998	Photos	Stream Bank Failure	Headwall Swale	Plannar	Natural		NA	67	16
1263	1263	Best CEG	1998	Photos	Road	Headwall Swale	Plannar	Mgt. Relate		NA	222	55
1264	1264	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	648	324
1265	1265	Best CEG	1998	Photos	Hill Slope	Inner Gorge	Plannar	Natural		NA	648	324
1266	1266	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		NA	222	111
1267	1267	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		NA	222	111
1276	1276	Best CEG	1998	Photos	Stream Bank Failure	Headwall Swale	Convergent	Natural		NA	648	486
1350	1350	Best CEG	1984	Photos	Road	Inner Gorge	Plannar	Mgt. Relate		NA	22	22
1356	1356	Best CEG	1998	Photos	Road		Plannar	Mgt. Relate		NA	44	44
1357	1357	Best CEG	1998	Photos	Stream Bank Failure		Convergent	Natural		NA	44	44
1358	1358	Best CEG	1998	Photos	Stream Bank Failure		Plannar	Natural		NA	111	111
1359	1359	Best CEG	1984	Photos	Stream Bank Failure		Plannar	Natural		NA	111	111
1360	1360	Best CEG	1984	Photos	Road		Plannar	Mgt. Relate		NA	74	74
1363	1363	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural		NA	889	444
1544	1544		0		Unknown			Natural			0	0
1545	1545		0		Unknown			Natural			0	0
1582	1582	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural			144	108
1583	1583	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural			144	108
1585	1585	Best CEG	1998	Photos	Stream Bank Failure	Inner Gorge	Plannar	Natural			241	181
1593	1593	Best CEG	1998	Photos	Road		Convergent	Mgt. Relate			7,259	5,444
1594	1594	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			426	319
1595	1595	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			144	0
1596	1596	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			50	0
1597	1597	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			144	72
1598	1598	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			144	72
1599	1599	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			144	36
1600	1600	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			426	319
1601	1601	Best CEG	2004	Photos	Skid Trail		Plannar	Mgt. Relate			426	319
1602	1602	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			1,185	888
1603	1603	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			144	36
1604	1604	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			144	36
1605	1605	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			144	36
1608	1608	Best CEG	1998	Photos	Skid Trail		Plannar	Mgt. Relate			426	106
1609	1609	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			144	0
1610	1610	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			256	0
1611	1611	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			144	0
1618	1618	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			1,667	0
1619	1619	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			3,889	2,917
1620	1620	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			256	191
1621	1621	Best CEG	2004	Photos	Hill Slope		Convergent	Natural			144	28
1622	1622	Best CEG	2004	Photos	Stream Bank Failure		Convergent	Natural			426	319
1623	1623	Best CEG	2004	Photos	Hill Slope		Plannar	Natural			426	106

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
1624	1624	Best CEG	1998	Photos	Hill Slope		Convergent	Natural			1,659	829
1625	1625	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			1,185	888
1626	1626	Best CEG	2004	Photos	Stream Bank Failure		Plannar	Natural			426	319
1637	1637		0		THP Site, no data			No Info.			0	0
1638	1638		0		THP Site, no data			No Info.			0	0
1641	1641		0		THP Site, no data			No Info.			0	0
1643	1643		0		THP Site, no data			No Info.			0	0
1644	1644		0		THP Site, no data			No Info.			0	0
1645	1645		0		THP Site, no data			No Info.			0	0
1646	1646		0		THP Site, no data			No Info.			0	0
1647	1647		0		THP Site, no data			No Info.			0	0
1648	1648		0		THP Site, no data			No Info.			0	0
1649	1649		0		THP Site, no data			No Info.			0	0
1650	1650		0		THP Site, no data			No Info.			0	0
1651	1651		0		THP Site, no data			No Info.			0	0
1652	1652		0		THP Site, no data			No Info.			0	0
1653	1653		0		THP Site, no data			No Info.			0	0
1684	1684		0		THP Site, no data			No Info.			0	0
1685	1685		0		THP Site, no data			No Info.			0	0
1686	1686		0		THP Site, no data			No Info.			0	0
1687	1687		0		THP Site, no data			No Info.			0	0
1694	1694		0		THP Site, no data			No Info.			0	0
1695	1695		0		THP Site, no data			No Info.			0	0
1696	1696		0		THP Site, no data			No Info.			0	0
1697	1697		0		THP Site, no data			No Info.			0	0
1716	1716		0		THP Site, no data			No Info.			0	0
1717	1717		0		THP Site, no data			No Info.			0	0
1718	1718		0		THP Site, no data			No Info.			0	0
1721	1721		0		THP Site, no data			No Info.			0	0
1722	1722		0		THP Site, no data			No Info.			0	0
1723	1723		0		THP Site, no data			No Info.			0	0
1724	1724		0		THP Site, no data			No Info.			0	0
1725	1725		0		THP Site, no data			No Info.			0	0
1726	1726		0		THP Site, no data			No Info.			0	0
1727	1727		0		THP Site, no data			No Info.			0	0
1731	1731		0		THP Site, no data			No Info.			0	0
1741	1741		0		THP Site, no data			No Info.			0	0
1742	1742		0		THP Site, no data			No Info.			0	0
1786	1786	Haschak	1998	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	50-64	III	30	30
1787	1787	Haschak	1998	Field	Stream Bank Failure	Inner Gorge	Convergent	Natural	50-64	I	556	556
1788	1788	Haschak	1998	Field	Stream Bank Failure	Inner Gorge	Convergent	Natural	50-64	I	556	556
1789	1789	Haschak	1998	Field	Hill Slope	Inner Gorge	Convergent	Natural	50-64	I	333	167
1790	1790	Haschak	1998	Field	Road	Inner Gorge	Plannar	Mgt. Relate	65-74	II	833	0
1791	1791	Haschak	1998	Field	Road	Inner Gorge	Plannar	Mgt. Relate	65-74	II	417	0
1792	1792	Haschak	1998	Field	Road	Inner Gorge	Plannar	Mgt. Relate	65-74	II	417	0
1793	1793	Haschak	1984	Field	Translational Slide	Inner Gorge	Plannar	Natural	50-64	I	833	417
1794	1794	Haschak	1984	Field	Road		Plannar	Mgt. Relate	65-74	I	222	0
1795	1795	Haschak	1984	Field	Road		Plannar	Mgt. Relate	65-74	I	194	
1796	1796	Haschak	1998	Field	Road	Inner Gorge	Plannar	Mgt. Relate	50-64	NA	148	0
1819	1819	Haschak	1970	Field	Hill Slope	Inner Gorge	Plannar	Natural		I	370	370
1834	1834	Haschak	1959	Field	Skid Trail		Plannar	Mgt. Relate	75-84	III	1,042	938
1835	1835	Haschak	1984	Field	Skid Trail		Plannar	Mgt. Relate	50-64	II	44	0
1836	1836	Haschak	1998	Field	Skid Trail		Convergent	Mgt. Relate	65-74	II	156	78
1837	1837	Haschak	1970	Field	Skid Trail	Inner Gorge	Plannar	Mgt. Relate	75-84	II	370	370

Planning Watershed *Robinson Creek*

Map#	*ID #*	*Inspector*	*Year***	*Source*	*Slide Type*	*Slope Type*	*Slope Form*	*Association*	*Slope*	*Stream*	*Total Yds*	*Delivered*
1838	1838	Haschak	1984	Field	Unknown	Inner Gorge	Convergent	Natural	75-84	II	278	139
1919	1919	Haschak	1970	Field	Stream Bank Failure	Inner Gorge	Convergent	Natural	65-74	IV	222	222
1921	1921	Haschak	1998	Field	Unknown	Inner Gorge	Plannar	Natural	75-84	II	1,250	938
1922	1922	Haschak	1984	Field	Skid Trail		Plannar	Mgt. Relate	65-74	NA	250	0
1923	1923	Haschak	2004	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	85+	II	237	237
1924	1924	Haschak	1901	Field	Unknown	Inner Gorge	Plannar	Natural	65-74	II	444	333
1925	1925	Haschak	1984	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	II	347	347
1926	1926	Haschak	1984	Field	Stream Bank Failure	Inner Gorge	Plannar	Natural	75-84	II	556	556
1927	1927	Haschak	1984	Field	Unknown	Inner Gorge	Plannar	Natural	50-64	II	463	116
1935	1935	Haschak	1959	Field	Road	Headwall Swale	Convergent	Mgt. Relate	50-64	III	486	243
2001	2001	Haschak	1901	Field	Translational Slide	Headwall Swale	Convergent	Natural	65-74	NA	556	0
2002	2002	Haschak	1901	Field	Stream Bank Failure	Inner Gorge	Convergent	Natural	85+	I	1,111	1,111
2005	2005	Haschak	1930	Field	Hill Slope		Convergent	Natural	50-64	NA	167	0

Summary for 'PW Name' = Robinson Creek (440 detail records)

Delivery	**Avg**	*858*	**Min**	*0*	**Max**	*16,666*	**Sum**	*376,601*

*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.

Landslides - Delivery to Watercourses (Yards)

Planning Watershed *Robinson Creek*

	Photo year observed		***1900****	***1930***	***1947***	***1959***	***1970***	***1984***	***1998***	***2004***	***Total***
	Natural		0	20,573	5,448	29,440	51,947	1,485	27,097	6,582	142,573
	Mgt. Related					55,583	141,079	20,385	8,942	319	226,307
Robinson Creek		**Sum**	*0*	*20,573*	*5,448*	*85,023*	*193,026*	*21,869*	*36,039*	*6,901*	*368,880*
		Per Year				*7,085*	*17,548*	*1,562*	*2,574*	*1,150*	
		Percent	*0.0%*	*5.6%*	*1.5%*	*23.0%*	*52.3%*	*5.9%*	*9.8%*	*1.9%*	*100.0%*

**** Historic Translational Slides ** Slides that were old on the 1947 photos***

Landslides - Total Yards

Planning Watershed *Robinson Creek*

	Source	*ancient*	*1930***	*1947*	*1959*	*1970*	*1984*	*1998*	*2004*
	Natural	14,285,563	33,419	14,175	46,215	71,124	2,426	49,619	12,061
	Mgt. Related				83,319	221,265	32,890	12,826	426
Sum	**Robinson Creek**	*14,285,563*	*33,419*	*14,175*	*129,534*	*292,389*	*35,316*	*62,445*	*12,487*
				Per Year	*10,794*	*26,581*	*2,523*	*4,460*	*2,081*

** Translational Slides* *** Slides that were old on the 1947 photos*

NSO Information

ELK THP
NSO SURVEY STATIONS

Legend

- NSO Survey Stations
- Elk THP Boundary
- 0.7 Mile Buffer
- Property Boundary
- Watercourses

Transportation

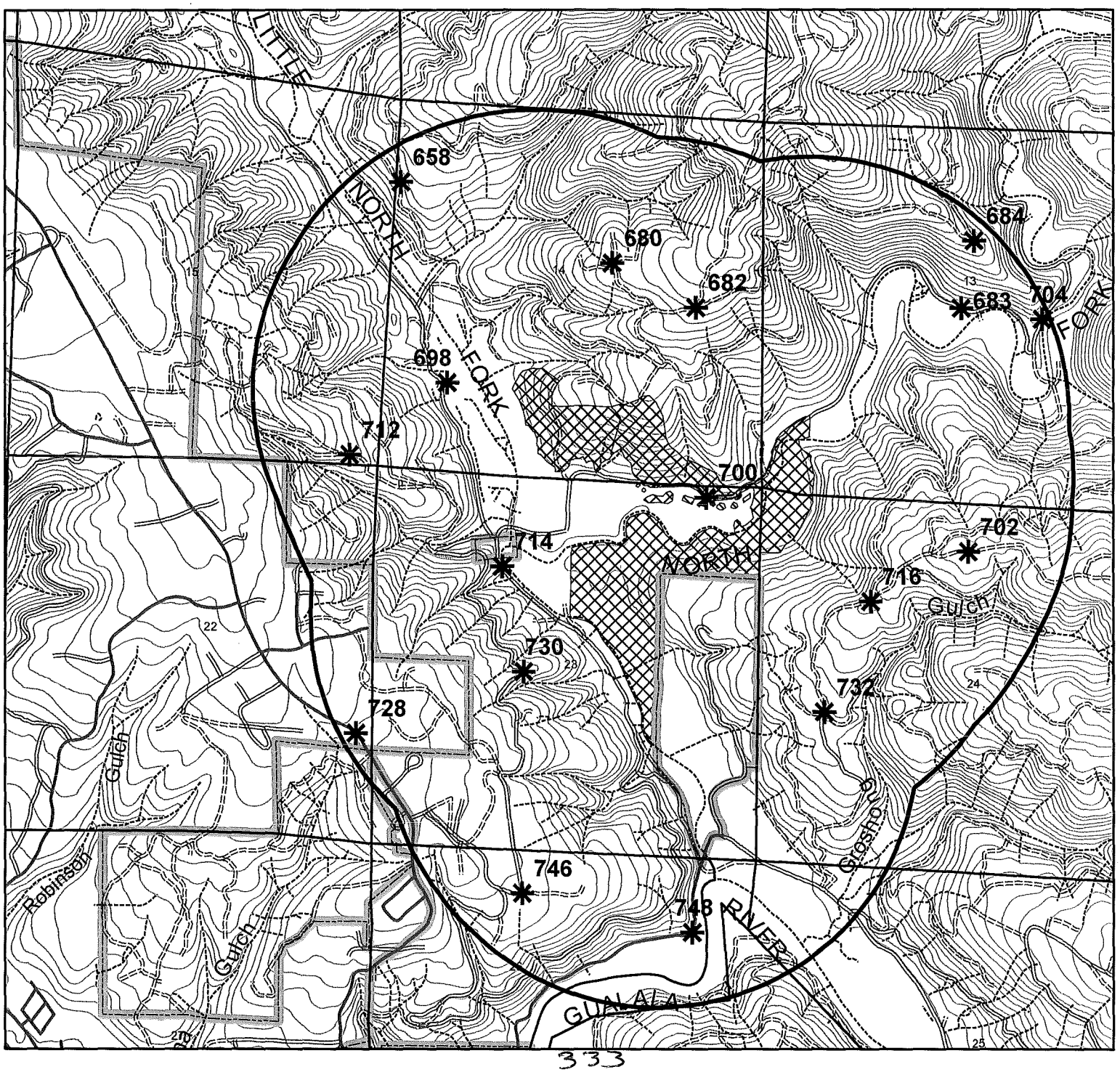
Road Class

- Paved Public
- Unpaved Public
- Private Permanent
- Private Seasonal

N

1:24,000

APRIL 22, 2019



ELK THP
NSO WITHIN 0.7 MILES

Legend

- NSO Activity Center
- Elk THP Boundary
- 0.7 Mile Buffer
- Property Boundary
- Watercourses

Transportation

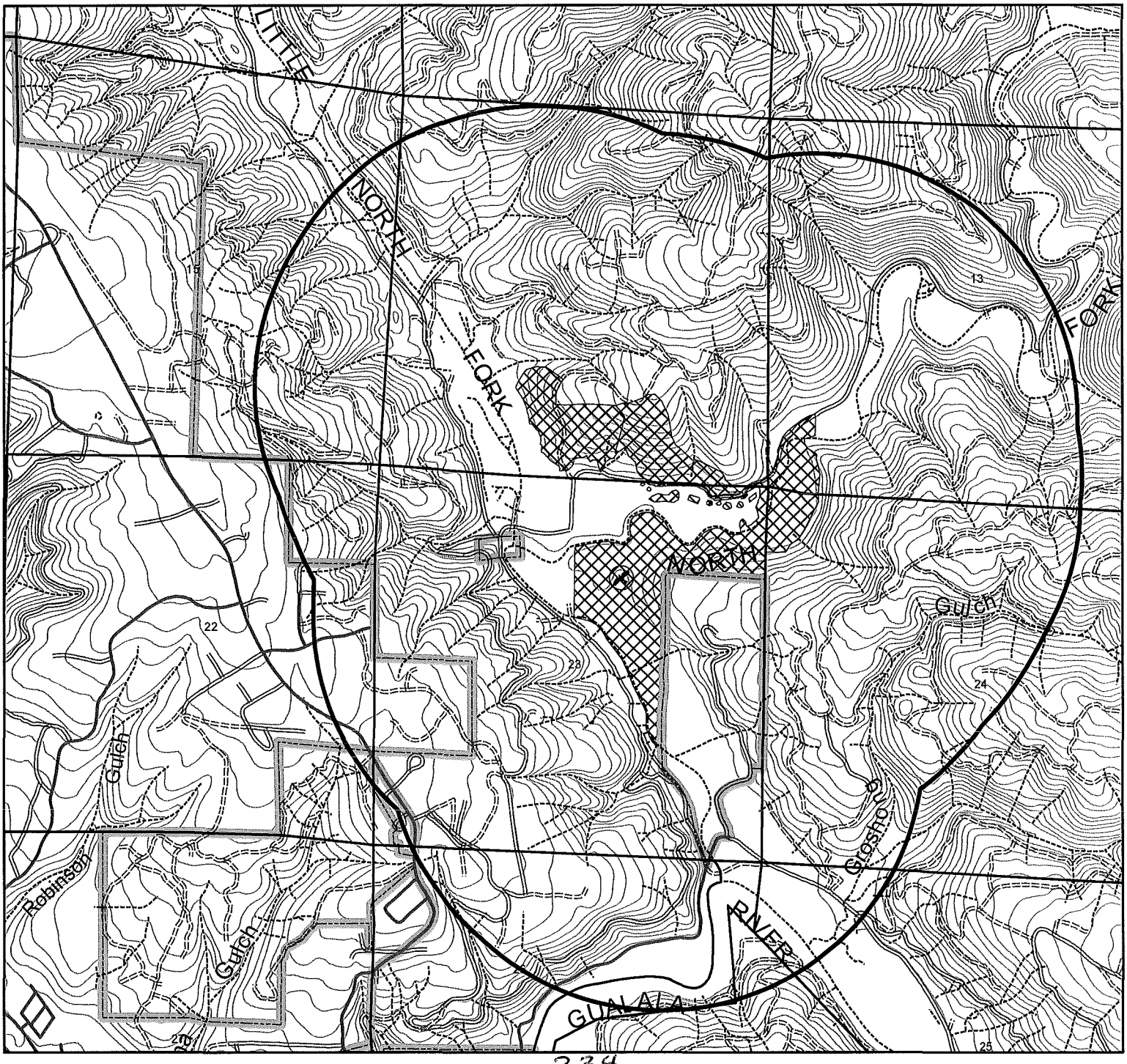
Road Class

- Paved Public
- Unpaved Public
- Private Permanent
- Private Seasonal

N

1:24,000

APRIL 22, 2019

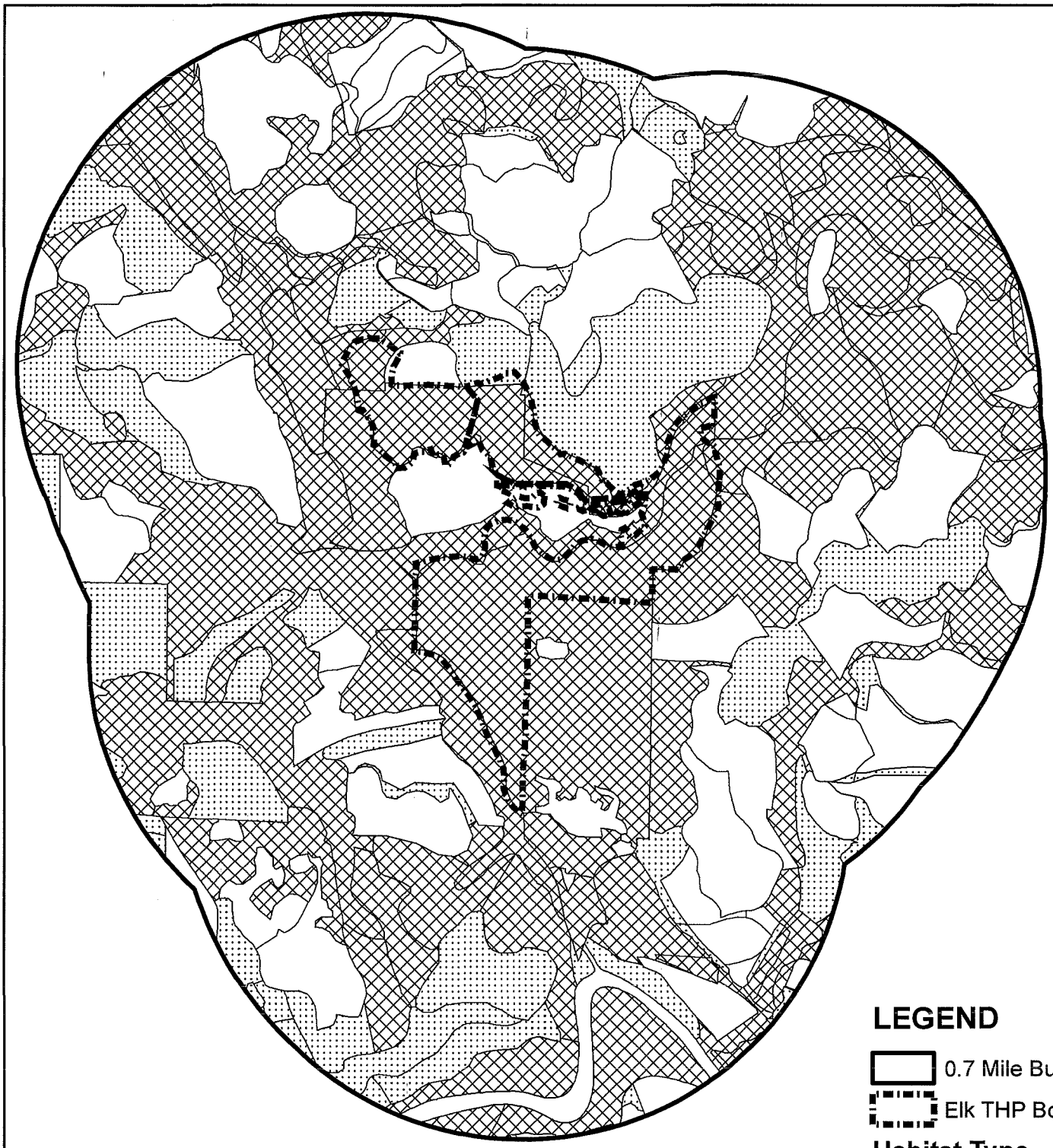


ELK THP
PRE HARVEST HABITAT WITHIN 0.7 MILES

N

Aug. 8, 2019

1:20,000



LEGEND

- 0.7 Mile Buffer
- Elk THP Boundary

Habitat Type

- Nest/Roost
- Forage
- Unsuitable

PRE HARVEST HABITAT

NEST/ROOST	1386 ACRES
FORAGE	459 ACRES
UNSUITABLE	748 ACRES

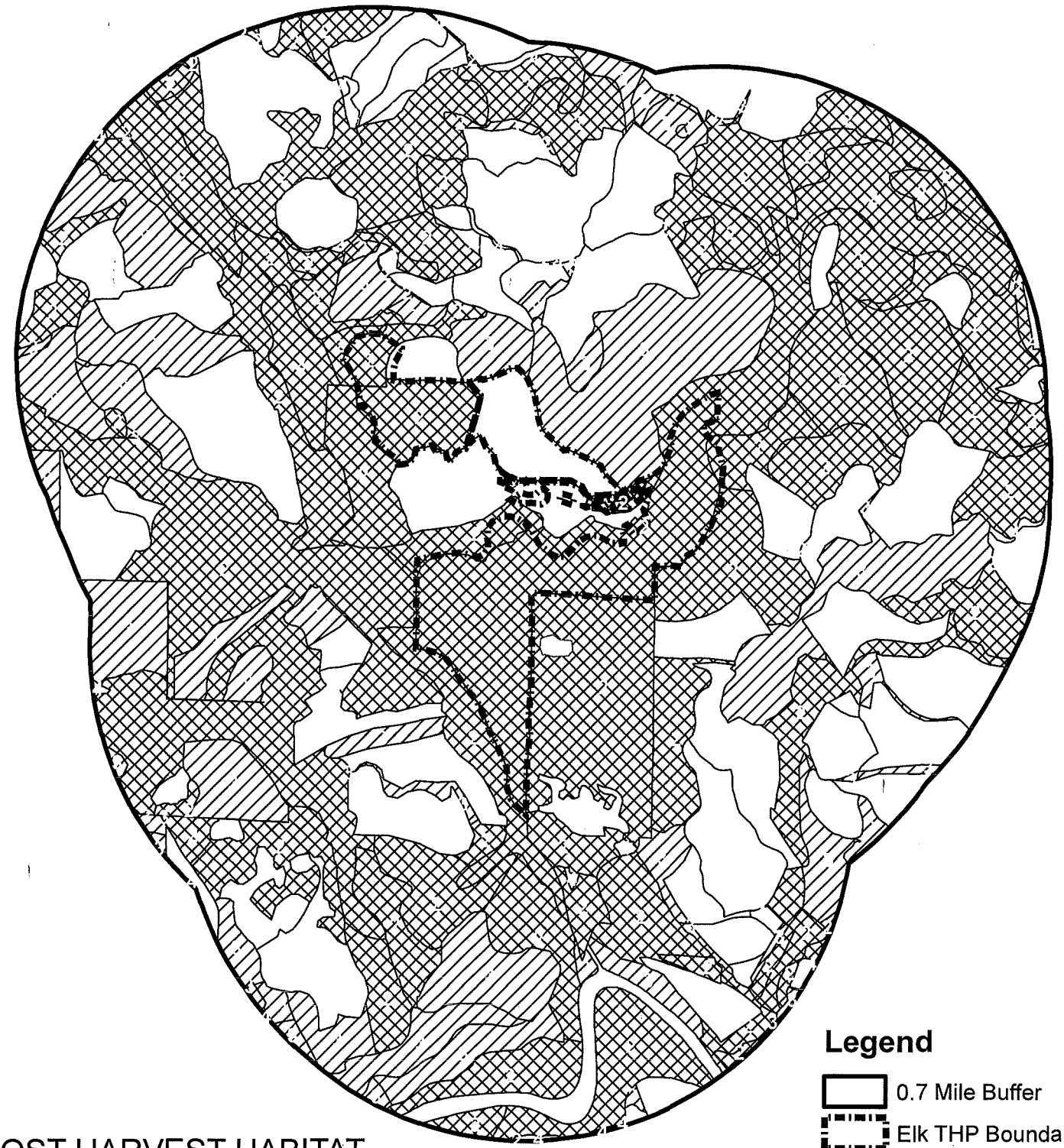
335

revised 8/12/19

ELK THP
POST HARVEST HABITAT WITHIN 0.7 MILES

Aug. 8, 2019

1:20,000



POST HARVEST HABITAT

NEST/ROOST	1363 ACRES
FORAGE	457 ACRES
UNSUITABLE	772 ACRES

336

revised 8/12/19

ELK THP
POST HARVEST HABITAT WITHIN 0.7 MILES

Aug. 8, 2019

1:20,000

POST HARVEST HABITAT

337

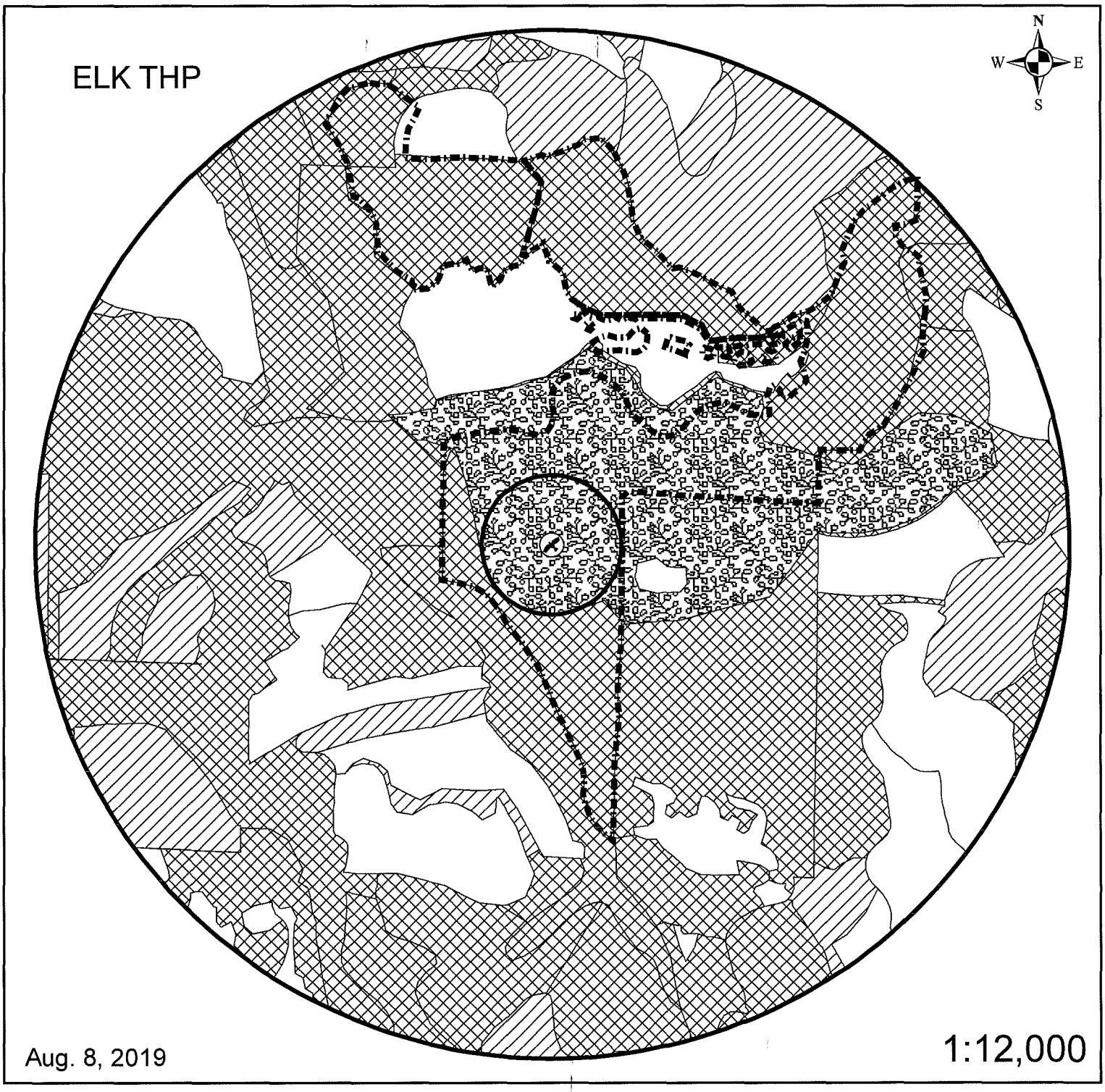
NEST/ROOST	1363 ACRES
FORAGE	457 ACRES
UNSUITABLE	772 ACRES

LEGEND

- 0.7 Mile Buffer
- Elk THP Boundary

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

revised 8/12/19



MEN0179 PRE HARVEST HABITAT MAP (0.7 MILE)

HABITAT TOTALS	
NEST/ROOST	642 ac.
FORAGE	145 ac.
UNSUITABLE	198 ac.
TOTAL ACRES	985 ac.
CORE AREA = 103 ac. N/R	

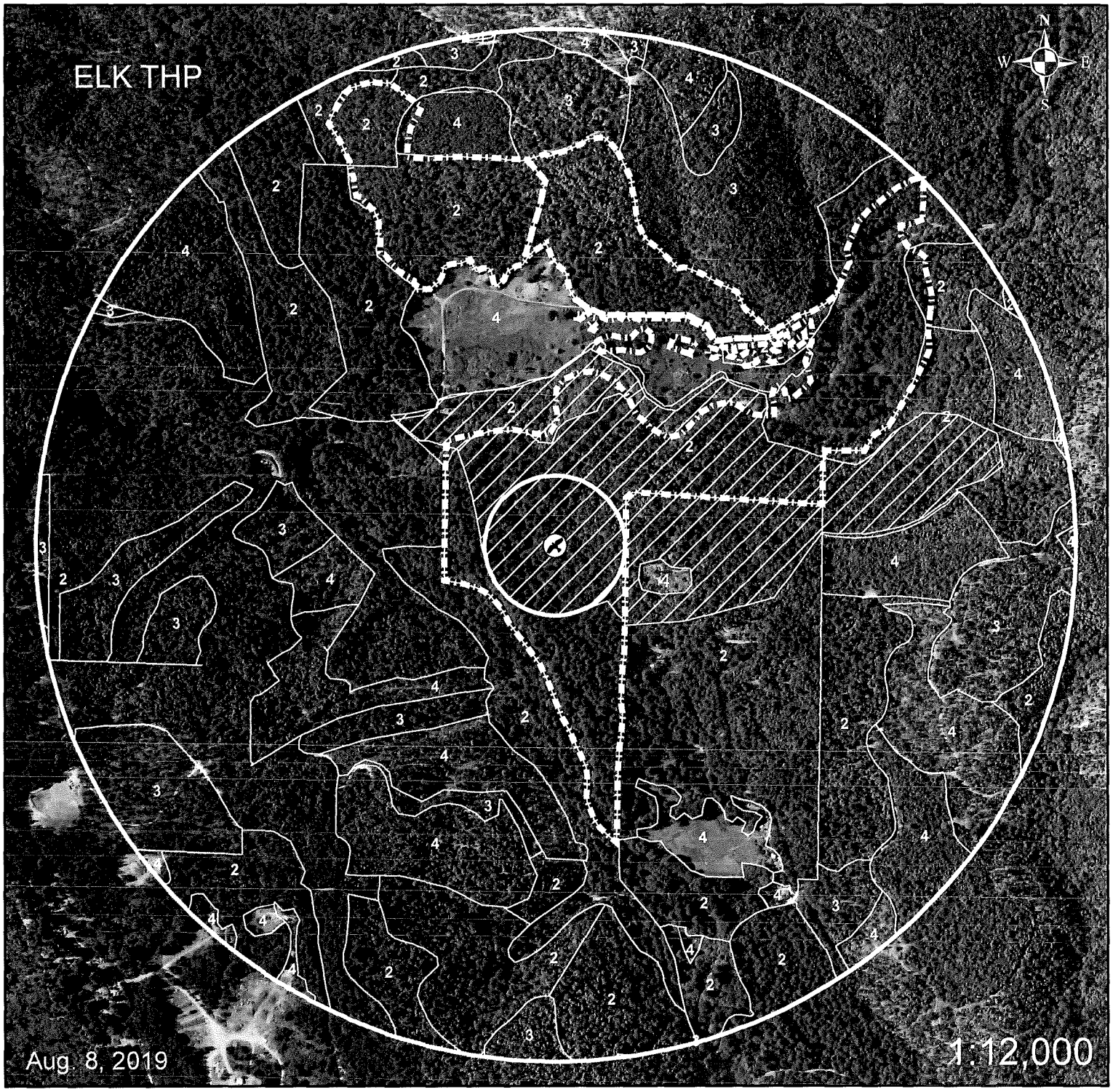
Legend

- MEN0179 LOCATION
- 500 FOOT BUFFER
- Elk THP Boundary
- 0.7 MILE BUFFER
- patch_stillman
- CORE AREA N/R
- patch_stillman

HABITAT TYPE

- NEST/ROOST
- FORAGE
- UNSUITABLE

revised 8/12/19



MEN0179 PRE HARVEST HABITAT MAP (0.7 MILE)

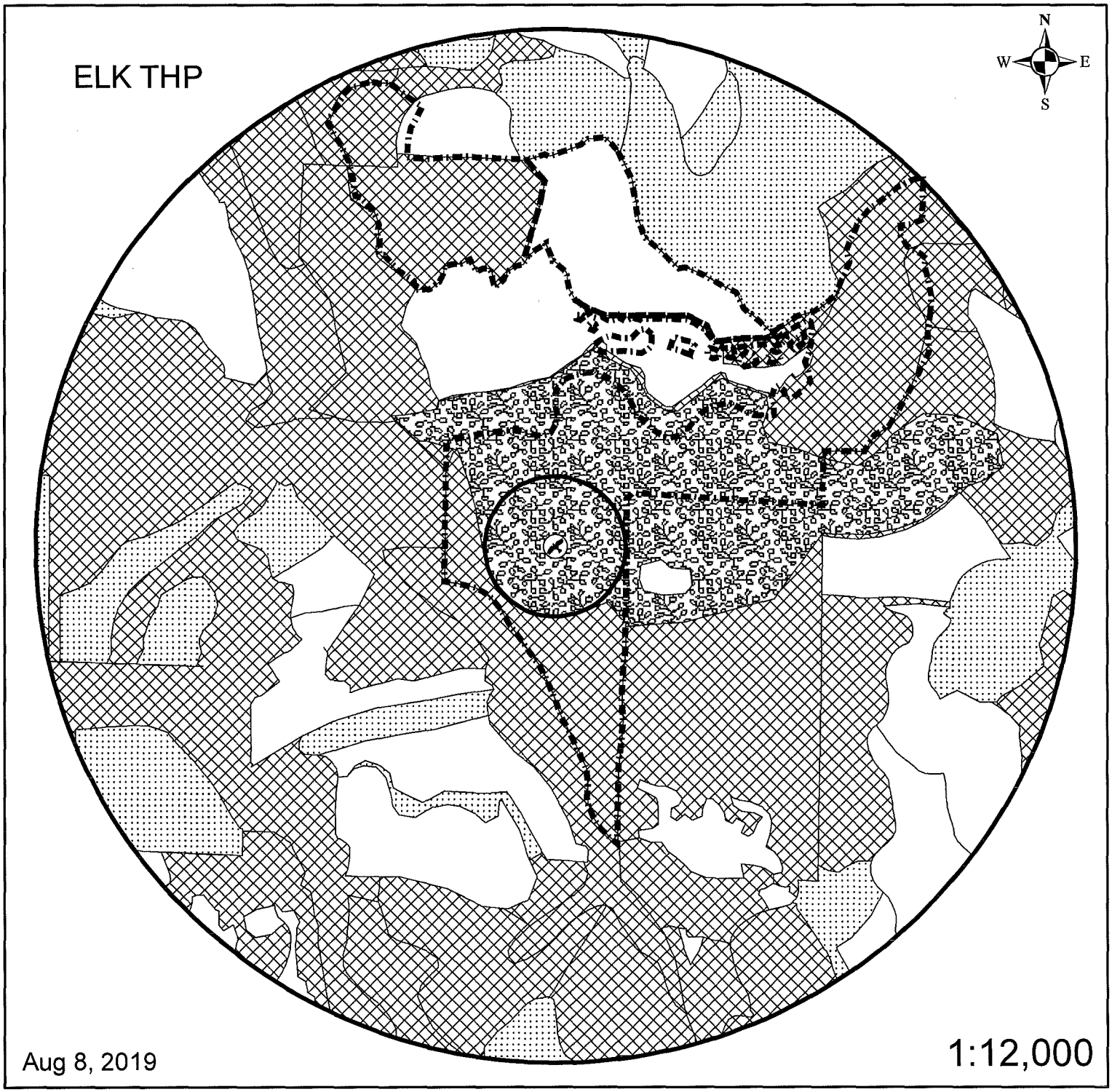
HABITAT TOTALS	
NEST/ROOST	642 ac.
FORAGE	145 ac.
UNSUITABLE	198 ac.
TOTAL ACRES	985 ac.
CORE AREA = 103 ac. N/R	

Legend

- MEN0179 LOCATION
- Elk THP Boundary
- 500 FOOT BUFFER
- 0.7 MILE BUFFER
- CORE AREA N/R

HABITAT TYPE
2 = NEST/ROOST
3 = FORAGE
4 = UNSUITABLE

revised 8/12/19



MEN0179 POST HARVEST HABITAT MAP (0.7 MILE)

HABITAT TOTALS	
NEST/ROOST	618 ac.
FORAGE	145 ac.
UNSUITABLE	222 ac.
TOTAL ACRES	985 ac.
CORE AREA = 103 ac. N/R	

Legend

- MEN0179 LOCATION
- Elk THP Boundary
- 500 FOOT BUFFER
- 0.7 MILE BUFFER
- CORE AREA N/R

HABITAT TYPE

- NEST/ROOST
- FORAGE
- UNSUITABLE

340

revised 8/12/19

Spotted Owl Walk-In Visit Information

As of: 1/1/2009

Center	*Visit*	*Sta.*	*Date*	*Surveyor*	*Start*	*End*	*Wind*	*Weather*	*Mouse Result*	*Occupancy*	*T*	*R*	*Sec*	*DBH*	*BA*	*Visit Type*
Men0179 Elk Prairie	594	0	4/13/2009	Town, Chris	18:30	19:50	13-18 m	Clear	No Contact	No Contact	11N	15W	14			Walk-in
Walked along northern roads hooting & "fishing" with a mouse. No detections.																
Men0179 Elk Prairie	732	0	4/1/2011	Town, Pam			1-3 mph	Partly Clo	Vocal	Male				0		Night-call
Men0179 Elk Prairie	741	0	3/7/2014	Town, Pam	8:30	9:30	<1 mph	Clear	No Contact	No Contact				0		Walk-in
Cannot access AC due to private property and river too high. Walked along road past AC and other areas owls had been detected historically. CORA, DEJU, WEFL, STJA, AMRO, BEKI, PLWO.																
Men0179 Elk Prairie	770	0	4/8/2015	Town, Pam	18:15	19:15	1-3 mph	Clear	No Contact	No Contact				0		Walk-in
Parked in opening and walked along road past survey station 700, broadcast calling. No detections. Dog, CAQU, CBCH, frogs, HUMM, DEJU, STJA, AMRO, WIWR.																
Men0179 Elk Prairie	777	0	4/16/2015	Town, Pam	8:30	9:05	<1 mph	Clear	Vocal	Unknown				0		Walk-in
At station 714 began broadcast calling. Generator going at electric building. At 0840 got aggitated calls. I moved closer and got aggitated calls again at 0844 and STJAs mobbing. Canopy high and dense, could not see owl but at base of redwood tree it was in. Left at 0905.																
Men0179 Elk Prairie	781	0	5/6/2015	Town, Pam	18:00	19:30	13-18 m	Clear	No Contact	No Contact				0		Walk-in
Start at Station 714 and walk up to Station 698, then uphill to Station 712. Look around area in woods where owl was found in April. No detections. Periodic high winds may have kept owl quiet. DEJU, STJA, SWTH.																
Men0179 Elk Prairie	786	0	5/8/2015	Town, Pam	9:10	10:35	<1 mph	Clear	No Contact	No Contact				0		Walk-in
Start at road junction where heard owl in April. Broadcast around site where saw owl. No response. Walked road toward gate and back. No response. MODO, CBCH, AMRO, WLWR, STJA, BEKI, YEWA, TRSW, DEJU, pair mallards.																
Men0179 Elk Prairie	788	0	5/13/2015	Town, Pam	9:55	11:00	4-7 mph	Partly Clo	No Contact	No Contact				0		Walk-in
Search around where the owl was heard in early april. No detections.																
Men0179 Elk Prairie	801	0	3/1/2016	Town, Pam			<1 mph	Drizzle	No Contact	No Contact				0		Walk-in
Men0179 Elk Prairie	802	0	3/3/2016	Town, Pam	17:10	17:45	<1 mph	Fog	No Contact	No Contact				0		Walk-in
Men0179 Elk Prairie	805	0	3/30/2016	Town, Pam	16:45	19:00	<1 mph	Clear	No Contact	No Contact				0		Walk-in
Parked at gate and walked along river/powerline to station 714. Searched around station 714. Walked back to gate and stopped truck in Elk Prairie and walked past station 700. Surveyed up toward stations 698 and 712. No contact. Map attached to survey form.																
Men0179 Elk Prairie	812	0	5/17/2016	Town, Pam	17:00	19:00	1-3 mph	Clear	No Contact	No Contact				0		Walk-in
Start at station 714 and walk along LNF Gualala River to gate and back. Walked through open prairie and towards station 700. No detections.																
Men0179 Elk Prairie	823	0	3/10/2017	Town, Pam	11:00	12:15	<1 mph	Clear	No Contact	No Contact				0		Walk-in
Start near STA 714 where heard owls in 2016. Walked along road thru Elk Prairie past STA 700 and back. No detections.																
Men0179 Elk Prairie	836	0	5/17/2017	Town, Pam	9:45	10:45	4-7 mph	Clear	No Contact	No Contact				0		Walk-in
Park at station 714 and broadcast while walking toward gate heading toward station 748. No response.																
Men0179 Elk Prairie	849	0	3/7/2018	Town, Pam	9:15	10:45	<1 mph	Partly Clo	No Contact	No Contact				0		Walk-in
Start broadcast calling from station 714 past station 700 to cover all historic detections. Walk back to 714 and walk on road NF Gualala River broadcasting. No response from NSO.																
Men0179 Elk Prairie	851	0	3/10/2018	Town, Pam	8:40	9:40	<1 mph	Partly Clo	No Contact	No Contact				0		Walk-in
On 3/9/18 an owl whistle was heard from station 730. Whistle was down near station 714 area. Broadcast called forested areas. When walking toward tation 698, silent owl flew in. Turns out was Barred owl. No NSO detected.																
Men0179 Elk Prairie	876	0	3/31/2019	Town, Pam	17:34	19:20	1-3 mph	Overcast	No Contact	No Contact				0		Walk-in
Started broadcast calling at station 714. Can't cross river as water too high but went in woods on Plum, Elk and Bower THP areas and came out near station 700. Followed road back to 714 and doward main gate. No reaponse. Woods Very quiet.																

341

Spotted Owl Visit Summary *18-04* *Elk*

Active Stations

Station	*Date*	*Surveyor*	*Wind*	*Weather*	*Start*	*End*	*Behavior*	*Sex*	*Dist.*	*Azmu*
Year	*2018*									
658	3/9/2018	Town	<1 mph	Fog	18:45	18:55	No Contact	No Contact	0	0
658	3/16/2018	Town	<1 mph	Partly Clou	21:50	22:00	No Contact	No Contact	0	0
658	4/7/2018	Town	<1 mph	Clear	20:30	20:40	No Contact	No Contact	0	0
658	4/14/2018	Town	<1 mph	Clear	20:45	20:55	No Contact	No Contact	0	0
658	5/9/2018	Town	1-3 mph	Clear	21:50	22:00	No Contact	No Contact	0	0
			Barred owl in Lost Creek.							
658	5/16/2018	Town	4-7 mph	Overcast	20:50	21:00	No Contact	No Contact	0	0
			Barred owl.							
Year	*2019*									
658	3/27/2019	Town	<1 mph	Partly Clou	21:10	21:20	No Contact	No Contact	0	0
658	4/3/2019	Town	<1 mph	Overcast	22:00	22:10	No Contact	No Contact	0	0
Year	*2018*									
680	3/9/2018	Town	<1 mph	Fog	18:15	18:25	No Contact	No Contact	0	0
680	3/16/2018	Town	<1 mph	Partly Clou	21:09	21:19	No Contact	No Contact	0	0
680	4/7/2018	Town	<1 mph	Clear	19:57	20:07	No Contact	No Contact	0	0
680	4/14/2018	Town	<1 mph	Clear	20:07	20:17	No Contact	No Contact	0	0
680	5/9/2018	Town	1-3 mph	Clear	22:30	22:40	No Contact	No Contact	0	0
680	5/16/2018	Town	4-7 mph	Overcast	20:29	20:39	No Contact	No Contact	0	0
Year	*2019*									
680	3/27/2019	Town	<1 mph	Partly Clou	20:47	21:00	No Contact	No Contact	0	0
680	4/3/2019	Town	<1 mph	Overcast	22:20	22:30	No Contact	No Contact	0	0
			WSOW							
Year	*2018*									
682	3/9/2018	Town	<1 mph	Fog	18:28	18:38	No Contact	No Contact	0	0
682	3/16/2018	Town	<1 mph	Partly Clou	20:55	21:05	No Contact	No Contact	0	0
			Barred owl by NF Gualala River.							
682	4/7/2018	Town	<1 mph	Clear	20:10	20:20	No Contact	No Contact	0	0
682	4/14/2018	Town	<1 mph	Clear	19:50	20:00	No Contact	No Contact	0	0
682	5/9/2018	Town	1-3 mph	Clear	22:44	22:54	No Contact	No Contact	0	0
682	5/16/2018	Town	4-7 mph	Overcast	20:15	20:25	No Contact	No Contact	0	0
Year	*2019*									
682	3/27/2019	Town	<1 mph	Partly Clou	20:30	20:40	No Contact	No Contact	0	0
682	4/3/2019	Town	<1 mph	Overcast	22:34	22:44	No Contact	No Contact	0	0
Year	*2018*									
698	3/9/2018	Town	<1 mph	Fog	20:55	21:05	No Contact	No Contact	0	0
698	3/16/2018	Town	<1 mph	Partly Clou	21:34	21:44	No Contact	No Contact	0	0
698	4/7/2018	Town	<1 mph	Clear	19:40	19:50	No Contact	No Contact	0	0
698	4/14/2018	Town	<1 mph	Clear	20:30	20:40	No Contact	No Contact	0	0
698	5/9/2018	Town	1-3 mph	Clear	23:07	23:17	No Contact	No Contact	0	0
698	5/16/2018	Town	4-7 mph	Overcast	23:45	23:55	No Contact	No Contact	0	0
			Pair Barred owls.							
Year	*2019*									
698	3/27/2019	Town	<1 mph	Partly Clou	20:05	20:15	No Contact	No Contact	0	0
698	4/3/2019	Town	<1 mph	Overcast	22:50	23:00	No Contact	No Contact	0	0
			Barred owl							
Year	*2018*									
700	3/9/2018	Town	<1 mph	Fog	21:23	21:33	No Contact	No Contact	0	0
700	3/16/2018	Town	<1 mph	Partly Clou	20:30	20:40	No Contact	No Contact	0	0
700	4/8/2018	Town	<1 mph	Clear	19:39	19:49	No Contact	No Contact	0	0
700	4/18/2018	Town	<1 mph	Partly Clou	19:50	20:00	No Contact	No Contact	0	0

Station	Date	Surveyor	Wind	Weather	Start	End	Behavior	Sex	Dist.	Azmu
700	5/9/2018	Town	1-3 mph	Clear	23:30	23:40	No Contact	No Contact	0	0
			Pair Barred owls.							
700	5/16/2018	Town	4-7 mph	Overcast	0:10	0:20	No Contact	No Contact	0	0
Year	*2019*									
700	3/27/2019	Town	<1 mph	Partly Clou	19:33	19:43	No Contact	No Contact	0	0
700	4/3/2019	Town	<1 mph	Overcast	23:20	23:30	No Contact	No Contact	0	0
Year	*2018*									
702	3/10/2018	Town	<1 mph	Clear	18:44	18:54	No Contact	No Contact	0	0
702	3/17/2018	Town	<1 mph	Partly Clou	1:55	2:05	No Contact	No Contact	0	0
702	4/12/2018	Town	1-3 mph	Partly Clou	20:45	20:55	No Contact	No Contact	0	0
702	4/19/2018	Town	<1 mph	Clear	21:35	21:45	No Contact	No Contact	0	0
702	5/12/2018	Town	4-7 mph	Partly Clou	0:49	0:59	No Contact	No Contact	0	0
			Barred owl.							
702	5/19/2018	Town	1-3 mph	Clear	1:30	1:40	No Contact	No Contact	0	0
Year	*2019*									
702	3/27/2019	Town	<1 mph	Partly Clou	0:26	0:36	No Contact	No Contact	0	0
702	4/3/2019	Town	<1 mph	Overcast	1:38	1:48	No Contact	No Contact	0	0
Year	*2018*									
712	3/9/2018	Town	<1 mph	Fog	22:30	22:40	No Contact	No Contact	0	0
712	3/16/2018	Town	<1 mph	Partly Clou	20:13	20:23	No Contact	No Contact	0	0
712	4/8/2018	Town	<1 mph	Clear	23:07	23:17	No Contact	No Contact	0	0
712	4/18/2018	Town	<1 mph	Partly Clou	20:20	20:30	No Contact	No Contact	0	0
712	5/9/2018	Town	1-3 mph	Clear	0:10	0:20	No Contact	No Contact	0	0
712	5/16/2018	Town	4-7 mph	Overcast	0:45	0:55	No Contact	No Contact	0	0
Year	*2019*									
712	3/27/2019	Town	<1 mph	Partly Clou	21:25	21:35	No Contact	No Contact	0	0
712	4/3/2019	Town	<1 mph	Overcast	23:39	23:49	No Contact	No Contact	0	0
Year	*2018*									
714	3/9/2018	Town	<1 mph	Fog	21:09	21:19	No Contact	No Contact	0	0
714	3/16/2018	Town	<1 mph	Partly Clou	19:59	20:09	No Contact	No Contact	0	0
714	4/8/2018	Town	<1 mph	Clear	19:55	20:05	No Contact	No Contact	0	0
714	4/18/2018	Town	<1 mph	Partly Clou	20:06	20:16	No Contact	No Contact	0	0
714	5/9/2018	Town	1-3 mph	Clear	23:55	0:05	No Contact	No Contact	0	0
714	5/16/2018	Town	4-7 mph	Overcast	0:26	0:36	No Contact	No Contact	0	0
Year	*2019*									
714	3/27/2019	Town	<1 mph	Partly Clou	19:50	20:00	No Contact	No Contact	0	0
714	4/3/2019	Town	<1 mph	Overcast	23:04	23:14	No Contact	No Contact	0	0
714	4/23/2019	Stoneman	<1 mph	Clear	20:44	20:54	No Contact	No Contact	0	0
			Called over Elk Prairie from road intersection in meadow.							
714	4/30/2019	Pera	1-3 mph	Partly Clou	20:43	20:53	No Contact	No Contact	0	0
			Called from road junction in Elk Prairie. Immediate single barred owl response bearing 219 at tree line upon initiating barred owl calls. Occassional single barred owl response aling tree line moving westerly. At 2048 bearing 280 barred owl pair verified. Barred owl duet continued at this location after stop time.							
714	4/30/2019	Pera	1-3 mph	Partly Clou	20:25	20:35	No Contact	No Contact	0	0
			Called from road junction in Elk Prairie.							
Year	*2018*									
730	3/9/2018	Town	<1 mph	Fog	22:45	23:00	No Contact	No Contact	0	0
			Whistles coming from flat at 350 degrees. Get louder as moving closer to surveyor. Strix?? (Note: Barred owl was found here during walk-in on 3/10/18)							
730	3/16/2018	Town	<1 mph	Partly Clou	19:39	19:49	No Contact	No Contact	0	0
730	4/8/2018	Town	<1 mph	Clear	22:48	23:00	No Contact	No Contact	0	0
730	4/18/2018	Town	<1 mph	Partly Clou	20:35	20:45	No Contact	No Contact	0	0
			Barred owl far away by Elk Prairie							
730	5/9/2018	Town	1-3 mph	Clear	0:26	0:36	No Contact	No Contact	0	0
730	5/16/2018	Town	4-7 mph	Overcast	1:00	1:10	No Contact	No Contact	0	0
Year	*2019*									

Station	Date	Surveyor	Wind	Weather	Start	End	Behavior	Sex	Dist.	Azmu
730	3/27/2019	Town	<1 mph	Partly Clou	21:40	21:50	No Contact	No Contact	0	0
730	4/3/2019	Town	<1 mph	Overcast	23:52	0:02	No Contact	No Contact	0	0
Year	*2018*									
732	3/10/2018	Town	<1 mph	Clear	18:15	18:25	No Contact	No Contact	0	0
732	3/17/2018	Town	<1 mph	Partly Clou	2:10	2:20	No Contact	No Contact	0	0
732	4/12/2018	Town	1-3 mph	Partly Clou	22:45	22:55	No Contact	No Contact	0	0
732	4/19/2018	Town	<1 mph	Clear	23:10	23:20	No Contact	No Contact	0	0
732	5/12/2018	Town	4-7 mph	Partly Clou	1:20	1:30	No Contact	No Contact	0	0
732	5/19/2018	Town	1-3 mph	Clear	2:00	2:10	No Contact	No Contact	0	0
Year	*2019*									
732	3/27/2019	Town	<1 mph	Partly Clou	23:30	23:40	No Contact	No Contact	0	0
732	4/3/2019	Town	<1 mph	Overcast	1:14	1:24	No Contact	No Contact	0	0
Year	*2018*									
746	3/9/2018	Town	<1 mph	Fog	23:10	23:20	No Contact	No Contact	0	0
746	3/16/2018	Town	<1 mph	Partly Clou	19:20	19:30	No Contact	No Contact	0	0
746	4/8/2018	Town	<1 mph	Clear	22:30	22:40	No Contact	No Contact	0	0
746	4/18/2018	Town	<1 mph	Partly Clou	20:56	21:06	No Contact	No Contact	0	0
746	5/9/2018	Town	1-3 mph	Clear	0:50	1:00	No Contact	No Contact	0	0
746	5/16/2018	Town	4-7 mph	Overcast	1:20	1:30	No Contact	No Contact	0	0
Year	*2019*									
746	3/27/2019	Town	<1 mph	Partly Clou	22:00	22:10	No Contact	No Contact	0	0
746	4/3/2019	Town	<1 mph	Overcast	0:10	0:20	No Contact	No Contact	0	0
Year	*2018*									
748	3/11/2018	Town	<1 mph	Partly Clou	21:40	21:50	No Contact	No Contact	0	0
748	3/18/2018	Town	<1 mph	Partly Clou	2:45	2:55	No Contact	No Contact	0	0
748	4/8/2018	Town	<1 mph	Clear	0:27	0:40	No Contact	No Contact	0	0
748	4/15/2018	Town	1-3 mph	Overcast	19:50	20:00	No Contact	No Contact	0	0
748	5/9/2018	Town	1-3 mph	Clear	1:57	2:07	No Contact	No Contact	0	0
748	5/16/2018	Town	4-7 mph	Overcast	2:40	2:50	No Contact	No Contact	0	0
Year	*2019*									
748	3/24/2019	Town	<1 mph	Partly Clou	19:30	19:43	No Contact	No Contact	0	0
748	3/31/2019	Town	4-7 mph	Overcast	22:00	22:10	No Contact	No Contact	0	0

Data Version Date:
03/27/2019

Report Generation Date:
4/23/2019

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(13,14,15,22,23,24,25,26);

345

Masterowl	*Subspecies*	*LatDD NAD83*	*LonDD NAD83*	*MTRS*	*AC Coordinate Source*
MEN0153	NORTHERN	38.816039	-123.477813	M 11N 14W 07	Contributor
MEN0179	NORTHERN	38.789914	-123.504183	M 11N 15W 23	Contributor
MEN0212	NORTHERN	38.824524	-123.531144	M 11N 15W 10	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

346

Data Version Date:
03/27/2019

Report Generation Date:
4/23/2019

Report #2 - Observations Reported

List of observations reported by site.

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

M_11N_15W Sections(13,14,15,22,23,24,25,26);

347

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
Masterowl: MEN0153 Subspecies: NORTHERN											
POS	1990-06-01		1	UU				38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
NEG	1990-07-24		0					38.808449	-123.476202	M 11N 14W 07	Activity center
POS	1990-07-30		1	UM				38.809818	-123.471950	M 11N 14W 07	Contributor
POS	1990-07-31		1	UM				38.809818	-123.471950	M 11N 14W 07	Contributor
NEG	1990-08-07		0					38.808449	-123.476202	M 11N 14W 07	Activity center
NEG	1990-08-20		0					38.808449	-123.476202	M 11N 14W 07	Activity center
POS	1990-08-30		2	UMUF	Y			38.809818	-123.471950	M 11N 14W 07	Contributor
POS	1990-09-05		1	UM				38.809818	-123.471950	M 11N 14W 07	Contributor
POS	1990-09-12		1	UM				38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	1991-06-01		1	UU				38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1991-07-23	2125	1	UU				38.815001	-123.473735	M 11N 14W 07	Half-section centroid
POS	1991-08-30	1300	1	UM				38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	1992-04-17		2	UUUU				38.811046	-123.469009	M 11N 14W 07	Half-section centroid
NEG	1992-04-18		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	1992-06-01		2	UMUF	Y			38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1992-06-26		1	UM				38.811046	-123.469009	M 11N 14W 07	Half-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1993-02-19		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	1993-05-10		2	UMUF	Y			38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1993-06-01		2	UMUF	Y			38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
NEG	1993-12-21		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	1994-01-20		1	UM				38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1994-03-22		1	UM				38.803800	-123.473684	M 11N 14W 18	Quarter-section centroid
NEG	1994-04-04		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	1994-06-01		2	UMUF	Y		2	38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1994-07-07		1	UU				38.818714	-123.473702	M 11N 14W 07	Quarter-section centroid
NEG	1994-07-08		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	1994-07-21		1	UU	Y		2	38.814493	-123.474515	M 11N 14W 07	Contributor
POS	1994-08-09		1	UU				38.825959	-123.473830	M 11N 14W 06	Quarter-section centroid
NEG	1995-03-30		0					38.799693	-123.468785	M 11N 14W 18	Section centroid
NEG	1995-04-10		0					38.799693	-123.468785	M 11N 14W 18	Section centroid
NEG	1995-04-10		0					38.799693	-123.468785	M 11N 14W 18	Section centroid
NEG	1995-04-14		0					38.799693	-123.468785	M 11N 14W 18	Section centroid
NEG	1995-04-19		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
POS	1995-04-23		1	UM				38.811476	-123.483098	M 11N 15W 12	Quarter-section centroid
POS	1995-04-24		1	UU				38.811476	-123.483098	M 11N 15W 12	Quarter-section centroid
POS	1995-05-03		1	UU				38.811476	-123.483098	M 11N 15W 12	Quarter-section centroid
POS	1995-05-11		1	UU				38.811476	-123.483098	M 11N 15W 12	Quarter-section centroid
NEG	1995-05-12		0					38.815034	-123.487614	M 11N 15W 12	Section centroid
POS	1995-05-23		1	UU				38.825772	-123.464198	M 11N 14W 06	Quarter-section centroid
POS	1995-06-01		1	UU				38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1995-06-19		1	UU				38.818419	-123.463989	M 11N 14W 07	Quarter-section centroid
POS	1995-06-20		1	UU				38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
NEG	1995-06-28		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	1995-07-17		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	1995-08-24		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	1996-03-07	2158	0					38.815001	-123.473735	M 11N 14W 07	Half-section centroid
NEG	1996-03-07	2050	0					38.814616	-123.464126	M 11N 14W 07	Half-section centroid
NEG	1996-03-08		0					38.815001	-123.473735	M 11N 14W 07	Half-section centroid
NEG	1996-03-13	2105	0					38.814616	-123.464126	M 11N 14W 07	Half-section centroid
NEG	1996-03-19		0					38.815034	-123.487614	M 11N 15W 12	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1996-03-24		2	UMUF	Y			38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
NEG	1996-04-04		0					38.813535	-123.450148	M 11N 14W 08	Section centroid
NEG	1996-04-05		0					38.813535	-123.450148	M 11N 14W 08	Section centroid
POS	1996-04-18		2	UMUF	Y			38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
NEG	1996-05-01		0					38.799693	-123.468785	M 11N 14W 18	Section centroid
NEG	1996-05-09		0					38.799693	-123.468785	M 11N 14W 18	Section centroid
POS	1996-05-12		2	UMUF	Y			38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1996-06-01		2	UMUF	Y			38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1996-06-01		1	UU				38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1996-06-11		1	UU				38.818714	-123.473702	M 11N 14W 07	Quarter-section centroid
NEG	1996-06-12	1200	0					38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	1996-06-25		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	1997-02-24		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	1997-03-12		0					38.800499	-123.487642	M 11N 15W 13	Section centroid
POS	1997-03-12		1	UU				38.818714	-123.473702	M 11N 14W 07	Quarter-section centroid
NEG	1997-03-17		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	1997-03-22		1	UU				38.818714	-123.473702	M 11N 14W 07	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1997-03-24		1	UU				38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1997-03-25		1	UU				38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1997-03-27		1	UU				38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1997-04-15		1	UU				38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	1997-05-27		1	UU				38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
NEG	1997-07-14		0					38.829383	-123.469233	M 11N 14W 06	Section centroid
NEG	1997-07-29		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	1998-03-18		2	UMUF	Y			38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
NEG	1998-04-20		0					38.815034	-123.487614	M 11N 15W 12	Section centroid
NEG	1998-04-24		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	1998-04-24		2	UMUF	Y			38.811476	-123.483098	M 11N 15W 12	Quarter-section centroid
POS	1998-04-24	1525	2	UMUF	Y			38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
NEG	1998-05-05		0					38.815034	-123.487614	M 11N 15W 12	Section centroid
POS	1998-05-17		1	UU				38.811476	-123.483098	M 11N 15W 12	Quarter-section centroid
POS	1998-05-18		2	UMUF	Y			38.811476	-123.483098	M 11N 15W 12	Quarter-section centroid
POS	1998-06-01		2	UMUF	Y			38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
NEG	1998-06-05		0					38.815034	-123.487614	M 11N 15W 12	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					38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	1998-07-13		0					38.815034	-123.487614	M 11N 15W 12	Section centroid
NEG	1998-07-29		0					38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	1999		0					38.816039	-123.477813	M 11N 14W 07	Activity center
POS	1999-05-14	2052	1	UM				38.818566	-123.492165	M 11N 15W 12	Quarter-section centroid
NEG	1999-05-15	1648	0					38.836678	-123.487923	M 11N 15W 01	Section centroid
NEG	1999-05-15	1830	0					38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	1999-05-23	1500	0					38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	1999-06-17	1849	0					38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	2000		0					38.816039	-123.477813	M 11N 14W 07	Activity center
POS	2000-04-04	2106	1	UM				38.818748	-123.483101	M 11N 15W 12	Quarter-section centroid
POS	2000-04-14	2208	1	UU				38.818566	-123.492165	M 11N 15W 12	Quarter-section centroid
NEG	2000-06-06	1900	0					38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	2001-03-11	2042	1	UF				38.818748	-123.483101	M 11N 15W 12	Quarter-section centroid
NEG	2001-03-14	1830	0					38.815034	-123.487614	M 11N 15W 12	Section centroid
NEG	2001-04-01	2017	0					38.815034	-123.487614	M 11N 15W 12	Section centroid
NEG	2001-05-15	2234	0					38.815034	-123.487614	M 11N 15W 12	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2001-07-19	2253	1	UM				38.802051	-123.455810	M 11N 14W 17	Contributor
POS	2002-04-21	2209	1	UM				38.811908	-123.492765	M 11N 15W 12	Contributor
POS	2002-04-22	0041	1	UM				38.808020	-123.477521	M 11N 14W 07	Contributor
NEG	2003		0					38.816039	-123.477813	M 11N 14W 07	Activity center
POS	2003-05-15	2145	1	UM				38.820912	-123.466396	M 11N 14W 07	Contributor
POS	2003-06-26	2242	1	UU				38.811902	-123.478655	M 11N 15W 12	Contributor
NEG	2003-06-27	1200	0					38.811279	-123.473756	M 11N 14W 07	Contributor
NEG	2003-07-02	1805-2025	0					38.811279	-123.473756	M 11N 14W 07	Contributor
NEG	2003-07-11	1730-2100	0					38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
NEG	2004		0					38.816039	-123.477813	M 11N 14W 07	Activity center
POS	2004-06-17	1745	1	UM				38.816780	-123.477960	M 11N 14W 07	Contributor
NEG	2004-06-18	1155-1505	0					38.818711	-123.473702	M 11N 14W 07	Quarter-section centroid
NEG	2004-06-25	1435-1630	0					38.818711	-123.473702	M 11N 14W 07	Quarter-section centroid
NEG	2005		0					38.816039	-123.477813	M 11N 14W 07	Activity center
NEG	2005-07-09	0920-1145	0					38.818711	-123.473702	M 11N 14W 07	Quarter-section centroid
POS	2005-07-27	1305-1350	1	UM				38.820640	-123.478260	M 11N 14W 07	Contributor
POS	2005-07-28	1250-1510	2	UMUF	Y			38.820080	-123.477890	M 11N 14W 07	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2006		1	UU				38.816193	-123.477521	M 11N 14W 07	Contributor
POS	2006-05-26	1305-1350	1	UU				38.816300	-123.478560	M 11N 14W 07	Contributor
POS	2007		1	UU				38.816521	-123.485471	M 11N 15W 12	Contributor
POS	2007-04-06	2103	1	UM				38.818748	-123.483101	M 11N 15W 12	Quarter-section centroid
POS	2007-05-17	1900	2	UMUF	Y	N	0	38.816882	-123.485358	M 11N 15W 12	Contributor
POS	2008		1	UU				38.816521	-123.485471	M 11N 15W 12	Contributor
POS	2008		2	UMUF	Y			38.816039	-123.477813	M 11N 14W 07	Activity center
NEG	2008-03-22	0033	0					38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
NEG	2008-03-29	2333	0					38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	2008-03-29	1800	2	AMAF	Y			38.818748	-123.483101	M 11N 15W 12	Quarter-section centroid
NEG	2008-05-17	2222	0					38.811279	-123.473756	M 11N 14W 07	Quarter-section centroid
POS	2008-05-17	1730	2	AMAF	Y	N		38.818748	-123.483101	M 11N 15W 12	Quarter-section centroid
POS	2009		1	UU				38.816521	-123.485471	M 11N 15W 12	Contributor
POS	2009		2	UMUF	Y			38.816039	-123.477813	M 11N 14W 07	Activity center
POS	2009-04-06	2046	1	AM				38.818748	-123.483101	M 11N 15W 12	Quarter-section centroid
POS	2009-04-13	2039	1	AM				38.818748	-123.483101	M 11N 15W 12	Quarter-section centroid
POS	2009-05-19	2220	1	UU				38.808449	-123.476202	M 11N 14W 07	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2009-05-20	1900	1	AM				38.808449	-123.476202	M 11N 14W 07	Contributor
POS	2009-05-20	1830	2	AMAF	Y	Y		38.814452	-123.484535	M 11N 15W 12	Contributor
POS	2010		2	UMUF	Y	Y	1	38.816039	-123.477813	M 11N 14W 07	Activity center
NEG	2011	2400	0					38.808166	-123.467577	M 11N 14W 07	Contributor
NEG	2011-03-04	1830-1840	0					38.823126	-123.482633	M 11N 15W 01	Contributor
NEG	2011-03-04	2158-2208	0					38.808020	-123.477521	M 11N 14W 07	Contributor
NEG	2011-03-04	2021-2131	0					38.811902	-123.478655	M 11N 15W 12	Contributor
NEG	2011-03-04	2007-2017	0					38.812310	-123.483878	M 11N 15W 12	Contributor
POS	2011-03-04	1800-1806	2	UMUF	Y			38.817403	-123.481531	M 11N 15W 12	Contributor
POS	2011-03-04		2	UMUF	Y			38.816039	-123.477813	M 11N 14W 07	Activity center
POS	2011-04-02	0830-1000	2	UMUF	Y			38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	2011-04-03	1845-1854	1	UM				38.808020	-123.477521	M 11N 14W 07	Contributor
POS	2011-05-12	1700-1800	1	UF		Y		38.814840	-123.468861	M 11N 14W 07	Section centroid
NEG	2011-05-12	2345-2355	0					38.808020	-123.477521	M 11N 14W 07	Contributor
POS	2012-03-07	1000-1100	1	UM				38.815034	-123.487614	M 11N 15W 12	Section centroid
NEG	2012-03-25	1700-1900	0					38.814840	-123.468861	M 11N 14W 07	Section centroid
POS	2012-04-01	1700-1900	2	UMUF	Y			38.814840	-123.468861	M 11N 14W 07	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
AC	2012-04-27	1700-1745	1	UF		Y		38.816039	-123.477813	M 11N 14W 07	Contributor
POS	2012-07-04	1600-1700	1	UF			1	38.816039	-123.477813	M 11N 14W 07	Activity center
POS	2014		1	UM				38.816039	-123.477813	M 11N 14W 07	Activity center
POS	2015		1	UU				38.808264	-123.475953	M 11N 14W 07	Activity center
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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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		38.789187	-123.492654	M 11N 15W 24	Contributor
POS	1991-05-29	1625	2	UMUF	Y	Y		38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
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	38.789187	-123.492654	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	2115	1	UU				38.782393	-123.492389	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	1993-03-08		1	UU				38.782650	-123.501866	M 11N 15W 23	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
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			38.796947	-123.492351	M 11N 15W 13	Quarter-section centroid
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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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					38.785883	-123.487589	M 11N 15W 24	Section centroid
NEG	1998-08-27		0					38.784897	-123.468539	M 11N 14W 19	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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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	0050-0100	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	1999-05-20	2321-2331	0					38.791290	-123.517890	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			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
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	0739-0842	1	UU				38.790582	-123.498195	M 11N 15W 23	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1999-06-03	0642	1	UU				38.797150	-123.501841	M 11N 15W 14	Quarter-section centroid
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
NEG	2000-03-03	2000	0					38.786442	-123.506602	M 11N 15W 23	Section centroid
NEG	2000-03-03	2117-2137	0					38.783380	-123.516870	M 11N 15W 22	Contributor
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

364

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2001-03-10	2240	1	UU				38.797150	-123.501841	M 11N 15W 14	Quarter-section centroid
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
NEG	2001-03-12	1941	0					38.785883	-123.487589	M 11N 15W 24	Section centroid
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			38.789665	-123.492370	M 11N 15W 24	Quarter-section centroid
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	2205-2215	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2001-06-14	2103-2113	0					38.791290	-123.517890	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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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	2033-2043	0					38.783990	-123.509120	M 11N 15W 23	Contributor
NEG	2003-04-02	1931-1941	0					38.791290	-123.517890	M 11N 15W 22	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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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	2146-2156	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	2007-04-25		0					38.783990	-123.509120	M 11N 15W 23	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
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					38.797460	-123.512839	M 11N 15W 14	Contributor
NEG	2012	2400	0					38.794570	-123.517684	M 11N 15W 15	Contributor
NEG	2012	2400	0					38.789150	-123.491524	M 11N 15W 24	Contributor
NEG	2012	2400	0					38.793119	-123.499775	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	2012	2400	0					38.786171	-123.508792	M 11N 15W 23	Contributor

369

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2012	2400	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2013	2400	0					38.790299	-123.509950	M 11N 15W 23	Contributor
NEG	2013	2400	0					38.784782	-123.493778	M 11N 15W 24	Contributor
NEG	2013	2400	0					38.789150	-123.491524	M 11N 15W 24	Contributor
NEG	2013	2400	0					38.793119	-123.499775	M 11N 15W 23	Contributor
NEG	2013	2400	0					38.797460	-123.512839	M 11N 15W 14	Contributor
NEG	2013	2400	0					38.783380	-123.516870	M 11N 15W 22	Contributor
NEG	2013	2400	0					38.794570	-123.517684	M 11N 15W 15	Contributor
NEG	2013	2400	0					38.786171	-123.508792	M 11N 15W 23	Contributor
NEG	2014		0					38.789914	-123.504183	M 11N 15W 23	Activity center
Masterowl: MEN0212 Subspecies: NORTHERN											
POS	1991-04-30	2038	2	UMUF	Y			38.822877	-123.532962	M 11N 15W 10	Contributor
POS	1991-05-08	1955	2	UUUU				38.822047	-123.531503	M 11N 15W 10	Contributor
POS	1991-05-08	1015	2	UMUF				38.822985	-123.532630	M 11N 15W 10	Contributor
NEG	1991-05-23		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	1991-05-30	1015	1	UM				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1991-06-13		0					38.816899	-123.525397	M 11N 15W 10	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					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	1991-07-17		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	1991-11-12		2	UUUU				38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	1991-11-22		0					38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1992-03-10		1	UU				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1992-03-11		1	UU				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1992-03-17		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	1992-04-03		1	UM				38.822985	-123.532630	M 11N 15W 10	Contributor
NEG	1992-05-15		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
POS	1992-06-02		2	UMUF	Y		1	38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1992-06-04		0					38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1992-06-11		2	UMUF	Y		1	38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1992-12-01		1	UM				38.831542	-123.549065	M 11N 15W 04	Quarter-section centroid
POS	1993-02-02	1910	1	UF				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1993-04-28	2049	1	UF				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1993-05-02	0552	2	UMUF				38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	1993-05-13	2007	1	UU				38.820896	-123.530391	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	1993-05-13		1	UF				38.815953	-123.532529	M 11N 15W 10	Contributor
POS	1993-06-01	1754	2	UMUF				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1993-06-01		2	UMUF	Y		1	38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1993-07-14	1239	2	UMUF	Y		1	38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1993-11-13	1137	0					38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1994-03-09	1337	2	UMUF	Y			38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	1994-04-14	1645	2	UMUF	Y	Y		38.822840	-123.532871	M 11N 15W 10	Contributor
NEG	1994-05-23		0					38.838332	-123.544209	M 11N 15W 04	Section centroid
POS	1994-06-01		2	UMUF	Y		1	38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1994-06-08		0					38.838332	-123.544209	M 11N 15W 04	Section centroid
POS	1995-02-10		1	UU				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1995-03-29		1	UU				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1995-04-11	1452	1	UM				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1995-05-10		2	UMUF	Y			38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1995-07-27		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	1995-08-07		0					38.838332	-123.544209	M 11N 15W 04	Section centroid
NEG	1995-08-29		0					38.838332	-123.544209	M 11N 15W 04	Section centroid

372

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1995-12-07	1905	1	UU				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1996-02-20		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	1996-03-13	0754	3	UMUF	Y			38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1996-03-16		0					38.817542	-123.544362	M 11N 15W 09	Section centroid
NEG	1996-03-19		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	1996-03-23		0					38.817542	-123.544362	M 11N 15W 09	Section centroid
NEG	1996-04-02		0					38.838332	-123.544209	M 11N 15W 04	Section centroid
POS	1996-04-10	1423	2	UMUF	Y	Y		38.822885	-123.532871	M 11N 15W 10	Contributor
POS	1996-05-25		2	UMUF	Y			38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1996-07-10		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	1996-08-26		1	UU				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1996-08-27	1942	1	UU				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1997-02-24		1	UF				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1997-02-25		1	UU				38.831550	-123.539722	M 11N 15W 04	Quarter-section centroid
POS	1997-02-25		1	UF				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1997-03-03		0					38.838332	-123.544209	M 11N 15W 04	Section centroid
POS	1997-03-12		2	UMUF	Y			38.820370	-123.521080	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	1997-04-11	1453	2	UMUF	Y	Y		38.822840	-123.532871	M 11N 15W 10	Contributor
POS	1997-05-16		1	UF				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1997-05-28	0931	1	UM				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1997-07-29		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	1997-11-04	1941	2	UMUF	Y			38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1998-03-03		1	UU				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1998-03-09		2	UMUF	Y			38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	1998-03-10		1	UU				38.831270	-123.525848	M 11N 15W 03	Half-section centroid
POS	1998-03-25		2	UMUF	Y			38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1998-05-05		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	1998-06-01		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	1998-06-05		0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	1998-06-18		2	UMUF	Y			38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	1998-07-28		0					38.838219	-123.525692	M 11N 15W 03	Section centroid
NEG	1999-03-16	1541	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	1999-03-20	1529	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	1999-04-12	1935-2016	1	UM				38.822216	-123.531881	M 11N 15W 10	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1999-07-21	1800	1	UM				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	2000-03-02	2255	1	UM				38.831403	-123.530458	M 11N 15W 03	Quarter-section centroid
NEG	2000-03-03	2149	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
POS	2000-03-11	1525	2	UMUF	Y			38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	2000-03-23	1920	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
NEG	2000-03-24	2116	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
NEG	2000-04-07	2220	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
NEG	2000-04-14	1300	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
NEG	2000-04-15	0017	0					38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	2000-04-26	2249	0					38.820370	-123.521080	M 11N 15W 10	Quarter-section centroid
NEG	2000-05-10	1134	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
NEG	2000-06-07	0150	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	2000-06-28	2244	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	2000-06-28	0006	1	UM				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	2001		2	UMUF	Y	Y		38.822629	-123.531706	M 11N 15W 10	Contributor
NEG	2001-03-10	2231	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	2001-04-01	1800	2	UMUF	Y	Y		38.822629	-123.531706	M 11N 15W 10	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2001-05-03	0104	1	UM				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	2001-05-15	2234	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
NEG	2001-05-15	0413	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	2001-06-13	2135	1	UM				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	2002-03-04	2209	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
POS	2002-03-05	1545	2	UMUF	Y			38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
NEG	2002-03-07	2015	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
NEG	2002-04-02	0828	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
NEG	2002-04-08	2358	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	2002-04-09	2355	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
NEG	2002-04-20	2253	0					38.816899	-123.525397	M 11N 15W 10	Section centroid
NEG	2002-04-20	2137	0					38.838219	-123.525692	M 11N 15W 03	Section centroid
POS	2002-04-21	1830	2	UMUF	Y	Y		38.822635	-123.530323	M 11N 15W 10	Contributor
NEG	2003-02-11	1925	0					38.802810	-123.544066	M 11N 15W 16	Section centroid
NEG	2003-03-21	2232	0					38.802810	-123.544066	M 11N 15W 16	Section centroid
POS	2003-03-31	1425-1620	2	UMUF	Y			38.822091	-123.531126	M 11N 15W 10	Contributor
NEG	2003-05-16	0029	0					38.802810	-123.544066	M 11N 15W 16	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2003-06-26	0015	2	UMUF	Y			38.830038	-123.529465	M 11N 15W 03	Contributor
POS	2004-04-29	1836	2	UMUF	Y	Y		38.824801	-123.529648	M 11N 15W 03	Contributor
POS	2005		1	UF	Y		2	38.822091	-123.531126	M 11N 15W 10	Contributor
POS	2007-05-16	1730	2	UMUF	Y	Y		38.822893	-123.532975	M 11N 15W 10	Contributor
POS	2008-03-23	2024	1	UM				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	2008-05-16	2202	1	UU				38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
AC	2008-05-18	1935	2	AMAF	Y	Y	1	38.824524	-123.531144	M 11N 15W 10	Contributor
POS	2008-05-29	2147	1	UM				38.822176	-123.526173	M 11N 15W 10	Contributor
NEG	2009-04-12	1000	0					38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	2009-04-13	2149	2	AMAF	Y			38.820896	-123.530391	M 11N 15W 10	Quarter-section centroid
POS	2010		2	UMUF	Y			38.824524	-123.531144	M 11N 15W 10	Activity center
POS	2011-03-04	1345-1515	2	UMUF	Y			38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	2011-04-04	0900-1030	2	UMUF	Y			38.831270	-123.525848	M 11N 15W 03	Half-section centroid
NEG	2012	2400	0					38.813749	-123.531468	M 11N 15W 10	Contributor
NEG	2012	2400	0					38.814692	-123.524189	M 11N 15W 10	Contributor
POS	2012-04-01	0730-0830	2	UMUF	Y			38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	2012-07-02	0310-0320	1	UM				38.823622	-123.528679	M 11N 15W 10	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
POS	2013-05-26	1100-1300	1	UM				38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	2013-07-09	0800-0830	1	UM				38.816899	-123.525397	M 11N 15W 10	Section centroid
POS	2014		2	UMUF	Y			38.824524	-123.531144	M 11N 15W 10	Activity center
POS	2015		1	UU				38.822556	-123.531480	M 11N 15W 10	Activity center
POS	2015-03-26	2218	1	UF				38.830587	-123.541106	M 11N 15W 04	Contributor
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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1991-07-09		0					38.800879	-123.506508	M 11N 15W 14	Section centroid
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				38.804698	-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	1992-04-22		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
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					38.800879	-123.506508	M 11N 15W 14	Section centroid
NEG	1995-04-11		0					38.815693	-123.506613	M 11N 15W 11	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		2	UMUF	Y			38.812150	-123.511160	M 11N 15W 11	Quarter-section centroid
POS	1996-03-19		1	UU				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			38.797442	-123.511389	M 11N 15W 14	Quarter-section centroid
POS	1996-07-18		1	UU	Y			38.804698	-123.511084	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	2025	2	UMUF	Y			38.797442	-123.511389	M 11N 15W 14	Quarter-section centroid
POS	1996-08-27		2	UMUF	Y			38.805323	-123.520509	M 11N 15W 15	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
POS	1998-04-14		2	UMUF	Y			38.812793	-123.520552	M 11N 15W 10	Quarter-section centroid
NEG	1998-04-14		0					38.815693	-123.506613	M 11N 15W 11	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					38.802810	-123.544066	M 11N 15W 16	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					38.802810	-123.544066	M 11N 15W 16	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	0029	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	1350	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					38.802810	-123.544066	M 11N 15W 16	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					38.802810	-123.544066	M 11N 15W 16	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					38.797460	-123.512839	M 11N 15W 14	Contributor
NEG	2012	2400	0					38.814692	-123.524189	M 11N 15W 10	Contributor
NEG	2012	2400	0					38.794570	-123.517684	M 11N 15W 15	Contributor
NEG	2012	2400	0					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					38.813749	-123.531468	M 11N 15W 10	Contributor
NEG	2012	2400	0					38.802262	-123.504678	M 11N 15W 14	Contributor

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					38.797460	-123.512839	M 11N 15W 14	Contributor
NEG	2013	2400	0					38.794570	-123.517684	M 11N 15W 15	Contributor
NEG	2013	2400	0					38.813749	-123.531468	M 11N 15W 10	Contributor
NEG	2013	2400	0					38.807437	-123.497538	M 11N 15W 14	Contributor
NEG	2013	2400	0					38.802262	-123.504678	M 11N 15W 14	Contributor
NEG	2013	2400	0					38.814692	-123.524189	M 11N 15W 10	Contributor
NEG	2013	2400	0					38.801984	-123.525606	M 11N 15W 15	Section centroid
NEG	2013	2400	0					38.801984	-123.525606	M 11N 15W 15	Section centroid
POS	2013-03-07	2237-2250	2	UMUF	Y			38.805303	-123.515347	M 11N 15W 14	Contributor
NEG	2013-03-07	2254-2304	0					38.808257	-123.522569	M 11N 15W 15	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
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
POS	1998-04-24		1	UU				38.796779	-123.482953	M 11N 15W 13	Quarter-section centroid
NEG	1998-04-24		0					38.799693	-123.468785	M 11N 14W 18	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				38.804149	-123.483060	M 11N 15W 13	Quarter-section centroid
POS	2002-05-15	1300	1	UM				38.800465	-123.483006	M 11N 15W 13	Half-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	2213-2223	0					38.803358	-123.486652	M 11N 15W 13	Contributor
NEG	2011-03-04	2227-2237	0					38.803014	-123.474921	M 11N 14W 18	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					38.791161	-123.486695	M 11N 15W 24	Contributor
NEG	2012	2400	0					38.798537	-123.470552	M 11N 14W 18	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
NEG	2012	2400	0					38.791490	-123.470585	M 11N 14W 19	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					38.791161	-123.486695	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					38.798537	-123.470552	M 11N 14W 18	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	2249-2259	0					38.791490	-123.470585	M 11N 14W 19	Contributor
NEG	2013-04-19	2327-2337	0					38.790009	-123.478609	M 11N 15W 24	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	9999	1	UU				38.770325	-123.468628	M 11N 14W 30	Section centroid
POS	1991-07-17	9999	1	UU				38.771320	-123.487547	M 11N 15W 25	Section centroid
POS	1991-07-17		1	UU				38.785883	-123.487589	M 11N 15W 24	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					38.770325	-123.468628	M 11N 14W 30	Section centroid
NEG	1996-06-30		0					38.769964	-123.450450	M 11N 14W 29	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

394

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			38.774344	-123.473236	M 11N 14W 30	Quarter-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	1999-04-07	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
POS	1999-04-21	1601-1646	2	UMUF	Y			38.769832	-123.474835	M 11N 14W 30	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1999-04-21	2058	0					38.771320	-123.487547	M 11N 15W 25	Section centroid
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					38.775071	-123.448740	M 11N 14W 29	Contributor
NEG	2000	2400	0					38.771384	-123.457321	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	1045	2	UMUF	Y			38.773615	-123.463826	M 11N 14W 30	Quarter-section centroid
POS	2000-03-31	1333-1442	2	UMUF	Y			38.774862	-123.461222	M 11N 14W 30	Contributor

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	1928	1	UF				38.767034	-123.473487	M 11N 14W 30	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
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	1400-1700	0					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
NEG	2002-03-14	1325-1650	0					38.773497	-123.450212	M 11N 14W 29	Half-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
NEG	2011-03-06	1957-2007	0					38.760569	-123.475284	M 11N 14W 31	Contributor
POS	2011-03-06	1934-1949	2	UMUF	Y			38.770640	-123.477159	M 11N 14W 30	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
NEG	2011-06-05	0002-0012	0					38.766429	-123.487526	M 11N 15W 25	Contributor
POS	2011-06-05	2343-2355	2	UMUF	Y			38.761461	-123.484415	M 11N 15W 36	Contributor
POS	2011-06-12	0113-0125	1	UU				38.761461	-123.484415	M 11N 15W 36	Contributor
NEG	2011-06-12	0059-0109	0					38.766429	-123.487526	M 11N 15W 25	Contributor
POS	2011-06-21	2117-2120	1	UU				38.766429	-123.487526	M 11N 15W 25	Contributor
NEG	2011-06-29	2127-2137	0					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	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
NEG	2012	2400	0					38.766429	-123.487526	M 11N 15W 25	Contributor
NEG	2012-03-07	2019-2029	0					38.775640	-123.474278	M 11N 14W 30	Contributor

400

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2012-03-07	2118-2128	1	UM				38.761461	-123.484415	M 11N 15W 36	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					38.766429	-123.487526	M 11N 15W 25	Contributor
NEG	2013	2400	0					38.761477	-123.494327	M 11N 15W 36	Contributor
NEG	2013	2400	0					38.756052	-123.479172	M 11N 15W 36	Contributor
NEG	2013	2400	0					38.760569	-123.475284	M 11N 14W 31	Contributor
NEG	2013	2400	0					38.757367	-123.487494	M 11N 15W 36	Contributor
NEG	2013	2400	0					38.761461	-123.484415	M 11N 15W 36	Contributor
NEG	2013	2400	0					38.751819	-123.488838	M 11N 15W 36	Contributor
POS	2013-03-05	0930-0935	1	UF				38.770325	-123.468628	M 11N 14W 30	Section centroid
NEG	2013-03-08	2127-2137	0					38.775640	-123.474278	M 11N 14W 30	Contributor
POS	2013-03-08	2157-2207	1	UU				38.770640	-123.477159	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
NEG	2013-07-06	0130-0140	0					38.770640	-123.477159	M 11N 14W 30	Contributor
POS	2013-07-06	0159-0209	1	UM				38.775640	-123.474278	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
Masterowl: SON0082 Subspecies: NORTHERN											
POS	1990-02-12	2001	1	UM				38.768549	-123.470988	M 11N 14W 30	Contributor
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		2	UMUF	Y			38.767819	-123.501532	M 11N 15W 26	Quarter-section centroid
POS	1995-05-26		1	UU				38.775076	-123.492350	M 11N 15W 25	Quarter-section centroid
NEG	1995-05-29		0					38.775076	-123.492350	M 11N 15W 25	Quarter-section centroid

402 of 404

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
NEG	1997-04-08		0					38.757230	-123.505889	M 11N 15W 35	Section centroid
NEG	1997-04-09		0					38.771628	-123.506267	M 11N 15W 26	Section centroid
NEG	1997-04-09		0					38.772158	-123.525161	M 11N 15W 27	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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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

404 405

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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	1902	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	2000-03-30	1943	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	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
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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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	1125	1	UF				38.765987	-123.514497	M 11N 15W 26	Contributor
POS	2002-04-12	0041	1	UF				38.767968	-123.510776	M 11N 15W 26	Quarter-section centroid
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
NEG	2002-04-30	2149	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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2002-05-01	0016	1	UU				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	2002-05-05	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
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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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
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					38.774406	-123.516242	M 11N 15W 27	Contributor
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					38.765077	-123.502655	M 11N 15W 26	Contributor
NEG	2011	2400	0					38.777923	-123.485538	M 11N 15W 25	Contributor
NEG	2011	2400	0					38.770021	-123.512985	M 11N 15W 26	Contributor

410 484

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2011	2400	0					38.776040	-123.500132	M 11N 15W 26	Contributor
NEG	2011	2400	0					38.772302	-123.496673	M 11N 15W 25	Contributor
NEG	2011	2400	0					38.771008	-123.492923	M 11N 15W 25	Contributor
NEG	2011	2400	0					38.765786	-123.514210	M 11N 15W 26	Contributor
NEG	2011	2400	0					38.759479	-123.502901	M 11N 15W 35	Contributor
NEG	2012	2400	0					38.759479	-123.502901	M 11N 15W 35	Contributor
NEG	2012	2400	0					38.771008	-123.492923	M 11N 15W 25	Contributor
NEG	2012	2400	0					38.765786	-123.514210	M 11N 15W 26	Contributor
NEG	2012	2400	0					38.772302	-123.496673	M 11N 15W 25	Contributor
NEG	2012	2400	0					38.770009	-123.502228	M 11N 15W 26	Contributor
NEG	2012	2400	0					38.774406	-123.516242	M 11N 15W 27	Contributor
NEG	2012	2400	0					38.777482	-123.508707	M 11N 15W 26	Contributor
NEG	2012	2400	0					38.776040	-123.500132	M 11N 15W 26	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	2400	0					38.777923	-123.485538	M 11N 15W 25	Contributor
NEG	2012-03-28	1015-1200	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	2012-04-30	1830-1930	0					38.771420	-123.505189	M 11N 15W 26	Activity center
NEG	2013	2400	0					38.774406	-123.516242	M 11N 15W 27	Contributor
NEG	2013	2400	0					38.765077	-123.502655	M 11N 15W 26	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					38.772302	-123.496673	M 11N 15W 25	Contributor
NEG	2013	2400	0					38.777482	-123.508707	M 11N 15W 26	Contributor
NEG	2013	2400	0					38.776040	-123.500132	M 11N 15W 26	Contributor
NEG	2013	2400	0					38.759479	-123.502901	M 11N 15W 35	Contributor
NEG	2013	2400	0					38.777923	-123.485538	M 11N 15W 25	Contributor
NEG	2013	2400	0					38.765786	-123.514210	M 11N 15W 26	Contributor
NEG	2013	2400	0					38.770021	-123.512985	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

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
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	2007-05-12	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
NEG	2011	2400	0					38.791520	-123.532910	M 11N 15W 22	Contributor
NEG	2011	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					38.796394	-123.532623	M 11N 15W 15	Contributor
NEG	2012	2400	0					38.783960	-123.526040	M 11N 15W 22	Contributor
NEG	2013	2400	0					38.783960	-123.526040	M 11N 15W 22	Contributor
NEG	2013	2400	0					38.791520	-123.532910	M 11N 15W 22	Contributor
NEG	2013	2400	0					38.796394	-123.532623	M 11N 15W 15	Contributor

4 12
4 13

Confidential Addendum
Section VI